

Bid Documents



For the construction of

**Links Court Drainage Improvements
Project Number P21-637**

August 18th, 2021

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Part 1 – Request For Bids

Project (Work): Links Court Drainage Improvements

Project (Work) No.: P21-637

Submittal Date and Location: _____

Electronic Bids will be received by the Town of Erie (the "Town") through the Rocky Mountain E-Purchasing System ("RMEPS"), until **11:00 a.m.**, local time, **September 9, 2021** for the **Links Court Drainage Improvements (P21-637)**. Bids will be time-stamped by RMEPS upon receipt.

Bid Opening:

All bids must be submitted electronically using the portal at <https://www.bidnetdirect.com/colorado>. Bid results will be published on the RMEPS after the submittal deadline.

The required Bid documents must be received in the RMEPS submission portal on or before the Bid due date and time. **Hardcopy submittals will not be accepted.** It is the Bidder's sole responsibility to ensure all required Bid documents are submitted through RMEPS by the submission deadline. RMEPS does not allow for uploading Bid documents after the Bid due date and time has closed.

Bids will be time-stamped by RMEPS upon receipt. After uploading bid documents, **Bidders must click the SUBMIT button.** The Town will not accept uploads that are "saved" but not "submitted". To verify that a Bid has been submitted successfully, Bidders may contact BidNet Support or verify, via the Bid Management tab in Bidder's account, that the documents are not in "Draft" status. The Town does not have access to or control of the vendor side of RMEPS. If website or other problems arise during response submission, vendor **MUST** contact RMEPS to resolve issue prior to the response deadline. **(800-835-4603)**.

Specifications and bid documents will be available after **4:00 p.m.**, local time, on **August 18, 2021** at and may be obtained from the RMEPS website at <https://www.bidnetdirect.com/colorado>.

All questions related to this bid should be submitted through the RMEPS website by **4:00 pm**, local time, on **September 1, 2021**. All answers to questions received will be sent in a formal addendum (if needed), by **September 3, 2021**.

Optional Pre-Bid Meeting:

Date & Time: August 24, 2021 at 10:00 A.M. (local time)

Location: Project Site
1274 Links Court
Erie, CO 80516

Bidders are not required to attend the pre-bid meeting. The pre-bid meeting will be held at the project site in order to allow bidders to ask site specific questions related to the proposed work.

The Town of Erie requests Bids for:

Drainage and pavement improvements for the Links Court cul-de-sac in Erie, Colorado. As indicated in the construction plans, work includes the regrading and repaving of the asphalt concrete in the cul-de-sac, the removal and replacement of the mountable monolithic curb, gutter, and sidewalk adjacent to all repaved asphalt, the removal and replacement of the vertical spill curb and gutter adjacent to the cul-de-sac island, and the removal and replacement of an existing sidewalk chase drain.

Part 2 - Instructions to Bidders

- 2.1. A "Bid" is a responsive, conforming, unconditional, complete, legible, and properly executed offer by a Bidder on the form supplied by the Town to provide the work specified in the Request for Bids for the compensation specified.
- 2.2. Bids shall be clearly marked with the work name, contact person, mailing address, and telephone number of the Bidder.
- 2.3. It shall be the responsibility of the Bidder to ensure that the Bid is in proper form and in the Town's possession by or before the time and date designated in the Request. Bids will not be accepted after the designated time and date. Any Bid received late will be returned to the Bidder unopened, if possible.
- 2.4. If a mistake is made or discovered during or after the Bid review, the Town reserves the right to determine which party made the mistake and whether the mistake is material and, after these determinations, the Town, in its sole reasonable discretion, shall decide whether to accept or reject the Bid. No advantage shall be taken by any party of manifest clerical errors or omissions in any Bid or the Contract Documents. Bidders shall notify the Town immediately of any errors or omissions that are encountered.
- 2.5. Any interlineation, alteration, or erasure shall be initialed by the Bidder. On the Bid, the price of each item shall be stated in numerals and words; in case of conflict, the words shall control. In the case of conflict between the indicated sum of any addition of figures and the correct sum, the correct sum shall control.
- 2.6. The Town shall not reimburse any Bidder for any cost incurred in preparing a Bid or attending equipment demonstrations, inspections, pre-bid conferences, or interviews.
- 2.7. Any amplification, clarification, explanation, interpretation, or correction of a Bid shall be made only by written addendum, and a copy of the addendum shall be posted on the RMEPS website. The Town is not responsible for any amplification, clarification, explanation, or interpretation or correction of a Bid not contained in written addenda.
- 2.8. Bids by corporations shall be executed in the corporate name by the president or a vice-president (or a corporate officer accompanied by evidence of authority to sign), and the corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown. Bids submitted by partnerships shall be executed in the partnership name and signed by a partner, and the legal address of the partnership shall be shown. Bids submitted by limited liability companies shall be executed in the company's name and signed by a member, and the legal address of the company shall be shown. Names and titles shall be typed or printed below each signature.

2.9. The following information may be requested from the top three bidders:

2.9.1. The names and resumes of staff personnel who will be assigned to the work.

2.9.2. A complete proposed scope of work and schedule, including any alternatives that can be identified. The Bidder is expected to review the work site prior to submittal of the Bid.

2.9.3. The names and addresses of any subcontractors who will be retained for the work.

2.9.4. A list of the Bidder's previous experience on construction of similar projects.

2.10. The submission of a Bid shall be conclusive evidence and a legal admission that the Bidder: (1) has no questions, complaints, or objections in connection with the Contract Documents, subject to any requests made by the Bidder for amplification, clarification, explanation, interpretation, or correction; (2) has no questions, complaints, or objections as to the completeness, sufficiency, scope, or detail of the Bid; and (3) has full knowledge of the scope, nature, quality, and quantity of the equipment to be provided, the performance criteria, the requirements of the Contract Documents, the site and conditions of delivery, the Erie Municipal Code, and other applicable law.

2.11. The contract will be awarded to the lowest responsible and responsive Bidder complying with the terms and conditions, guidelines, and specifications presented in the Bid Request and these Instructions to Bidders. The Town reserves the right to determine, in its sole reasonable discretion, whether any Bid meets the needs or purposes intended and is within the approved budget. The Town does not base its award on prices alone. Also to be considered are: quality of product; past experience with the Bidder or any subcontractors, consultants, products or suppliers; qualifications of the Bidder and/or subcontractors or suppliers; services offered; warranties; maintenance considerations; long-range costs; delivery; and similar conditions.

2.12. The Town reserves the right to conduct such investigations as it deems necessary to assist in the evaluation of any Bid to establish the experience, responsibility, reliability, references, reputation, qualifications, or financial ability of any Bidder, manufacturer or supplier. The purpose of such investigation is to satisfy the Town that the Bidder has the experience, resources, and commercial reputation necessary to supply the specified equipment and to perform the necessary warranty and product support in accordance with the Contract Documents in the prescribed manner and time.

- 2.13. Pursuant to C.R.S. § 8-19-101, if the Town's appropriation or expenditure of moneys for the work may be reasonably expected to exceed \$500,000 in the aggregate for any fiscal year, a Colorado resident Bidder shall be allowed preference over a nonresident Bidder equal to the preference given or required by the state or foreign country in which the nonresident Bidder is a resident.
- 2.14. The Town reserves the right, if it deems such action to be in its best interests, to reject any and all Bids or to waive any irregularities or informalities therein. Any incomplete, false, or misleading information provided by any Bidder shall be grounds for rejection of the Bid. If Bids are rejected, the Town further reserves the right to investigate and accept the next best Bid in order of ranking, or to reject all Bids and re-solicit for additional Bids.
- 2.15. No Bid shall include federal excise taxes or state or local sales or use taxes.
- 2.16. In the event of any claim, suit, or demand which may result from any Bid, or the award of any contract as a result of submission of a Bid, Colorado law shall govern any such claim, suit, or demand and the rights and duties of the parties.
- 2.17. The Bid, including all required documents, shall be submitted using the enclosed forms. The Summary and Bid Schedule shall be used for submitting the fees, and the completed forms shall be submitted in a separate sealed envelope. **In addition, the contractor shall submit a Subcontractor Listing in accordance with Section 00 41 10 and a Preliminary Construction Sequence in accordance with Section 00 43 83 of these specifications.**
- 2.18. Reserved.
- 2.19. All parts not specifically mentioned which are necessary in order to provide a complete unit, shall be included in the Bid. Any item listed as "Standard" in the manufacturer's published specification, furnished by the Bidder, is assumed to be included in the Bid. Any variations shall be outlined in writing, noting cost factors where applicable.
- 2.20. Bids shall be in accordance with the specifications contained in the attached Contract Documents. Should any requirement in the specifications not be included in manufacturer's specification sheets, the Bidder shall include with its Bid a statement of compliance. Failure to do so shall be grounds for disqualification of the Bid.
- 2.21. The successful bidder shall provide a statement of standard warranty of the manufacturer per specifications.
- 2.22. For all contracts in excess of \$50,000, the Town requires a bid bond in the form of a corporate surety bond in the amount of 5% of the total Bid amount before the Town can accept and consider any Bid. Bids with the required bid bond shall

submit a copy of the bond on the RMEPS website and mail an original to the office of the Town Clerk, 645 Holbrook Street, P.O. Box 750, Erie, CO 80516. Upon award, such bid bonds shall be returned to the unsuccessful Bidder(s). For the successful Bidder, the bid bond will be returned upon receipt of the required payment and performance bond, in the full amount of the contract price.

- 2.23. Any Bid received as a result of this request is prepared at the Bidder's expense and becomes Town property and is therefore a public record upon opening by the Town. No Bid may be withdrawn for a period of 60 days after the deadline for Bids.

Bid Form

The undersigned offers and agrees to furnish all items, upon which the prices are quoted, at the price set opposite each item, if this Bid is accepted within 60 days of the due date. The undersigned also agrees to commence work within 10 days of receipt of the Notice to Proceed. The undersigned certifies that no federal, state, or local tax is included in the quoted prices and that none will be added.

Bidder acknowledges receipt of the following Addenda:

1	8.25.21
2	9.3.21

Name of Bidder: Civil Specialists Inc.

Address: 3123 MEGAN CUL
BERTHOUN, CO 80513

Telephone Number: 970.412.1588

Email Address: jabin@civilspecialties.com

Bid Schedule

To: All bids must be submitted electronically using the portal at
<https://www.bidnetdirect.com/colorado>

Work: Links Court Drainage Improvements (P21-637)

Pursuant to the request for bids for the above-named work and being familiar with all contractual requirements, therefore, the undersigned Bidder hereby proposes to furnish all labor, materials, tools, supplies, equipment, plant, transportation, services, and all other things necessary for the completion of the contractual work. All other work to complete the work but not specifically itemized shall also be included as incidental to the work cost. Contractor also agrees to pay all taxes imposed by law in connection with the Work, except the Town of Erie Sales Tax, for purchases within the Town, and shall procure all permits and licenses necessary for the prosecution of the Work. Contractor shall obtain a Town tax-exempt number for the sales tax exemption for all purchases related to the contractual work and perform the work in accordance with the time of completion set forth herein, for and in consideration of the following unit and lump sum prices:

Lump Sum Bid Price

The Bidder agrees to accept as full payment, as herein specified, based upon the undersigned's own estimate of quantities and costs, the amount of

Bid Item No 1 – Permitting, Traffic Control, and Erosion Control

\$ 10,708.00

TEN THOUSAND SEVEN HUNDRED EIGHTY and ZERO CENTS
(in words. The amount written in words has precedence.)

Bid Item No 13 – Replace Chase Grate

\$ 900.00

NINE HUNDRED and ZERO CENTS
(in words. The amount written in words has precedence.)

Bid Item No 14 – Mobilization and Demobilization

\$ 11,000.00

ELEVEN THOUSAND and ZERO CENTS
(in words. The amount written in words has precedence.)

Total Bid Price of Lump-Sum Bid Items:

\$ 22,608.00

Twenty-Two Thousand Six Hundred Eight and Zero Cents
(in words. The amount written in words has precedence.)

Unit-Price Bid Form

BID ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
2	Remove Existing Asphalt Pavement	SY	615	\$ 12.00	\$ 7,380.00
3	Over-Excavate Subgrade and Disposal	CY	710	\$ 15.75	\$ 11,182.50
4	Remove Curb and Gutter & Curbwalk	SY	240	\$ 14.00	\$ 3,360.00
5	Adjust Existing Manhole	EA	1	\$ 776.00	\$ 776.00
6	Adjust Existing Valve Box	EA	2	\$ 300.00	\$ 600.00
7	Import Suitable Subgrade Material (Class 1)	TON	870	\$ 19.00	\$ 16,530.00
8	Road Base (CDOT Class 6)	TON	580	\$ 44.00	\$ 25,520.00
9	Hot Mix Asphalt (HMA) Paving (6-inch)	TON	200	\$ 139.00	\$ 27,800.00
10	Curb and Gutter and 4-foot Sidewalk	LF	300	\$ 63.00	\$ 18,900.00
11	Spill Curb and Gutter	LF	115	\$ 38.00	\$ 4,370.00
12	Landscape Restoration	SY	35	\$ 27.00	\$ 945.00

Total Bid Price of Unit-Price Bid Items:

\$ 117,363.50

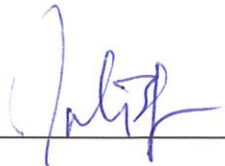
ONE HUNDRED SEVENTEEN THOUSAND THREE HUNDRED SIXTY-THREE
(in words. The amount written in words has precedence.) and FIFTY CENTS

Total Bid Price:

\$ 139,971.50
(Figures)

ONE HUNDRED THIRTY-NINE THOUSAND NINE HUNDRED SEVENTY-ONE
(in words. The amount written in words has precedence.) and FIFTY CENTS

Bidder:

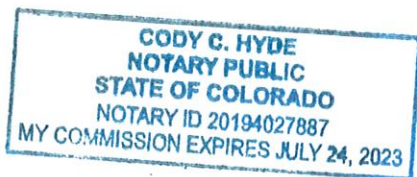
By: 

State of Colorado)
County of Larimer) ss.

The foregoing instrument was subscribed, sworn to and acknowledged before me this 9th day of September, 2021, by John Bebo, as President of Civil Specialties Inc.

My commission expires:

(Seal)




Notary Public

Bidder's Qualification Statement

A Statement showing the qualifications of Bidder may be a prerequisite to the Bidder being awarded the Contract. The qualification statement is intended to assure the Town that a high degree of overall workmanship can be expected, and that the Work will be completed within the time limits contained in the Contract Documents.

All items on the statement must be answered in full and submitted within 48 hours of the Bid opening, if requested. The qualification statement will be reviewed by the Town after all Bids have been received and opened and prior to award.

The Bidder shall answer and furnish the following items for review:

1. Name of Bidder. CIVIL SPECIALTIES INC
2. Permanent address and phone number of Bidder.
3123 MEGAN CIR
BELTADNA, CO 80513
970.412.1588
3. Date company was organized. 8.5.21
4. If a corporation, where incorporated. COLORADO
5. Number of years engaged in contracting business under present firm or trade name. 0 YEARS
6. Certified copy of financial statement prepared during current fiscal year as prepared for bank or bonding company, if applicable. N/A
7. List of current jobs new under contract, indicating client and telephone number, size, type of job and percentage of completion of each and date of completion. (Use additional sheets if necessary).
N/A

8. List of projects of this size and complexity completed within the last 3 years along with contract amount, client's name and address.

DECK
HELME
REF.

8626
RESILIENT ST VRAIN \$12M - City of Lakewood JOSH 303.651.862
RESILIENT ST. VRAIN BEACH 2A/2B \$10M - City of Lakewood ALLEN
303.651.8908

JABIN
BEHO'S
REF.

COAL CREEK BIKE EXTENSION - \$3M? - TOWN OF ERIE - WENDI PALMER
COTTONWOOD CREEK - \$50-100K - TOWN OF ERIE - WENDI PALMER
FESTIVAL PARK - \$10M - TOWN OF CASTLE ROCK - BRIAN PETERSON 303.814.7452

9. Have you ever failed to complete any work awarded to you? If so, when, where, and why?

NO

10. Have you ever defaulted on a contract? If so, when, where, and why?

No

11. List your major equipment available for this contract.

BOBCAT SKID STEER

PONCE MOTIVE MINI-EX

Bidder:

By: JABIN BEHO

State of Colorado)

) ss.

County of Larimer)

The foregoing instrument was subscribed, sworn to and acknowledged before me this 13 day of September, 2021, by Jabin Beho, as of Civil Specialties Inc.

My commission expires:

(Seal)

JENNIFER R HERL
Notary Public

JENNIFER R HERL
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20144032669
MY COMMISSION EXPIRES AUGUST 20, 2022

Derek W. Helme



derek@civilspecialties.com



970-581-5051



Berthoud, CO 80513

PROFESSIONAL SUMMARY

Decisive, action oriented and results focused professional, offering 30 plus years of expertise in the heavy civil construction industry. An excellent track record for successful completion of multi-million dollar and complex projects. Success achieved by developing strategic partnerships with trade partners, engineers/ architects, clients and community officials

SKILLS

- Equipment Operator
- Contract Management
- Supply Chain Management
- Safety Officer
- Microsoft Office
- Developing Client Relations

EDUCATION

Loveland High School
Loveland, CO

CERTIFICATIONS

ECS - State of Colorado
OSHA 30 Hour


WORK HISTORY


L&M Enterprises, Inc. - Vice President/ Field Operation Manager
Berthoud, CO • 04/1989 - 08/2021

- Responsible for managing all construction projects for the company, ensuring project schedules and financial goals are met
- Oversee performance and productivity of subcontractors
- Supervised and assist foremen and project engineers to make sure quality control requirements were met
- Responsible for the implementation of project policies and procedures
- Safety champion - execution of company protocols and culture, rewarding safe practices
- Assisted with project managers and estimators to obtain new work, strategizing and developing work plans and schedules
- Executed projects with delivery methods ranging from bid/build, to design/ build, to CM/CG, and collaborated on projects with budgets in excess of \$18M+
- Resilient St. Vrain, Longmont, CO - \$12M
Moved 80K CY of earthwork, stabilizing of St. Vrain Creek, bike paths, dewatering, wetland establishment, 30K tons of riprap placement, installation of pedestrian bridges, and irrigation/ landscape.
- Resilient St. Vrain City Reach 2A/ 2B, Longmont, CO - \$18M
Re-alignment and lowering of St. Vrain Creek, installation of outfall structures, demolition of park structures & BNSF railroad bridges, installation of new pavilion, modular retaining walls, installation of 2 BNSF railroad bridges, and installation of concrete regional trail.
- South Platte River Segment 15, Brighton, CO - \$4M
Stabilization of the S. Platte River, installation of fish habitat structures using existing cottonwood trees, irrigation diversion structure, 10K tons of void filled riprap, 75K CY of earthmoving, riprap bank stabilization, and boulder weir installation.
- Goldsmith Gulch, Centennial, CO - \$3M
Working in an active channel, diverting water in phases to complete the project. Installation of grouted boulder walls and drop structures, CIP reinforced concrete box culvert, concrete cutoff wall, bank stabilization and sanitary sewer bypass and abandonment

JABIN M. BEBO

 jabin@civilspecialties.com

 970-412-1588

 Loveland, CO 80537

SKILLS

- HeavyBid
- Bid2Win
- Maxwell Earthwork
- Agtek
- Suretrak
- Primavera P6
- Microsoft Project
- Business Development
- Contract Management
- Cost Control
- Estimating
- Job costing
- Mentoring
- Project Management

EDUCATION

Colorado State University
Fort Collins, CO

Bachelor of Science: Construction
Management

CERTIFICATIONS

ECS - State of Colorado
OSHA 30 Hour

PROFESSIONAL SUMMARY

Goal driven, motivated individual with more than 16+ years of experience in the civil construction industry. Experience includes estimating, scheduling, and project managing a number of diverse projects, ranging from heavy highway, dam and reservoir construction, parks & recreation facilities, and flood & erosion control mitigation.

WORK HISTORY

Flatiron Construction Corp. - Preconstruction Manager

Denver, CO • 03/2020 - Current

- Lead a team of estimators, visual aide programmers, project managers, and superintendents on comprehensive bid proposals in line with client specifications and objectives for projects ranging from \$2M to \$50M+
- Worked with proposal team to develop technical write ups, project schedules, project approach and value engineering options
- Aligned clients to key engineers/ architects and subcontractors to develop, identify an achieve assigned goals and initiatives

M.A. Mortenson - Project Manager II

Denver, CO • 04/2016 - 03/2020

- Executed projects with delivery methods ranging from bid/build, to design/ build, to CM/CG, to GMP projects, and collaborated on projects with budgets in excess of \$50M+
- Chatfield Reservoir, Littleton, CO - \$44M
Expansion of the existing reservoir to double its capacity, 1.2 million CY of dirt moved, retrofitting over a mile and a half of underground utilities, resurfacing 74K SY of asphalt pavement, removing and expanding the vehicular bridge over the S. Platte River, dredging, as well as constructing a 3,600 SF swim/ office building, an onsite restaurant/ marina building, restroom facilities and boating docks
- Garden of the Gods, Colorado Springs, CO - \$8M
Dam construction using RCC, 212 LF of 10x20 RCBC, 180K CY of fill installed, sanitary sewer boring, drop structures consisting of 10K tons of 4-5' boulders, and concrete regional trail.
- Festival Park, Castle Rock, CO - \$6M
ENR's top Urban Construction Project, under \$10M. Constructing of 2 pedestrian bridges, river stabilization, boulders walls, architectural steel pavilion, amphitheater seating, restroom building, and installation of water feature/ splash pad.
- CDOT SH 72 Coal Creek Canyon - \$10M
Canyon construction - Installation of 5 RCBC, 22 culvert crossings, river restoration, and over 6 miles of pavement rehabilitation/ widening.
- Stapleton Redevelopment - \$7M
5 parcel, 32 acre park comprising of scenic trails, 5 pedestrian prefabricated bridges, playgrounds, picnic pavilions and restroom structures.

WORK HISTORY CONT.

ECI - Senior Estimator/ Project Manager

Loveland, CO • 01/2012 - 03/2016

- ECI Site Construction Management is a general civil contractor specializing in preconstruction services, site construction, specialty sports parks, athletic fields, and urban redevelopment.
- Estimated and managed projects ranging from \$50K to \$10M+
- Helped navigate and change the company's culture into self performing more work to increase project margins
- Implemented processes to better track costs and increase profitability
- Successfully brought in over \$71M worth of gross revenue

L&M Enterprises, Inc. - Estimator/ Project Manager

Berthoud, CO • 05/2004 - 01/2012

- L&M Enterprises is a general contractor specializing in stream restoration, flood and erosion control, heavy highway, parks and open space
- Estimating and managing projects ranging from \$20K to \$3M+ for local municipalities, CDOT and the State of Colorado
- Project job costing, scheduling, sub and vendor management, change order negotiating, and project closeout
- Champion of safety practices

Construction Contract

This Construction Contract (the "Contract") is made and entered into this _____ day of _____, 20__ (the "Effective Date"), by and between the Town of Erie, 645 Holbrook Street, P.O. Box 750, Erie, CO 80516, a Colorado municipal corporation (the "Town"), and Civil Specialties, Inc., an independent contractor with a principal place of business at 3123 Megan Circle, Berthoud Colorado, 80513 ("Contractor") (each a "Party" and collectively the "Parties").

For the consideration hereinafter set forth, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. Scope of Work. Contractor shall perform the following described work (the "Work"), in accordance with this Contract and the Contract Documents, attached hereto and incorporated herein by this reference:

Drainage and pavement improvements for the Links Court cul-de-sac in Erie, Colorado. As indicated in the construction plans, work includes the regrading and repaving of the asphalt concrete in the cul-de-sac, the removal and replacement of the mountable monolithic curb, gutter, and sidewalk adjacent to all repaved asphalt, the removal and replacement of the vertical spill curb and gutter adjacent to the cul-de-sac island, and the removal and replacement of an existing sidewalk chase drain.

2. Bonds. Within 10 days of the date of this Contract, Contractor shall provide the payment and performance bond and certificate of insurance required by the Contract Documents. A payment and performance bond is not required for contract amounts under \$50,000 unless indicated differently in the Request for Bids or the Contract Documents.

3. Commencement and Completion of Work. Contractor shall commence the Work within 10 days of date of the Notice to Proceed. Substantial Completion of the Work shall be accomplished within 90 days of the date of commencement, unless the period Substantial Completion is extended otherwise in accordance with the Contract Documents. Final Completion of the Work shall be accomplished within 30 days of the date of Substantial Completion.

4. Contract Price. The Town agrees to pay Contractor, subject to all of the terms and conditions of the Contract Documents, for the Work, an amount not to exceed \$139,971.50.

5. Workers Without Authorization.

a. *Certification.* By entering into this Contract, Contractor hereby certifies that, at the time of this certification, it does not knowingly employ or contract with a worker without authorization who will perform work under this Contract and that Contractor will participate in either the E-Verify Program administered by the United

States Department of Homeland Security and Social Security Administration or the Department Program administered by the Colorado Department of Labor and Employment in order to confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Contract.

b. *Prohibited Acts.* Contractor shall not knowingly employ or contract with a worker without authorization to perform work under this Contract or enter into a contract with a subcontractor that fails to certify to Contractor that the subcontractor shall not knowingly employ or contract with a worker without authorization to perform work under this Contract.

c. *Verification.*

1. If Contractor has employees, Contractor has confirmed or attempted to confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Contract through participation in either the E-Verify Program or the Department Program.

2. Contractor shall not use the E-Verify or Department Program procedures to undertake pre-employment screening of job applicants while this Contract is being performed.

3. If Contractor obtains actual knowledge that a subcontractor performing work under this Contract knowingly employs or contracts with a worker without authorization who is performing work under this Contract, Contractor shall: notify the subcontractor and the Town within 3 days that Contractor has actual knowledge that the subcontractor is employing or contracting with a worker without authorization who is performing work under this Contract; and terminate the subcontract with the subcontractor if within 3 days of receiving the notice required pursuant to subsection a hereof, the subcontractor does not stop employing or contracting with the worker without authorization who is performing work under this Contract; except that Contractor shall not terminate the contract with the subcontractor if during such 3 days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with a worker without authorization who is performing work under this Contract.

d. *Duty to Comply with Investigations.* Contractor shall comply with any reasonable request by the Colorado Department of Labor and Employment made in the course of an investigation conducted pursuant to C.R.S. § 8-17.5-102(5)(a) to ensure that Contractor is complying with the terms of this Contract.

e. *Affidavits.* If Contractor does not have employees, Contractor shall sign the attached "No Employee Affidavit." If Contractor wishes to verify the lawful presence of

newly hired employees who perform work under the Contract via the Department Program, Contractor shall sign the "Department Program Affidavit" attached hereto.

6. 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"), Contractor shall employ Colorado labor to perform at least 80% of the work under this Contract and shall obtain and maintain the records required by the Act and the Rules. For purposes of this Section, "Colorado labor" means a person who is a resident of the state of Colorado at the time of this Contract, 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 of Colorado is a person with 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 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 \$500,000 in the aggregate for any fiscal year.

