



Riverton City Purchasing
 12830 South Redwood Rd * Riverton, Utah 84065

Bid No.: CC23-428
 (Show this number on envelope)

**BEFORE REPLYING TO THIS BID PLEASE READ THE INSTRUCTIONS AND GENERAL PROVISIONS PROVIDED WITH THIS DOCUMENT
 REPLIES MUST BE LEGIBLE**

Company: _____ Fed. ID No. _____
 Legal Status: Sole Proprietor Non-Profit Corp. Profit Corp. Partnership Gov. _____
 Ordering Address: _____
 _____ Contact Person: _____
 Department: _____ Phone: _____ Fax: _____
 Requisition Number: 156251 E-Mail: _____
 Inquiries Sent To: Craig Calvert Remit Address: _____
 E-Mail: ccalvert@rivertoncity.com Price Guaranteed Until - Date: _____
 Phone: 801-208-3175 Date Sent: 4/28/2023 Payment Terms: _____ Shipment will be made _____ A.R.O.

1. The item(s) specified on this bid are produced, mined, grown, manufactured, or performed in Utah? Yes No
 IF **No** then where produced, etc.: _____
2. bids must include manufacturer's descriptive literature & F.O.B. origin and destination freight cost or freight allowed or they may be rejected.
3. **Terms of shipment for F.O.B. origin means: Shipper load, carrier count and stow, consignee unload, freight collect!**

RETURN BID TO: **Riverton City**
 Attn: Purchasing
 12830 S Redwood Rd
 Riverton, Utah 84065
 Email: bid.submittal@rivertoncity.com

Note: Bids will be opened and read publicly at:
2:00 PM On **5/16/23**
THE BID NUMBER LISTED IN THE UPPER RIGHT-HAND CORNER OF THIS DOCUMENT MUST BE REFERENCED WHEN RETURNED.

Visit the Riverton City Home Page at: www.rivertoncity.com

FREIGHT INFORMATION:
 Shipping point and zip code: _____
 National Motor Freight Classification: _____
 Shipping Weight: _____

Item(s) and Specifications	Quantity	Unit	Net Unit Price	Extended Price
Bid for the Midas Creek Trail Project. As per attached: - Bid Notice - Bid Plans & Specifications - Bid Schedule - Contract Terms and Conditions				-
Total Price, without freight (FOB Origin) \$ _____ -			Total Price, with freight (FOB Destination) \$ _____ -	

Receipt of addendum acknowledgement. Addendum # 1 ___ 2 ___ 3 ___ 4 ___ 5 ___ 6 ___
 The undersigned certifies that the vendor is willing and able to furnish the item(s) specified on this bid!
Vendors Authorized Agent: type or print NAME and TITLE) _____
 Signature: _____ Date: _____
Please SIGN IN INK or this bid may be rejected, Your signature indicates you have read and agreed to the Instructions & General Provisions.

Riverton City
Invitation for Bid CC23-428
Midas Creek Trail Project

Riverton City is conducting an Invitation for Bid for the completion of the Midas Creek Trail Project. Work includes modifying and constructing a trail, rock retaining wall, placement of riprap, fill material, concrete, and landscape restoration.

Sealed bids will be due by 2:00 pm on May 16, 2023, and may be turned in at the Purchasing Office, located at 12830 South 1700 West, Riverton, Utah 84065, or may be submitted electronically at bid.submittal@rivertoncity.com. Bids submitted after this time will not be accepted. Bids will be opened and read aloud at approximately 2:01 pm. Bidders registered on the plan holder's list, may request to attend the opening via Zoom meeting by sending a request to the purchasing department, ccalvert@rivertonutah.gov.

Bid security in the form of a certified check, cashier's check or bid bond in the amount of five percent (5%) of the bid shall accompany each bid.

An electronic format of the bid package may be obtained through the purchasing website:
<https://www.rivertonutah.gov/purchasing/solicitations.php>.

