

ADDENDUM NO. ONE
GRAVEL LAKES RIPRAP
PROJECT NO. 23-124
CITY OF THORNTON, CO

TO: Prospective Bidders and all others concerned

DATE: January 3, 2023

PURPOSE: To provide additional information and clarification to the solicitation documents for the above-referenced Project.

1. The following shall Add to, Modify, and/or Delete portions of the Invitation for Bid Proposals and Drawings for the Project-noted above.

A. The Invitation for Bid Proposals shall be modified as follows:

The Pre-Bid Meeting shall be held onsite and now at **11:00 a.m.** All Prospective Bidders are encouraged to attend the optional pre-bid conference. Please meet on site at 9900 McKay Rd., Thornton, Colorado, 80229. Proper field attire is required.

2. The following questions and answers are provided for additional clarification to the Contract Documents.

Question 1: "Is this a tax exempted job?"

Answer 1: This Project is exempt from certain taxes related to permanent materials. Refer to section **XXII. Taxes** of the General Conditions on page 137 of the Invitation for Bid.

Question 2: "What are the specifications for the Riprap, gradation, hardness, etc.?"

Answer 2: Specification is attached.

Question 3: "What are the specifications for the 9" Riprap bedding?"

Answer 3: Specification is attached.

Question 4: "Can we get an actual dumpsite map for the trucking off of excess material?"

Answer 4: See attached map.

Question 5: "What is the completion date, or contract working duration days?"

Answer 5: Contractor shall achieve Substantial Completion on or prior to April 1, 2023.

Question 6: "Are as-builts available for the embankments/slopes as constructed to determine which areas are 3:1 vs 2:1?"

Answer 6: All slopes are 3:1.

Question 7: "Can the contractor assume that dewatering will not be required? That Thornton will maintain water levels low enough to avoid saturation of the excavation?"

Answer 7: Thornton will lower the levels of the reservoir prior to the contractor mobilizing and will maintain that water level during construction, however, Contractor may have to work with residual/nuisance water in the slopes and key in trench but no water will be required to be pumped off site.

3. This Addendum becomes part of the Contract Documents. All other conditions and requirements of the Contract Documents will remain unchanged. Receipt of this Addendum must be acknowledged in the space provided on the Bid Proposal Form in the Project Manual.

END OF ADDENDUM NO. ONE

DocuSigned by: <i>Jim Jensen</i> E057D2786399405...	1/3/2023
Jim Jensen Contracts Manager	Date

Gravel Lakes Reservoir
Project No 23-124
Addendum No 1

Excess Material Disposal Site Map



**SECTION 31 37 00
RIPRAP AND RIPRAP BEDDING****PART 1 GENERAL****1.1 WORK INCLUDES**

- A. Importing and placing riprap bedding and riprap.

1.2 REFERENCES

- A. The following is a list of standards which may be referenced in this Section:
1. American Society for Testing and Materials (ASTM):
 - a. C 94 - Standard Specification for Ready-Mixed Concrete.
 - b. C 127 - Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate.
 - c. C 136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
 - d. C 150 - Standard Specification for Portland Cement.
 - e. C 535 - Standard Test Method for Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
 - f. D 5519 – Standard Test Methods for Particle Size Analysis of Natural and Manmade Riprap Materials.
 - g. D 7012 - Standard Test method for Compressive Strength and Elastic Moduli of Intact Rock Core Specimens Under Varying States of Stress and Temperatures.
 2. Colorado Department of Transportation (CDOT):
 - a. Standard Specifications – Section 506.

1.3 DEFINITIONS

- A. Refer to applicable definitions in Section 31 23 23: FILL.

1.4 SUBMITTALS

- A. Samples:
1. General:
 - a. Notify THORNTON at least 48 hours prior to the date of sampling to allow optional observation of sampling by THORNTON.
 - b. Deliver to site at location designated by THORNTON.
 - c. Incorporate samples into Work after material placement is nearly complete.
 2. Imported Riprap:
 - a. 10 tons of each type riprap used.
 - b. Each sample shall meet gradation requirements specified for corresponding riprap type and be representative of material to be furnished for incorporation into Work. Include at least one piece of

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OCTOBER 2019**

maximum size. Weigh individual pieces of riprap with scales that are certified accurate to within plus or minus 1 percent of actual weight.

3. Imported Riprap Bedding:
 - a. 1,000 pounds
 - b. Each sample shall meet gradation requirements specified and be representative of material to be furnished for incorporation into Work.

B. Administrative:

1. Submit the following:
 - a. Description and location of proposed sources of imported riprap bedding and riprap.
 - b. Description and location of three projects where proposed riprap has been successfully used for minimum 3 years duration under similar service conditions.
 - c. Report of petrographic examination of the riprap and riprap bedding by a geologist or geological engineer to confirm absence of shale partings, laminations and other deleterious features.
 - d. Certificates of Compliance, that the riprap and riprap bedding meet the Specification requirements.
2. Trip tickets showing source, type, and weight of each load of material delivered to site.

C. Quality Control:

1. Certified Test Results:
 - a. Imported Riprap: provide test results prior to importing, and during production on request of THORNTON.
 - 1) Gradation.
 - 2) Abrasion resistance.
 - 3) Bulk density.
 - 4) Unconfined Compressive Strength.