7. Miscellaneous.

a. *Governing Law and Venue.* This Contract shall be governed by the laws of the State of Colorado, and any legal action concerning the provisions hereof shall be brought in Boulder County, Colorado.

b. *No Waiver.* Delays in enforcement or the waiver of any one or more defaults or breaches of this Contract by the Town shall not constitute a waiver of any of the other terms or obligation of this Contract.

c. *Integration.* This Contract and any attached exhibits constitute the entire Contract between Contractor and the Town, superseding all prior oral or written communications.

d. *Third Parties.* There are no intended third-party beneficiaries to this Contract.

e. *Notice.* Any notice under this Agreement shall be in writing, and shall be deemed sufficient when directly presented or sent pre-paid, first class U.S. Mail to the Party at the address set forth on the first page of this Agreement.

f. *Severability.* If any provision of this Contract is found by a court of competent jurisdiction to be unlawful or unenforceable for any reason, the remaining provisions hereof shall remain in full force and effect.

g. *Modification.* This Contract may only be modified upon written agreement of the Parties.

h. *Assignment.* Neither this Contract nor any of the rights or obligations of the Parties shall be assigned by either Party without the written consent of the other.

i. *Governmental Immunity.* The Town and its officers, attorneys and employees are relying on, and do not waive or intend to waive by any provision of this Contract, the monetary limitations or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, *et seq.*, as amended, or otherwise available to the Town and its officers, attorneys or employees.

j. *Rights and Remedies.* The rights and remedies of the Town under this Contract are in addition to any other rights and remedies provided by law. The expiration of this Contract shall in no way limit the Town's legal or equitable remedies, or the period in which such remedies may be asserted, for work negligently or defectively performed.

k. *Subject to Annual Appropriation.* Consistent with Article X, § 20 of the Colorado Constitution, any financial obligation of the Town not performed during the current fiscal year is subject to annual appropriation, shall extend only to monies currently appropriated, and shall not constitute a mandatory charge, requirement or liability beyond the current fiscal year.

In Witness Whereof, this Construction Contract has been executed by the Parties as of the Effective Date.

Town of Erie, Colorado

Jennifer Carroll, Mayor

Attest:

Heidi Leatherwood, Town Clerk

Contractor

Civil Specialties, Inc.

By: _____
Jabin Bebo, President

No Employee Affidavit
[To be completed only if Contractor has no employees]

1. Check and complete one:

☐ I, _____, am a sole proprietor doing business as _____. I do not currently employ any individuals. Should I employ any employees during the term of my Contract with the Town of Erie (the "Town"), I certify that I will comply with the lawful presence verification requirements outlined in that Contract.

Or

☐ I, _____, am the sole owner/member/shareholder of _____, a _____ [specify type of entity – *i.e.*, corporation, limited liability company], that does not currently employ any individuals. Should I employ any individuals during the term of my Contract with the Town, I certify that I will comply with the lawful presence verification requirements outlined in that Contract.

2. Check one.

☐ I am a United States citizen or legal permanent resident.

The Town must verify this statement by reviewing one of the following items:

- *A valid Colorado driver's license or a Colorado identification card;*
- *A United States military card or a military dependent's identification card;*
- *A United States Coast Guard Merchant Mariner card;*
- *A Native American tribal document;*
- *In the case of a resident of another state, the driver's license or state-issued identification card from the state of residence, if that state requires the applicant to prove lawful presence prior to the issuance of the identification card; or*
- *Any other documents or combination of documents listed in the Town's "Acceptable Documents for Lawful Presence Verification" chart that prove both Contractor's citizenship/lawful presence and identity.*

Or

☐ I am otherwise lawfully present in the United States pursuant to federal law.

Contractor must verify this statement through the federal Systematic Alien Verification of Entitlement ("SAVE") program, and provide such verification to the Town.

Signature

Date

Department Program Affidavit

***[To be completed only if Contractor participates in the Department of Labor
Lawful Presence Verification Program]***

I, _____, as a public contractor under contract with the Town of Erie (the "Town"), hereby affirm that:

1. I have examined or will examine the legal work status of all employees who are newly hired for employment to perform work under this public contract for services (the "Contract") with the Town within 20 days after such hiring date;

2. I have retained or will retain file copies of all documents required by 8 U.S.C. § 1324a which verify the employment eligibility and identity of newly hired employees who perform work under the Contract; and

3. I have not and will not alter or falsify the identification documents for my newly hired employees who perform work under the Contract.

Signature

Date

Certificate Of Insurance

State of _____)
) ss.
County of _____)

I, _____, being first duly sworn, state and affirm, under penalty of law, that I am familiar with the insurance coverages maintained by the Insured, _____, and the coverage requirements set forth in the foregoing Certificate of Insurance, that I have completed or caused to be completed and subsequently reviewed the foregoing Certificate of Insurance and that the information provided contained therein is true and correct to the best of my knowledge. I further understand that the Town of Erie shall rely on the information provided.

This information is provided for the Town of Erie, Work No. _____.

By: _____

Title: _____

Agency: _____

State of Colorado)
) ss.
County of _____)

The foregoing instrument was subscribed, sworn to and acknowledged before me this ____ day of _____, 20__, by _____, as _____ of _____.

My commission expires:

(Seal)

Notary Public

Notice of Award

Date: _____

Contractor: _____

RE: Links Court Drainage Improvements (P21-637)

Dear _____:

Thank you for submitting a Bid. Your firm submitted the most qualified Bid and you have been selected as the successful Contractor. Accordingly, this is your Notice of Award for the above-mentioned project.

Attached please find the Construction Contract. Please review and sign and, within 10 days of receipt of this letter, return along with your certification of insurance and payment and performance bond, if applicable, each in the full amount of the Contract Price, and appropriate powers of attorney. When dating the above documents, please make sure that all dates, on all documents, are the same and that the insurance policy reflects the requirements of the Contract Documents. Please return all of the documents at the same time.

Upon receipt of the signed Contracts, the Town will execute and return one fully executed version to you.

Should you have any questions, please call me at _____.

Sincerely,

_____, Project Manager

Notice to Proceed

Date: _____

Contractor: _____

RE: Links Court Drainage Improvements (P21-637)

Dear _____:

This letter is your Notice to Proceed, effective as of the date cited below. This notice is in reference to the Construction Contract between you and the Town of Erie concerning the above-mentioned project.

Please note that in accordance with the Construction Contract, Work must commence within ten days of the date of this Notice, and all Work must be substantially completed within _____ (_____) days of the date of this Notice, which shall be the ____ day of _____, 20__, and finally completed within _____ days of the date of this Notice, which shall be the ____ day of _____, 20_.

If you have any questions, please call me at _____.

Sincerely,

_____, Project Manager

Acknowledgement

Receipt of the above Notice to Proceed is hereby acknowledged.

Contractor

By: _____

Title: _____

Date: _____

Bid Bond

Know All Men By These Presents

That Civil Specialties, Inc., as Principal, and American Southern Insurance Company as Surety, are held and firmly bound unto the Town of Erie, Colorado, hereinafter called Owner, as Obligee, in the penal sum of Seven Thousand and 00/100 dollars (\$ 7,000.00), for the payment of which sum in lawful money of the United States, well and truly to be made, said Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the Principal has submitted a Bid to Owner for certain Work or services generally described as follows: Links Court Drainage Improvements Project Number P21-637

Now, Therefore, (a) if said Bid shall be rejected, or (b) if said Bid shall be accepted and the Principal is awarded the Contract and, within the time and manner specified in the Contract Documents, enters into a written Contract in the prescribed form and shall give such bond or bonds as may be specified in the Contract Documents to guarantee faithful performance of such Contract and to guarantee prompt payment of labor and materials furnished in the prosecution thereof, and shall provide to Owner a Certificate of Insurance as required by the Contract Documents, and shall in all other respects perform the Contract created by the acceptance of said Bid, or (c) in the event of the failure of the Principal to enter such Contract and to give such bond or bonds, and Certificate of Insurance, if the Principal shall pay to Owner the difference not to exceed the penalty hereof between the amount specified in said Bid and such larger amount for which the Owner may in good faith contract with another party to perform the Work covered by said Bid, then this obligation shall be null and void, otherwise it shall be and remain in full force and effect.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety hereunder shall be in no way impaired or affected by any alteration or irregularities in the bid or in the bidding procedure or by any extension of time within which Owner may accept such Bid, and does hereby waive notice of same.

Dated this 9th day of September, 2021.

American Southern Insurance Company
(Surety)
By: [Signature]
Title: Stefan E. Tauger, Attorney-in-Fact

Civil Specialties, Inc.
(Principal)
By: [Signature]
Title: President

(Acknowledgments and power of attorney to be attached)
Corporate seal must be affixed if principal is a corporation.

AMERICAN SOUTHERN INSURANCE COMPANY

Home Office: 3715 Northside Parkway, NW
Suite 4-800
Atlanta, Georgia 30327

Mailing Address: P. O. Box 723030
Atlanta, GA 31139-0030

GENERAL POWER OF ATTORNEY

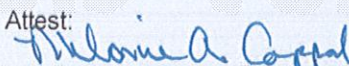
Know all men by these Presents, that the American Southern Insurance Company had made, constituted and appointed, and by these presents does make, constitute and appoint Stefan E. Tauger of Parker, Colorado; Scott E. Stoltzner of Hoover, Alabama; Arthur S. Johnson of Atlanta, Georgia; Andrew C. Heaner of Atlanta, Georgia; Jeffery L. Booth of Blacklick, Ohio; James E. Feldner of West Lake, Ohio; David R. Brett of Columbia, South Carolina; Melanie J. Stokes of Atlanta, Georgia; Jason S. Centrella of Jacksonville, Florida; Michael J. Brown of Cumming, Georgia; Tamara D. Johnson of Atlanta, Georgia; or Omar G. Guerra of Overland Park, Kansas, James A. Mallis of Charlotte, North Carolina, EACH as its true and lawful attorney for it and its name, place and stead to execute on behalf of the said company, as surety, bonds, undertakings and contracts of suretyship to be given to all obligees provided that no bond or undertaking or contract of suretyship executed under this authority shall exceed in amount of the sum of \$1,000,000 (one million dollars), including but not limited to consents of surety for the release of retained percentages and/or final estimates on construction contracts or similar authority requested by the Department of Transportation, State of Florida; and the execution of such undertakings, bonds, recognizances and other surety obligations, in pursuance of the presents, shall be as binding upon the Company as if they had been duly signed by the President and attested by the Secretary of the Company in their own proper persons.

This Power of Attorney is granted and is signed and sealed by facsimile under and by the authority of the following Resolution adopted pursuant to due authorization by the Executive Committee of the Board of Directors of the American Southern Insurance Company on the 26th day of May, 1998:

RESOLVED, that the Chairman, President or any Vice President of the Company be, and that each or any of them hereby is, authorized to execute Powers of Attorney qualifying the attorney named in the given Power of Attorney to execute in behalf of the American Southern Insurance Company bonds, undertakings and all contracts of suretyship; and that any Secretary or any Assistant Secretary be, and that each or any of them hereby is, authorized to attest the execution of any such Power of Attorney, and to attach thereto the seal of the Company.

FURTHER RESOLVED, that the signature of such officers and the seal of the Company may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company when so affixed and in the future, with respect to any bond undertaking or contract of suretyship to which it is attached.

In Witness Whereof, the American Southern Insurance Company has caused its official seal to be hereto affixed, and these presents to be signed by its President and attested by its Secretary this 25th day of February 2021.

Attest:

Melonie A. Coppola, Secretary

STATE OF GEORGIA

SS:

COUNTY OF FULTON

On this 25th day of February 2021, before me personally came Scott G. Thompson to me known, who being by me duly sworn, did depose and say that he resides in Atlanta, in the County of Fulton, State of Georgia, at 421 Hollydale Court; that he is the President of American Southern Insurance Company, the corporation described in and which executed the above instrument; that he knows the seal of the said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed and that he signed his name thereto pursuant to due authorization.

STATE OF GEORGIA

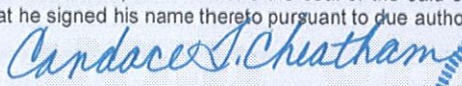
SS:

COUNTY OF FULTON

American Southern Insurance Company

By:

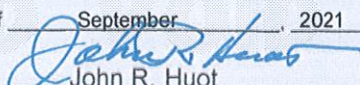

Scott G. Thompson, President


Candace T. Cheatham
Notary Public, State of Georgia
Qualified in DeKalb County
Commission Expires May 3, 2022

I, the undersigned, a Vice President of American Southern Insurance Company, a Kansas Corporation, DO HEREBY CERTIFY that the foregoing and attached Power of Attorney remains in full force and has not been revoked; and, furthermore, that the Resolution of the Executive Committee of the Board of Directors set forth in the Power of Attorney is now in force.

Signed and sealed at the City of Atlanta, Dated the 9th day of September, 2021

Power No. 51247


John R. Huot
Vice President

Payment And Performance Bond

Bond No. _____

Know All Men By These Presents: That

(Firm) _____

(Address) _____

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

(Firm) _____

(Address) _____

hereinafter referred to as "the Surety", are held and firmly bound unto the Town of Erie, Colorado, a Municipal Corporation, hereinafter referred to as "the Owner", in the penal sum of _____ Dollars in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors and assigns, jointly and severally, firmly by these presents.

The Conditions of this Obligation are such that whereas the Principal entered into a certain Contract with the Owner, dated the ____ day of _____, 20____, a copy of which is hereto attached and made a part hereof for the performance of the Work, _____.

Now, Therefore, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions and agreements of said Contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without Notice to the Surety and during the life of the guaranty or warranty period, and shall satisfy all claims and demands incurred under such Contract, and shall fully indemnify and save harmless the Owner from all cost and damages which it may suffer by the Principal's failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, and make payment to all persons, firms, subcontractors and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such Contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, repairs on machinery, equipment and tools, consumed, rented or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor performed in such work, whether by subcontractor or otherwise, then this obligation shall be void; otherwise it shall remain in full force and effect.

Provided, Further, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this Bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the Specifications.

Provided, Further, that no final settlement between the Owner and the Principal shall abridge the right of any beneficiary hereunder whose claim may be unsatisfied.

In Witness Whereof, this instrument is executed in 5 counterparts, each one of which shall be deemed an original, this _____ day of _____, 20____.

Attest:

Principal

By: _____

By: _____

Title: _____

Title: _____

Address: _____

(Corporate Seal)

Surety

Attest:

Surety: _____

By: _____

By: _____

Attorney-in-Fact: _____

Title: _____

Address: _____

(Surety Seal)

Note: Date of Bond must not be prior to date of Contract and Surety must be authorized to transact business in the State of Colorado and be acceptable to the Town.

Certificate of Final Payment

With reference to Contract Number P21-637 dated _____, 20__, between the undersigned Contractor and the Town of Erie, for: Links Court Drainage Improvements at Erie, Colorado.

The undersigned hereby certifies that all costs, charges and expenses incurred by it on its behalf for work, labor, services, materials and equipment supplied to the foregoing premises, and/or used in connection with its Work under the Contract have been duly paid.

The undersigned further certifies that to its best knowledge and belief (based upon reasonable investigation) each of its subcontractors and material men have duly paid all costs, charges and expenses incurred by them or on their behalf for work, labor, services, materials and equipment supplied to the foregoing premises and/or used by them in connection with the Undersigned's Work under the Contract.

In consideration of _____ dollars (\$_____) representing final payment under the Contract, the undersigned hereby releases and discharges the Owner and Owner's property from all claims, liens and obligations of every nature arising out of or in connection with the performance of the Work.

As additional consideration for the final payment, and to the fullest extent permitted by law, the undersigned agrees to indemnify and hold harmless Owner from and against all costs, losses, damages, claims, causes of action, judgments and expenses arising out of or in connection with claims against Owner which may be asserted by the undersigned or any suppliers, subcontractors of any tier or any of their representatives, officers, agents and employees for the costs, losses, damages, claims, causes of action, judgments and expenses and expenses that are attributable to the act, omission, error, professional error, mistake, negligence or other fault of the undersigned.

The foregoing shall not relieve the Undersigned of its obligations under the provisions of the Contract as amended, which by their nature survive completion of the Work including, without limitation, warranties, guarantees and indemnities.

Executed this _____ day of _____, 20__.

Contractor

Certificate of Final Acceptance

To: _____ Date: _____
Project No.: _____
Project Title: _____

This is to advise you that a final inspection of the referenced Work has been made and all work and material was found to be satisfactory. Therefore, the Work is considered to be complete in accordance with the approved plans, specifications and contract documents.

In accordance with the Contract, all Warranty periods shall begin as of the date of this letter.

Town of Erie

By: _____
Title: _____

General Provisions

Part 1. Definitions

1.01 Contract Documents:

- A. Bid Form (Including Bid Summary);
- B. Bid Schedule;
- C. Bidder's Qualification Statement;
- D. Construction Contract;
- E. General Provisions
- F. Special Provisions;
- G. Technical Specifications;
- H. Construction Drawings;
- I. Certificate of Insurance Verification;
- J. Notice of Award;
- K. Notice to Proceed;
- L. Bid Bond;
- M. Payment and Performance Bond;
- N. Certificate of Final Payment;
- O. Final Acceptance Form;
- P. Documentation submitted by Contractor prior to Notice of Award; and
- Q. Addenda

1.02 Change Order:

A written order issued by the Town after execution of the Contract authorizing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time.

1.03 Town:

The Town of Erie, Colorado.

1.04 Contract:

The entire written agreement covering the performance of the Work described in the Contract Documents including all supplemental agreements thereto and all general and special provisions pertaining to the Work and materials therefor.

1.05 Contract Price:

The amount set forth in Paragraph 4 of the Construction Contract.

1.06 Contract Time:

The time for completion of the Work as set forth in Paragraph 3 of the Construction Contract.

1.07 Day:

Calendar day, unless otherwise specified. When the last day for the occurrence of an event falls on a Saturday, Sunday or legal holiday as recognized by the Town, the time for performance shall be automatically extended to the next business day.

1.08 Final Completion:

The date as certified by the Project Manager when all of the Work is completed and final payment may be made.

1.09 Project Manager:

The Town's duly authorized representative in connection with the Work.

1.10 Subcontractor:

Any person, firm or corporation with a direct contract with Contractor who acts for or in behalf of Contractor in executing any part of the Contract, excluding one who merely furnishes material.

1.11 Substantial Completion:

The date as certified by the Project Manager when the Town occupies or takes possession of all or substantially all of the Work, or when the Town may occupy or take possession of all or substantially all of the Work and put it to beneficial use for its intended purposes.

1.12 Work:

All the work specified, indicated, shown or contemplated in the Contract Documents, including all alterations, amendments or extensions thereto made by supplemental agreements or written orders of the Project Manager.

Part 2. Time**2.01 Time of the Essence:**

All times stated in the Contract Documents are of the essence.

2.02 Final Acceptance:

Upon Final Completion, the Project Manager will issue final acceptance.

2.03 Changes in the Work:

The Town reserves the right to order changes in the Work, in the nature of additions, deletions or modifications, without invalidating the Contract, and to make corresponding adjustments in the Contract Price and the Contract Time. All changes shall be authorized by a written Change Order signed by the Project Manager. The Change Order shall include appropriate changes in the Contract Documents and the Contract Time. The Work shall be changed and the Contract Price and Contract Time modified only as set forth in the written Change Order. Any adjustment in the Contract Price resulting in a credit or a charge to the Town shall be determined by mutual agreement of the parties.

before the work set forth in the Change Order is commenced. If a Change Order results in an increase in the Contract Price, approval of the Erie Board of Trustees shall be required, and if such approval is not obtained, the Town shall have no payment obligation regardless of whether the Work pursuant to the Change Order has been performed.

2.04 Delays:

- A. If Contractor is delayed in the progress of the Work by fire, unusual delay in transportation, unanticipated adverse weather conditions, or other unavoidable casualties beyond Contractor's control, 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 can be deemed unsafe or impede progress as approved by Project Manager. 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 2 days of adverse weather conditions, Contractor may not request an additional time extension as anticipated adverse weather days are included in the schedule. However, if in March there are 5 days of adverse weather conditions, Contractor shall be entitled to request a time extension of one additional day.

- B. Any request for extension of the Contract Time shall be made in writing to the Project Manager not more than 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.
- C. Contractor shall not be entitled to any increase in the Contract Price, or to damages, or to additional compensation as a consequence of any such delays.

2.05 No Damages For Delay:

In strict accordance with C.R.S. § 24-91-103.5, the Town 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 Town or persons acting on behalf of the Town.

Part 3. Contractor's Responsibilities

3.01 Completion/Supervision Of Work:

Contractor hereby warrants that it is qualified to assume the responsibilities and render the services described herein and has all requisite corporate authority and licenses in good standing. The services performed by Contractor shall be in accordance with generally accepted professional practices and the level of competency presently

maintained by others in the same or similar type of work, and in compliance with applicable laws, ordinances, rules and regulations. Contractor shall be responsible for completion of all Work in a timely and workmanlike manner in accordance with the terms and specifications of the Contract Documents, including the techniques, sequences, procedures and means. Contractor shall be responsible for the coordination of all Work. Contractor shall supervise and direct the Work and give it all attention necessary for proper supervision and direction. Contractor shall maintain a supervisor on site at all times when Contractor or any subcontractor is performing Work.

3.02 Duty to Inspect:

Contractor shall inspect all Contract Documents, tests and reports, including soil tests and engineering tests, if applicable, and shall conduct a site or field review prior to executing the Contract. Contractor assumes the risk of all conditions which are disclosed, or which are reasonably suggested by any such tests or reports, or which would be disclosed by a field or site review. Contractor shall have the affirmative duty to advise the Town of any concerns which Contractor may have regarding construction conditions prior to executing the Contract.

3.03 Furnishing of Labor and Materials:

- A. Contractor shall provide and pay for all labor, materials and equipment, including: tools; construction equipment and machinery; utilities, including water; transportation; and all other facilities and services necessary for the proper completion of the Work.
- B. In all purchases of supplies, materials and provisions to be incorporated or otherwise used by Contractor in the Work, Contractor shall use supplies, materials and provisions produced, manufactured or grown in Colorado if such supplies, materials and provisions are not of inferior quality to those offered by competitors outside of Colorado.
- C. While engaged in the performance of the Work, Contractor shall maintain employment practices that do not violate the provisions of the Colorado Antidiscrimination Act of 1957, C.R.S. § 24-34-301, et seq.

3.04 Employee Safety and Conduct:

- A. Contractor shall maintain at all times strict discipline of its employees, and Contractor shall not employ on the Work any person unfit or without sufficient knowledge, skill, and experience to perform properly the job for which the employee was hired.
- B. Contractor shall be responsible to the Town for the acts, negligence and omissions of all direct and indirect employees and subcontractors. The Contract Documents shall not be construed as creating any contractual relation between any subcontractor and the Town.

- C. Contractor shall provide for and oversee all safety orders and precautions necessary for the safe performance of the Work. Contractor shall take reasonable precautions for the safety of all employees and others whom the Work might affect, all work and materials incorporated into the Work, and all property and improvements on the work site and adjacent property.
- D. Contractor and its employees, and employees of the Contractor's suppliers, agents, and subcontractors shall at all times treat local residents and the public with respect and courtesy. Contractor shall conduct his work in such a manner as to cause the least inconvenience to local residents and the public. The Project Manager may demand dismissal of workers for any of the following:
 - 1. Being discourteous or disrespectful to local residents or the public.
 - 2. Abuse or taunting of pets.
 - 3. Disposing of rubbish in locations other than approved receptacles.
 - 4. Use of vulgar, abusive, or harassing language or gestures.
 - 5. Use or possession of alcoholic beverages or drugs other than over-the-counter and prescription drugs.
 - 6. Elimination of body waste in locations other than approved sanitation facilities.
 - 7. Damage or defacement of private property outside of street right-of-way and not necessary for the completion of the Work.
 - 8. Trespassing on private property.
 - 9. Use of water from private residences without permission from the resident.

3.05 Cleanup:

- A. Contractor shall keep the work site and adjoining ways free of waste material and rubbish caused by its employees or subcontractors. Contractor shall remove all such waste material and rubbish daily during construction, together with all tools, equipment, machinery and surplus materials. Contractor shall, upon termination of its Work, conduct general cleanup operations on the work site, including the cleaning of all surfaces, paved streets and walks, and steps. Contractor shall also conduct such general cleanup operations on adjacent properties which were disturbed by the Work.
- B. If Contractor fails to perform the cleanup required by this Section, after written notice, the Town may cause the cleanup to be performed at Contractor's expense. Upon receipt of a statement for such cleanup, Contractor shall pay to the Town the costs incurred by the Town for such cleanup, or the Town shall have the right to withhold said amount from any final payment due to Contractor.

3.06 Payment of Royalties and License Fees:

Contractor agrees to pay all royalties and license fees necessary for the Work, and to defend against all actions for infringement of copyright or patent rights, and to save and hold the Town harmless from such actions.

3.07 Taxes, Licenses and Permits:

Contractor shall pay all taxes imposed by law in connection with the Work, except the Town of Erie Sales Tax, for purchases within the Town, and shall procure all permits and licenses necessary for the prosecution of the Work. Contractor shall obtain a Town tax-exempt number for the sales tax exemption.

3.08 Samples and Shop Drawings:

Contractor shall furnish, upon the request of the Project Manager, samples and shop drawings to the Project Manager, who shall review them for conformance with the Contract Documents. All Work shall comply with approved samples and drawings.

3.09 Compliance with Laws and Regulations:

Contractor shall comply with all federal, state and local laws, ordinances, rules, regulations and orders in any manner relating to the Work. If any provision of the Contract Documents is at variance therewith, Contractor shall notify the Project Manager promptly.

3.10 Subcontractors:

- E. Contractor shall furnish to the Project Manager at the time the Construction Contract is executed, a list of names of subcontractors to whom Contractor proposes to award the portions of the Work to be subcontracted by Contractor.
- F. Contractor shall not employ a subcontractor to whose employment the Town reasonably objects, nor shall Contractor be required to hire a subcontractor to whose employment Contractor reasonably objects.
- G. All contracts between Contractor and subcontractor shall conform to the provisions of the Contract Documents, and shall incorporate the relevant provisions of the Contract Documents.

3.11 Corrective Work:

When any Work does not conform to the Contract Documents, Contractor shall make the necessary corrections so that the Work will so conform. Such corrections shall be accomplished within the time period approved by the Project Manager. Failure to complete such required corrections within the time period required shall constitute a breach of the Contract. The Town's review, approval or acceptance of, or payment for any work shall not be construed as a waiver of any rights under this Contract or any cause of action arising out of the performance of this Contract.

3.12 Other Contracts:

The Town reserves the right to let other contracts in connection with the Work. Contractor shall cooperate with all other contractors so that their work is not impeded by the Work, and Contractor shall give other contractors access to the work site necessary to perform their contracts.

3.13 Communication:

Contractor shall direct all communications to the Town regarding the Work to the attention of the Project Manager.

Part 4. Termination

4.01 Labor Disputes:

Notwithstanding any other provision contained in this Contract, in the event of any picket or other form of labor dispute at the construction site, Contractor shall continue to perform the Work without interruption or delay. If Contractor ceases performance of the Work because of such picket or other form of labor dispute, the Town may terminate the services of Contractor after giving 48 hours' written notice of its intent to do so.

4.02 Default:

The Town may terminate this Contract upon thirty days' written notice to Contractor if Contractor defaults in the timely performance of any provision of the Contract Documents, or otherwise fails to perform the Work, or any part thereof, in accordance with the Contract Documents. Termination of the Contract by the Town shall not be the Town's exclusive remedy, and the Town may pursue such other remedies and actions lawfully available to the Town including, but not limited to, an action at law for damages against Contractor or any bonding agency issuing a bond hereunder, or an action in equity for injunctive relief.

Part 5. Warranties:

5.01 Warranty of Fitness of Equipment and Materials:

Contractor represents and warrants to the Town that all equipment and materials used in the Work, and made a part of the Work, or placed permanently in the Work, shall be new unless otherwise specified in the Contract Documents. All equipment and materials used shall be of good quality, free of defects and in conformity with the Contract Documents. All equipment and materials not in conformity with the Contract Documents shall be considered defective.

5.02 General Warranty:

Contractor shall warrant and guarantee all material furnished and work performed by Contractor for a period of two years from the date of final acceptance of the Work by the Project Manager. Under this warranty, Contractor agrees to repair or replace, at its own

expense and under the direction of the Project Manager, any portion of the Work which fails or is defective, unsound, unsatisfactory because of materials or workmanship, or which is not in conformity with the provisions of the Contract. Should Contractor fail to perform any such work within the warranty period after a request by the Town, the Town may withdraw from the Payment and Performance Bond any and all amounts necessary to complete the required work. The expiration of the warranty period shall in no way limit the Town's legal or equitable remedies, or the period in which such remedies may be asserted, for work negligently or defectively performed.