**SECTION 01 20 00
MEASUREMENT AND PAYMENT**

PART 1 - GENERAL

Bid Schedule

Item No.	Unit Price Bid Item	Total	Unit	Unit Price	Amount
1	Mobilization	1	LS		
2	Traffic Control and Pedestrian Safety	1	LS		
3	Demolition of Existing Miscellaneous Items	1	LS		
4	Concrete Structure	1	LS		
5	Guard Rail	110	LF		
6	Trail	650	LF		
7	Rock Retaining Wall & Riprap	1	LS		
8	Fill material	1	LS		
9	Cut Material	1	LS		
10	Flared Driveway Approach and Concrete Parking Pad	1	LS		
11	Site Restoration, Seeding, Geotextile Fabric & Cobbles	1	LS		
Total					

1.1 UNIT PRICE – MEASUREMENT AND PAYMENT

- A. Measurement and calculation of quantities for payment to be as indicated in this section.
- B. Unit prices or lump sum amounts to include full compensation for furnishing all labor, materials, products, tools, equipment, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit, and doing all work shown on the Drawings, defined in the Specifications, and/or stipulated herein.
- C. Payment covers the cost of incidental work which includes, but is not limited to: progress schedule; CQC program; quality control and testing; temporary facilities; construction surveying; as-built surveying; unclassified excavation; removal and disposal of waste materials; miscellaneous dewatering; compaction of trench backfill materials; compaction density testing; ground water management during construction; constructing needed temporary access to construction areas; survey monument restoration; core drilling holes in existing reinforced concrete structures as needed; tree trimming; tree root trimming; removal and replacement of landscape materials; supporting power poles near trenches, as

required; removing and replacing street signs and mail boxes impacted by construction activities; demobilization; dust control; site cleanup; coordination meetings, exposing; and all other necessary work, to install the Work complete in place.

1. References:
 - a. Riverton City Standard Specifications and Details for Municipal Construction
 - b. 2017 APWA Standard Plans and Specifications.

D. BID: PUBLIC UTILITIES STORM DRAIN IMPROVEMENTS. Measurement and payment to be as follows:

1. Bid Item No. 1 – Mobilization
 - a. Measurement for Mobilization will be made on a lump sum basis.
 - b. Payment Covers: Cost of mobilization; video taping site conditions prior to construction and after completing construction; temporary facilities; obtaining any additional permits not already obtained by the OWNER. This pay item is to cover the cost of mobilizing the equipment needed for construction on site. This pay item shall constitute full compensation for all labor, equipment, tools, supplies and materials required to complete this portion of the Work for this construction project.
2. Bid Item No. 2 – Traffic Control and Pedestrian Safety
 - a. Measurement: Measured and paid for on a lump sum basis.
 - b. Payment Covers: Costs associated with all labor, materials, and equipment required to develop a traffic control plan in accordance with requirements from Riverton City; maintain smooth vehicular traffic flow on 4000 West during the time of construction, including but not limited to: signage, barriers, electronic message boards, warning devices, flaggers, and cleaning roads to maintain a clean condition with no accumulation of dirt, debris or other foreign objects as required by Specifications and street cut permit.
3. Bid Item No. 3 – Demolition of Existing Miscellaneous Items
 - a. Measurement for payment for all demolition work required for the project made on a lump sum basis.
 - b. Payment shall be complete compensation for all labor, tools, materials, and equipment involved in removing and disposing of existing concrete material or landscaping material, including the following:
 - 1) Wingwall and apron shown on Sheet S-01
 - 2) Curb and gutter, parkstrip material, and sidewalk needed to construct a drive approach shown on C-01
 - 3) Remove and dispose of soil to construct concrete pad identified on sheet C-01
 - 4) Remove and dispose of rocks identified on sheet C-03 that will not be used to construct the rock retaining wall or riprap.
4. Bid Item No. 4 Concrete Structure
 - a. Measurement: Measured and paid for on a lump sum basis.
 - b. Payment Covers: All labor, materials, tools and equipment required to install the concrete structure shown on sheets S-01, S-02, S-03, GC-01 & GS-01 including but not limited to: removal and disposal of materials and subgrade preparation; furnishing, hauling, and placing base material; furnishing, forming, placing, finishing and testing of the concrete; installing joints, steel reinforcement, drain holes, subgrade drain lines, sewer rock, geotextile fabric, perforated pipe, and all other work needed to complete this Bid Item in

accordance with the Contract Documents. The guard rail is not to be paid for under this item, but will be paid for under bid item 5.