1.5 QUALITY ASSURANCE

- A. Imported Riprap Source: Quarry that has produced riprap and has performed satisfactorily on other projects for at least 5 years.

1.6 SCHEDULING AND SEQUENCING

- A. Complete subgrade preparation as specified in Section 31 23 13: SUBGRADE PREPARATION, prior to placing riprap bedding and riprap.

PART 2 PRODUCTS**2.1 RIPRAP BEDDING**

- A. Imported, well-graded crushed rock that meet the following gradation:

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<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
3 inch	100
3/4-inch	20 - 90
No. 4	0 - 20
No. 200	0 - 3

- B. Free from deleterious matter.
- C. Gradation consistent with UDFCD Standard Type II Bedding.

2.2 RIPRAP

- A. Imported, hard and durable quarry stone free from fractures, bedding planes, pronounced weathering, and earth or other adherent coatings.
- B. Minimum Dimension of Individual Pieces: Not less than 1/3 maximum dimension.
- C. Abrasion Resistance: Maximum 35 percent wear as determined in accordance with ASTM C 535.
- D. Unconfined Compressive Strength: Minimum 2,500 psi measured in accordance with ASTM D 7012 on drilled core specimen.
- E. Bulk Density: Minimum 165 pounds per dry cubic foot (minimum specific gravity of 2.65 per ASTM C 127).
- F. Gradation: Smaller pieces shall generally fill voids between larger pieces without either excess or deficiency of one or more sizes of stone. The gradations listed below generally meet the requirements of CDOT Standard Specifications except that the weights have been adjusted to maintain the minimum specific gravity specified. Riprap shall have the following gradations:

Type	D ₅₀ Stone Size (Inches)	Stone Size (Inches)	Weight (Pounds)	% Smaller By Weight
L	9	16	195	100
		15	170	70-100
		12	90	50-70
		9	35	25-50
		3	1	2-10

- G. Free from dirt and deleterious materials.

PART 3 EXECUTION**3.1 PLACING RIPRAP BEDDING**

- A. Place riprap bedding on prepared foundation to lines, grades and thickness shown.
- B. No mechanical compaction of riprap bedding is required; however, work riprap bedding as necessary to distribute it and to eliminate detrimental voids. Avoid overworking or long pushes that result in segregation of particle sizes.
- C. Grade surface of riprap bedding free from irregularities and to tolerances of 0.2 foot from established grade and thickness.
- D. Place and grade riprap bedding in a manner that avoids subgrade disturbance. Do not push material down slope.

- E. Place riprap bedding to prevent segregation. Installed riprap bedding shall meet the specified gradation at all locations.

3.2 PLACING RIPRAP

- A. Place riprap over riprap bedding to the lines, grades and thickness shown. Do not push riprap down slope.
- B. No mechanical compaction of riprap is required.
- C. Intermix different sizes of riprap to eliminate segregation, to interlock pieces, and to fill voids between larger pieces with smaller pieces in such a manner as to form a smooth, uniform, well-graded layer.
- D. Place riprap to prevent segregation. Installed riprap shall meet the specified gradation at all locations.
- E. Use placement and intermixing methods that avoid disturbing riprap bedding or damaging existing facilities, completed work, or adjacent property.
- F. Placement tolerance for riprap is 6 inches greater than specified thickness and 1 inch less than specified thickness. The average thickness shall meet the thickness shown on the Drawings.

END OF SECTION

Certificate Of Completion

Envelope Id: 56CB9FD1A6B5486C922B8318889606F0	Status: Completed
Subject: Complete with DocuSign: 23-124 Addend no1 1-3-23.pdf	
Source Envelope:	
Document Pages: 7	Signatures: 1
Certificate Pages: 1	Initials: 0
AutoNav: Enabled	Envelope Originator:
Enveloped Stamping: Enabled	Patrick Hinterberger
Time Zone: (UTC-07:00) Mountain Time (US & Canada)	9500 Civic Center Drive
	Thornton, CO 80229
	Patrick.Hinterberger@ThorntonCO.gov
	IP Address: 199.117.212.4


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Status: Original	Holder: Patrick Hinterberger	Location: DocuSign
1/3/2023 10:18:58 AM	Patrick.Hinterberger@ThorntonCO.gov	

Signer Events

Jim Jensen
 jim.jensen@thorntonco.gov
 Contracts Supervisor
 City of Thornton
 Security Level: Email, Account Authentication (None)

Signature

DocuSigned by:

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 Signature Adoption: Pre-selected Style
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Sent: 1/3/2023 10:19:36 AM
 Resent: 1/3/2023 4:07:21 PM
 Viewed: 1/3/2023 4:07:40 PM
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Electronic Record and Signature Disclosure:
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Intermediary Delivery Events

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Timestamps

Envelope Sent	Hashed/Encrypted	1/3/2023 10:19:36 AM
Envelope Updated	Security Checked	1/3/2023 10:30:15 AM
Envelope Updated	Security Checked	1/3/2023 10:30:15 AM
Certified Delivered	Security Checked	1/3/2023 4:07:40 PM
Signing Complete	Security Checked	1/3/2023 4:07:46 PM
Completed	Security Checked	1/3/2023 4:07:46 PM

Payment Events

Status

Timestamps