Part 6. Bonds, Insurance and Indemnification

6.01 Indemnification:

- A. Contractor agrees to indemnify and hold harmless the Town and its officers, insurers, volunteers, representatives, agents, employees, heirs and assigns from and against all claims, liability, damages, losses, expenses and demands, including attorney fees, 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 arise out of or are in any manner connected with this Contract or the Contract Documents, to the extent that such injury, loss or damage is attributable to the act, omission, error, professional error, mistake, negligence or other fault of Contractor, any subcontractor of Contractor, or any officer, employee, representative, or agent of Contractor or of any subcontractor of Contractor, or which arise out of any worker's compensation claim of any employee of Contractor or of any employee of any subcontractor of Contractor.
- B. Contractor, to the fullest extent permitted by law, shall defend, investigate, handle, respond and provide defense for and defend against any such liability, claims, damages, losses, expenses or demands at the sole expense of Contractor, or at the option of the Town, Contractor agrees to pay the Town or reimburse the Town for defense costs incurred by the Town in connection with any such liability, claims, damages, losses, expenses or demands. 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.
- C. This indemnification provision is intended to comply with C.R.S. § 13-21-111.5(6) and shall be read as broadly as permitted to satisfy that intent. Contractor's liability under this provision shall be to the fullest extent of, but shall not exceed, that amount represented by the degree or percentage of negligence or fault attributable to Contractor, any subcontractor of Contractor, or any officer, employee, representative, or agent of Contractor or of any subcontractor of Contractor. If Contractor is providing architectural,

engineering, surveying or other design services under this Agreement, the extent of Contractor's obligation to defend, indemnify and hold harmless the Town may be determined only after Contractor's liability or fault has been determined by adjudication, alternative dispute resolution or otherwise resolved by mutual agreement of the Parties, as provided by C.R.S. § 13-50.5-102(8)(c).

6.02 Notice of Claim:

If Contractor receives any claim arising from the performance of the Work, Contractor shall notify the Town in writing of the nature of the claim within 24 hours of receipt of the claim by Contractor. In this notice, Contractor shall provide evidence that Contractor has notified Contractor's insurer of the claim. Contractor shall keep the Town apprised of the disposition of the claim, and Contractor shall take all necessary action to resolve the claim and make restitution, if required, as quickly as possible.

6.03 Insurance:

H. Contractor agrees to procure and maintain, at its own cost, a policy or policies of insurance sufficient to insure against all liability, claims, demands, and other obligations assumed by Contractor pursuant to this Contract. At a minimum, Contractor shall procure and maintain, and shall cause any subcontractor to procure and maintain, the insurance coverages listed below, with forms and insurers acceptable to the Town.

1. Worker's Compensation insurance as required by law.
 2. Commercial General Liability insurance with minimum combined single limits of \$1,000,000 each occurrence and \$2,000,000 general aggregate. The policy shall be applicable to all premises and operations, and shall include coverage for bodily injury, broad form property damage, personal injury (including coverage for contractual and employee acts), blanket contractual, products, and completed operations. The policy shall contain a severability of interests provision, and shall include the Town and the Town's officers, employees, and contractors as additional insureds. No additional insured endorsement shall contain any exclusion for bodily injury or property damage arising from completed operations.
- I. Such insurance shall be in addition to any other insurance requirements imposed by law. The coverages afforded under the policies shall not be canceled, terminated or materially changed without at least 30 days prior written notice to the Town. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage. Any insurance carried by the Town, its officers, its employees, or its contractors shall be excess and not contributory insurance to that provided by Contractor. Contractor shall be solely responsible for any deductible losses under any policy.

- J. Contractor shall provide to the Town a certificate of insurance as evidence that the required policies are in full force and effect. The certificate shall identify this Contract.

6.04 Performance and Payment Bond:

Contractor shall furnish a Payment and Performance Bond in the full amount of the Contract Price, as security for the faithful performance and payment of all Contractor's obligations under the Contract Documents, including the warranty. This bond shall remain in effect at least until two years after the date of Final Completion.

Part 7. Payment

7.01 Progress Payments:

- A. The Town shall make periodic progress payments to Contractor within 30 days following the Project Manager's approval of the Work completed. A progress payment shall be made only after Contractor has submitted an application for a progress payment on a form approved by the Project Manager, and if requested by the Project Manager, Contractor shall submit copies of invoices from subcontractors or supplies and partial waivers executed by each.
- B. Progress payments shall be in an amount equal to 95% of the Work actually completed. Completed Work shall include materials and equipment not incorporated in the Work but delivered to the work site and suitably stored.
- C. If Contractor fails to complete any required Work within the time period agreed between Contractor and the Project Manager, or within any time period set forth in the Contract Documents, as modified or extended, the Town is expressly authorized to withhold any progress payment for such Work until such Work is completed.

7.02 Final Payment:

Upon final acceptance of the Work, the Town shall make final payment to Contractor pursuant to C.R.S. § 38-26-107.

7.03 Liquidated Damages:

- A. Because time is of the essence and delayed performance constitutes a compensable inconvenience to the Town and its residents, the liquidated damages established in this Section shall be enforced. Such damages are not a penalty. For each day Final Completion is delayed after the Final Completion date stated in the Construction Contract, as modified through approved change orders, Contractor shall be assessed the following amounts:

Contract Price	Amount per day
\$0-\$50,000	\$350
\$50,000-\$100,000	\$380
\$100,000-\$250,000	\$440

\$250,000-\$500,000	\$520
\$500,000-\$1,000,000	\$640
\$1,000,000-\$2,000,000	\$820
\$2,000,000-\$4,000,000	\$1,080
\$4,000,000-\$8,000,000	\$1,450
\$8,000,000-\$12,000,000	\$1,820
\$12,000,000 or greater	\$2,250

- B. Allowing Contractor to continue and finish the Work or any part thereof after the Final Completion date shall not operate as a waiver on the part of the Town of any of its rights under the Contract Documents. Any liquidated damages assessed shall not relieve Contractor from liability for any damages or costs of other contractors caused by a failure of Contractor to complete the Work in the Contract Time. Liquidated damages may be deducted from any payment due Contractor or the retainage. If the liquidated damages exceed the amount owed to Contractor, Contractor shall reimburse the Town.

7.04 Oral Agreements Prohibited:

This Contract is expressly subject to the provisions of C.R.S. § 29-1-110(1), and Contractor acknowledges that neither the Town nor any employee or agent thereof is authorized to expend or contract for the expenditure of any monies in excess of those appropriated by the Erie Board of Trustees. The Town acknowledges that sufficient funds have been appropriated to pay the Contract Price, but Contractor shall not rely upon the appropriation of any funds in addition to those already appropriated unless and until the same are lawfully appropriated by the Erie Board of Trustees.

7.05 Items Not Included in Bid:

No additional compensation shall be paid for any costs or services listed in the Contract Documents but not specifically listed in the Bid as a Bid item.

7.06 Changes in Quantity:

- A. Except as provided in Section 7.07, the unit Bid price shown in the Bid Schedule shall be used to determine the payment owed Contractor for any changes in quantity.
- B. The actual quantity placed, as determined by the Project Manager, shall be used to calculate the payment due to Contractor.
- C. Prior to any Work being performed in excess of any of the Bid Schedule quantities, Contractor shall notify the Town, in writing, of every quantity that will exceed 105% of the quantity listed on the Bid Schedule.
- D. Except as provided in Section 7.08, Contractor shall not be entitled to compensation for any increased expense, loss of expected reimbursement or loss of anticipated profits, directly or indirectly caused by any changes in quantity.

7.07 Bid Price Adjustments:

- A. When a major item is increased to more than 125% or decreased below 75% of the original quantity stated on the Bid Schedule, the unit Bid price shall be modified by written change order. Payment for major items shall be calculated by multiplying the actual quantity placed by the modified Bid price.
- B. For purposes of this Section, a major item is any item having a Bid value, determined by multiplying the Bid quantity by the unit Bid price that exceeds 10% of the original Contract Price.

7.08 Eliminated Items:

Should any items contained in the Bid Schedule be found unnecessary for completion of the Work, the items shall be eliminated. The Contract Price shall be modified through written change order, and the amount of the change order shall be the eliminated quantity multiplied by the unit Bid price stated in the Bid Schedule, minus any reasonable costs incurred by Contractor for the eliminated items. Reasonable costs shall be determined by the Project Manager based on information provided by Contractor, and may include mobilization of eliminated materials and equipment mobilization costs, if the sole purpose of the equipment was to place the eliminated material. In no case shall the costs exceed the amount of the eliminated items.

7.09 Materials Stored But Not Incorporated:

Payments may be made to Contractor for materials stored on the work site but not incorporated into the Work as evidenced by invoices or cost analyses of material produced, if the material has been fabricated or processed and is ready for installation into the Work and conforms with the Contract Documents. Payments shall not exceed 85% of the price shown in the Bid Schedule or 100% of the certified invoice cost of the stockpiled material, whichever is less. Payment for stockpiled materials shall not relieve Contractor of responsibility for loss or damage to the material. Payment for living plant materials or perishable materials shall not be made until the living or perishable material is made an integral part of the finished Work.

7.10 Cost Records:

Contractor shall make cost records available to the Town if the Town deems it necessary to determine the validity and amount of any item claimed.

Part 8. Miscellaneous

8.01 Publications:

Any and all publications relating to the Work and authored by Contractor or any of its subcontractors shall be submitted to the Town for its prior written approval of the content of the publication. If the Town disapproves of the content of the publication, the author shall withdraw it from publication. The term "publication" as used herein shall include articles or letters to be published in any newspaper, magazine, trade journal or other periodical.

8.02 Confidentiality:

Any and all reports, information, data, statistics, forms, designs, plans, procedures, systems, studies and any other communication form of knowledge given to or prepared or assembled by Contractor under this Contract shall, to the extent authorized and permitted by law, be kept as confidential and not be made available by Contractor to any individual, company or organization without the prior written consent of the Town. Notwithstanding the foregoing, Contractor shall not be restricted from releasing information in response to a subpoena, court order, or legal process, but Contractor shall notify the Town in writing before responding.

8.03 Independent Contractor:

Contractor, for all purposes arising out of this Contract, is an independent contractor and not an employee of the Town. It is expressly understood and agreed that Contractor shall not be entitled to any benefits to which the Town's employees are entitled, such as overtime, retirement benefits, worker's compensation, injury leave or other leave benefits.

8.04 Conflicts:

Should any conflict arise in the Contract Documents, the order of precedence is as follows:

1. Construction Contract.
2. Special Provisions.
3. General Provisions.
4. Supplemental Specifications.
5. Detailed Plans (Calculated dimensions will govern over scaled dimensions).

Special Provisions

1. **General.**
 - A. All labor, services, material, and other work necessary for the construction of this project shall be provided by Contractor. Contractor's responsibilities shall include, but not be limited to: managing the budget; scheduling and coordinating work meetings; conducting field tests and geotechnical studies; preparing exhibits and participating in formal and informal public meetings at locations provided by the Town; and timely processing field orders, change orders and notices of substantial completion.
 - B. Contractor shall carefully examine all Work, and shall be solely responsible for the character, quality, and quantities of Work, materials, and compliance with the Contract Documents.
 - C. Contractor shall identify any and all necessary easements for construction and maintenance of the Work.
2. **Other Regulations.**
 - A. Contractor shall ensure that the Work is in compliance with the Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual, CDOT Specifications, AASHTO Specifications, International Building Code, Uniform Plumbing Code, Uniform Mechanical Code, National Electrical Code, Americans with Disabilities Act, and other applicable codes and specifications.
 - B. In case of any discrepancy between any of the requirements set forth in the Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual, CDOT Specifications, AASHTO Specifications, International Building Code, Uniform Plumbing Code, Uniform Mechanical Code, National Electrical Code, Americans with Disabilities Act, and these Contract Documents, the more stringent requirement shall apply. If any questions arise as to which requirement is more stringent than another, the Project Manager shall be authorized to determine which is more stringent, and the Project Manager's decision shall be final.
3. **Representatives.** Contractor shall have at the work site at all times as its agent, a competent superintendent capable of reading and thoroughly understanding the Contract Documents and being thoroughly experienced in the type of work being performed. The Town shall have a representative on the job site to observe work for conformance with the Contract Documents.
4. **Work Administration.** The Town shall administer the Work, including the finalization of any change orders, pay estimates and payments of such, acceptance of work, and other matters as stipulated in the Contract Documents.
5. **Engineer.** The Engineer for this Work shall be Murraysmith.

6. Inspections and Testing.

- A. Contractor shall be responsible for performing materials testing. In addition to the materials testing performed by Contractor, the Town may conduct Quality Assurance testing at its own discretion.
- B. Contractor shall coordinate its construction schedule with the testing agency and Town so that key inspection points may be observed. If Contractor fails to provide reasonably adequate notice or proceeds without the required inspection, the subject work shall be re-exposed or redone in its entirety, while the inspector is present. No extra compensation shall be awarded to Contractor for extra work due to Contractor's failure to coordinate inspections with the testing agency or the Town. All costs associated with Contractor's failure to coordinate inspections shall be borne by Contractor.
- C. Contractor shall perform construction inspections. Contractor shall attend any pre-construction meeting(s) and be available to provide technical assistance during the course of construction as necessary. Contractor shall provide site visits and reviews upon request from the Town during the construction phase to ensure compliance with the intent of the plans and to resolve any potential conflicts. Contractor shall provide a written summary after each site visit.
- D. Contractor shall be responsible for scheduling the final inspection with the Town.

7. Construction Schedule.

- A. At the time of the Pre-construction Conference, Contractor shall prepare and submit to the Town for review a construction schedule including: proposed daily construction hours; details of all construction items; start and finish dates; confirmation and dates for coordinating all utility relocation and/or interruptions; and the same information for all subcontractor(s). The schedule shall not be changed without prior notification and review by the Town. The schedule shall be in the form of a chart of suitable scale to indicate approximately the percentage of Work scheduled for completion at any time. Contractor shall enter on the chart the actual progress at the end of each 2-week interval as directed by the Town and shall deliver to the Town a copy thereof on a biweekly basis.
- B. Contractor shall also prepare and submit a schedule of the anticipated manpower by title and duty. The manpower proposed shall be adequate for orderly flow of work and completion within the time specified in the Contract Documents.
- C. All construction activities shall be coordinated with the Project Manager.

8. Saturday, Sunday, Holiday and Night Work.

- A. Work shall normally not be performed on Saturdays, Sundays, observed holidays, or outside of the daytime working hours of 7:00 a.m. to 7:00 p.m.,

or as indicated on the construction schedule. Lane closures are restricted to 9:00 a.m. to 4:00 p.m. on arterial and collector streets, except for such work as may be necessary for proper care, maintenance, and protection of Work already completed, or in cases where the Work would be endangered or if hazards to life or property would result.

- B. If Contractor believes it necessary to work on Saturdays, Sundays, holidays, or at night, Contractor shall make a request no later than 7:00 a.m. two business days prior to desired work dates and receive written approval before such date so that inspection and engineering services can be provided. Such approval may be revoked by the Town if Contractor fails to maintain adequate equipment and lighting at night for the proper prosecution, control, and inspection of the work. If Work is performed without the Town's prior approval, and as a result the Town had not assigned inspectors to the work, the Town may declare Work performed during this period of time defective, solely on the grounds that it was not properly inspected.
- C. Any Work performed on a Saturday, Sunday, holiday, or night shall be at Contractor's risk in terms of extra costs, extra work, or unforeseen conditions.

9. Progress Reports.

- A. Contractor shall prepare at least monthly a progress report for the project in a form, in sufficient detail, and of a character approved by the Project Manager. The progress report shall specify an estimated percentage of completion (including percentage of completion of each activity and event shown on the progress schedule), whether the project is on schedule and, if not, the reasons therefore and any proposed adjustments to the schedule, as well as the contract time worked for each category of labor and the projected Work to be completed in the next succeeding month.
- B. If the completion of any part of the Work or the delivery of materials is behind the approved schedule, Contractor shall submit a plan acceptable to the Project Manager for bringing the Work up to schedule. The Town shall have the right to withhold progress payments for the work if Contractor fails to update and submit the progress/manpower schedule and reports as specified.

10. Pre-construction Conference.

- A. Contractor shall coordinate the Pre-construction Conference. Contractor's designated supervisor(s) assigned to the Work shall attend this meeting.
- B. Prior to mobilizing construction equipment, a Pre-construction Conference will be held. Contractor's designated superintendent(s) or supervisor(s) assigned to the Work shall attend this meeting. Contractor shall, at a minimum, provide the following to the Town at the Pre-construction Conference:
 - (1) The construction schedules;
 - (2) A detailed estimate of partial payments for the Work;

- (3) The traffic control plan;
- (4) A detailed plan showing site access and staging areas; and
- (5) A subcontractor submittal, including names and contact phone numbers.

11. Fees and Permits.

- A. Prior to commencing any Work, Contractor shall secure, at its own expense, all necessary fees and permits required for the performance of the Work. The cost of compliance with this Section (including fees) is included in the Contract Price, and no additional compensation shall be provided.
- B. All fees for permits issued by the Town shall be waived.

12. Existing Utilities.

- A. The Work shall be coordinated with all impacted utility companies, districts, associations, agencies, and residents located in the work site. Contractor shall conduct the meeting and provide summary minutes.
- B. Contractor shall determine the actual location of all existing utilities prior to starting any Work. Contractor shall contact the Utility Notification Center of Colorado to schedule area utility locates (811) and follow up with utility companies, as needed, for field locations prior to the start of Construction Work. If the exact location and depth of existing underground utilities are unknown, Contractor shall perform all necessary exploratory excavation to locate these facilities which may affect the Work prior to beginning construction. Contractor shall obtain required locates and Contractor shall include the information on the plans. Contractor shall resolve any utility discrepancies. Contractor shall be liable for all damage done to existing utilities in the performance of the Work.
- C. If Contractor requests that utility companies relocate utilities for Contractor's convenience, such relocation shall be at Contractor's expense.
- D. The time of performance under the Contract shall not be extended to account for repair of utilities which are damaged by Contractor.

13. Water and Electricity. Contractor shall provide and maintain, at its own expense, an adequate supply of water and electricity required for the Work. Contractor shall install and maintain supply connections and lines satisfactory to the Project Manager, and prior to Final Completion, Contractor shall remove the supply lines at its expense. If water is needed during construction, Contractor will obtain a hydrant meter from the Town for use during the project at the Contractor's expense.

14. Dust Control. Contractor shall use measures to prevent and control dust within the area affected by the Work. No additional compensation shall be paid to Contractor for dust control. Contractor shall clean any soil, dirt, or debris tracked onto any adjacent streets. Within 24 hours of notification by the Town that any

adjacent streets require cleaning, Contractor shall clean such streets or the Town may have the streets cleaned and deduct the cost of such cleaning from the Contract Price.

15. Construction Staging Areas. All construction staging areas shall be located within the work site. The boundaries of construction staging areas shall be approved by the Town. Construction staging areas shall be used for material storage, parking for equipment, and employees' vehicles. A construction trailer shall not be required, but may be used if the location of the trailer is approved by the Town. Upon Final Completion, all staging areas shall be clean and restored to their original condition. No additional compensation shall be provided to Contractor for cleaning of construction staging areas.
16. Sanitary Facilities.
 - A. Sanitary convenience for the use of all persons employed on the work, properly screened from public observation, shall be provided in sufficient numbers and in such a manner and at such points as approved by the Town. The contents shall be removed and disposed of in a satisfactory manner.
 - B. The sanitary conveniences specified above shall be the obligation and responsibility of Contractor. The facilities shall be made available to all other contractors, subcontractors, and inspection personnel in the work site.
 - C. Contractor shall supply sufficient drinking water from approved sources to all of its employees.
 - D. Full compensation for compliance with this Section is included in the Contract Price, and no additional compensation shall be provided.
17. Soils Investigations and Foundation Engineering. Contractor shall be responsible for all geotechnical investigations necessary to design and perform the Work.
18. Lines and Grades. Contractor shall lay out the Work and shall be responsible for all measurements in connection therewith. Contractor shall, at its own expense, furnish all stakes, templates, platforms, equipment, and labor, including surveyors that may be required in setting and cutting or laying out any part of the Work. Contractor shall be responsible for the proper execution of the Work to such lines and grades.
19. Traffic Control.
 - A. Contractor shall furnish all necessary flag persons; erect and maintain warning lights, advance warning signs, detour signs, barricades, temporary fence, and sufficient safeguards around all excavations, embankments, obstructions; and perform any other work necessary for the protection of all work being performed, and for the safety of the public and pedestrian traffic, as well as motor vehicles. All signs and barricades shall conform to the current Manual on Uniform Traffic Control Devices.

- B. At the Pre-construction Conference, Contractor shall submit a copy of the traffic control plan for review by the Town. The plan shall discuss the traffic control measures proposed for the safety of vehicular and pedestrian traffic through the work site.
- C. Contractor shall at all times take proper precautions for the protection of and replacement or restoration of landscaping, driveway culverts, street intersection culverts or aprons, irrigation crossings and systems, mailboxes, driveway approaches, signs, existing utilities, and all other public and private installations that may be encountered during the Work.
- D. No driveway or private alley shall be blocked without prior written permission from the resident who would be affected by such blocking, with a copy to the Town.
- E. Contractor shall at least 72 hours written notice to all affected home/business owners within 500 feet of the limits of the project prior to beginning the Work. This also includes information of any lane closures, including dates and times. The Town shall send a press release if needed.
- F. It is anticipated that a large number of employees will use automobiles for transportation to and from the work site. It shall be Contractor's responsibility to: maintain, protect, and control traffic in the vicinity of and in the work site; restrict parking on streets near the work site; and provide necessary parking areas for all employees in suitable locations as approved by the Town.

20. Archaeological and Historical Discoveries.

- A. Contractor shall inform the Town of any evidence which might suggest to a layperson that archaeological or historical materials may be present in the work site. Upon making such a discovery, Contractor shall do whatever is necessary to avoid disturbing the work site. This may require that Contractor's activities be redirected or stopped until the Town determines how to proceed.
- B. As a result of Contractor's efforts to preserve the potential discovery at the work site, if Contractor's activities are delayed for longer than 8 normal work hours, Contractor shall prepare accounting information to support an adjustment to the Contract Price.

21. Water Control.

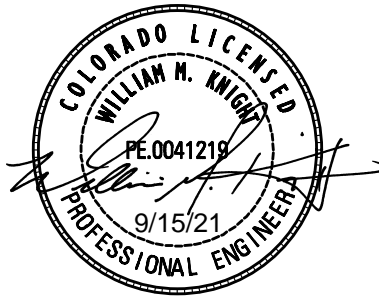
- A. Contractor shall take such precautions as necessary to construct the Work in a dry condition, and Contractor shall provide for drainage, dewatering, and control of all surface and subsurface water and shall erect any necessary temporary structures or other facilities at its own expense.
- B. Contractor, at its own expense, shall furnish all necessary equipment and materials required to control the surface and subsurface water in all the areas from the commencement of Work through Final Completion.

- C. Contractor shall be responsible for furnishing, transporting, and installing all materials and equipment, well points, pumping, channelization, diversion, damming, or other means of controlling surface water and ground waters.
22. Disposal Site.
- A. Contractor shall be responsible for the removal of all excess excavation, debris, deleterious material, muck, asphalt, concrete, trees, stumps, remains from clearing and grubbing, and all other materials not used for the construction of the improvements. Costs of disposal are included in the Contract Price and shall not entitle Contractor to additional compensation.
 - B. Contractor's cost for loading, hauling, daily cleaning of streets, disposal of the earthwork (excavation) materials, together with the construction, maintaining and watering of haul roads, and dump fees and permits are included in the Contract Price and shall not entitle Contractor to additional compensation.
23. Video Prior to Construction. Contractor shall provide the Town with a video of the entire work site prior to beginning construction, including all adjacent areas, at Contractor's own expense. One copy of the video shall be provided to the Town and become the property of the Town prior to the commencement of any Work.
24. Existing Improvements and Restoration.
- A. Contractor has field inspected the work site and fully understands that existing landscaping and improvements are present within the work site. Such existing improvements shall be protected. Any damage or disruption in the public right-of-way, drainage easements, Town property, or private property related to the Work shall be restored to pre-existing or better condition.
 - B. Contractor shall be responsible for replacing all existing improvements, including irrigation systems and landscaping, damaged during Contractor's activities, except as otherwise provided in the Contract Documents.
25. Erosion Control. Contractor shall provide an erosion/sediment control plan for use during construction. The plan shall include site specific details showing the type, location, and quantity of BMP's to be used. The erosion/sediment control plan shall be designed to prevent sediment from leaving the construction area. Special attention shall be given to prevent sediment from entering into any wetland area.
26. Vandalism. Contractor shall take all necessary steps to protect the work site from vandalism. Contractor shall be solely responsible to repair any damage caused by vandalism, including the removal of graffiti, at Contractor's own cost. The Contract Price shall not be increased to reimburse Contractor for such costs.

Technical Specifications

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FOR
LINKS COURT DRAINAGE IMPROVEMENTS
FOR
TOWN OF ERIE, COLORADO

WILLIAM MATTHEW KNIGHT = WMK



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FOR
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Division 03 - Concrete			
NOT USED			
Division 04 - Masonry			
NOT USED			
Division 05 - Metals			
NOT USED			
Division 06 - Wood and Plastics			
NOT USED			
Division 07 - Thermal and Moisture Protections			
NOT USED			
Division 08 - Doors and Windows			
NOT USED			
Division 09 - Finishes			
NOT USED			

Division 10 - Specialties
NOT USED

Division 11 - Equipment
NOT USED

Division 12 - Furnishings
NOT USED

Division 13 - Special Construction
NOT USED

Division 21 – Fire Suppression
NOT USED

Division 22 - Plumbing
NOT USED

Division 23 – Heating, Ventilation, and Air Conditioning (HVAC)
NOT USED

Division 25 – Integrated Automation
NOT USED

Division 26 - Electrical
NOT USED

Division 27 - Communications
NOT USED

Division 28 – Electronic Safety and Security
NOT USED

Division 31 - Earthwork

31 05 13	WMK	Soils for Earthwork	1-4
31 05 16	WMK	Aggregates for Earthwork	1-3
31 22 13	WMK	Rough Grading	1-5
31 23 16	WMK	Excavation	1-5
31 23 18	WMK	Rock Removal	1-4
31 23 23	WMK	Fill	1-5
31 25 00	WMK	Erosion and Sediment Controls	1-4

Division 32 - Exterior Improvements

32 11 23	WMK	Aggregate Base Courses	1-4
32 12 16	WMK	Asphaltic Concrete Pavement	1-3
32 16 10	WMK	Concrete Curb, Gutter and Sidewalk	1-2

Division 33 - Utilities

NOT USED

Division 34 - Transportation

NOT USED

Division 40 - Process Integration

NOT USED

Division 41 – Material Processing and Handling Equipment

NOT USED

Division 43 – Process Gas & Liquid Handling

NOT USED

DRAWINGS

See Sheet G-1 for Drawing Index

SUPPLEMENTARY INFORMATION

END OF SECTION

SECTION 00 41 10 - SUBCONTRACTOR LISTING

The following information is submitted which gives the name, business address, and portion of the Work for each subcontractor that will be used for a portion of the Work as specified in the Instructions to Bidders if the Bidder is awarded the Contract. Additional numbered pages shall be attached to this page as required. Each page shall be headed "SUBCONTRACTOR LISTING" and signed.