5. Bid Item No. 5 - Guard Rail
 - a. Measurement: Measured and paid for on linear foot basis as measured in the field by the city engineer.
 - b. Payment Covers: All labor, materials, tools and equipment required to install guard rail including but not limited to: cross rail, posts, joints, casing, connections to the concrete structure, and all necessary parts to install the guardrail to the existing concrete headwall or to the new concrete structure according to details in drawings and specifications.
6. Bid Item No. 6 - Trail
 - a. Measurement: Measured and paid for on linear foot basis as measured in the field by the city engineer.
 - b. Payment covers: All labor, materials, tools, and equipment required for furnishing, placing, compacting, and compaction density testing of the asphalt concrete; furnishing, placing, compacting, and compaction density testing of the untreated base coarse; grading and scarfing native material; management of storm water during construction; connection to the existing trail or to the sidewalk.
 - c. If excavation is required to construct the trail it will be paid with item 9. If additional fill material is required to construct the trail, it will be paid with item 8.
7. Bid Item No. 7 – Rock Retaining Wall & Riprap
 - a. Measurement: Measured and paid for a lump sum basis. The rock retaining wall and riprap for the trail are identified on the design drawings on sheet C-01 and are to be installed approximately between stations 53+30 and 52+20.
 - b. Payment Covers: All labor, material, tools, and equipment needed to backfill behind the wall as needed for construction, move the existing on-site rocks so they can be used to install rock wall or riprap in areas defined on the Drawings; constructing the wall or riprap; and all other work needed to complete this Bid Item in accordance with the Contract Documents.
8. Bid Item No. 8 – Fill Material
 - a. Measurement: Measured and paid on a lump sum basis.
 - b. Payment Covers: All labor, equipment, tools, and materials required to supply and install fill material, as shown on the drawings. The estimated quantity of fill for this project is approximately 500 cubic yards. The contractor shall verify the quantity of fill needed for the project.
 - c. The bid price for this item holds regardless of quantity installed.
9. Bid Item No. 9 – Cut Material
 - a. Measurement: Measured and paid on a lump sum basis.
 - b. Payment Covers: All labor, equipment, tools, and materials required to excavate, remove, haul and dispose of the excavated material as shown on the drawings. The estimated quantity of cut material for this project is approximately 250 cubic yards. The contractor shall verify the cut quantity needed for the project.
 - c. The bid price for this item holds regardless of quantity installed.
10. Bid Item No. 10 – Flared Driveway Approach and Concrete Parking Pad
 - a. Measurement: Measured and paid on a lump sum basis.
 - b. Payment Covers: All labor, materials, tools and equipment required to install the flared drive approach and concrete parking pad including but not limited

to: removal and disposal of materials and subgrade preparation; furnishing, hauling, and placing base material; furnishing, forming, placing, finishing and testing of the concrete; installing joints, steel reinforcement, and all other work needed to complete this Bid Item in accordance with the Contract Documents.

11. Bid Item No. 11 – Site Restoration, Seeding, Geotextile Fabric & Cobbles
 - a. Measurement: Measured and paid on a lump sum basis.
 - b. Payment Covers: All labor, materials, tools and equipment required to restore areas that have been disturbed by construction activities including but not limited to: miscellaneous grading not included in other bid items, scarifying soil, preparation for seeding, furnishing and placing seeds per the specification, hauling and placing cobbles; geotextile fabric and all other work needed to complete this Bid Item in accordance with the Contract Documents.

END OF SECTION

**SECTION 05 50 00
METAL FABRICATIONS**

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish, fabricate, and install metal fabrications in accordance with Contract Documents.

1.2 RELATED SECTIONS

- A. Section 05 52 13 – Pipe and Tube Railings

1.3 REFERENCES

- A. ASTM International (ASTM) standards, most recent editions:

ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate

ASTM B211 Standard Specification for Aluminum and Aluminum-Alloy Bar, Rod, and Wire

ASTM B221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes

ASTM B308 Standard Specification for Aluminum-Alloy 6061-T6 Standard Structural Profiles

ASTM B429 Standard Specification for Aluminum-Alloy Extruded Structural Pipe and Tube

ASTM F593 Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs

ASTM F594 Standard Specification for Stainless Steel Nuts

- B. American Welding Society (AWS) Standards, most recent editions:

AWS D1.2 Structural Welding Code – Aluminum

AWS QC1 Specification for AWS Certification of Welding Inspectors

AWS Welding Handbook

- C.

1.4 DEFINITIONS

- A. Metal Fabrications: Defined as items to be fabricated from metal shapes, plates, or bars and their products.