Name	Business Address	Description of Work to be Performed	Subcontract Contract Amount	Business Located Within 30 Mile Radius of Town	
				Yes	No
MUE HIGHT PARKING	10150 Hwy 12, Commerce City 80022	ASPHALT PARKING	\$ 24,945.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TEGA CONSTRUCTION	P.O. Box 1670, Johnston 80534	CONCRETE PARKING	\$ 16,048.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>
			\$	<input type="checkbox"/>	<input type="checkbox"/>
			\$	<input type="checkbox"/>	<input type="checkbox"/>
			\$	<input type="checkbox"/>	<input type="checkbox"/>
			\$	<input type="checkbox"/>	<input type="checkbox"/>
			\$	<input type="checkbox"/>	<input type="checkbox"/>
			\$	<input type="checkbox"/>	<input type="checkbox"/>
			\$	<input type="checkbox"/>	<input type="checkbox"/>

<u>Name</u>	<u>Business Address</u>	<u>Description of Work to be Performed</u>	<u>Subcontractor Contract Amount</u>	<u>Business Located Within 30 Mile Radius of Town</u>	
				<u>Yes</u>	<u>No</u>
_____	_____	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
_____	_____	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
_____	_____	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
_____	_____	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
_____	_____	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
_____	_____	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>
_____	_____	_____	\$ _____	<input type="checkbox"/>	<input type="checkbox"/>

Signed by: _____ Date: 9.9.21

 (Name)

 (Title)

END OF SECTION

Qualification Statement and Resumes



Jabin Bebo <jabin@civilspecialties.com>

To ☐ Zachary Ahinga

Cc ☐ Derek Helme



Civil Specialties Qualifications Statement.pdf
605 KB



Derek Helme's Resume.pdf
88 KB



Jabin Bebo's Resume.pdf
164 KB

Zachary,

Please see the attached qualification statement along with our resumes. We look forward to working with you and the Town!

Also, for trucking, we will be using either:

PR Trucking, 331 S Lipan St, Denver, CO 80223

JP Meyer Trucking, 21999 Tall Grass Trail, Golden, CO 80403

Regards,

Jabin Bebo

President



3123 Megan Circle
Berthoud, CO 80513
Mobile: 970.412.1588

SECTION 00 43 83 – PRELIMINARY CONSTRUCTION SEQUENCE

The CONTRACTOR shall submit with their Bid a preliminary construction sequence for the TOWN's review. This construction sequence shall be in sufficient detail to show complete construction of the project while meeting the requirements of these specifications. The TOWN understands that the construction area is tight and access to the properties is vital. Specific requirements for site access are described in Section 01 10 00 Paragraphs 1.15, 1.16, and 1.49 and Section 01 50 00 Paragraph 1.7. The Preliminary Construction Sequence as it pertains to maintaining vehicular and pedestrian access will be used by the OWNER in helping determine award of the contract. Additional numbered pages and any exhibits required to describe the construction sequence shall be attached to this page as required. Each page shall be headed "PRELIMINARY CONSTRUCTION SEQUENCE" and signed.

DATE(S)

WORK ITEM

* SEE ATTACHED PHASE PLAN

PHASE 1 - 10/18 TO 11/3 - RESIDENT ACCESS WILL NOT BE
AFFECTED

PHASE 2 - 11/4 TO 11/10 - BUILD ROLLER CURB/SIDEWALK
BETWEEN 1258 LINKS COURT &
1274 LINKS COURT.

PHASE 3 - 11/11 TO 11/17 - CONTINUE & TIE IN OF ROLLER
CURB/SIDEWALK

Signed by:



Date: 9.9.21

JABIN BERO

(Name)

PRESIDENT

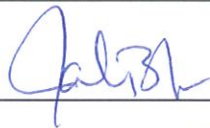
(Title)

DATE(S)

WORK ITEM

PHASE 4 - 11/18 TO 11/23 - R&R ASPHALT PAVING. WORK
SHOULD TAKE 4 DAYS OR LESS.
ONLY AFFECTED RESIDENT WILL
BE 1258 LINKS CANT. WILL
WORK W/RESIDENT TO KEEP
DISTURBANCE TO A MINIMUM.

Signed by:



Date: 9.9.21

JAZMIN PEREZ

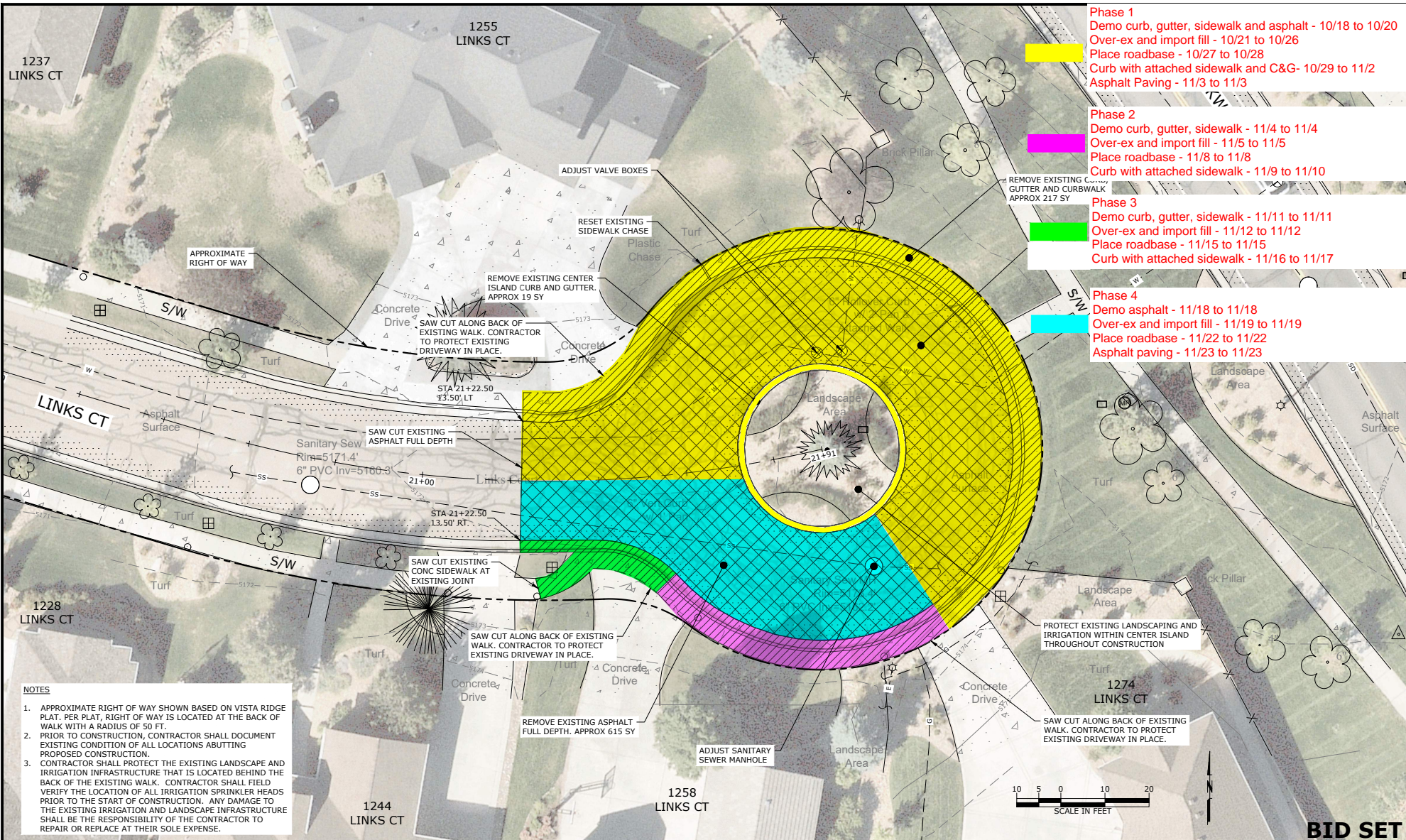
(Name)

PRESIDENT

(Title)

END OF SECTION

L:\001_Projects\2113125 - Erie - Links Court Drainage\CAD\Sheets\21-3125-CO-C-dwg CL 6/17/2021 6:57 PM SEAN WALMSLEY 23.0s (LMS Tech)



NO.	DATE	SWW	BY	REVISION
1	08/18/21	SWW	BIDDING DOCUMENTS	

NOTICE
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

PRELIMINARY ONLY DO NOT USE FOR CONSTRUCTION
AUGUST 2021
MurraySmith www.murraysmith.us



**LINKS COURT
DRAINAGE
IMPROVEMENTS
ERIE, COLORADO**

EXISTING CONDITIONS AND DEMO PLAN
PROJECT NO.: 21-3125
SCALE: AS SHOWN
DATE: AUGUST 2021

SHEET
C1
4 of 9

SECTION 01 10 00 - SUMMARY OF WORK

PART 1 GENERAL

This Summary of Work supplements and amplifies certain sections of the General Provisions and Special Provisions. The General Provisions and Special Provisions shall apply except as modified herein. These Special Provisions and additional technical specifications may contain occasional requirements not pertinent to the PROJECT. However, these specifications shall apply in all particulars insofar as they are applicable to this PROJECT.

1.1 APPLICABLE STANDARD SPECIFICATIONS AND PLANS

The Town of Erie Standards and Specifications for Design and Construction of Public Improvements (including all revisions at date of bid opening), apply except as may be modified herein. In the case of discrepancy, unless noted otherwise herein, the more restrictive provisions shall apply.

1.2 SCOPE OF WORK

The work to be performed under these specifications and drawings consists of drainage and pavement improvements for the Links Court cul-de-sac in Erie, Colorado. As indicated in the construction plans, work includes the regrading and repaving of the asphalt concrete in the cul-de-sac, the removal and replacement of the rollover monolithic curb, gutter, and sidewalk adjacent to all repaved asphalt, the removal and replacement of the vertical spill curb and gutter adjacent to the cul-de-sac island, and the removal and replacement of an existing sidewalk chase drain.

The above general outline of principal features of the work does not in any way limit the responsibility of the CONTRACTOR(s) to perform all work and furnish all equipment, labor and materials required by the specifications and drawings. The drawings and specifications shall be considered and used together. Anything appearing as a requirement of either shall be accepted as applicable to both even though not so stated therein or shown.

No attempt has been made in these specifications or drawings to segregate work covered by any trade or subcontract under one specification. Such segregation and establishment of subcontract limits will be solely a matter of specific agreement between the CONTRACTOR and its subcontractors and shall not be based upon any inclusion, segregation, or arrangement in or of these specifications.

1.3 COORDINATION OF DRAWINGS AND SPECIFICATIONS

The drawings and specifications are intended to describe and provide for a complete work. Any requirement in one is as binding as if stated in all. The CONTRACTOR shall provide any work or materials clearly implied in the Contract Documents even if the Contract Documents

do not mention it specifically. If there is a conflict within the Contract Documents, it will be resolved by the following order of precedence:

- A. Permits for outside agencies required by law
- B. TOWN-CONTRACTOR Agreement
- C. Addenda to Contract Documents
- D. CONTRACTOR's Proposal
- E. Contract Drawings
- F. Technical Specifications
- G. Special Provisions
- H. General Provisions
- I. Town of Erie Standard Specifications
- J. Town of Erie Standard Details

Dimensions shown on the drawings or that can be computed shall take precedence over scaled dimensions. Notes on drawings are part of the drawings and govern in the order described above. Notes on drawings shall take precedence over drawing details.

The intent of the drawings and specifications is to prescribe the details for the construction and completion of the work which the CONTRACTOR undertakes to perform according to the terms of the Contract. Where the drawings or specifications describe portions of the work in general terms, but details are incomplete or silent, it is understood that only the best general practice is to prevail and that only materials and workmanship of the best quality are to be used. Unless otherwise specified, the CONTRACTOR shall furnish all labor, materials, tools, equipment, and incidentals, and do all the work involved in executing the Contract in a manner satisfactory to the ENGINEER.

The contract drawings are designated by general title, sheet number and sheet title. When reference is made to the drawings, the "Sheet Number" of the drawing will be used. Each drawing bears the ENGINEER's File No. 21-3125. and the general title:

Links Court Drainage Improvements

Erie, Colorado

The specific titles of each sheet are contained in the lower right hand corner.

1.4 CODE REQUIREMENTS

All work shall be done in strict compliance with the requirements of:

- A. The Town of Erie Standards and Specifications for Design and Construction of Public Improvements
- B. The Colorado Department of Transportation Standard Specifications for Road and Bridge Construction
- C. The ADA Standards for Accessible Design

In case of disagreement between codes or these specifications, the more restrictive shall prevail.

1.5 TIME OF COMPLETION/LIQUIDATED DAMAGES

The CONTRACTOR shall complete all work shown and specified within the time limits stated in the Agreement. The written Notice to Proceed will be sent to the CONTRACTOR after the CONTRACTOR submits the signed Contract, Bonds and insurance certificates to the TOWN and those documents have been approved as to form and executed by the TOWN. The CONTRACTOR's attention is directed to Part 7 of the General Provisions as respects liquidated damages.

1.6 COORDINATION WITH OTHER CONTRACTORS AND WITH TOWN

Certain work within this contract may require connection to and coordination with the work of other contractors and TOWN. The CONTRACTOR under these specifications shall cooperate fully with all other contractors and TOWN and carefully fit its own work to such other work as may be directed by the ENGINEER. The CONTRACTOR shall not commit or permit any act to be committed which will interfere with the performance of work by any other contractor or the TOWN.

1.7 ACCESS TO WORK

Access to the work shall be provided as may be required by the TOWN or its representatives, and all authorized representatives of the state and federal governments and any other agencies having jurisdiction over any phase of the work, for inspection of the progress of the work, the methods of construction or any other required purposes.

1.8 PERMITS AND LICENSES

Unless provided for otherwise in these contract documents, all permits, licenses, and fees shall be obtained by the CONTRACTOR and all costs shall be borne by the CONTRACTOR. CONTRACTOR shall pay all plan check fees and other fees necessary to obtain permits and shall accommodate special inspections required thereof. CONTRACTOR shall be responsible

for compliance with all permit provisions and shall accommodate all special inspections required thereof, all at no additional expense to the TOWN beyond prices as bid.

1.9 SITE INVESTIGATION AND PHYSICAL DATA

The CONTRACTOR acknowledges that it is satisfied as to the nature and location of the work and the general and local conditions, including but not limited to those bearing upon transportation, disposal, handling and storage of materials, availability of water, roads, groundwater, access to the sites, coordination with other contractors, and conflicts with pipelines, structures, and other contractors. Information and data furnished or referred to herein is furnished for information only. Any failure by the CONTRACTOR to become acquainted with the available information and existing conditions will not be a basis for relief from successfully performing the work and will not constitute justification for additional compensation.

The CONTRACTOR shall verify the locations and elevations of existing pipelines, structures, grades, and utilities, prior to construction. The TOWN assumes no responsibility for any conclusions or interpretations made by the CONTRACTOR based on the information made available.

1.10 TEMPORARY UTILITIES FOR CONSTRUCTION PURPOSES

The CONTRACTOR shall make all arrangements necessary to provide all temporary utilities for construction purposes and shall pay all costs associated with those temporary utilities. Water for construction purposes will be furnished by the TOWN at no cost. The CONTRACTOR shall furnish all valves, hoses, connections, and other devices as necessary to obtain enough water for construction and for filling and testing of water lines as required. Fire hydrant use is allowed only by permission of the utility owner. Backflow protection is required on all connections to potable water systems.

1.11 FIELD SERVICE BY MANUFACTURER'S REPRESENTATIVE

The CONTRACTOR shall furnish the services of a manufacturer's or material supplier's representative for all major equipment and materials furnished by the CONTRACTOR or TOWN under this contract, to check, place in operation and test the installation, and train operating personnel. The manufacturer's representative shall be qualified and authorized to perform repairs and maintenance on the equipment. The above gives a general scope of the services desired from the manufacturer's representative. It will be the responsibility of the CONTRACTOR and the equipment manufacturer to determine detailed requirements. Costs for services of the manufacturer's representative shall be included in the proposal of the CONTRACTOR. The operator training mentioned above shall include enough time during the CONTRACTOR's operation and testing period to fully explain to the operating personnel the features of the equipment and maintenance thereof.

1.12 CONSTRUCTION WITHIN PUBLIC RIGHTS-OF-WAY

When the work contemplated is wholly or partly within the right-of-way of a public agency such as a city, county or state, the CONTRACTOR will obtain from these agencies any right-of-way and street opening permits and all other necessary permit(s) required for the work. The CONTRACTOR shall abide by all regulations and conditions stipulated in the permit(s). Such conditions and requirements are hereby made a part of these specifications, as fully and completely as though the same were fully set forth herein. The CONTRACTOR shall examine the permit(s) granted to the TOWN by any city, county, state, and federal agencies. Failure to do so will not relieve the CONTRACTOR from compliance with the requirements stated therein.

1. Town of Erie Right of Way Permit

- a. Applied for by CONTRACTOR
- b. Paid for by CONTRACTOR
- c. Executed by CONTRACTOR

The CONTRACTOR shall obtain all construction permits and pay all fees or charges and furnish any bonds and insurance coverages as necessary to ensure that all requirements of the city, county, state or federal agencies will be observed and the roadway and ditches are restored to their original condition or one equally satisfactory. A copy of all permits shall be kept on the work site for use of the ENGINEER.

1.13 CONSTRUCTION WITHIN PRIVATE EASEMENTS

When portions of the work contemplated are within easements held by the TOWN on private property, the CONTRACTOR shall ascertain for itself to what extent the width, status, and special conditions attached to easements may have on its operations and all costs resulting therefrom shall be included and absorbed in the unit prices of the CONTRACTOR's bid. CONTRACTOR shall coordinate with private property owners and businesses if required. Landscaping, surface restoration and fence restoration shall be completed within 24 hours following piping and conduit installation and other construction work. Temporary fencing shall be provided continuously until such private fencing is properly restored.

The CONTRACTOR's attention is directed to Paragraph 3.04 of the General Provisions regarding safety and the protection of property. Certain portions of this PROJECT require working near existing structures and property within private easements. It is the CONTRACTOR'S responsibility to conduct its operations and limit the size of equipment used in such a manner to prevent damage to existing property from excessive vibration or from other direct or indirect CONTRACTOR operations. The cost associated with repairing or replacing property that is damaged by the CONTRACTOR's operations shall be the responsibility of the CONTRACTOR, in accordance with the General Provisions.

1.14 RAILROAD CROSSINGS

Whenever a utility passes under a railroad or is on a railroad right-of-way, the work to be done shall be subject to the approval of proper officials of the railroad involved. Drawings and specifications will be filed by the TOWN with the railroad concerned prior to the time of bidding, but it is the responsibility of the CONTRACTOR to determine the requirements of the railroad with respect to maintaining traffic, amounts of insurance, and allowable construction procedures. All costs due to the existence of railroad track and other related facilities and the requirements of the railroads shall be covered by the price bid in the CONTRACTOR's proposal

1.15 PRIVATE ROADS AND DRIVEWAYS

Bridges at entrances to business properties where vehicular traffic is necessary shall be provided and maintained. Bridges shall be adequate in width and strength for the service required. No private road or driveway may be closed without approval of the ENGINEER unless written authority has been given by the owner whose property has been affected. Driveways shall be left open and ready for use at the end of the work shift. All expenses involved in providing for construction, maintenance, and use of private roads or driveways, shall be borne by the CONTRACTOR and the amount thereof absorbed in the unit prices of the CONTRACTOR's bid.

1.16 TRAFFIC CONTROL AND PROTECTION

The CONTRACTOR shall maintain traffic control and protection in the work areas 24 hours per day. The CONTRACTOR shall submit a Traffic Control Plan prepared by a certified TCS (Traffic Control Supervisor) in accordance with the Town of Erie Standard Specifications.

The CONTRACTOR shall conduct its operations to keep one lane of traffic open for public and private access at all times on City, County and Public streets, roads, and highways. If required by the State, the CONTRACTOR shall conduct its operations to keep both directions of traffic open on State Highways. Permits obtained for the PROJECT may have more stringent requirements than noted in this section.

Prior to beginning construction, the CONTRACTOR shall submit a detailed street closure and traffic control plan to the ENGINEER for approval. As construction proceeds, the CONTRACTOR shall notify the ENGINEER as to the status of street closures and detours.

The CONTRACTOR shall notify residents of any work which will prevent vehicular access to their property a minimum of 48 hours in advance of the planned work. The CONTRACTOR shall make all reasonable effort to minimize the duration of any such work and provide for temporary access to their property in accordance with Section 01 50 00. The CONTRACTOR must maintain acceptable pedestrian access in accordance with ADA guidelines to all properties throughout the duration of the project.

On streets where traffic is heavy, the ENGINEER may require the construction of two-way bridges of adequate design. These bridges shall be provided with guard rails and shall be well lighted at all times. Detours as required by the ENGINEER shall be surfaced with gravel or crushed rock and maintained in good condition. Detours for pedestrians shall not exceed one block in length, and foot bridges over the trenches shall be provided with adequate handrails.

All work shall be carried on with due regard for safety to the public. Open trenches shall be provided with barricades of a type that can be seen at a reasonable distance, and at night they shall be distinctly indicated by adequately placed lights.

1.17 MATERIALS AND COMPACTION TESTING

The TOWN shall provide the services of a licensed, independent agency to perform materials and compaction testing for this PROJECT. The agency must be approved by the ENGINEER. Materials and compaction tests will be required to show that specified densities of compacted backfill and asphaltic concrete surfacing are being achieved by the CONTRACTOR's compaction methods. The CONTRACTOR shall provide the ENGINEER with copies of recent Proctor tests for the backfill and paving material in addition to copies of compaction tests performed in the field.

After the ENGINEER is satisfied that the CONTRACTOR's method of compaction consistently meets specified compaction requirements, the testing frequency may be reduced. The ENGINEER may direct testing at a higher frequency upon failure to obtain specified densities or if the CONTRACTOR changes compaction equipment or methods of compaction. All test locations shall be determined by the ENGINEER.

1.18 DECHLORINATION AND DISPOSAL OF CHLORINATED WATER

Any discharge of chlorinated water shall either be through an approved connection to a public sanitary sewer system or shall include de-chlorination to limits acceptable by Colorado Department of Health and Environment (CDPHE) for discharge into the existing storm drainage system. No chlorinated water shall be discharged into the storm drainage system prior to approved de-chlorination treatment.

1.19 LIMITS OF THE WORK AND STORAGE OF SPOILS

The limits of the site which may be used for construction, storage, materials handling, parking of vehicles and other operations related to the PROJECT include the PROJECT site as shown on the drawings and adjacent public rights-of-way subject to permission of the public owner of that right-of-way. The limits of work also include rights of access obtained by the CONTRACTOR, subject to all public laws and regulations and rights of access by utility companies and other holders of easement rights.

1.20 EXISTING WATER SYSTEM SHUTDOWN

If the PROJECT involves the need to shut down an existing water system, the CONTRACTOR shall coordinate the work to insure a minimum of shutdown time. The CONTRACTOR shall submit a written shutdown schedule to the ENGINEER for approval. The CONTRACTOR shall provide 72-hour notice preceding each shutdown. See Section 33 12 13, Water Service Connections, for additional requirements.

1.21 FIELD CHANGES, ALIGNMENT, AND GRADE

Changes of alignment and grade shall be made during the course of work in order to avoid interference with unforeseen obstructions. The CONTRACTOR shall locate existing utilities to be crossed, by potholing ahead of the pipe installation, of sufficient distance to avoid conflicts through pipe joint deflection if possible. All costs for minor field changes of alignment and grade shall be borne by the CONTRACTOR. The ENGINEER will endeavor to make prompt decisions on such matters. CONTRACTOR shall anticipate a minimum of 72 hours for any decision requiring significant piping change.

1.22 TESTING AND OPERATION OF FACILITIES

It is the intent of the TOWN to have a complete and operable facility. All the work under this contract will be fully tested and inspected in accordance with the specifications. Upon completion of the work, the CONTRACTOR shall operate the completed facilities as required to test the equipment under the direction of the ENGINEER. During this period of operation by the CONTRACTOR, the new facilities will be tested thoroughly to determine their acceptance.

1.23 PROTECTION OF EXISTING STRUCTURES AND WORK

The CONTRACTOR must take all precautions and measures necessary to protect all existing structures and work. Any damage to existing structures and work shall be repaired by removing the damaged structure or work, replacing the work, and restoring to original condition satisfactory to the ENGINEER.

1.24 SALVAGE AND DEBRIS

Unless otherwise indicated on the drawings or in the specifications, all castings, pipe, equipment, demolition debris, spoil or any other discarded material or equipment shall become the property of the CONTRACTOR and shall be disposed of in a manner compliant with applicable Federal, State, and local laws and regulations governing disposal of such waste products. No burning of debris or any other discarded material will be permitted.

1.25 SAFETY STANDARDS AND ACCIDENT PREVENTION

The CONTRACTOR shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This

requirement shall apply continuously and not be limited to normal working hours. The required and/or implied duty of the ENGINEER to conduct construction review of the CONTRACTOR's performance does not, and is not intended to, include review of the adequacy of the CONTRACTOR's safety measures in, on, or near the construction site.

The CONTRACTOR shall comply with the safety standards provisions of applicable laws and building and construction codes. The CONTRACTOR shall exercise every precaution at all times for the prevention of accidents and protection of persons, including employees, and property. During the execution of the work the CONTRACTOR shall provide and maintain all guards, railing, lights, warnings, and other protective devices which are required by law, or which are reasonably necessary for the protection of persons and property from injury or damage.

1.26 PUBLIC SAFETY AND CONVENIENCE

General Rule: The CONTRACTOR shall ensure the safety of the public during its performance of the Work and shall minimize any public inconvenience in addition to any other requirement imposed by law. These duties include, but are not limited to, the matters listed below.

Access: The CONTRACTOR shall not unreasonably restrict access to public facilities, commercial property, fire hydrants, residential property, and other areas where the public can be expected to be present, such as sidewalks and streets without first obtaining approval of the TOWN. Driveways shall be closed only with the approval of the TOWN or after obtaining specific permission from the property owner or owners. In addition, the CONTRACTOR shall not obstruct or interfere with travel over any public street or sidewalk without approval of the TOWN. The project site is a residential street with periodic trash pickup. The CONTRACTOR shall coordinate their work with the TOWN and the individual residents to ensure access is maintained for trash removal services.

Public Transit: The CONTRACTOR shall not interfere with the normal operation of any public transit vehicles unless otherwise authorized.

Work Site: The CONTRACTOR shall keep the PROJECT site safe in compliance with applicable law. Safety includes, but is not limited to: 1) providing an approved type of secured and adequate barricades or fences that are easily visible from a reasonable distance around open excavations; 2) closing up or covering with steel plates all open excavations at the end of each Working Day in all street areas and in all other areas when it is reasonably required for public safety; 3) marking all open work and obstructions by lights at night; 4) installing and maintaining all necessary signs, lights, flares, barricades, railings, runways, stairs, bridges, and facilities; 5) observing any and all safety instructions received from the TOWN; and 6) following all laws and regulations concerning worker and public safety. In the event that the law requires greater safety obligations than that imposed by the TOWN, the CONTRACTOR shall comply with the law.

Emergency: Emergency vehicles, including but not limited to police, fire, and disaster units shall be provided access to the work site at all times.

Cleanliness: The CONTRACTOR shall, on a continuing basis, keep the surfaces of all public and private roadways, sidewalks, and other pathways free of dirt, mud, cold plane grindings, and other matters that the CONTRACTOR may place upon the road. The cost of performing such work shall be included in the CONTRACTOR's Bid and no additional payment will be made for performing this task.

Parking: The CONTRACTOR shall make any necessary contacts with all applicable governmental bodies to arrange for the removal of parked automobiles, vehicles, and other obstructions if they would interfere with the performance of the CONTRACTOR'S work.

Accidents: The CONTRACTOR'S Project Manager or superintendent shall be in charge of accident prevention. CONTRACTOR shall take all actions necessary to prevent damage, injury and loss to persons and property as a result of accidents.

Project Health and Safety Plan: CONTRACTOR shall develop, publish, and implement an overall Project Health and Safety Program for the PROJECT. This Program shall conform to all applicable codes. CONTRACTOR shall submit the written Safety Program to the TOWN within 30 days after the receipt of the written Notice to Proceed. The Plan shall be assembled to address project specific health and safety issues to both the public and on-site personnel. The plan shall include the following items when they apply:

- | | |
|--------------------------------------|--|
| ▪ Employee Orientation | ▪ Hazardous Materials |
| ▪ Safety Inspections | ▪ Hazardous Communications Program |
| ▪ Instruction and Training | ▪ Job Hazard Analysis |
| ▪ Accident Reporting | ▪ First Aid/Medical Facilities |
| ▪ Signs and Barricades | ▪ Personal Protective Equipment |
| ▪ Fire Prevention and Protection | ▪ Confined Space Entry Plan |
| ▪ Welding, Cutting, and Burning | ▪ Shoring Plan |
| ▪ Painting and Surface Treatment | ▪ Fall Protection Plan |
| ▪ Electricity | ▪ Emergency Action Plan |
| ▪ Machinery and Mechanized Equipment | ▪ Housekeeping |
| ▪ Excavations | ▪ Safety Training Requirements and Certification |
| ▪ Sanitation | ▪ Pedestrian Access Around Work Site During Construction and After Hours |
| ▪ Chlorine Safety | |

If the PROJECT requires other health and safety issues to be addressed, they too shall be included in the Project Health and Safety Plan. The Program shall subsequently be distributed

to and implemented by the CONTRACTOR's personnel as well as its Subcontractors and Suppliers. CONTRACTOR shall fully implement and comply with the Safety Program and shall submit to the TOWN a letter signed by CONTRACTOR'S owner/president affirming such implementation and compliance within 15 days after on-site work has started. CONTRACTOR shall notify the TOWN when safety meeting will be held so that TOWN's personnel may attend. A copy of the approved Health and Safety Plan must be maintained on-site at all times during the life of the PROJECT.

The TOWN has no responsibility for Work site safety. Work site safety is the responsibility of the CONTRACTOR. The CONTRACTOR is required to have a competent person on site at all times during construction activities.

The CONTRACTOR shall provide signs on work zone fencing that provide information regarding access to businesses and stating that such businesses are open and in operation. The CONTRACTOR shall furnish and install the signs and provide sign attachments for the various business names.

1.27 WARRANTY PERIOD

The CONTRACTOR shall warrant all furnished materials and equipment as outlined in Part 5 of the General Provisions. This warranty shall mean prompt attention to the correction and/or complete replacement of the faulty material or equipment. The expiration of the two-year warranty period shall not affect any other claims or remedy available to the TOWN. There may be other warranty provisions in these contract documents in addition to those noted above.

1.28 UTILITY PROPERTIES AND SERVICE

In areas where the CONTRACTOR's operations are adjacent to or near a utility and such operations may cause damage which might result in significant expense, loss and inconvenience, the operations shall be suspended until all arrangements necessary for the protection thereof have been made by the CONTRACTOR.

The CONTRACTOR shall notify all utility offices which may be affected by the construction operation at least 48 hours in advance. Before exposing any utility, the utility having jurisdiction shall grant permission and may oversee the operation. Should service of any utility be interrupted due to the CONTRACTOR's operation, the proper authority shall be notified immediately. It is of the utmost importance that the CONTRACTOR cooperates with the said authority in restoring the service as promptly as possible. Any costs shall be borne by the CONTRACTOR.

1.29 SANITARY FACILITIES

The CONTRACTOR shall provide and maintain sanitary facilities for its employees and its subcontractors' employees that will comply with the regulations of the local and State Departments of Health and as directed by the ENGINEER.

1.30 STREET CLEANUP

The CONTRACTOR shall clean daily all dirt, gravel, construction debris, and other foreign material resulting from its operations from all streets and roads.

1.31 VEHICLE PARKING

The vehicles of the CONTRACTOR's and subcontractors' employees shall be parked in accordance with local parking ordinances.

1.32 PROTECTION OF QUALITY OF WATER

The work to be performed may involve connections to an existing potable water system. If such work is included in the PROJECT, the CONTRACTOR shall take such precautions as are necessary or as may be required to prevent the contamination of the water. Such contamination may include but shall not be limited to deleterious chemicals such as fuel, cleaning agents, paint, demolition and construction debris, sandblasting residue, etc. In the event contamination does occur, the CONTRACTOR shall, at its own expense, perform such work as may be necessary to repair any damage or to clean the affected areas of the water mains to a condition satisfactory to the ENGINEER.

1.33 RECORD DRAWINGS

CONTRACTOR shall maintain at the site one set of specifications, full size drawings, shop drawings, equipment drawings, and supplemental drawings which shall be corrected as the work progresses to show all changes made. Drawings shall be available for inspection by the ENGINEER. Upon completion of the contract and prior to final payment, specifications and drawings shall be turned over to the ENGINEER.

1.34 "OR EQUAL" CLAUSE

In order to establish a basis of quality, certain processes, types of machinery and equipment or kinds of material may be specified on the drawings or herein by designating a manufacturer's name and referring to its brand or product designation. It is not the intent of these specifications to exclude other processes, equipment or materials of a type and quality equal to those designated. When a manufacturer's name, brand, or item designation is given, it shall be understood that the words "or equal" follow such name or designation, whether in fact they do so or not. If the CONTRACTOR desires to furnish items of equipment by manufacturers other than those specified, the CONTRACTOR shall secure the approval of the ENGINEER prior to placing a purchase order.

No extras will be allowed the CONTRACTOR for any changes required to adopt the substitute equipment. Therefore, the CONTRACTOR's proposal for an alternate shall include all costs for any modifications to the drawings, such as structural and foundation changes, additional piping or changes in piping, electrical changes or any other modifications which may be necessary or required for approval and adoption of the proposed alternate equipment. Approval of alternate equipment by the ENGINEER before or after bidding does not guarantee or imply that the alternate equipment will fit the design without modifications.

1.35 SURVEYS

Based upon the information provided by the Contract Documents, the CONTRACTOR shall develop and make all detail surveys necessary for layout and construction, including exact component location, working points, lines, and elevations. Prior to construction, the field layout shall be approved by the TOWN's representative. The CONTRACTOR shall have the responsibility to carefully preserve benchmarks, reference points, and stakes, and in the case of destruction thereof by the CONTRACTOR or resulting from its negligence, the CONTRACTOR shall be charged with the expense and damage resulting therefore and shall be responsible for any mistakes that may be caused by the unnecessary loss or disturbance of such bench marks, reference points, and stakes.

1.36 WORK HOUR LIMITATIONS

All work shall be conducted between the hours of 7:00 a.m. and 6:00 p.m. on non-holiday weekdays only. No weekend work will be allowed. Requests for variations in work hours shall be made in writing for consideration by the ENGINEER. No work shall be conducted outside of the above-described days and hours without prior approval of the ENGINEER.

1.37 DUST PREVENTION

All unpaved streets, roads, detours, haul roads, or other areas where dust may be generated shall receive an approved dust-preventive treatment or be routinely watered to prevent dust. Applicable environmental regulations for dust prevention shall be strictly enforced.

1.38 EROSION AND SEDIMENTATION CONTROL

The CONTRACTOR is responsible for obtaining a CDPHE Erosion Control and Construction Dewatering permit and paying all permit fees should it be required for the project.

Erosion control measures shall be maintained throughout the PROJECT site until approved permanent cover such as a healthy stand of grass, other permanent vegetation, or other ground covering is established. When approved permanent ground cover is established, all temporary erosion control measures shall be removed from the construction site. Erosion control measures shall be installed as approved, per the erosion control drawing(s) in the above referenced document. Erosion control measures including stabilized construction

entrances and sediment barriers must be established in conjunction with site clearing and grading.

During construction, and until permanent vegetation or other ground covering is established, the erosion control facilities shall be upgraded as needed for unexpected storm events or site conditions and with the purpose of retaining sediment and sediment-laden water on the construction site.

1.39 INTERFERENCES, OBSTRUCTIONS, AND SEWER CROSSINGS

At certain places, power, light, and telephone poles may interfere with excavation and the operation of the CONTRACTOR's equipment. Necessary arrangements shall be made with utility companies for moving or maintaining such poles. The utility company affected by any such interferences shall be notified thereof so that the necessary moving or proper care of poles and appurtenances may have appropriate attention.

All costs resulting from any other interferences and obstructions, or the replacement of such, whether or not herein specifically mentioned, shall be included and absorbed in the unit prices of the CONTRACTOR's bid.

1.40 NOISE LIMITATIONS

The PROJECT areas are located within a residential zoned area. All applicable City, County ordinances, and State and Federal regulations shall be complied with.

1.41 STORAGE AND PROTECTION OF EQUIPMENT AND MATERIALS

- A. Materials and equipment stored overnight shall be placed neatly on the job site. Unusable materials (i.e., rejected or damaged liner material, old concrete chunks, metal scraps, etc.) shall be expeditiously removed from the job site.

Provide appropriate barricades, signs, and traffic control devices in like-new condition where necessary to protect the public from any hazards associated with the storage of materials and equipment used for this PROJECT.

- B. No equipment and/or materials shall be stored outside the immediate work area on public right-of-ways, in the following locations, or in the following manner:
1. In any maintained landscaped or lawn area.
 2. In a manner that would totally eliminate an individual residents' street parking.
 3. In front of any business.

The “immediate work area” is the area where work is taking place or will be taking place within one calendar day. The CONTRACTOR shall immediately move stored material or equipment which causes a nuisance or creates complaints.

1.42 COMPETENT PERSON DESIGNATION

CONTRACTOR shall designate a qualified and experienced “competent person” at the site whose duties and responsibilities shall include enforcement of applicable OSHA regulations regarding excavations, the prevention of accidents, and the maintenance and supervision of construction site safety precautions and programs.

1.43 EMERGENCY MAINTENANCE SUPERVISOR

The CONTRACTOR shall submit to the ENGINEER the names, addresses, and telephone numbers of at least two employees responsible for performing emergency maintenance and repairs when the CONTRACTOR is not working. These employees shall be designated, in writing by the CONTRACTOR, to act as its representatives and shall have full authority to act on its behalf. At least one of the designated employees shall be available for a telephone call any time an emergency arises.

1.44 NOT USED

1.45 NOT USED

1.46 USE OF EXPLOSIVES

The use of explosives shall not be allowed on this PROJECT. Alternative methods of excavation shall be utilized.

1.47 CONTAMINATED MATERIAL

A. General

It is possible that the CONTRACTOR may encounter contaminated material (soil and/or water) during excavation activities. This specification identifies requirements for handling and disposing contaminated media.

B. Definitions

1. “Contaminated material” is defined as soil, water, free product, Underground Storage Tanks (UST), buried abandoned utility lines containing residual or free product, solid waste, treated wood waste, chemical containers, or other solid, liquid, or gas substances with contamination levels above background levels.
2. “Hazardous substances” shall mean those substances or materials defined in the CRS 18-13-112, as amended.

3. "Release" shall have the meaning as defined in CRS 18-13-112, as amended.
4. "Environmental laws" shall mean any applicable statute, law, ordinance, order, consent decree, judgment, permit, license, code, covenant, deed, common law, treaty, convention, or other requirement pertaining to protection of the environment, health or safety, natural resources, conservation, wildlife, waste management or disposal, hazardous substances, or pollution, including but not limited to regulation of releases to air, land, water, and groundwater.

C. Execution

1. Discovery of Contaminated Material

In the event that the CONTRACTOR, during the course of construction or during any other activities authorized under this contract, should encounter suspected contaminated material or any other materials suspected of posing a threat to human health and the environment, the CONTRACTOR shall notify the ENGINEER immediately and manage according to requirements identified below.

2. Discovery of Contaminated Soil

CONTRACTOR shall note evidence of contamination (odor, visual staining of soil, free liquid product seeping from soil, sheen on groundwater, etc.) and note location of evidence on a sketch of the excavation and provide to the ENGINEER.

CONTRACTOR shall report the discovery to the ENGINEER immediately. CONTRACTOR shall stop all excavation activities and secure the site to prevent entry by the public. The excavation shall not be backfilled. Protect all open excavations with berms, plates, and fencing. CONTRACTOR may continue with work in other non-contaminated areas.

CONTRACTOR shall assist ENGINEER in collecting sample(s) of suspected contaminated media for testing and characterization. CONTRACTOR shall allow 21 days, at no cost to TOWN, for testing, results, and instructions as to how to proceed with contaminated materials.

The CONTRACTOR shall obtain a copy of an approved soil disposal/acceptance permit (Disposal/Treatment Facility requires transporter to have a copy of the permit.)

CONTRACTOR will transport and dispose of contaminated material at an approved disposal/treatment facility.

CONTRACTOR shall provide the ENGINEER with a copy of the contaminated soil disposal receipt.

3. Handling of Contaminated Soil

After approval from the ENGINEER, excavate the soil in a manner that prevents commingling of contaminated and non-contaminated soil. ENGINEER will make determination (based on soil saturation) if contaminated soil can be directly transported to a treatment or disposal facility, or if soil needs to be stockpiled to reduce water content. ENGINEER will determine when stockpiled soil can be transported off-site.

CONTRACTOR will be responsible for stockpiling contaminated soil in containers or on impervious surface to prevent the spread of contamination. Any water runoff from the contaminated soil stockpile area(s) must be contained by CONTRACTOR and handled as contaminated water.

Minimize movement of excavation equipment over or through contaminated soil to prevent movement of contaminated soil into areas where no contaminated soil exists.

Stockpiles will be created on an approved site and shall be surrounded by a fence to limit access. The stockpiles must be covered and bermed during periods of rainfall to prevent run-on and run-off. The stockpiles shall be covered with a minimum 10-mil high density polyethylene (HDPE) plastic during periods of strong winds, nightfall, over the weekends, or during extended work stoppages. If dust is observed coming from the stockpiles, the stockpiles shall be either covered or the dust controlled with water.

Maintain excavation equipment in good working order. Prevent spillage of oil, fuel, or hazardous substances from equipment. In particular, promptly repair oil leaks from equipment and clean up any contaminated soil.

4. Transport of Contaminated Materials

CONTRACTOR shall comply with all applicable Federal, State, or local laws, codes, and ordinances that govern or regulate contaminated substance transportation. Contaminated soils placed in stockpiles shall be loaded into trucks in a manner that prevents the spilling or tracking of contaminated soil into areas of the site with uncontaminated soil. Loose material falling onto the exterior of the truck during loading shall be removed before the truck leaves the loading area. Any material collected in the loading area shall either be placed back into the truck or back into the stockpile. If loading areas are unpaved, the surface soil shall be sampled at the conclusion of the loading activities to confirm that contaminated soil is not present. If loading areas are paved, any loose soil shall be cleaned from the pavement at the conclusion of the loading activities.

Specific truck haul routes shall be established before beginning off-site contaminated media transport. On-site truck routes shall be established to minimize or prevent movement of trucks over contaminated soils. Off-site truck routes shall be established to reduce the risk of releases of contaminated soils and impact on local traffic. The CONTRACTOR shall be responsible for ensuring that loaded truck weights are within acceptable limits. All trucks shall be covered before they leave the loading area.

The CONTRACTOR shall ensure that all drivers of vehicles transporting contaminated substances have in their possession during transport all applicable Colorado State and local vehicle insurance requirements, valid driver's license, and vehicle registration and license. The CONTRACTOR shall be responsible for informing all drivers of transport vehicle about:

- a. The nature of the material transported.
- b. Required routes to and from the off-site thermal treatment or disposal facility.
- c. Applicable County street regulations and requirements, and Colorado Department of Transportation codes, regulations and requirements.
- d. The County's requirement for proper handling and transportation of the substances.

The CONTRACTOR shall not allow contaminated substances to be spilled or tracked off-site at any time during the PROJECT. Trucks used for the transportation of contaminated substances off-site shall be watertight, substance compatible, licensed, insured, and permitted pursuant to federal, state, and local statutes, rules, regulations, and ordinances.

If contaminated media is discarded prior to removal of contaminated material, the price per cubic yard of soil materials and price per 100 gallons of contaminated water will be negotiated with TOWN.

1.48 NOT USED

1.49 WORK SEQUENCE

- A. A. Construct Work in stages to allow for continuous and uninterrupted access to all driveways, except as approved in writing by the TOWN. Coordinate construction schedule and operations with the TOWN and ENGINEER.
- B. Work which may interrupt the normal operations is to be accomplished at such times that are convenient to the Residents and TOWN. Plan work and overtime if needed to complete construction techniques of the various improvements. Working hours shall

be in accordance with paragraph 1.36. No claims for extra compensation for overtime work required to conform to these requirements will be allowed.

- C. Certain work within this contract may require connection to and coordination with the work of other CONTRACTORS and TOWN. The CONTRACTOR under these specifications shall cooperate fully with all other CONTRACTORS and TOWN and carefully fit its own work to such other work as may be directed by the ENGINEER. The CONTRACTOR shall not commit or permit any act to be committed which will interfere with the performance of work by any other CONTRACTOR or the TOWN.
- D. Sequences other than those specified will be considered by TOWN and ENGINEER during schedule review, provided they afford equivalent continuity of construction and TOWN's operations and are presented clearly in the Construction Schedule.
- E. Develop and submit a Work Sequencing Plan in accordance with section 01 33 00 meeting the schedule considerations outlined herein and meeting Work requirements. Work sequence, at a minimum, to include the following.
 - 1. Complete sequence of construction for all activities contained herein. The work sequence shall include phasing of work and planned temporary access routes in sufficient detail to ensure that continuous pedestrian access is provided throughout the duration of the project to all affected residents.
 - 2. Major work activities to occur.
 - 3. Anticipated disruptions, if any, to driveway access which will require written approval by the TOWN in accordance with Paragraph 1.16.
- F. The CONTRACTOR understands and agrees that the time of completion is an essential consideration in development of his proposal and construction schedule.
 - 1. The description of schedule or construction techniques that follows herein shall not relieve the CONTRACTOR of the responsibility for detailed planning, coordination, scheduling and other responsibilities as required by the Contract Documents.
 - 2. Major Project milestones to be indicated on the construction schedule and Work Sequencing Plan with critical project milestones are as follows:
 - a. TOWN issuance of Notice of Award.
 - b. TOWN and CONTRACTOR execution of Agreement.
 - c. TOWN issuance of Notice to Proceed.
 - d. Contractor to submit and achieve completion of submittal process for initial project submittals identified in *the Contract Documents*.

- e. Contractor to contact and coordinate with utility companies for location of utility companies existing infrastructure within and adjacent to the site and the CONTRACTOR's areas of work.
- f. Verify size, material of construction and the horizontal and vertical location for existing utilities prior to the beginning of excavation.
- g. Contractor to achieve completion of submittal process for all critical submittals prior to beginning construction or ordering materials.
- h. Provide, install and maintain stormwater management devices.
- i. Mobilize to site.
- j. Provide, install and maintain material and storage facilities of Section 01 50 00.
- k. Establish and protect site horizontal and vertical control points.
- l. Begin delivery of materials and equipment to the site only after completion of work of Section 01 50 00 and completion of submittal process related to the material or equipment to be delivered to the site.
- m. Substantial completion of roadway asphalt and concrete flatwork improvements.
- n. Final Completion including but not limited to cleanup of the site and landscaping.
- o. TOWN inspection of the work.
- p. Complete demobilization of the CONTRACTOR, his equipment, facilities, and supplies.

END OF SECTION

SECTION 01 22 20 - MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 GENERAL

- A. The total amount bid in the Bid Form shall cover all Work required by the Contract Documents. The prices bid shall include all costs associated with the proper and successful completion for the Work including, but not limited to: furnishing all materials, equipment, supplies and appurtenances; providing all construction equipment and tools; and, performing all necessary labor and supervision to fully complete the Work. All Work not specifically set forth as to the pay item or items listed in the Bid Form shall be considered subsidiary obligations of the CONTRACTOR and all costs in connection therewith shall be included in the prices bid.

1.2 SECTION INCLUDES

- A. Format and Data Required
- B. Preparation of Application for each Progress Payment
- C. Substantiating Data for Progress Payments
- D. Preparation of Application for Final Payment
- E. Submittal Procedure
- F. Basis of Payment
- G. Base Bid
- H. Bid Item No. 1 through 13

1.3 RELATED SECTIONS

- A. The following list of Related Sections is not all inclusive and is provided for convenience only.
 - 1. Division 00, Procurement and Contracting Requirements

1.4 FORMAT AND DATA REQUIRED

- A. Submit applications typed on Application for Payment and Certificate for Payment using the required form included in Division 00 with itemized data typed on 8-1/2 inch by 11-inch white paper continuation sheets. Copies of forms are available from Engineer.

- B. Provide Itemized Data on Continuation Sheet:

1.5 FORMAT, SCHEDULES, LINE ITEMS, AND VALUES

- A. Submit Applications for Payment to Engineer in accordance with the schedule established by Conditions of the Contract and Agreement Between TOWN and CONTRACTOR.
- B. Application Form:
 - 1. Fill in required information, including that for Change Orders executed prior to the date of submittal application.
 - 2. Fill in summary of dollar values to agree with the respective totals indicated on the continuation sheets.
 - 3. Execute certification with the signature of authorized officer of the CONTRACTOR's firm.
 - 4. Notarize signature where required on Certificate for Payment.
- C. Continuation Sheets:
 - 1. Fill in total list of all scheduled component items of Work, with time number and the scheduled dollar value for each item.
 - 2. Fill in the dollar value in each column for each scheduled line item when work has been performed or products stored.
 - 3. List each Change Order executed prior to the date of submission at the end of the continuation sheets:
 - a. List by Change Order number, dollar amount, and description as for an original component item of work.
 - 4. Use data from approved Schedule of Values: Provide dollar value in each column for each line item for portion of work performed and for stored products.

1.6 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. When TOWN or Engineer requires substantiating data, CONTRACTOR shall submit suitable information, with a cover letter identifying:
 - 1. Project
 - 2. Application number and date

3. Detailed list of enclosures
4. For stored products:
 - a. Item number and identification as shown on application
 - b. Description of specific material
- B. Submit 1 copy of data and cover letter for each copy of application.
- C. Submit an updated construction schedule with each application for payment.
- D. Submit evidence of payment and release of liens within 60 days of payment to CONTRACTOR for Work performed by subcontractors or for equipment and materials delivered to the site during construction.

1.7 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Fill in Application form as specified for progress payments.
- B. Use continuation sheets for presenting the final statement of accounting as specified in Section 01 70 00, Contract Closeout.

1.8 SUBMITTAL PROCEDURE

- A. Submit Applications for Payment to Engineer at the times stipulated in the Agreement.
- B. Number: One (1) digital copy
- C. When Engineer finds the Application properly completed and correct, he will transmit two Certificates for Payment to TOWN, with a copy to CONTRACTOR. Upon approval by TOWN, TOWN will transmit payment to CONTRACTOR with one copy of Certificate attached.

1.9 BASIS OF PAYMENT

- A. For all lump sum work, payment will be made on the basis of percent of Work and materials furnished complete in place in accordance with the descriptions herein, the project manual, details on the drawings, and as identified in the Schedule of Values.
 1. No payment will be made for bid items or quantities that are not installed.
 2. Except as may be otherwise stipulated, no labor, equipment, materials, or any incidentals required to complete the work will be furnished by TOWN.

3. Lump sum prices indicate items where the CONTRACTOR is responsible for verifying and determining the work during the bidding process and adjustments will not be made unless the CONTRACTOR can sufficiently demonstrate such adjustment.
- B. For all unit price work, payment will be made on the unit basis of Work and materials furnished complete in place in accordance with the descriptions herein, the project manual, details on the drawings, and as identified in the Schedule of Values.
1. No payment will be made for bid items or quantities that are not installed.
 2. Except as may be otherwise stipulated, no labor, equipment, materials, or any incidentals required to complete the work will be furnished by TOWN.
 3. If the actual Work requires more or fewer quantities than those quantities indicated, provide the required quantities at the unit prices contracted.
- C. Payment for Mobilization and Demobilization: Includes costs for personnel, equipment and supplies, construction offices and the utility costs associated therewith, bonds and insurance, preparing the Project Schedule, etc. Payments will be made based on the percent of work completed in accordance with the “adjusted contract amount” for construction items. The “adjusted contract amount” is defined as the total contract amount less the amount for Mobilization and Demobilization.
1. The amount for mobilization and demobilization shown in the Schedule of Values shall not exceed 10 percent of the total contract amount.
 2. When 1 percent of the adjusted contract amount for construction items is earned, 15 percent of the mobilization and demobilization amount shown in the Schedule of Values will be paid.
 3. When 5 percent of the adjusted contract amount for construction items is earned, an additional 25 percent of the mobilization and demobilization amount shown in the Schedule of Values will be paid.
 4. When 10 percent of the adjusted contract amount for construction items is earned, and additional 35 percent of the mobilization and demobilization amount shown in the Schedule of Values will be paid.
 5. Upon completion of all Work items, payment for the remainder of the mobilization and demobilization amount shown in the Schedule of Values will be paid.
- D. Estimated quantities:
1. Estimated quantities in Bid Form are approximate and used only for:

- a. Basis for estimating probable cost of Work.
 - b. For comparison of Bids submitted for Work
- 2. Actual work done or materials furnished under Unit Price items may differ from estimated quantities.
 - 3. Basis of payment: Actual amount of Work done and materials furnished complete in place in accordance with the description below, the project manual and details on the drawings.
 - 4. Contractor or TOWN may request re-negotiation of the Unit Price for an item if the actual field measured Work done for that item differs from the estimated quantity by a variance of more than 50 percent, unless specified otherwise in the description of the bid item below.
 - 5. Contractor will not submit any claim for damages or loss of anticipated profit for any item for which the actual Work performed is accordance with Section 7.06 of the Contract General Provisions.
 - 6. Re-negotiated Unit Prices shall be based on actual costs to CONTRACTOR of performing the Work plus a reasonable allowance for overhead and profit covered by the renegotiated Unit Price.
 - 7. Contractor shall submit to TOWN satisfactory data substantiating the actual costs to perform the Work covered by the Unit Price being re-negotiated and substantiating its overhead rate.
 - 8. No payment will be made for quantities of the bid item that are not installed.

1.10 BID ITEM NO 1 – PERMITTING, TRAFFIC CONTROL, AND EROSION CONTROL

- 1. No quantity measurement for payment will be made.
- 2. Payment will be made on a lump sum basis relative to percent complete for all Work required for permitting, traffic control, and erosion control in conformance with the Contract Documents, including but not limited to, all Work required to obtain and maintain compliance with permitting requirements not specified in other bid items, including but not limited to paying all fees, coordination, execution and submittal of all applications, furnishing all engineering, design, labor, equipment, testing and materials, all labor, equipment, and materials for installing all necessary traffic control measures, preparation of traffic controls plans from authorities having jurisdiction, traffic control devices, temporary signs, temporary barricades, setup and removal of signage as many times as is required by

construction sequencing, flaggers, furnishing all materials, labor, tools, and equipment necessary to install and maintain the temporary erosion control and sediment maintenance measures throughout the life of the project, in accordance with approved permits, and to remove the temporary erosion control devices when ordered by the Engineer and all other items or work specified in the technical specifications and permits. Payment also includes providing flaggers wherever and whenever traffic is restricted to one drive lane by the CONTRACTOR's operations per the approved traffic control plan. Payment for lighting stations and other additional costs related to night or weekend work will be considered incidental to this bid item. Erosion control measures shown on the Plans are not intended to represent all measures required on this project. Payment also includes the preparation and enforcement of a Pollution Control Plan including a Spill Prevention Control and Countermeasures Plan.

1.11 BID ITEM NO 2 – REMOVE EXISTING ASPHALT PAVEMENT

1. Quantity measurement for payment will be made.
2. Payment will be made on a unit price basis. A payment will be made on a per square yard (SY) basis.
3. Unit price includes:
 - a. All associated costs, materials, labor, tools, and equipment necessary to protect existing curbs, gutters, aprons, driveways and other concrete flatwork not scheduled for demo or replacement, milling, cutting, removal, hauling, and disposal of all existing asphalt required to be demolished for completion of the work.

1.12 BID ITEM NO 3 – OVER-EXCAVATE SUBGRADE AND DISPOSAL

1. Quantity measurement for payment will be made.
2. Payment will be made on a unit price basis. A payment will be made on a per cubic yard (CY) basis.
3. Unit price includes:
 - a. All associated costs, materials, labor, tools, and equipment necessary for removal and disposal of excess dirt or unsuitable subgrade material.