1.5 SUBMITTALS

- A. Submit in accordance with Section 01 33 20 – Submittal Procedures.
- B. Shop Drawings: Submit shop drawings of all metal fabrications to the Engineer for review.
 - 1. Shop drawings detailing fabrication and erection of each metal fabrication indicated. Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items. Provide templates for anchors and bolts specified for installation under other Sections.
- C. Submit ICC-ES report listing the ultimate load capacity in tension and shear for each size and type of concrete anchor submitted. Submit manufacturer's recommended installation instructions and procedures for adhesive anchors. Upon review, by Engineer, these instructions shall be followed specifically.
- D. No substitution for the indicated adhesive anchors will be considered unless accompanied by an ICC-ES report verifying strength and material equivalency, including temperature at which load capacity is reduced to 90 percent of that determined at 75 degrees F.

1.6 QUALITY ASSURANCE

- A. All weld procedures and welder qualifications shall be available in the Contractor's field office for review.
- B. Qualification of Welders: Use welders with current certifications (previous 12 months) for the material, type, and position of welding used. Certify in accordance with AWS Specifications according to the following:
 - 1. AWS D1.2, Structural Welding Code – Aluminum.
- C. All welding shall be inspected by a Contractor-furnished inspector qualified in accordance with AWS requirements and approved by the Engineer.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section 01 25 10 - Products, Materials, Equipment and Substitutions.
- B. Metal fabrications shall be loaded for transport in such a manner that they may be transported and unloaded without being excessively stressed, deformed, or otherwise damaged.
- C. Protect metal fabrications from corrosion and deterioration.
- D. Store material in a dry area and do not place in direct contact with the ground.

1. Do not place materials on the structure in a manner that might cause distortion or damage to the members or supporting structures.
2. Repair or replace damaged materials or structures as directed.

1.8 PROJECT CONDITIONS

- A. Check actual locations of walls and other construction to which metal fabrications must fit by accurate field measurements before fabrication. Show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
 1. Where field measurements cannot be made without delaying the Work, guarantee dimensions and proceed with fabricating products without field measurements. Coordinate construction to ensure that actual dimensions correspond to guaranteed dimensions. Allow for trimming and fitting.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with the Contract Documents, the following Manufacturers are acceptable:
 1. Concrete anchors:
 - a. Hilti, Inc.
 - b. ITW Ramset/Redhead.
 - c. Simpson Strong Tie Company, Inc.
 - d. Engineer approved equal.
 2. Anti-seize lubricant:
 - a. AS-470 by Dixon Ticonderoga
 - b. PURE WHITE by Anti-Seize Technology
 - c. Engineer approved equal.

2.2 MATERIALS

- A. Stainless steel: ASTM A666 and ASTM A276, Type 316 or 316L
- B. Aluminum: Alloy 6061 – T6 conforming to the following specifications:
 1. Sheet and plate: ASTM B209.
 2. Rolled Bars and Rods: ASTM B211.
 3. Extruded bars, rods, shapes, and tubes: ASTM B221.
 4. Rolled or extruded structural shapes: ASTM B308.
 5. Extruded structural pipe and tube: ASTM B429.
- C. Anchors:
- D. Epoxy Anchors: Unless otherwise indicated, all drilled concrete anchors shall be epoxy anchors. No substitutions will be considered unless accompanied with ICC-ES reports verifying strength and material equivalency.
 1. Epoxy anchors are required for drilled anchors where exposed to weather, in submerged, wet, splash, overhead, and corrosive conditions, and for anchoring

- handrails, pumps, mechanical equipment, and reinforcing bars. Provide threaded stainless steel rod, Type 316.
2. Unless otherwise indicated, epoxy anchors will also be permitted in locations not indicated above.
 3. Products for concrete anchorage:
 - a. HIT-RE 500-V3, Hilti.
 - b. Set XP, Simpson Strong-Tie.
 - c. Red Head C6+, ITW Ramset/Redhead.
 - d. Engineer approved equal.
- E. Expansion Anchors: Expansion anchors will only be permitted when specifically approved by the Engineer. Expansion anchors that are to be fully encased in grout may be carbon steel. For non-encased buried or submerged anchors, provide stainless steel anchors. When expansion anchors are indicated or permitted, provide the following:
1. Kwik-Bolt TZ, Hilti.
 2. Strong-Bolt 2, Simpson Strong-Tie.
 3. Trubolt, ITW Ramset/Redhead.
 4. Engineer approved equal.