1.13 BID ITEM NO 4 – REMOVE CURB, GUTTER AND CURBWALK.

1. Quantity measurement for payment will be made.

2. Payment will be made on a unit price basis. A payment will be made on a per square yard (SY) basis.
3. Unit price includes:
 - a. All associated costs, materials, labor, tools, and equipment necessary for cutting, removing, disposal of all existing curb, gutter, sidewalk and curbside required to be demolished as shown on the plans to the next existing control joint away from proposed extents.

1.14 BID ITEM NO 5 – ADJUST EXISTING MANHOLE.

1. Quantity measurement for payment will be made.
2. Payment will be made on a unit price basis. A payment will be made on a per each (EA) basis.
3. Unit price includes:
 - a. All associated costs, materials, labor, tools, and equipment necessary for adjusting existing manholes to finished grade elevation.

1.15 BID ITEM NO 6 – ADJUST EXISTING VALVE BOX.

1. Quantity measurement for payment will be made.
2. Payment will be made on a unit price basis. A payment will be made on a per each (EA) basis.
3. Unit price includes:
 - a. All associated costs, materials, labor, tools, and equipment necessary for adjusting existing valve boxes to finished grade elevation.

1.16 BID ITEM NO 7 – IMPORTED SUITABLE SUBGRADE MATERIAL (CLASS 1)

1. Quantity measurement for payment will be made.
2. Payment will be made on a unit price basis. A payment will be made on a per ton yard (TON) basis.
3. Unit price includes:
 - a. All associated costs, materials, labor, tools, and equipment necessary for importing, storing, preparation of sub soils, placing, compacting, and grading suitable subgrade material as well as all incidental work in accordance with the drawings and the project manual.

1.17 BID ITEM NO 8 – ROAD BASE (CDOT CLASS 6)

1. Quantity measurement for payment will be made.
2. Payment will be made on a unit price basis. A payment will be made on a per ton (TON) basis.
3. Unit price includes:
 - a. All associated costs, materials, labor, tools, and equipment necessary for providing, storing, placing, compacting, and grading aggregate base course as well as all incidental work in accordance with the drawings and the project manual.

1.18 BID ITEM NO 9 – HOT MIX ASPHALT (HMA) PAVING (6-INCH)

1. Quantity measurement for payment will be made.
2. Payment will be made on a unit price basis. A payment will be made on a per ton (TON) basis.
3. Unit price includes:
 - a. All associated costs, materials, labor, tools, and equipment necessary for providing and installing the HMA as well as all incidental work in accordance with the drawings and the project manual.

1.19 BID ITEM NO 10 – CURB, GUTTER AND 4-FOOT SIDEWALK

1. Quantity measurement for payment will be made.
2. Payment will be made on a unit price basis. A payment will be made on a per linear foot (LF) basis.
3. Unit price includes:
 - a. All associated costs, materials, labor, tools, and equipment necessary for providing and installing curb gutter and sidewalk.

1.20 BID ITEM NO 11 – SPILL CURB AND GUTTER

1. Quantity measurement for payment will be made.
2. Payment will be made on a unit price basis. A payment will be made on a per linear foot (LF) basis.
3. Unit price includes:

- a. All associated costs, materials, labor, tools, and equipment necessary for providing and installing spill curb and gutter along the center island and as depicted on the plans.

1.21 BID ITEM NO 12 – LANDSCAPING RESTORATION

1. Quantity measurement for payment will be made.
2. Payment will be made on a unit price basis. A payment will be made on a per square yard (SY) basis.
3. Unit price includes:
 - a. All associated costs, materials, labor, tools, and equipment necessary for surface restoration other than streets, sidewalks, curbs and gutters including restoring landscaped areas to match existing conditions and cleanup following construction as required.

1.22 BID ITEM NO 13 – REPLACE CHASE GRATE

1. No quantity measurement for payment will be made.
2. Payment will be made on a lump sum basis relative to percent complete for all Work required for all associated costs, materials, labor, tools, and equipment necessary for installation of the replaced chase grate.

1.23 BID ITEM NO 14 – MOBILIZATION

1. Quantity measurement for payment will be made as indicated in Article 1.9 C of this specification.

PART 1 PRODUCTS - NOT USED

PART 2 EXECUTION - NOT USED

END OF SECTION

SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

- A. This Section contains administrative and procedural requirements for submittals for review, information, and for PROJECT closeout.
- B. Section includes:
 - 1. Schedule of Submittals.
 - 2. Submittal requirements.
 - 3. Submittal procedures.
 - 4. ENGINEER review.
 - 5. Resubmittal procedures.
 - 6. Construction progress schedules.
 - 7. Breakdown of contract price.
 - 8. Product data.
 - 9. Shop Drawings.
 - 10. Design data.
 - 11. Test reports.
 - 12. Certificates.
 - 13. Manufacturer's instructions.
 - 14. Manufacturer's field reports.
 - 15. Construction photographs.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require ENGINEER's responsive action.

- B. Informational Submittals: Written and graphic information and physical Samples that do not require ENGINEER's responsive action. Submittals may be rejected for not complying with requirements.

1.3 SCHEDULE OF SUBMITTALS

- A. Within 10 days after the Effective Date of the Contract, CONTRACTOR shall submit to ENGINEER a preliminary Schedule of Submittals, including proposed list of major products proposed for use, with specification section reference, name of manufacturer, supplier, trade name, subcontractor and model number of each product. Provide a schedule of specific target dates for the submission and return of submittals and shop drawings required by the Contract Documents.
- B. For products specified only by reference standards, indicate manufacturer, trade name, model or catalog designation, and reference standards.
- C. The list and schedule shall be updated and resubmitted when requested by the ENGINEER.
- D. CONTRACTOR's Schedule of Submittals will be acceptable to the ENGINEER if it provides a workable arrangement for reviewing and processing the required submittals.

1.4 SHOP DRAWING AND SAMPLE SUBMITTAL REQUIREMENTS

- A. Before submitting a Shop Drawing or Sample, CONTRACTOR shall have:
 - 1. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - 2. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - 3. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - 4. determined and verified all information relative to CONTRACTOR's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
- B. Each submittal shall bear a stamp or specific written certification that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR's review of that submittal, and that CONTRACTOR approves the submittal.

- C. With each submittal, CONTRACTOR shall give ENGINEER specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to ENGINEER for review of each such variation.

1.5 SUBMITTAL PROCEDURES

- A. CONTRACTOR shall submit Shop Drawings and Samples to ENGINEER for review in accordance with the accepted Schedule of Submittals.
- B. Transmit each submittal with ENGINEER-accepted transmittal form certifying compliance with requirements of Contract Documents.
- C. Sequentially number transmittal forms. Mark transmittal forms for resubmittals with original number and sequential alphabetic suffix.
- D. Show each Submittal with the following numbering and tracking system:
 - 1. Submittals shall be numbered according to specification section. For example, the first product submittal for Section 05 50 00 would be "05 50 00-1". Resubmittals of that submittal would be "05 50 00-1.1", followed by "05 50 00-1.2", and so on. The second product submittal for that Section would be "05 50 00-2".
 - 2. Submittals containing product information from multiple sections of the specifications will not be reviewed. CONTRACTOR and/or their supplier shall divide submittals in a manner that meets the numbering and tracking system requirements stated herein.
 - 3. Alternative method of numbering may be used if acceptable to ENGINEER.
- E. Identify: PROJECT, CONTRACTOR, subcontractor and supplier, pertinent drawing and detail number, and specification Section number appropriate to submittal.
- F. Apply CONTRACTOR's stamp, signed or initialed, certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is according to requirements of the Work and Contract Documents.
- G. Coordinate submission of related items.
 - 1. All shop drawings for interrelated items shall be scheduled for submission at the same time.

2. The ENGINEER may hold shop drawings in cases where partial submission cannot be reviewed until the complete submission has been received or where shop drawings cannot be reviewed until correlated items affected by them have been received. When such shop drawings are held, the ENGINEER will advise the CONTRACTOR in writing that the shop drawing submitted will not be reviewed until shop drawings for all related items have been received.
-
- H. When hard copies of submittals are provided by the CONTRACTOR, six copies of all materials shall be provided to the ENGINEER. Two copies of reviewed submittals will be kept by the ENGINEER, two copies of reviewed submittals will be transmitted to the TOWN, and two copies of reviewed submittals will be returned to the CONTRACTOR. If the CONTRACTOR requests that more than two copies of the reviewed submittal be returned, then the CONTRACTOR shall submit the appropriate quantity of submittals.
 - I. When electronic transmittals of submittals are provided by the CONTRACTOR under established protocols described elsewhere in the Contract Documents or as jointly developed by the TOWN, ENGINEER and CONTRACTOR, provide electronic submittals in portable document format (PDF) in addition to the source document format (Word, Excel, AutoCAD, etc.). Reviewed submittals will be returned to the CONTRACTOR as PDF electronic files.
 - J. For each submittal for review, allow not less than 14 days for ENGINEER review, excluding delivery time to and from CONTRACTOR.
 - K. Identify variations in Contract Documents and product or system limitations that may be detrimental to successful performance of completed Work.
 - L. Allow space on submittals for CONTRACTOR and ENGINEER review stamps or comments.
 - M. When revised for resubmission, the CONTRACTOR shall identify changes made since previous submission. A narrative of changes shall be provided, and shop drawings or calculations shall indicate that a revision was made.
 - N. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with review comments.
 - O. Submittals not requested will not be recognized nor processed.
 - P. Incomplete Submittals: ENGINEER will not review. Complete submittals for each item are required. Delays resulting from incomplete submittals are not the responsibility of ENGINEER.

1.6 ENGINEER REVIEW

- A. Informational submittals and other similar data are for ENGINEER's information, do not require ENGINEER's responsive action, and will not be reviewed or returned with comment.
- B. The ENGINEER's review of submittals and shop drawings is not a check of any dimension or quantity and will not relieve the CONTRACTOR from responsibility for errors of any sort in the submittals and shop drawings.
- C. Submittals made by CONTRACTOR that are not required by Contract Documents may be returned without action.
- D. The ENGINEER will review the submitted data and shop drawings and return to the CONTRACTOR with notations thereon indicating "No Exception Taken", "Make Corrections Noted", "Rejected", "Revise and Resubmit", or "Submit Specified Item".
- E. If more than two submissions of an item are required to meet the PROJECT specifications, CONTRACTOR shall be responsible for ENGINEER's charges to TOWN for its review time, and TOWN may impose a set-off against payments due to CONTRACTOR to secure reimbursement for such charges, unless the need for such change is beyond the control of CONTRACTOR.
- F. ENGINEER will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to ENGINEER. ENGINEER's review will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed PROJECT as a functioning whole as indicated by the Contract Documents.
- G. ENGINEER's review will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
- H. ENGINEER's review of a separate item as such will not indicate approval of the assembly in which the item functions.
- I. ENGINEER's review of a Shop Drawing or Sample shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has complied with the requirements of Paragraph 1.4.C and ENGINEER has given written acceptance of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. ENGINEER will document any such accepted variation from the requirements of the Contract Documents in a Field Order.
- J. ENGINEER's review of a Shop Drawing or Sample shall not relieve CONTRACTOR from responsibility for complying with the requirements of Paragraph 1.4 A. and B.

- K. ENGINEER's review of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
- L. Neither ENGINEER's receipt, review, return of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.
- M. CONTRACTOR shall perform the Work in compliance with the requirements and commitments set forth in returned Shop Drawings and Samples, subject to the provisions of Paragraph 1.6.I.

1.7 RESUBMITTAL PROCEDURES

- A. CONTRACTOR shall make corrections required by ENGINEER and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.
- B. CONTRACTOR shall furnish required submittals with sufficient information and accuracy to obtain required review of an item with no more than two submittals. ENGINEER will record ENGINEER's time for reviewing a third or subsequent submittal of a Shop Drawings, sample, or other item requiring review, and CONTRACTOR shall be responsible for ENGINEER's charges to TOWN for such time. TOWN may impose a set-off against payments due to CONTRACTOR to secure reimbursement for such charges.
- C. If CONTRACTOR requests a change of a previously reviewed submittal item, CONTRACTOR shall be responsible for ENGINEER's charges to TOWN for its review time, and TOWN may impose a set-off against payments due to CONTRACTOR to secure reimbursement for such charges, unless the need for such change is beyond the control of CONTRACTOR.

PART 2 PRODUCTS

2.1 CONSTRUCTION PROGRESS SCHEDULES

- A. Within 7 days after the Effective Date of the Contract, prepare and submit to the ENGINEER a practicable schedule showing the order in which the CONTRACTOR proposes to carry out the Work, the dates on which the important features of the work will start, and the contemplated dates for completing same. A time-scaled bar chart schedule shall include the following:
 - Construction activities
 - Submittal and review of critical material samples and shop drawings
 - Procurement and delivery of critical materials

- Duration of work, including completion times of all stages and their sub-phases
- B. Attention is drawn to typical local climatic weather patterns and Work shall be coordinated accordingly.
- C. Complete PROJECT schedule shall be revised and resubmitted to the ENGINEER at a minimum occurrence of every **4** weeks for review.

2.2 BREAKDOWN OF CONTRACT PRICE

- A. Within 10 days after the Effective Date of the Contract, submit a complete breakdown of all lump sum bid items showing the value assigned to each part of the work, including an allowance for profit and overhead adding up to the total lump sum contract price.
- B. Breakdown of lump sum bids shall be coordinated with the items in the schedule and shall be in sufficient detail to serve as the basis for progress payments during construction.
- C. ENGINEER will review the contract price breakdown and may request items to be further broken down or for more items be added in order to facilitate tracking of work progress for payment.
- D. Preparatory work, bonds, and insurance required in setting up the job will be allowed as a separate entry on the cost breakdown but shall not exceed 5 percent of the total base bid.
- E. Upon acceptance of the breakdown of the contract price by the ENGINEER, it shall be used as the basis for all requests for payment.

2.3 PRODUCT DATA

- A. Product Data: Action Submittal: Submit to ENGINEER for review for assessing conformance with information given and design concept expressed in Contract Documents. Submitted data shall be sufficient in detail for determination of compliance with the Contract Documents.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this PROJECT.
 - 1. Note submittal will be returned to CONTRACTOR without review of submittal if products, models, options, and other data are not clearly marked or identified.
- C. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

- D. After review, produce copies and distribute according to Paragraph 1.5.M and for record documents.

2.4 SHOP DRAWINGS

- A. Shop Drawings: Action Submittal: Submit to ENGINEER for assessing conformance with information given and design concept expressed in Contract Documents.
- B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. When required by individual Specification Sections, provide Shop Drawings signed and sealed by a professional ENGINEER licensed in the state of PROJECT responsible for designing components shown on Shop Drawings.
 - 1. Include signed and sealed calculations to support design.
 - 2. Submit Shop Drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
 - 3. Make revisions and provide additional information when required by authorities having jurisdiction.
- D. All dimensioned shop drawings shall be scalable and provided as full-sized (22-inch x 34-inch) sheets. PDF electronic files shall print as scalable full-sized sheets.
- E. After review, produce copies and distribute according to Paragraph 1.5.M and for record documents.

2.5 DESIGN DATA

- A. Informational Submittal: Submit data for ENGINEER's knowledge as Contract administrator or for TOWN.
- B. Submit information for assessing conformance with information given and design concept expressed in Contract Documents.

2.6 TEST REPORTS

- A. Informational Submittal: Submit reports for ENGINEER's knowledge and records as Contract administrator or for TOWN.
- B. Submit test reports for information for assessing conformance with information given and design concept expressed in Contract Documents.

2.7 CERTIFICATES

- A. Informational Submittal: Submit certification by manufacturer, installation/application Subcontractor, or CONTRACTOR to ENGINEER, in quantities specified for Product Data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or product but must be acceptable to ENGINEER.

2.8 MANUFACTURER'S INSTRUCTIONS

- A. Informational Submittal: Submit manufacturer's installation instructions for ENGINEER's knowledge as Contract administrator or for TOWN.
- B. Submit printed instructions for delivery, storage, assembly, installation, startup, adjusting, and finishing, to ENGINEER in quantities specified for Product Data.
- C. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

2.9 MANUFACTURER'S FIELD REPORTS

- A. Informational Submittal: Submit reports for ENGINEER's knowledge and records as Contract administrator or for TOWN.
- B. Submit report within 48 hours of observation to ENGINEER for information.
- C. Submit reports for information for assessing conformance with information given and design concept expressed in Contract Documents.

2.10 CONSTRUCTION PHOTOGRAPHS

- A. Provide photographs of Site and construction prior to construction, throughout progress of Work, and after completion of construction produced by an experienced photographer acceptable to ENGINEER.
- B. In addition to document work progress, construction photographs will be used to document the existing and finished conditions of adjacent property in order to confirm that all areas were either undisturbed by construction activities or restored to as good or better condition.
- C. Photographs: Electronic, PDF, or JPEG format.
- D. Take sufficient site photographs from multiple directions to document condition of all adjacent property and indicating relative progress of the Work.

2.11 OTHER REQUIRED SUBMITTALS

A. Other required submittals include the items listed below. This list is provided for CONTRACTOR's convenience only and may not be complete in all respects. CONTRACTOR shall provide all submittals specified or required, whether or not listed here.

1. Work Sequence Plan.
2. CONTRACTOR Emergency Contact List.
3. Erosion and Sediment Control Plan.
4. Traffic Control and Protection Plan.

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01 45 00 - QUALITY CONTROL

PART 1 GENERAL

1.1 DESCRIPTION

- A. This Section covers quality control requirements supplementary to those of the General Conditions and Technical Specifications.

1.2 PROVISIONS

- A. CONTRACTOR's Responsibility for Testing

The CONTRACTOR shall be responsible for the cost of all testing as specified in this section. Additional information has been provided regarding the payment responsibility for the TOWN with regards to the PROJECT.

- B. TOWN's Right to Perform Additional Tests

The TOWN or ENGINEER reserves the right to complete additional testing. In such cases, the CONTRACTOR shall provide safe access for the TOWN or ENGINEER and their inspectors to adequately inspect the quality of work and the conformance with PROJECT specifications.

1.3 QUALITY ASSURANCE

- A. Testing Requirements

An independently owned and operated laboratory approved by the ENGINEER shall perform all testing as specified herein.

- B. Testing

1. General

- a. All required testing of work and/or materials shall be conducted in the presence of the ENGINEER. The CONTRACTOR shall provide 48-hour notification to the TOWN and TOWN's REPRESENTATIVE prior to conducting any and all quality assurance testing. Where applicable, work and materials shall only be buried with the consent of the ENGINEER.
- b. Where such inspection and testing are to be conducted by an independent laboratory or agency, the sample or samples of material to be tested shall be selected by such laboratory or agency or by the ENGINEER. The CONTRACTOR shall furnish such samples of all materials without charge to TOWN.

- c. The results from any and all tests are made for the information of the TOWN. Regardless of any test results, the CONTRACTOR is solely responsible for the quality of workmanship and materials and for compliance with the requirements of the Drawings and Specifications.

2. Costs of Testing

- a. The CONTRACTOR shall be responsible for and shall pay for all tests as specified in Part 3 of this Section. Additional information has been provided regarding the payment responsibility for the TOWN with regards to the PROJECT.
- b. With regards to all materials to be tested, where test results demonstrate that the material or workmanship does not meet the minimum requirements of the Contract Documents, additional testing shall be completed and shall be paid for by the CONTRACTOR with no reimbursement by the TOWN.

1.4 SPECIAL INSPECTIONS

Special inspections and testing as required by Chapter 17 of the IBC shall be conducted by TOWN-retained Special Inspectors and Testing Agencies as required and as indicated in the Contract Documents.

A. Special Inspectors and Testing Agencies Responsibilities

- 1. Verify that manufacturers maintain detailed fabrication and quality control procedures and review the completeness and adequacy of those procedures to perform the Work.
- 2. Promptly notify TOWN and CONTRACTOR of irregularities and deficiencies observed in the Work during performance of their services.
- 3. Submit certified written report of each test, inspection and similar quality control service to TOWN, CONTRACTOR and jurisdictional authorities. Interpret test results and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
- 4. Submit final report of special inspections at Substantial Completion, including a list of unresolved deficiencies.
- 5. Re-test and re-inspect corrected work.

B. CONTRACTOR'S Responsibilities

- 1. Provide quality requirements to all subcontractors and enforce all requirements.

2. Notify TOWN, ENGINEER, Special Inspectors and Testing Agencies at least 48 hours in advance of time when Work that requires testing or special inspecting will be performed, unless otherwise indicated in the Contract Documents.
3. Pay for any CONTRACTOR requested testing and inspecting not required by the Contract Documents.
4. Pay for any re-testing or re-inspections by Special Inspectors and Testing Agencies for replacement work resulting from work that failed to comply with the Contract Documents. TOWN will deduct such costs from the Contract Price.
5. Submit copies of licenses, certifications, correspondence, records and similar documents used to establish compliance with standards and regulations that pertain to performance of the Work to the TOWN, ENGINEER and Special Inspectors.
6. Where Special Inspection requires pre-construction testing for compliance with specified requirements for performance and test methods, comply with the following:
 - a. Provide test specimens representative of proposed products and construction in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - b. Provide information on configurations of test assemblies, testing procedures and laboratory test records to adequately demonstrate capability of products to comply with performance requirements.
7. Cooperate with Agencies performing required tests, special inspections, and similar quality control services. Notify Agencies in advance of operations to permit assignment of personnel. Provide the following:
 - a. Access to the Work.
 - b. Incidental labor, equipment, and materials necessary to facilitate tests and special inspections.
 - c. Adequate quantities of representative samples of materials that require testing and inspecting. Assist Agencies in obtaining samples.
 - d. Provide facilities for storage and field curing of test samples.
 - e. Deliver samples to Testing Agencies.

8. Coordinate sequence of activities to accommodate required quality-assurance and control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and special inspecting.
9. Schedule times for tests, special inspections, obtaining samples, and similar activities. Distribute schedule to TOWN, ENGINEER, Special Inspectors, Testing Agencies, and each party involved in portions of the work where tests and special inspections are required.

1.5 SUBMITTALS

A. Laboratory Test or Inspection Reports

Each report shall be signed and certified by the independently owned and operated testing laboratory. Unless otherwise specified, submit three copies of each report to the TOWN or TOWN's REPRESENTATIVE.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

3.1 FIELD TESTING SCHEDULE

- A. The CONTRACTOR shall complete field testing in accordance with the following schedule. Additional source material testing shall be completed as necessary to establish the basis of field tests. The frequency of testing listed in this schedule lists the minimum number of tests per quantity of work completed by the CONTRACTOR. Testing locations to be determined by the ENGINEER.

Material to be Tested	Payment Responsibility for Initial Testing	Minimum Testing Frequency
Backfill	TOWN	In-place compaction testing (w/ nuclear compaction gage) performed at one test per 200 CY of material placed. See Article 3.5, Field Quality Control of Section 31 23 23, Fill for further details on testing requirements.
Asphalt Concrete	CONTRACTOR	As required when placed. See detailed requirements in Article 3.3, Field Quality Control of Section 32 12 16, Asphalt Paving.
Curb Gutter and Sidewalk Concrete	CONTRACTOR	As required when placed. See detailed requirements in Article 3.4, Concrete Tests of Section 32 16 10, Concrete Curb, Gutters, and Sidewalk.

END OF SECTION

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SUMMARY

- A. Temporary construction facilities and control requirements for the Work include the following. CONTRACTOR responsible for providing all other temporary facilities and controls necessary to complete the Work as described in the Contract Documents.
 - 1. Sanitary facilities.
 - 2. Temporary fire protection
 - 3. Parking.
 - 4. Traffic Control.
 - 5. TOWN'S access to facilities.
- B. Maintain temporary facilities in proper and safe condition throughout progress of Work.
- C. Comply with federal, state, and local codes and regulations, and utility company requirements.

1.2 LAYOUT OF TEMPORARY FACILITIES

- A. Before starting Work, submit to TOWN, for approval, proposed layout of temporary facilities.
- B. Should CONTRACTOR require space in addition to that shown on Drawings, CONTRACTOR shall make arrangements for storage of materials and equipment in locations off Site.

1.3 UTILITY PROPERTIES AND SERVICE

- A. In areas where the CONTRACTOR's operations are adjacent to or near a utility and such operations may cause damage which might result in significant expense, loss and inconvenience, the operations shall be suspended until all arrangements necessary for the protection thereof have been made by the CONTRACTOR.
- B. The CONTRACTOR shall notify all utility offices which may be affected by the construction operation at least 48 hours in advance. Before exposing any utility, the utility having jurisdiction shall grant permission and may oversee the operation. Should service of any utility be interrupted due to the CONTRACTOR's operation, the proper

authority shall be notified immediately. It is of the utmost importance that the CONTRACTOR cooperates with the said authority in restoring the service as promptly as possible. Any costs shall be borne by the CONTRACTOR.

- C. CONTRACTOR to contact one-number locator service (811) at least 48 hours in advance of all excavations or other activities that may disturb and/or damage existing utilities. Existing utilities which may be impacted include the following.:

1.4 WATER FOR CONSTRUCTION AND TESTING

- A. CONTRACTOR is responsible for making all arrangements necessary for temporary water for construction.
 - 1. Potable water for construction purposes will be furnished by the TOWN at no cost.
 - 2. The CONTRACTOR shall furnish all valves, hoses, connections, and other devices as necessary to obtain sufficient water for construction and for filling and testing of water lines as required. Fire hydrant use is allowed only by permission of the utility owner.
 - 3. Backflow protection is required on all connections to potable water systems.

1.5 SANITARY FACILITIES

- A. Provide temporary sanitary facilities conforming to state and local regulations, in sufficient numbers for use of CONTRACTOR'S and Subcontractor's employees.
- B. Maintain in sanitary condition and properly supply with toilet paper.
- C. Use of the City's existing sanitary facilities is not allowed.

1.6 TEMPORARY FIRE PROTECTION

- A. Provide and maintain fire extinguishers and other fire protection equipment and devices as would be reasonably effective in extinguishing fires during early stages by personnel at Site.

1.7 TEMPORARY SITE AND OTHER ROADS

- A. Maintain existing roads used during construction free from accumulation of dirt, mud, and construction debris.
- B. CONTRACTOR shall repair or replace existing roads that remain to original or better condition prior to Final Completion. Survey and record condition of existing roads prior to construction.

- C. Provide temporary access routes and surfaces to ensure continuous pedestrian access to all properties throughout the duration of the project in accordance with the listed guidelines.
 - 1. Temporary access routes shall meet ADA guidelines. The residents of the properties impacted by this project include an individual who requires the use of a wheelchair.
 - 2. The CONTRACTOR is responsible for coordinating construction activities with residents and ensuring that the temporary access provided is sufficient.
 - 3. The CONTRACTOR shall make accommodations for the routine pickup of trash and recycling receptacles from residential properties. If necessary due to construction sequencing, the CONTRACTOR shall be responsible for relocating and returning waste receptacles to allow for their pickup. The CONTRACTOR is responsible for coordinating such work with the residents and waste removal companies.

1.8 CONTRACTOR'S WORK AREA

A. Work Area:

- 1. Limit construction operations and storage of equipment and materials to areas shown on Drawings and as determined by TOWN.
- 2. Except as provided herein, no private property, or other area adjacent to Site shall be used for storage of CONTRACTOR'S equipment and materials unless prior written approval is obtained from legal owner of the respective locations.
- 3. CONTRACTOR shall maintain staging areas during construction in a manner that will not obstruct operations of existing facilities. Work shall proceed in an orderly manner, maintaining construction Site and staging area free of debris and unnecessary equipment or materials.