2.3 MANUFACTURED UNITS

- A. Guardrails: Refer to Section 05 52 13 – Pipe and Tube Railings.

2.4 FABRICATION

- A. Verify field conditions and dimensions prior to fabrication.
- B. Form metal fabrications from materials of size, thickness, and shapes indicated but not less than that needed to comply with performance requirements indicated. Work to dimensions indicated or accepted on shop drawings, using proven details of fabrication and support. Use type of materials indicated or specified for various components of each metal fabrication.
- C. Form exposed work true to line and level with accurate angles and surfaces straight and sharp edges.
- D. Drill and punch holes with smooth edges.
- E. Allow for thermal movement resulting from the following maximum change (range) in ambient temperature in the design, fabrication, and installation of installed metal assemblies to prevent buckling, opening up of joints, and overstressing of welds and fasteners. Base design calculations on actual surface temperatures of metals due to both solar heat gain and nighttime sky heat loss.
1. Temperature Range: 0 degrees F minimum to 110 degrees F maximum ambient temperature.
- F. Shear and punch metals cleanly and accurately. Remove burrs.
- G. Ease exposed edges to a radius of approximately 1/32 inch unless otherwise indicated. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.

- H. Remove sharp or rough areas on exposed traffic surfaces.
- I. Welding
 - 1. Welding shall be by the metal-arc method or gas-shielded arc method as described in the American Welding Society's "Welding Handbook" as supplemented by other pertinent standards of the AWS. Qualification of welders shall be in accordance with the AWS Standards governing same.
 - 2. In assembly and during welding, the component parts shall be adequately clamped, supported and restrained to minimize distortion and for control of dimensions. Weld reinforcement shall be as indicated by the AWS Code. Upon completion of welding, all weld splatter, flux, slag, and burrs left by attachments shall be removed. Welds shall be repaired to produce a workmanlike appearance, with uniform weld contours and dimensions. All sharp corners of material that are to be painted or coated shall be ground to a minimum of 1/32-inch on the flat.
 - 3. Weld corners and seams continuously to comply with the following:
 - a. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - b. Obtain fusion without undercut or overlap.
 - c. Remove welding flux immediately.
 - d. At exposed connections, finish exposed welds and surfaces smooth and blended so that no roughness shows after finishing, and contour of welded surface matches those adjacent.
- J. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners whenever possible. Use exposed fasteners of type indicated or, if not indicated, Phillips flat-head (countersunk) screws or bolts. Locate joints where least conspicuous.
- K. Provide for anchorage of type indicated; coordinate with supporting structure. Fabricate and space anchoring devices to secure metal fabrications rigidly in place and to support indicated loads.
- L. Shop Assembly: Preassemble items in shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.
- M. Cut, reinforce, drill, and tap metal fabrications as indicated to receive finish hardware, screws, and similar items.
- N. Fabricate joints that will be exposed to weather in a manner to exclude water, or provide weep holes where water may accumulate.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Coordinate and furnish anchorages, setting drawings, diagrams, templates, instructions, and directions for installing anchorages, including concrete inserts, sleeves, anchor bolts, and

miscellaneous items having integral anchors that are to be embedded in concrete construction. Coordinate delivery of such items to Project site.

- B. Inspect and verify condition of substrate. Correct any surface defects or conditions which might interfere with or prevent a satisfactory installation.

3.2 INSTALLATION

- A. Set metal work level, true to line, plumb.
- B. In fabrication and erection of structural steel, conform to the requirements of the American Institute of Steel Construction "Manual of Steel Construction."
- C.
- D. Provide each fabricated item complete with attachment devices as indicated or required to install.
- E. Anchor metal items so that items will not be distorted nor fasteners overstressed from expansion and contraction.
- F. Coat surfaces of aluminum that will come in contact with grout, concrete, masonry, wood or dissimilar metals with the following:
 1. Cast Aluminum: Heavy coat of bituminous paint.
 2. Extruded Aluminum: Two coats of clear lacquer.

3.3 DRILLED ANCHORS

- A. Drilled-in anchors and reinforcing bars shall be installed in strict accordance with the manufacturer's instructions. Holes shall be roughened with a brush on a power drill, cleaned and dried. Drilled anchors shall not be installed until the concrete has reached the specified 28-day compressive strength. Epoxy anchors shall not be loaded until the adhesive has reached its indicated strength in accordance with the manufacturer's instructions.

END OF SECTION

**SECTION 05 52 13
PIPE AND TUBE RAILINGS**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes guardrails and handrails to be fabricated and installed complete, in accordance with the Contract Documents.
1. Aluminum pipe railings.

1.2 RELATED SECTIONS

1. Section 05 50 00 – Metal Fabrications

1.3 REFERENCES

- A. Aluminum Association (AA) standards, most recent editions:

ADM 1	Aluminum Design Manual, Part 1-A Aluminum Structures, Allowable Stress Design
ASD 1	Aluminum Standards and Data
DAF 45	Designation System for Aluminum Finishes
SAA 46	Standards for Anodized Architectural Aluminum

- B. ASTM International (ASTM) standards, most recent editions:

ASTM B26	Standard Specification for Aluminum-Alloy Sand Castings
ASTM B108	Standard Specification for Aluminum-Alloy Permanent Mold Castings
ASTM B209	Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate
ASTM B221	Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes

- C. American Welding Society (AWS) standards, most recent editions:

D1.2	Structural Welding Code – Aluminum
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- D. National Association of Architectural Metal Manufacturers (NAAMM) standards, most recent editions:

Metal Finishes Manual for Architectural and Metal Products

- E. The Society for Protective Coatings standards, most recent editions:

SSPC-SP 6

Commercial Blast Cleaning

1.4 SUBMITTALS

- A. Submit in accordance with Section 01 33 20 – Submittal Procedures.
- B. Shop Drawings: Submit shop drawings of all railings to the Engineer for review, including the following information:
1. Manufacturer's installation details.
 2. Layout drawings showing location of each railing, type of railing, and type of anchorage to be used.
 3. Manufacturer's recommendations on fastening and cleaning after installation.
- C. Mill Certificates: Signed by manufacturers of stainless steel products certifying that products furnished comply with requirements.
- D. Product Test Reports: From a qualified testing agency indicating railings comply with ASTM E985, based on comprehensive testing of current products and current building code required by authority having jurisdiction, whichever is more stringent..
- E. Certification: Submit a written certification, prepared by a Professional Engineer, licensed to practice in the state of Utah, verifying that the railing system design and related structural connections will meet the indicated loading requirements specified herein and included in the codes and standards referenced.
- F. Engineer's seal and signature to be affixed to shop drawings, and certification.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of railing from single source from single manufacturer.
- B. Welding
1. All weld procedures and welder qualifications shall be available in the Contractor's field office for review.
 2. Qualification of Welders: Use welders with current certifications (previous 12 months) for the material, type, and position of welding used. Certify in accordance with AWS Specifications according to the following:
 - a. AWS D1.2, Structural Welding Code – Aluminum.
 - b.
 3. All welding shall be inspected by a Contractor-furnished inspector qualified in accordance with AWS requirements and approved by the Engineer.
- C. Licensed Professional: Design railings, including comprehensive engineering analysis by a qualified Professional Engineer who is licensed to practice in the state of Utah, using performance requirements and design criteria indicated herein.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section 01 25 10 - Products, Materials, Equipment and Substitutions.
- B. Deliver products to site in original, unbroken packages, containers, or bundles and bearing the label of the manufacturer.
- C. Store all materials off the ground and protect from weather until ready for use.

1.7 COORDINATION AND SCHEDULING

- A. Coordinate installation of anchorages for railings. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- B. Schedule installation so wall attachments are made only to completed walls. Do not support railings temporarily by any means that do not satisfy structural performance requirements.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

- A. General: Unless otherwise indicated, install all railings complete and ready for use with all anchors, attachments, balusters, brackets, caps, fasteners, gates, posts, sleeves, trim, and other items required or necessary for the complete installation. Attachment details shown on the Contract Drawings are for the purpose of indicating the type of attachment and may be substituted with the Manufacturer's standard products for the same type of attachment.
- B. Structural Design Requirements:
 - 1. Unless otherwise specifically noted, all railings, guardrails and handrails shall conform to the code requirements for industrial-commercial, non-public use under the State-approved OSHA. Railings, guardrails, and handrails, when part of a means of egress as defined by the governing codes, shall conform to the requirements of the most stringent of the codes or reference standards. The whole project shall conform to the code and State-approved OSHA for industrial-commercial, non-public use unless otherwise indicated. Limited public use shall mean that the facility is not designed for general public use; however, occasionally the public is allowed controlled access when approved.
 - 2. Loading Conditions: Provide railings and handrail brackets capable of withstanding the following loading conditions without exceeding the allowable working stress of the material and without permanent deformation:
 - a. Top Rail of Guards: Concentrated load of 200 pounds applied at any point and in any direction, and a uniform load of 50 pounds per lineal foot applied in any direction. Concentrated and uniform loads need not be assumed to act concurrently.
 - b. Handrails Not Serving As Top Rails: Concentrated load of 200 pounds applied at any point and in any direction, and a uniform load of 50 pounds per lineal