B. Storage and Protection of Equipment and Materials:

- 1. The CONTRACTOR shall be solely responsible for the protection and security of all equipment and materials stored on the site. Equipment and materials stored at the site shall be placed neatly on the job site in an area and environment that will provide protection and security. Materials that are not adequately protected or stored in conformance with the manufacturer's recommendations will be rejected. Unusable materials (i.e., rejected or damaged liner material, old concrete chunks, metal scraps, etc.) shall be expeditiously removed from the job site.
- 2. Provide appropriate barricades, signs, and traffic control devices in like-new condition where necessary to protect the public and City employees from any hazards associated with the storage of materials and equipment used for this PROJECT.

3. No equipment and/or materials shall be stored outside the immediate work area, in the following locations, or in the following manner:
 - a. In any maintained landscaped or lawn area.
 - b. In a manner that would totally eliminate an individual residents' street parking, or parking for the City's existing buildings.
 - c. In front of any business.
4. The "immediate work area" is the area where work is taking place or will be taking place within one calendar day. The CONTRACTOR shall immediately move stored material or equipment which causes a nuisance or creates complaints

1.9 PARKING

- A. Staging area and designated areas within construction limits may be used for parking of construction personnel's private vehicles and CONTRACTOR'S lightweight vehicles. Parking shall not impede access to driveways.
- B. Make arrangements for additional parking off site as required.
- C. No overnight parking, camping, or storage of personal vehicles, trailers or other items will be authorized.

1.10 TRAFFIC CONTROL AND PROTECTION

- A. The CONTRACTOR shall maintain traffic control and protection in the work areas 24 hours per day. Traffic control shall conform to the requirements set forth the Town of Erie Standard Specifications for Design and Construction of Public Improvements **Section 141.07**.
- B. The CONTRACTOR shall conduct its operations so as to keep one lane of traffic open for public and private access at all times on City, County and Public streets, roads and highways. Permits obtained for the PROJECT may have more stringent requirements than noted in this section.
- C. Prior to beginning construction and as necessary or required by local or state agencies, the CONTRACTOR shall submit a traffic control plan in accordance with the requirements set forth the Town of Erie Standard Specifications for Design and Construction of Public Improvements **Section 141.07**.
- D. All work shall be carried on with due regard for safety to the public. Open trenches shall be backfilled or covered with steel plates at the end of each day.

PART 2 PRODUCTS- (Not Used)

PART 3 EXECUTION

3.1 GENERAL

- A. Maintain and operate systems to ensure continuous service for duration of construction.
- B. Modify and extend systems, as Work progress requires.

3.2 REMOVAL

- A. Completely remove temporary materials, equipment, signs, and structures when no longer required.
- B. In unfinished areas, clean and repair damaged caused by temporary installations or use of temporary facilities, restore drainage, and evenly grade, seed, or plant as necessary to provide appearance equal to or better than original.
- C. In finished areas, restore existing or permanent facilities used for temporary services to specified, or original condition.

3.3 DAMAGE TO EXISTING PROPERTY

- A. CONTRACTOR is responsible for replacing or repairing damage to existing buildings, structures, sidewalks, roads, parking areas, and other existing assets.

END OF SECTION

SECTION 02 30 00 - SUBSURFACE INVESTIGATION

PART 1 GENERAL

1.1 SUMMARY

- A. Subsurface investigations and reporting have been performed for the purpose of obtaining data for the planning and design of this project. Copies of such reporting are attached to the Contract Documents as Supplementary Information.

1.2 LIMITATIONS

- A. The subsurface investigations and reporting are being made available solely for the convenience of the Bidder and shall not relieve the Bidder or the Contractor of any risk, duty to make examinations and investigations as required by the Instructions to Bidders, or any other responsibility under the Contract Documents.
- B. It is mutually agreed to by all parties:
 - 1. Written reports are reference documents and are not part of the Contract Documents.
 - 2. Subsurface investigations are for the purpose of obtaining data for planning and design of the project.
 - 3. Data concerning borings and test pits is intended to represent with reasonable accuracy conditions and material found in specific borings and test pits at the time the borings and test pits were made.
- C. It is expressly understood and agreed the TOWN and Engineer assume no responsibility whatsoever in respect to the sufficiency or accuracy of the investigation thus made, the records thereof, or of the interpretations set forth therein, or made by the Owner in his use thereof; and there is no warranty or guarantee, either expressed or implied, that the conditions indicated by such investigations, or records thereof, are representative of those existing throughout such areas, or any part, or that unforeseen developments may not occur.
- D. The TOWN's subsurface investigations and reporting are made available to Bidder or Contractor only on the basis of the understandings and agreement herein stated.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 02 41 00 - DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Demolition and removal of existing facilities.
 - 2. Abandoning and removing utilities.

1.2 RELATED SECTIONS:

- 1. Section 31 05 16 - Aggregates for Earthwork
- 2. Section 31 10 00 - Site Clearing
- 3. Section 31 22 13 - Rough Grading
- 4. Section 31 23 16 - Excavation

1.3 SUBMITTALS

- A. Section 01 30 00 - Submittal Procedures: Requirements for submittals.
- B. Submit to Engineer a copy of written permission of private property owners, with copy of fill permit for said private property, as may be required for disposal of materials.

1.4 QUALITY ASSURANCE

- A. Existing Conditions: Determine the extent of work required and limitations before proceeding with Work.
- B. Conform to applicable local, state, and federal codes for environmental requirements in relation to disposal of debris.
 - 1. Burning at the Site for the disposal of refuse, debris, and waste materials resulting from demolition and site clearing operations shall not be permitted.
- C. Permits: The Contractor is responsible for obtaining all necessary permits required for completion of the Work described in this Section.
- D. Protection of Persons and Property: Meet all federal, state, and local safety requirements for the protection of workmen, other persons, and property in the vicinity of the Work and requirements of the General Provisions.
- E. If the existing material to be demolished and removed contains any hazardous materials which will require special handling upon removal, such as asbestos or lead, it is the responsibility of the Contractor to remove and dispose of the material in accordance with all applicable federal, state and local regulations.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Existing Materials: All materials, equipment, miscellaneous items, and debris involved, occurring, or resulting from demolition, clearing, and grubbing work shall become the

property of the Contractor at the place of origin, except as otherwise indicated in the Drawings or Specifications.

- B. Crushed Rock: As specified in Section 31 05 16-2.1, Aggregates for Earthwork. Of the size shown in the Drawings or specified herein.
- C. Sand: As specified in Section 31 05 16-2.2, Aggregates for Earthwork.

PART 3 EXECUTION

3.1 EXAMINATION

- A. The TOWN assumes no responsibility for the actual condition of the facilities to be demolished. The Contractor shall visit the site, inspect all facilities and be familiar with all existing conditions and utilities.
- B. Demolition drawings identify major equipment and structures to be demolished only.
- C. Identify waste and salvage areas for placing removed materials.

3.2 PREPARATION

- A. Carefully coordinate the work of this Section with all other work and construction.
- B. Call Local Utility Line Information service at 811, not less than three working days before performing Work.
 - 1. Request underground utilities to be located and marked within and surrounding construction areas.
 - 2. Disconnect or arrange for disconnection of utilities (if any) affected by required work.
 - 3. Keep all active utilities intact and in continuous operations.

3.3 PROTECTION

- A. Utilities: Locate, identify, and protect utilities located by utilities and indicated in the Drawings to remain from damage.
- B. Survey control: Protect benchmarks, survey control points, and existing structures from damage or displacement.
- C. Preservation and Trimming of Trees, Shrubs and Other Vegetation: As specified in Section 31 10 00-3.4.C, Site Clearing.
- D. Landscaped Areas: Protect existing landscaped areas as specified in Section 31 10 00-3.4.D, Site Clearing.
- E. Miscellaneous Site Features: Protect all existing miscellaneous site features from damage by excavating equipment and vehicular traffic, including but not limited to existing structures, fences, picnic tables, mailboxes, sidewalks, paving, guy wires, utility poles, and curbs.
- F. Repair and Replacement:
 - 1. Damaged items, including but not restricted to those noted above, shall be repaired or replaced with new materials as required to restore damaged items or surfaces to a

condition equal to and matching that existing prior to damage or start of Work of this contract

2. Any damage to existing facilities or utilities to remain as caused by the Contractor's operations shall be repaired at the Contractor's expense.

3.4 DEMOLITION

- A. Areas which are to be excavated for the purpose of demolition shall be cleared and stripped in accordance with Section 31 10 00-3.6, Site Clearing
- B. Carefully consider all bearing loads and capacities for placement of equipment and material on site. In the event of any questions as to whether an area to be loaded has adequate bearing capacity, consult with Engineer prior to the placement of such equipment or material.
- C. Demolition of Existing Structures:
 1. Excavate around existing structures as required to perform demolition operations and to plug associated existing pipelines where shown in the Drawing
 2. Provide shoring, bracing, and supports, as required, to ensure adjacent structures are not damaged and structural elements of existing structure are not overloaded during demolition activities.
 - a. Increase structural supports or add new supports as may be required as a result of any cutting, removal, or demolition work performed under any part of this Contract
 - b. Remove all temporary protection when the Work is complete or when so authorized by the Engineer.

3.5 ASPHALTIC CONCRETE DEMOLITION

- A. Asphalt pavement shall be removed to the limits shown in the Drawings
- B. The limits of the removal shall be saw cut, protecting the pavement to remain.
- C. Asphalt pavement may not be used as rubble fill.

3.6 CONCRETE SIDEWALK AND CURB AND GUTTER DEMOLITION

- A. Concrete shall be removed to the limits shown in the Drawings.
- B. The limits of the removal shall be saw cut, protecting the concrete to remain.

3.7 REMOVAL

- A. Remove debris, rock, excavated materials, rubble, abandoned piping, and extracted plant life resulting from abandonment and/or demolition activities from site.
- B. Continuously clean-up and remove waste materials from site. Do not allow materials to accumulate on site.
- C. Removal: All material resulting from demolition, clearing, and grubbing, and trimming operations shall be removed from the project site and disposed of in a lawful manner.

Materials placed on property of private property owners shall be by written permission only.

3.8 GRADING

- A. All grading work shall be completed in accordance with Section 31 22 13, Rough Grading.

3.9 CLEANUP:

- A. During and upon completion of work, promptly remove all unused tools and equipment, surplus materials, debris, and dust and leave all areas affected by the work in a clean, condition, as may be subject to Engineer approval.
- B. Adjacent structures shall be cleaned of dust, dirt, and debris resulting from demolition.
- C. Adjacent areas shall be returned to their existing condition prior to the start of work.

END OF SECTION

SECTION 31 05 13 - SOILS FOR EARTHWORK

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes range of soil and subsoil materials intended to be referenced by other sections, generally for fill and grading purposes. Materials are indicated by "Type" to assist in referencing from other sections and on Drawing notes.
- B. Section includes:
 - 1. Subsoil materials
 - 2. Topsoil materials

1.2 RELATED SECTIONS

- A. Section 31 05 16 - Aggregates for Earthwork
- B. Section 31 10 00 – Site Clearing
- C. Section 31 22 13 - Rough Grading
- D. Section 31 23 16 – Excavation
- E. Section 31 23 17 - Trenching
- F. Section 31 23 18 – Rock Removal

1.3 REFERENCES

- A. American Association of State Highway and Transportation Officials:
 - 1. AASHTO T99 - Standard Specification for Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop
- B. ASTM International (ASTM):
 - 1. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³))
 - 2. ASTM D2487 - Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System)
 - 3. ASTM D6938 - Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

C. Town of Erie:

1. Standard Specifications: Where the term "Standard Specifications" is used, such reference shall mean the current edition of the **Town of Erie Standards and Specifications for Design and Construction of Public Improvements**. Where reference is made to a specific part of the Standard Specifications, such applicable part shall be considered as part of this section of the Specifications. In case of a conflict in the requirements of the Standard Specifications and the requirements stated herein, the requirements herein shall prevail.

1.4 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.
- B. Materials Source: Submit name of imported materials source.
- C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

- A. Furnish materials of each type from same source throughout the Work.
- B. Soil Testing:
 1. Soil sampling and testing to be completed by an independent laboratory approved by the ENGINEER.
 2. Frequency of testing shall be determined by the ENGINEER.
 3. All soil testing shall be paid for by the CONTRACTOR.
- C. Compaction Tests:
 1. Maximum density at optimum moisture content determined by ASTM D698 (AASHTO T99).
 2. In-place density in accordance with Nuclear Testing Method, ASTM D6938.
- D. Soil Classification: All imported materials shall be classified in accordance with ASTM D2487.

PART 2 PRODUCTS

2.1 SUBSOIL MATERIALS

- A. Subsoil material shall be in conformance with **Standard Specifications section 345.02**.

2.2 TOPSOIL MATERIALS

1. Topsoil material shall be in conformance with **Standard Specifications section 334.00.**

2.3 SPOILS

- A. All excess material not suitable or not required for backfill and grading shall be hauled off site and disposed of at a location provided by the CONTRACTOR and approved by the ENGINEER.
- B. Make arrangements for disposal of the material at no additional cost to the TOWN.
- C. Landfill permit to be obtained by the CONTRACTOR and provided to ENGINEER prior to commencement of disposal.

2.4 SOURCE QUALITY CONTROL

- A. Testing and Analysis of Subsoil Material: Perform in accordance with ASTM D698 (AASHTO T99).
- B. When tests indicate materials do not meet specified requirements, change material, or vary compaction methods and retest. Additional testing shall be completed and paid for by the CONTRACTOR with no reimbursement by the TOWN.
- C. Furnish materials of each type from same source throughout the Work.

PART 3 EXECUTION

3.1 EXCAVATION

- A. Excavate material of every nature and description to the lines and grades as indicated on the Drawings and/or as required for construction of facilities.
- B. Site within clearing limits shall be stripped of topsoil as required to obtain additional topsoil necessary to complete Work indicated in the Drawings or as specified.
- C. When practical, do not excavate wet topsoil.
- D. Stockpile excavated material meeting requirements for subsoil materials and topsoil materials.
- E. Remove excess excavated subsoil and topsoil not intended for reuse from Site.
- F. Remove excavated materials not meeting requirements for subsoil materials and topsoil materials from Site.

3.2 STOCKPILING

- A. Stockpile soils at locations shown in the Drawings or at locations as approved by ENGINEER for redistribution as specified.
 - 1. Site may not have sufficient area to stockpile excavated material that will be required for fill later in the PROJECT. If additional stockpile area is required to complete the PROJECT on schedule, arrange off-site stockpile areas.
 - 2. No additional payments will be made for stockpiling excavated materials off-site.
- B. Stockpile in sufficient quantities to meet PROJECT schedule and requirements.
- C. Separate differing materials with dividers or stockpile apart to prevent mixing.
- D. Prevent intermixing of soil types or contamination.
- E. Direct surface water away from stockpile site to prevent erosion or deterioration of materials.
 - 1. Grade surface of stockpiles to prevent ponding of water.
 - 2. Cover stockpiles to minimize the infiltration of water.
- F. Stockpile unsuitable and/or hazardous materials on impervious material and cover to prevent erosion and leaching, until disposed of.

3.3 STOCKPILE CLEANUP

- A. Remove stockpile, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.
- B. When borrow area is indicated, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.

END OF SECTION

SECTION 31 05 16 - AGGREGATES FOR EARTHWORK

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes a range of coarse and fine aggregate materials intended to be referenced by other Sections, generally for fill and grading purposes. Materials are indicated by "Type" to assist in referencing from other Sections and in Drawing notes.
- B. Section Includes:
 - 1. Coarse aggregate materials
 - 2. Fine aggregate materials

1.2 RELATED SECTIONS

- A. Section 31 05 13 - Soils for Earthwork
- B. Section 31 22 13 - Rough Grading
- C. Section 31 23 23 - Fill
- D. Section 32 11 23 - Aggregate Base Courses

1.3 REFERENCES

- A. American Association of State Highway and Transportation Officials:
 - 1. AASHTO M147 - Standard Specification for Materials for Aggregate and Soil-Aggregate Subbase, Base and Surface Courses
 - 2. AASHTO T27 - Sieve Analysis of Fine and Coarse Aggregates
 - 3. AASHTO T99 - Standard Specification for Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop
 - 4. AASHTO TP61 - Standard Method of Test for Determining the Percentage of Fracture in Coarse Aggregate
- B. ASTM International (ASTM):
 - 1. ASTM C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates

2. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³))
3. ASTM D2487 - Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System)
4. ASTM D4318 - Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
5. ASTM D6938 - Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

C. Town of Erie:

1. Standard Specifications: Where the term "Standard Specifications" is used, such reference shall mean the current edition of the **Town of Erie Standards and Specifications for Design and Construction of Public Improvements**. Where reference is made to a specific part of the Standard Specifications, such applicable part shall be considered as part of this section of the Specifications. In case of a conflict in the requirements of the Standard Specifications and the requirements stated herein, the requirements herein shall prevail.

1.4 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.
- B. Materials Source: Submit name of imported materials suppliers.
- C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.
- D. Results of aggregate sieve analysis and standard proctor tests for all granular material.

1.5 QUALITY ASSURANCE

- A. Furnish each aggregate material from single source throughout the Work.
- B. Aggregate Testing:
 1. Aggregate sampling and testing to be completed by an independent laboratory approved by the ENGINEER.
 2. The frequency of testing shall be determined by the ENGINEER.
 3. All aggregate testing shall be paid for by the CONTRACTOR.
- C. Compaction Tests:

1. Maximum density at optimum moisture content determined by ASTM D698 (AASHTO T99).
 2. In-place density in accordance with Nuclear Testing Method, ASTM D6938.
- D. Aggregate Classification: All imported materials shall be classified in accordance with ASTM D2487.

PART 2 PRODUCTS

2.1 COARSE AGGREGATE MATERIALS

- A. In accordance with Standard Specifications **Section 542**.

PART 3 EXECUTION

3.1 STOCKPILING

- A. Stockpile materials imported to site as shown in the Drawings or at locations as approved by ENGINEER for redistribution as specified.
- B. Separate different aggregate materials with dividers or stockpile individually to prevent mixing.
- C. Prevent intermixing of aggregate types or contamination.
- D. Direct surface water away from stockpile site to prevent erosion or deterioration of materials.
1. Grade surface of stockpiles to prevent ponding of water.
 2. Cover stockpiles to minimize the infiltration of water.

3.2 STOCKPILE CLEANUP

- A. Remove stockpile, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.
- B. When borrow area is indicated, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.

END OF SECTION

SECTION 31 22 13 - ROUGH GRADING

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes rough grading and filling associated with contouring of Site in preparation for building excavation and subsequent site work.
- B. Section Includes:
 - 1. Excavating topsoil
 - 2. Excavating subsoil
 - 3. Cutting, grading, filling, and rough contouring of Site

1.2 RELATED SECTIONS:

- A. Section 01 45 00 - Quality Control
- B. Section 31 05 13 - Soils for Earthwork
- C. Section 31 05 16 - Aggregates for Earthwork
- D. Section 31 23 16 - Excavation
- E. Section 31 23 18 - Rock Removal
- F. Section 31 23 23 - Fill

1.3 REFERENCES

- A. American Association of State Highway and Transportation Officials:
 - 1. AASHTO T99 - Standard Specification for Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop
- B. ASTM International (ASTM):
 - 1. ASTM C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
 - 2. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³))

3. ASTM D2419 - Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate
 4. ASTM D2434 - Standard Test Method for Permeability of Granular Soils (Constant Head)
 5. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
 6. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)
- C. Town of Erie:
1. Standard Specifications: Where the term “Standard Specifications” is used, such reference shall mean the current edition of the **Town of Erie Standards and Specifications for Design and Construction of Public Improvements**. Where reference is made to a specific part of the Standard Specifications, such applicable part shall be considered as part of this section of the Specifications. In case of a conflict in the requirements of the Standard Specifications and the requirements stated herein, the requirements herein shall prevail.

1.4 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.
- B. Soils for Earthwork: As specified in Section 31 05 13, Soils for Earthwork.
- C. Aggregates for Earthwork: As specified in Section 31 05 16, Aggregates for Earthwork.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with ASTM C136, ASTM D2419, and ASTM D2434.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Subsoil Fill: As specified in Section 31 05 13, Soils for Earthwork.
- B. Topsoil: As specified in Section 31 05 13, Soils for Earthwork.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify survey benchmark and intended elevations for the Work are as indicated on Drawings.

3.2 PREPARATION

- A. Call Local Utility Line Information service at 811 not less than 3 working days before performing Work.
 - 1. Request underground utilities to be located and marked within and surrounding construction areas.
 - 2. Notify ENGINEER of any potential conflicts resulting from utility locations and the Drawings.
 - 3. Notify utility company to remove and relocate utilities, as may be necessary.
- B. Identify required lines, levels, contours, and datum.

3.3 TOPSOIL EXCAVATION

- A. Excavate and stockpile topsoil as specified in Section 31 05 13, Soils for Earthwork.

3.4 SUBSOIL EXCAVATION

- A. Excavate subsoil from areas to be further excavated, re-landscaped, or re-graded as shown in the Drawings.
- B. When practical, do not excavate wet subsoil. When wet subsoil must be excavated and is to be reused on site for the Work, process wet material to obtain optimum moisture content.
- C. Stockpile excavated material in area designated onsite in accordance with Section 31 05 13, Soils for Earthwork.
- D. When excavating through roots, perform Work by hand and cut roots with sharp axe.
- E. Benching Slopes: Horizontally bench existing slopes greater than 1:2 to key placed fill material to slope to provide firm bearing.
- F. Stability: Replace damaged or displaced subsoil as specified for fill.

3.5 FILLING

A. General:

1. Grading and filling operations shall not take place when weather conditions and moisture content of fill materials prevent the attainment of specified density.
2. Vertical curves or roundings at abrupt changes in slope shall be established as approved by ENGINEER.
3. Bring all graded areas to a relatively smooth, even grade and slope by blading or dragging. Remove high spots and fill depressions.

B. Fill areas to contours and elevations shown in the Drawings with unfrozen materials.

C. Topsoil Fill:

1. Scarify prepared subgrade to depth of 4 inches immediately prior to placing topsoil.
2. Place topsoil in areas to be seeded to depths indicated in the Drawings, minimum depth of 6 inches.
3. Place topsoil material loose; do not compact, do not place in wet or muddy conditions.

D. Place material in continuous layers in accordance with Standard Specifications **Section 542.**

E. Maintain optimum moisture content of fill materials to attain required compaction density.

F. Slope grade away from building minimum 2 percent slope for minimum distance of 10 feet, unless noted otherwise.

G. Make grade changes gradual. Blend slope into level areas.

H. Repair or replace items indicated in the Drawings to remain which are damaged by excavation or filling. All costs shall be borne by the CONTRACTOR.

3.6 TOLERANCES

A. Top Surface of Subgrade: Plus or minus 1/10 of a foot from required elevation.

3.7 FIELD QUALITY CONTROL

A. Perform laboratory material tests in accordance with ASTM D698 (AASHTO T99).

- B. Perform in place compaction tests in accordance with the following:
 - 1. Density Tests: ASTM D2922
 - 2. Moisture Tests: ASTM D3017
- C. Frequency and location of testing is dependent upon type of material placed. See Section 01 45 00, Quality Control for testing requirements.
- D. When tests indicate Work does not meet specified requirements, remove Work, replace, and retest at the sole expense of the CONTRACTOR.

END OF SECTION

SECTION 31 23 16 - EXCAVATION

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes excavation required for site structures, or paving.
- B. Section Includes:
 - 1. Excavating for paving, roads, and parking areas
 - 2. Excavating for site structures
 - 3. Excavating for landscaping

1.2 RELATED SECTIONS

- 1. Section 01 45 00 - Quality Control
- 2. Section 02 41 00 - Demolition
- 3. Section 31 05 13 - Soils for Earthwork
- 4. Section 31 05 16 - Aggregates for Earthwork
- 5. Section 31 22 13 - Rough Grading
- 6. Section 31 23 18 - Rock Removal
- 7. Section 31 23 23 - Fill
- 8. Section 31 50 00 - Excavation Support and Protection
- 9. Supplemental Information: Geotechnical report.

1.3 DEFINITIONS

- A. Per Standard Specifications **Section 340.01**.

1.4 REFERENCES

- A. Local utility standards when working within 24 inches of utility lines.
- B. Town of Erie:

1. Standard Specifications: Where the term "Standard Specifications" is used, such reference shall mean the current edition of the **Town of Erie Standards and Specifications for Design and Construction of Public Improvements**. Where reference is made to a specific part of the Standard Specifications, such applicable part shall be considered as part of this section of the Specifications. In case of a conflict in the requirements of the Standard Specifications and the requirements stated herein, the requirements herein shall prevail.

1.5 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

1.6 QUALITY ASSURANCE

- A. Allowable Tolerances: Final grades shall be plus or minus 0.1-foot.
- B. Provide adequate survey control to avoid unauthorized over-excavation.
- C. Weather Limitations:
 1. Material excavated when frozen or when air temperature is less than 32 degrees Fahrenheit (F) shall not be used as fill or backfill until material completely thaws.
 2. Material excavated during inclement weather shall not be used as fill or backfill until after material drains and dries sufficiently for proper compaction.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 GENERAL

- A. All excavation shall be in accordance with Standard Specifications **Section 340** and as added to herein.

3.2 SITE CONDITIONS

- A. Quantity Survey: The CONTRACTOR shall be responsible for calculations for quantities and volume of cut and fill from existing site grades to finish grades established under this contract as indicated in the Drawings or specified and shall include the cost for all earthwork in the total basic bid.
- B. Dust Control: Must meet all federal, state, and local requirements. Protect persons and property from damage and discomfort caused by dust. Water surfaces as necessary and when directed by ENGINEER to quell dust.

- C. Soil Control: Soil shall not be permitted to accumulate on surrounding streets or sidewalks nor to be washed into sewers.

3.3 PRESERVATION OF EXISTING IMPROVEMENTS

- A. Protect adjacent existing structures which may be damaged by excavation work.
 - 1. Conduct operations in such a manner that existing street facilities, utilities, railroad tracks, structures, and other improvements, which are to remain in place, will not be damaged. Furnish and install cribbing and shoring or whatever means necessary to support material around existing facilities, or to support the facilities themselves, and maintain such supports until no longer needed.
 - 2. Open slopes shall not be cut within 5 feet of any existing spread footings unless approved by the ENGINEER.
 - 3. Do not interfere with 45 degree bearing splay of foundations unless approved by the ENGINEER
 - 4. Excavated material shall not be placed adjacent to existing or proposed structures.

3.4 EXCAVATION

- A. General:
 - 1. Method of excavation shall be the CONTRACTOR's option, but care shall be exercised as final grade is approached to leave it in undisturbed condition.
 - 2. If the final grade for supporting structures is disturbed, it shall be restored to requirements of these Specifications and satisfaction of the ENGINEER at no additional cost to TOWN.
 - 3. The CONTRACTOR is advised that footings should be poured as soon as possible to minimize unfavorable final grade conditions from developing.
 - 4. Provide all measures to ensure public safety.
- B. Control of Water:
 - 1. Provide and maintain equipment to remove and dispose of water during the course of the work of this Section and keep excavations dry and free of frost or ice.
 - 2. Bearing surfaces that become softened by water or frost must be re-excavated to solid bearing at CONTRACTOR's expense and backfilled with compacted crushed rock at CONTRACTOR's expense.

3. Grade top perimeter of excavation to prevent surface water from draining into excavation.
- C. Frozen Ground: Frost protection shall be provided for all structural excavation work. Foundation work shall not be placed on frozen ground.
- D. Excavate material of every nature and description to the lines and grades as indicated in the Drawings and/or as required for construction of the facility.
1. Allow for forms, shoring, working space, granular base, topsoil, and similar items, wherever applicable.
 2. Trim excavations to neat lines. Remove loose matter and lumped subsoil.
- E. Excavated Materials: Soils excavated at Site will be treated and used as one of two general categories of material as provided below.
1. Fill:
 - a. Suitable material as described in Standard Specifications Section 300.
 2. Spoils:
 - a. Ensure there is sufficient suitable material available to complete embankments and other required fillings prior to disposing of any excavated materials.
 - b. Make arrangements for disposal of spoils and include as part of contract work in preparing of project bids.
 - c. Landfill permit or written permission from private property owner to be obtained by the CONTRACTOR and provided to the ENGINEER.
- F. Notify ENGINEER of unexpected subsurface conditions.
- G. Rock Removal:
1. Remove boulders and rock up to 1/2 cubic yard measured by volume per the requirements of this Section.
 2. Remove larger boulders and rock material as specified in Section 31 23 18, Rock Removal.
 3. Concrete removal, as defined herein, shall be treated as Rock Removal.
- H. Stockpile excavated material in area(s) designated on or off site in accordance with Section 31 05 13, Soils for Earthwork.