foot applied in any direction. Concentrated and uniform loads need not be assumed to act concurrently.

- c. Infill Area of Guardrail Systems: Horizontal concentrated load of 50 pounds applied to 1 square foot at any point in system, including panels, intermediate rails, pickets, or other elements composing infill area. Load on infill area need not be assumed to act concurrently with loads on top rails.
 - d. Posts: Concentrated load of 200 pounds applied at any point and in any direction, and a uniform load of 50 pounds per lineal foot applied in any direction. Concentrated and uniform loads need not be assumed to act concurrently.
 - e. In engineering railings to withstand structural loads indicated, determine allowable design working stresses of railing materials based on the following:
 - 1) Aluminum: Referenced Aluminum Association publications.
- C. Height Requirements: Top of upper railing shall be 42 inches above the working surface or toe line of stairs. Toe boards shall be installed not more than 1/4 inch off the working surface and shall be provided where indicated and required by codes or referenced standards. Provide a separate handrail at stair locations.
- D. Guardrail Configuration: Guardrail shall be a picket style as depicted on the Contract Drawings with open spaces not exceeding 4 inches.
- E. Thermal Movements:
1. Exterior railing systems to provide for 1/4 inch expansion and contraction per 20 linear feet of railing.
 2. Interior railing systems to provide for 1/8 inch expansion or contraction per 20 linear feet of railing.
 3. Temperature change (range): 120 Degrees F, ambient; 180 Degrees F, material surfaces.
- F. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

2.2 MATERIALS

- A. Aluminum: Provide alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with not less than the strength and durability properties of alloy and temper designated below for each aluminum form required.
1. Extruded Bars and Tubing: ASTM B 221, Alloy 6063-T5/T52, 6005-T5.
 - a. Provide 1-1/2 in IPS, (1.90 in OD) Schedule 40 pipe for rails,
 - b. Provide 1-1/2 in IPS, (1.90 in OD) Schedule 80 pipe for posts,
 - c. Provide 3/4 in IPS, (1.05 in OD) Schedule 10 pipe for pickets.
 2. Extruded Structural Pipe and Round Tubing: ASTM B 429, Alloy 6061-T6.
 3. Drawn Seamless Tubing: ASTM B 210, Alloy 6063-T832
 4. Die and Hand Forgings: ASTM B 247, Alloy 6061-T6
 5. Sheet and plate: Alloy 6061 - T6 or 6063-T6, ASTM B209.
 6. Cast fittings: Aluminum, ASTM B108 or ASTM B26.

- B. Brackets: Handrail brackets shall be stainless steel or aluminum that matches the handrail or railing of which they are a part, including the finish.
- C. Toe Boards: Toe board material and finish shall match railing system and be not less than 4 inches in height. Toe boards shall be formed in an angle or channel section for strength.
- D. Connection splices: Internal mechanical connection splices for aluminum railings shall be of extruded aluminum.
- E. Fasteners:
 - 1. Aluminum Railings: Type 316 stainless-steel fasteners.
 - 2. Fasteners for Anchoring Railings to Other Construction: Select fasteners to produce connections suitable for anchoring railings to other types of construction indicated and capable of withstanding design loads. Unless otherwise indicated, provide stainless steel fasteners per requirements of Section 05 50 00 – Metal Fabrications.
 - 3. Fasteners for interconnecting railing components shall be of the same basic metal as the fastened metal. Do not use metals that are corrosive or incompatible with materials being joined.
- F. Miscellaneous Materials:
 - 1. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded. For aluminum railings, provide type and alloy as recommended by producer of metal to be welded and as required for color match, strength, and compatibility in fabricated items.