3.5 FIELD QUALITY CONTROL

- A. Perform excavation and controlled fill operations in accordance with the requirements of this Section.
- B. Coordinate the visual inspection and approval of all bearing surfaces by ENGINEER before installing subsequent work.

3.6 PROTECTION

- A. Prevent displacement or loose soil from falling into excavation; maintain soil stability and store excavated materials at a distance from top of excavation.
- B. Protect structures, utilities, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth operations.

END OF SECTION

SECTION 31 23 18 - ROCK REMOVAL

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes removal of subsurface rock during excavation by mechanical method. The use of explosives for rock removal is not permitted for this PROJECT.
- B. Section Includes:
 - 1. Removing identified and discovered rock during excavation.
 - 2. Expansive tools to assist rock removal.
- C. Related Sections:
 - 1. Section 31 22 13 - Rough Grading
 - 2. Section 31 23 16 - Excavation
 - 3. Section 31 23 23 - Fill
 - 4. Supplemental Information: Geotechnical report

1.2 REFERENCES

- A. Town of Erie:
 - 1. Standard Specifications: Where the term "Standard Specifications" is used, such reference shall mean the current edition of the **Town of Erie Standards and Specifications for Design and Construction of Public Improvements**. Where reference is made to a specific part of the Standard Specifications, such applicable part shall be considered as part of this section of the Specifications. In case of a conflict in the requirements of the Standard Specifications and the requirements stated herein, the requirements herein shall prevail.

1.3 DEFINITIONS

- A. Common Excavation: All excavation required for Work, regardless of the type, character, composition, or condition of the material encountered. All excavation shall be classified as Common Excavation, unless provided for under Rock Removal below.
- B. Common Material: All soils, aggregate, debris, junk, broken concrete, and miscellaneous material encountered in Common Excavation, excluding rock as defined below.

- C. Rock: Solid mineral material, including boulders, solid bedrock, or ledge rock, with volume in excess of 1/2 cubic yard or solid material which, by actual demonstration, cannot be reasonably excavated with suitable machinery as defined herein. The ENGINEER may waive the requirements for actual demonstration if the material encountered is well-defined rock.
- D. Rock Removal: Removal of rock as defined herein by systematic and continuous drilling, hammering, breaking, splitting, or other methods approved by the ENGINEER.
- E. Suitable Machinery: A track-mounted hydraulic excavator of the 52,800- to 72,500-pound class equipped with a single shank ripper.

1.4 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal procedures.
- B. Shop Drawings: Indicate proposed method of rock removal.
- C. Equipment: Manufacturer information regarding pound class of machinery proposed for rock removal.
- D. Survey Report: Submit survey report mapping extent and locations of rock encountered, to be used in calculating total volume of rock removal.

1.5 QUALITY ASSURANCE – NOT USED

1.6 PROJECT CONDITIONS

- A. Conduct survey of rock uncovered in excavation for structures or trenching for utilities prior to removal of material.

1.7 SCHEDULING – NOT USED

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify site conditions and note subsurface irregularities affecting Work of this section.

3.2 PREPARATION

- A. Identify required lines, levels, contours, and datum.

- B. Engineer Approval for Rock Removal:
1. Prior to commencement of rock removal, expose all material anticipated to be rock by removing the common material above it and then notify the ENGINEER.
 2. The ENGINEER, in association with the CONTRACTOR or the CONTRACTOR's representative, will measure the amount of material to be removed in an effort to reach a mutually agreeable volume for anticipated rock removal.
 3. Prior to commencing the proposed rock removal, the CONTRACTOR must receive written approval by the ENGINEER stating the approximate volume of excepted rock removal to receive payment.
 4. During rock removal activities, should it become apparent the previously agreed upon volume of rock removal will be exceeded, notify the ENGINEER immediately. Should the CONTRACTOR proceed with rock removal in excess of the previously agreed upon volume, the CONTRACTOR will do so at their own risk and expense.

3.3 ROCK REMOVAL BY MECHANICAL METHOD

- A. Excavate and remove rock by mechanical method.
1. Use single shank ripper to fracture rock.
 2. Drill holes and use expansive tools and wedges to fracture rock.
- B. Cut away rock at bottom of excavation to form level bearing.
- C. Remove shaled layers to provide sound and unshattered base for footings and foundations.
- D. In utility trenches, excavate to 6 inches below invert elevation of pipe and 24 inches wider than pipe diameter.
- E. For vaults and other structures, excavate to the depth necessary to install the structure and to a maximum of 18 inches beyond the outside walls of the vault or structure.
- F. Remove excavated materials from site.
- G. Correct unauthorized rock removal associated with structural excavations in accordance with backfilling and compacting requirements of Section 31 23 16, Excavation and as directed by ENGINEER.
- H. Correct unauthorized rock removal associated with utility work in accordance with backfilling and compacting requirements of Section 31 23 17, Trenching and as directed by ENGINEER.

- I. If material which would be classified as rock as defined herein is mechanically removed with equipment of a larger size than specified as Suitable Machinery herein, it shall be understood that any added costs for the removal of rock by this method shall be included in the unit price for common excavation and not paid for under this pay item. If material which would be classified as rock as defined herein is mechanically removed without [blasting,] hammering, breaking, or splitting, it will be considered common excavation and not paid for under this pay item. If equipment larger than the suitable machinery as defined herein is brought on the PROJECT site for the sole purpose of rock removal without hammering, breaking, or splitting, then such excavation will be considered rock removal.

END OF SECTION

SECTION 31 23 23 - FILL

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes backfilling required at site structures to subgrade elevations, fill under interior and exterior slabs-on-grade or pavement, and fill under landscaped areas.
- B. Section includes:
 - 1. Backfilling site structures to subgrade elevations.
 - 2. Fill under slabs-on-grade.
 - 3. Fill under paving.
 - 4. Fill for over-excavation.

1.2 RELATED SECTIONS

- A. Section 31 05 13 - Soils for Earthwork
- B. Section 31 05 16 - Aggregates for Earthwork
- C. Section 31 22 13 - Rough Grading
- D. Section 31 23 16 - Excavation
- E. Section 31 25 00 - Erosion and Sediment Controls
- F. Supplemental Information: Geotechnical report.

1.3 REFERENCES

- A. American Association of State Highway and Transportation Officials:
 - 1. AASHTO T99 - Standard Specification for Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop.
- B. ASTM International (ASTM):
 - 1. ASTM C403 - Standard Test Method for Time of Setting of Concrete Mixtures by Penetration Resistance

2. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)).
3. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
4. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).
5. ASTM D4832 - Standard Test Method for Preparation and Testing of Controlled Low Strength Material (CLSM) Test Cylinders.

C. Town of Erie:

1. Standard Specifications: Where the term "Standard Specifications" is used, such reference shall mean the current edition of the **Town of Erie Standards and Specifications for Design and Construction of Public Improvements**. Where reference is made to a specific part of the Standard Specifications, such applicable part shall be considered as part of this section of the Specifications. In case of a conflict in the requirements of the Standard Specifications and the requirements stated herein, the requirements herein shall prevail.

1.4 DEFINITIONS

- A. Imported Material: Materials obtained from sources offsite, suitable for specified use.
- B. Lift: Loose (uncompacted) layer of material.
- C. Optimum Moisture Content:
 1. Determined in accordance with ASTM Standard specified to determine maximum dry density for relative compaction.
 2. Determine field moisture content on basis of fraction passing 3/4-inch sieve.

1.5 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.
- B. Imported Materials:
 1. Materials Source: Submit name and location of imported fill materials suppliers.
 2. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

3. Submit results of aggregate sieve analysis and standard proctor test for granular material.

1.6 QUALITY ASSURANCE

- A. Subsoil and topsoil fill materials: In accordance with Quality Assurance requirements stated in Section 31 05 13, Soils for Earthwork.
- B. Aggregate fill materials: In accordance with Quality Assurance requirements stated in Section 31 05 16, Aggregates for Earthwork.
- C. Allowable Tolerances: Final grades shall be plus or minus 0.1-foot.

PART 2 PRODUCTS

2.1 FILL MATERIALS

- A. Subsoil Fill: As specified in Section 31 05 13, Soils for Earthwork.
- B. Imported Granular Fill: As specified in Section 31 05 16, Aggregates for Earthwork.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Prior to Work in this Section, become familiar with Site conditions. In the event discrepancies are found, notify ENGINEER as to the nature and extent of the differing conditions.

3.2 SITE CONDITIONS

- A. Quantity Survey: The CONTRACTOR shall be responsible for calculations for quantities and volume of cut and fill from existing site grades to finish grades established under this contract as indicated in the Drawings or specified and shall include the cost for all earthwork in the total basic bid.
- B. Dust Control: Must meet all federal, state, and local requirements. Protect persons and property from damage and discomfort caused by dust. Water surfaces as necessary and when directed by ENGINEER to quell dust.
- C. Soil Control: Soil shall not be permitted to accumulate on surrounding streets or sidewalks nor to be washed into sewers.
- D. See provisions for Work in Section 31 25 00, Erosion and Sediment Controls.

3.3 PREPARATION

- A. Identify required lines, levels, contours, and datum locations.
- B. Control of Water:
 - 1. Excavated areas shall be kept free of water and frost.
 - 2. Bearing surfaces which become softened by water or frost shall be re-excavated to solid bearing at CONTRACTOR's expense and backfilled with compacted crushed rock at CONTRACTOR's expense.
- C. Compact subgrade to density requirements for subsequent backfill materials. This shall include any scarification, moisture conditioning and compaction of sub soils in accordance with the Geotechnical Evaluation and Pavement Sections Report provide as part of the contract documents.
- D. Cut out soft areas of subgrade not capable of compaction in place and replace with specified granular fill material. See Article 3.5, Over-excavation for Unsuitable Foundation Conditions in Section 31 23 16, Excavation for additional details.
- E. Proof roll in accordance with Standard Specifications **Section 344**.
- F. Subgrade to be approved by ENGINEER prior to placement of structures and commencement of backfill activities.
- G. Do not allow or cause any work performed or installed to be covered up or enclosed prior to required tests and approvals. Should any Work be enclosed or covered up, uncover at CONTRACTOR's expense.

3.4 BACKFILLING

- A. Backfill areas to contours and elevations shown in the Drawings with unfrozen materials.
- B. Do not place materials when weather conditions and/or moisture content prevent attainment of specified density.
- C. Maintain optimum moisture content of backfill materials to attain required compaction density.
- D. Employ placement method that does not disturb or damage other work.
- E. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces.

- F. For paved areas to be constructed or replaced, such as roadways, driveways, and sidewalks:

- 1. Place Coarse Aggregate in accordance with Standard Specifications **Section 542**.

3.5 FIELD QUALITY CONTROL

- A. Testing requirements shall be in accordance with Standard Specifications **Section 572**.
- B. All testing and reporting shall be conducted and completed by an independent laboratory provided by the TOWN. Initial testing will be paid for by the TOWN. Subsequent testing after failure of initial acceptance testing shall be paid by the CONTRACTOR.
- C. Perform laboratory material tests in accordance with **ASTM D698 (AASHTO T99)**.
- D. In-place compaction testing for structural fill material shall be performed at 2-foot elevation increments in the fill material with at a minimum of one test per each 2,500 square feet of material placed. The ENGINEER shall be provided with the results of each compaction test at the time of testing.
- E. Perform in place compaction tests in accordance with the following:
 - 1. Density Tests: ASTM D2922.
 - 2. Moisture Tests: ASTM D3017.
- F. When tests indicate Work does not meet specified requirements, remove Work, replace, and retest at the sole expense of the CONTRACTOR.
- G. When testing of subgrade is not possible or feasible as detailed above, proof roll compacted fill surfaces under slabs-on-grade, pavers, paving, and as may be otherwise required by the ENGINEER.

3.6 PROTECTION OF FINISHED WORK

- A. Reshape and re-compact fills subjected to vehicular traffic.

END OF SECTION

SECTION 31 25 00 – EROSION AND SEDIMENT CONTROLS

PART 1 GENERAL

1.1 SCOPE

- A. This section covers the requirements for temporary and permanent erosion and sedimentation control necessary to prevent migration of sediment and silt laden water to adjacent surface water bodies and drainage structures.
- B. The CONTRACTOR shall provide all materials, labor, and equipment necessary to install adequate erosion and sedimentation controls.

1.2 REFERENCES

- A. Town of Erie:
 - 1. Standard Specifications: Where the term “Standard Specifications” is used, such reference shall mean the current edition of the **Town of Erie Standards and Specifications for Design and Construction of Public Improvements**. Where reference is made to a specific part of the Standard Specifications, such applicable part shall be considered as part of this section of the Specifications. In case of a conflict in the requirements of the Standard Specifications and the requirements stated herein, the requirements herein shall prevail.

1.3 QUALITY CONTROL

- A. The CONTRACTOR is responsible for obtaining a CDPHE Erosion Control and Construction Dewatering permit and paying all permit fees should it be required for the project
- B. In addition to the conditions of the Erosion Control and Construction Dewatering permit, erosion control provisions shall conform to regulatory requirements of the following agencies.
 - 1. Federal Clean Water Act – Section 208.

1.4 SUBMITTALS

- A. The contractor shall submit an erosion control plan detailing location and type of all erosion control measures to be installed on site.

1.5 SCHEDULE

- A. Required temporary sedimentation control facilities must be constructed and in operation prior to land clearing and other construction to ensure that sediment laden water does not enter the natural drainage systems.
- B. Temporary sediment facilities shall be maintained in a satisfactory condition until such time that permanent ESC facilities are in place or sufficient vegetation has been established and potential for on-site erosion has passed.
- C. The implementation, maintenance, replacement, and additions to erosion/sedimentation control systems shall be the responsibility of the CONTRACTOR.

PART 2 PRODUCTS

2.1 GENERAL

- A. All erosion control measures used on the project shall be in accordance with Standard Specifications **Section 830**.

PART 3 EXECUTION

3.1 GENERAL

- A. All erosion control measures shall be installed and maintained in accordance with the Standard Specifications **Section 830** and as outlined in this section. Where conflicts between the two exist, the more restrictive guidelines shall govern.

3.2 EROSION CONTROL

- A. Erosion control provisions shall meet or exceed the requirements of the local agency having jurisdiction.
- B. When provisions are specified and shown on the drawings, they are the minimum requirements.
- C. CONTRACTOR shall not permit sediment-laden waters to enter natural waterways.
- D. As construction progresses and seasonal conditions dictate, more siltation control facilities may be required. It shall be the responsibility of the CONTRACTOR to address new conditions that may be created and to provide additional facilities over and above minimum requirements as may be required.

- E. Provide temporary erosion control measures to prevent erosion from piles of topsoil or fill material. Before completing the Contract, any areas of bare soil shall be permanently seeded.
- F. Additional measures may be necessary depending on construction activity and weather. CONTRACTOR will be responsible for carrying out the erosion control provisions of the approved Erosion Control Plan.
 - 1. Keep streets and paved surfaces clean of mud and debris. Install gravel construction entrances as shown on the Plans and maintain them for the duration of the construction period.

3.3 SILTATION CONTROL

- A. Siltation control is required. Check dams or silt fences may be placed in streams or ditches receiving stormwater from areas disturbed by construction.

3.4 FILTER FABRIC FENCES

- A. Filter fabric fence shall consist of filter fabric fastened to wire fabric with staples or wire rings.
- B. Wire shall be fastened to posts set at 6 foot-maximum centers.
- C. Fabric shall be buried into ground a minimum of 12 inches to prevent silt from washing under fabric.
- D. Fence shall be located to catch silt and prevent discharge to drainage courses.

3.5 EROSION CONTROL CHECK DAM

- A. Sand or gravel filled bags shall be installed in drainage way to catch silt.

3.6 EXISTING DRAINAGE FACILITIES

- A. Should a storm sewer or culvert become blocked or have its capacity restricted due to siltation from CONTRACTOR's operations, the CONTRACTOR shall make arrangements with the jurisdictional agency for the cleaning of the facility at no additional expense to the TOWN.
- B. CONTRACTOR shall install catch basin inserts in existing catch basins in the vicinity of, or adjacent to, clearing or construction activities to prevent sediment from entering the on-site stormwater conveyance system.

3.7 DRAINAGE DIVERSION

- A. CONTRACTOR may divert up-gradient surface runoff water around the site as required. CONTRACTOR will be responsible for routing diverted surface water to its original flow path downstream of the site and providing energy dissipation and/or dispersion as needed to mimic pre-diverted flow characteristics, as required by the ENGINEER.
- B. Drainage shall be restored to condition existing prior to construction unless otherwise shown on the drawings.

END OF SECTION

SECTION 32 11 23 - AGGREGATE BASE COURSES

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes construction of an aggregate subbase and base course for placement under asphalt or concrete paving, unit paving, or placed and left exposed.
- B. Section Includes:
 - 1. Aggregate subbase
 - 2. Aggregate base course

1.2 RELATED REQUIREMENTS:

- A. Section 31 05 16 - Aggregates for Earthwork
- B. Section 31 22 13 - Rough Grading
- C. Section 31 23 23 - Fill
- D. Section 32 12 16 - Asphalt Concrete Paving

1.3 REFERENCE STANDARDS

- A. American Association of State Highway and Transportation Officials (AASHTO):
 - 1. AASHTO M288 - Standard Specification for Geotextile Specification for Highway Applications
 - 2. T11, Standard Method of Test for Materials Finer Than 75 μ m (No. 200) Sieve in Mineral Aggregates by Washing
 - 3. T27, Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates
 - 4. AASHTO T99 - Standard Specification for Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop.
- B. ASTM International (ASTM):
 - 1. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)).
 - 2. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method
 - 3. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)

4. ASTM D2940 - Standard Specification for Graded Aggregate Material for Bases or Subbases for Highways or Airports
 5. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)
- C. Town of Erie:
1. Standard Specifications: Where the term “Standard Specifications” is used, such reference shall mean the current edition of the **Town of Erie Standards and Specifications for Design and Construction of Public Improvements**. Where reference is made to a specific part of the Standard Specifications, such applicable part shall be considered as part of this section of the Specifications. In case of a conflict in the requirements of the Standard Specifications and the requirements stated herein, the requirements herein shall prevail.

1.4 DEFINITIONS

- A. Completed Course: Compacted, unyielding, free from irregularities and standing water, with smooth, tight, even surface, true to grade, line, and cross-section.
- B. Completed Lift: Compacted with uniform cross-section thickness.
- C. Keystone: Fine aggregate used to aid in binding of loose surface stone.

1.5 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.
- B. Product Data:
 1. Submit data for geotextile fabric and herbicide.
- C. Test Reports:
 1. Indicate supplier, sieve analysis, optimum moisture content and density in accordance with AASHTO T99 for all subbases and base courses to be incorporated into the work.

1.6 QUALITY ASSURANCE

- A. Furnish each aggregate material from single source throughout the Work.

PART 2 PRODUCTS

2.1 AGGREGATE BASE COURSE

- A. In accordance with Standard Specifications **Section 542**.

2.2 SOURCE QUALITY CONTROL

- A. Perform tests necessary to locate acceptable source of materials meeting specified requirements.
- B. Final approval of aggregate material will be based on test results of installed materials.
- C. Should separation of coarse from fine materials occur during processing or stockpiling, immediately change methods of handling materials to correct uniformity in grading.

2.3 EQUIPMENT

- A. Compaction Equipment: Adequate in design and number to provide compaction and to obtain specified density for each layer.

2.4 ACCESSORIES - NOT USED

PART 3 EXECUTION

3.1 SUBGRADE PREPARATION

- A. Obtain Engineer's acceptance of subgrade before placing base course or surfacing material.
- B. Verify compacted substrate is dry and ready to support paving and imposed loads.
 - 1. Proof roll in accordance with Standard Specifications **Section 344**.

3.2 AGGREGATE BASE COURSE

- A. Place aggregate base course to the depth shown on the plans in accordance with **section 542** of the standard specifications.
- B. Proof roll aggregate base course in accordance with Standard Specifications **Section 344**.

3.3 FIELD QUALITY CONTROL

- A. Quality control testing shall be performed by an independent testing laboratory provided by the TOWN.

- B. Refer to table below for minimum sampling and testing requirements for aggregate base course and surfacing. The TOWN reserves the right to complete additional testing.

Property	Test Method	Frequency	Sampling Point
Gradation	AASHTO T11 and AASHTO T27	One sample every 500 tons but at least every 4 hours of production	Roadbed after processing
Moisture Density (Maximum Density)	AASHTO T99	One test for every aggregate grading produced	Production output or stockpile
In-Place Density and Moisture Content	AASHTO T310	One for each 500 ton but at least every 10,000 square feet of area	In-place completed, compacted area

3.4 CLEANING

- A. Remove excess material from the Work area. Clean stockpile and staging areas of all excess aggregate. Restore per Specifications as applicable.

END OF SECTION

SECTION 32 12 16 - ASPHALT CONCRETE PAVEMENT

PART 1 GENERAL

1.1 SCOPE

This section includes the construction of asphalt concrete pavement.

1.2 REFERENCE STANDARDS

- A. References herein to "AASHTO" shall mean Association of American State Highway Transportation Officials.
- B. Town of Erie:
 - 1. Standard Specifications: Where the term "Standard Specifications" is used, such reference shall mean the current edition of the **Town of Erie Standards and Specifications for Design and Construction of Public Improvements**. Where reference is made to a specific part of the Standard Specifications, such applicable part shall be considered as part of this section of the Specifications. In case of a conflict in the requirements of the Standard Specifications and the requirements stated herein, the requirements herein shall prevail.

1.3 SUBMITTALS

- A. Subbase and Aggregate Base Course: In accordance with Section 32 11 23.
- B. Asphalt Mix Design: In accordance with Standard Specifications **Section 544**.

1.4 QUALITY ASSURANCE

- A. All testing to determine compliance with the specifications shall be performed by an independent testing laboratory contracted by the Contractor and approved by the Engineer. All testing costs shall be borne by the Contractor.
- B. A minimum of five nuclear densometer readings shall be taken in random locations within every test area. Each test area shall not exceed 200 tons of asphalt; however, smaller areas may be designated by the Engineer.
- C. The surface smoothness of the new asphalt concrete pavement shall be such that when a 10-foot straightedge is laid longitudinally across the paved area in any direction, the new pavement shall not deviate from the straightedge more than 1/8-inch. Surface drainage shall be maintained. Additionally, paving must conform to the design grade and crown and contain no abrupt edges, low or high areas or any other imperfections as determined by the Engineer. Pavement construction not meeting these

requirements will be repaired to the satisfaction of the Engineer at no cost to the TOWN.

1.5 PRE-PAVING CONFERENCE

- A. Any supervisory personnel of the Contractor and any subcontractors who are to be involved in the paving work shall meet with the Engineer, at a time mutually agreed upon, to discuss methods of accomplishing all phases of the paving work.
- B. The Contractor shall be prepared to review the size and type of equipment to be used and the anticipated rate of placement to determine equipment needs.

PART 2 PRODUCTS

2.1 AGGREGATE MATERIAL

- A. Aggregate Base for Asphalt Concrete: In accordance with Standard Specifications **Section 542.**

2.2 ASPHALT CONCRETE PAVEMENT

- A. Hot Mix Asphalt Concrete
 - 1. In accordance with Standard Specifications **Section 544.**
 - 2. Superpave Performance Grade Binder designation: PG 64-22.
 - 3. Asphaltic concrete pavement delivered to the site shall be accompanied by a ticket with the approved "job mix formula" number shown. Loads without tickets identifying the job mix formula will not be accepted.
- B. Tack Coat
 - 1. In accordance with Standard Specifications **Section 545.**
- C. Subgrade Stabilization

In accordance with Standard Specifications **Section 538.**

PART 3 EXECUTION

3.1 AGGREGATE PAVEMENT BASE

Place pavement base to the depth shown on the plans in accordance with **Section 542** of the Standard Specifications.

3.2 ASPHALT CONCRETE PAVEMENT

Construct asphalt concrete pavement in accordance with **Section 544** of the Standard Specifications.

3.3 FIELD QUALITY CONTROL

Field test Hot Mix Asphalt in accordance with **Section 123** of the Standard Specifications.

3.4 ADJUSTMENT OF EXISTING MANHOLE COVERS AND VALVE BOXES

Prior to placing asphalt concrete pavement, the CONTRACTOR shall make all necessary adjustments to existing manhole frames and covers and valve box covers to ensure that the tops of the manhole covers or valve box lids are flush with the finished grade of the adjoining pavement or ground surface, and that valve boxes and PVC pipes are centered and plumb over operating nut valve.

END OF SECTION

SECTION 32 16 10 – CONCRETE CURB GUTTER AND SIDEWALK

PART 1 GENERAL

1.1 SCOPE

This section includes the construction of concrete curb, gutter, and sidewalk.

1.2 REFERENCE STANDARDS

- A. References herein to “AASHTO” shall mean Association of American State Highway Transportation Officials.
- B. Town of Erie:
 - 1. Standard Specifications: Where the term “Standard Specifications” is used, such reference shall mean the current edition of the **Town of Erie Standards and Specifications for Design and Construction of Public Improvements**. Where reference is made to a specific part of the Standard Specifications, such applicable part shall be considered as part of this section of the Specifications. In case of a conflict in the requirements of the Standard Specifications and the requirements stated herein, the requirements herein shall prevail.
- C. Colorado Department of Transportation – Standard Specification for Road and Bridge Construction.

1.3 SUBMITTALS

- A. Subbase and Aggregate Base Course: In accordance with Section 32 11 23.
- B. Concrete Mix Design: Submit concrete mix design in accordance with Standard Specifications **Section 432**.

1.4 QUALITY ASSURANCE

- A. All testing to determine compliance with the specifications shall be performed by an independent testing laboratory contracted by the Contractor and approved by the Engineer. All testing costs shall be borne by the Contractor.
- B. Sampling and testing of concrete in accordance with Standard Specifications **Section 492**.

1.5 PRE-CONCRETE PLACEMENT MEETING

- A. Schedule and attend a Concrete Placement meeting at least 1-week prior to placing concrete.

- B. The meeting shall be attended by the TOWN, ENGINEER, CONTRACTOR, Testing Laboratory Representative, and the Concrete Supplier.
- C. The following shall be discussed at the meeting: Safety, Batching and Delivery, Adjustments to Mix; Site Dosing, Placement Rates and Anticipated Schedule of Placing and Finishing, Site Layout –Holding Area; Pump Truck Location; Truck Wash-out Area; Parking area, Equipment – Pumps and Appurtenances; Vibrators; Spare Equipment, Concrete Testing Procedures, and Curing.

PART 2 PRODUCTS

2.1 AGGREGATE MATERIAL

- A. Aggregate Base for Concrete: in accordance with Section 31 05 16.

2.2 CONCRETE

- 1. Concrete shall be CDOT Class B concrete and shall meet all provisions as outlined in the CDOT Standards and Specifications, latest edition.

2.3 PORTLAND CEMENT

- 1. ASTM C150 Type II; Class C fly ash shall not be substituted for cement.

PART 3 EXECUTION

3.1 AGGREGATE PAVEMENT BASE

Place pavement base to the depth shown on the plans in accordance with section 31 23 23.

3.2 CONCRETE SIDEWALK

Construct concrete sidewalks in accordance with Standard Specifications **Section 450**.

3.3 CONCRETE CURB AND GUTTER

Construct concrete curb and gutter in accordance with Standard Specifications **Section 450**.

3.4 FIELD QUALITY CONTROL

Field test concrete in accordance with **Section 494** of the Standard Specifications.

END OF SECTION