2.3 FABRICATION

A. General

- 1. Fabricate handrails and railing systems with welded or non-welded, internal and mechanical connections to comply with manufacturer's printed requirements, Construction Documents, details, dimensions, finish and member sizes, including post spacing and anchorage, but not less than the structural requirements to support applied loadings.
 - a. Clearly mark component units for site assembly and installation.
 - b. Use only connections that maintain structural capacity of joined members.
- 2. Assemble railings in the shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation. Use connections that maintain structural value of joined pieces.
- 3. Provide weep holes or other means to exit entrapped water from hollow section of railing members exposed to exterior, condensation, or moisture from other sources.
- 4. Fabricate smooth and free of surface blemishes including pitting, seam marks, roller marks, rolled trade names, and roughness.
- 5. Form exposed elements with smooth, long radius bends, accurate angles and straight sharp edges.
 - a. Ease exposed edges to a radius of approximately 1/32 inch.

- b. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing the work.
 - 6. For aluminum railings with exposed connections with flush, smooth, hairline joints.
 - a. Hand file to remove burrs and sharp edges before assembly.
 - b. Use recessed screws or flush blind rivets.
 - c. Top rail splices and expansion joints shall be located within 8 inches of post or other support.
 - 7. Provide for anchorage to side face of support unless shown otherwise in Contract Drawings. Where this is impractical, provide for top face attachment.
 - 8. Handrail Termination:
 - a. Fit exposed ends of handrails with solid terminations.
 - b. Handrails to extend not less than 12 inches beyond the toe of the top and bottom risers in a run of stairs.
 - c. Ends of handrails to be returned to the wall or to be terminated in posts or safety terminals. Posts and safety terminals may be used only when approved by the Engineer. Close ends of returns unless clearance between end of railing and wall is 1/4 inch or less.
- B. Welded Railing Fabrication:
 - 1. All welding to be continuous.
 - 2. Remove flux immediately.
 - 3. All exposed welds to be ground and buffed smooth and flush to match and blend with adjoining surfaces.
 - 4. No ragged edges, surface defects, or undercutting of adjoining surfaces will be accepted.
- C. Non-welded Railing Fabrication:
 - 1. All railings to be pre-fabricated or component formed, marked and sized for on-site installation.
 - 2. Top railing to be single continuous length attached to a minimum of three posts where possible.
 - 3. Posts and intermediate railings shall be single continuous lengths of pipe.
- D. Form changes in direction by bending or by inserting prefabricated elbow fittings.
 - 1. Bend members in jigs to produce uniform curvature for each configuration required. Maintain cross section of members throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.
- E. Provide inserts and other anchorage devices for connecting railings to concrete or masonry work. Fabricate anchorage devices capable of withstanding loads imposed by railings. Coordinate anchorage devices with supporting structure.
 - 1. For railing posts set in concrete, provide steel as detailed on the Drawings.
 - 2. For removable railing posts, fabricate slip-fit sockets from tube or pipe whose ID is sized for a close fit with posts; limit movement of post without lateral load, measured at top, to not more than one-fortieth of post height. Provide socket covers designed and fabricated to resist being dislodged.
 - a. Provide stainless steel chain with eye, snap hook, and staple across gaps formed by removable railing sections at locations indicated.

2.4 FINISH

A. General

1. Comply with NAAMM "Metal Finishes Manual for Architectural and Metal Products" for recommendations relative to applying and designating finishes.
2. Protect mechanical finishes on exposed surfaces from damage per manufacturer's recommendations.
3. Noticeable variations in appearance within the same piece or adjacent pieces are not acceptable.

B. Steel and Iron Finishes

1. Galvanized Railings:
 - a. Hot-dip galvanize indicated steel and iron railings, including hardware, after fabrication.
 - b. For galvanized railings, provide hot-dip galvanized fittings, brackets, fasteners, sleeves, and other ferrous components.
 - c. Comply with ASTM A123 for hot-dip galvanized railings.
 - d. Comply with ASTM A153 for hot-dip galvanized hardware.
 - e. When galvanized railings are to be coated, do not quench or apply post galvanizing treatments that might interfere with paint adhesion. After galvanizing, thoroughly clean railings of grease, dirt, oil, flux, and other foreign matter, and treat with etching cleaner.
- 2.

C. Aluminum

1. Finish designations prefixed by "AA" conform to the system established by the Aluminum Association for designating aluminum finishes.
 - a. Anodized finish shall be Class I provided in accordance with AA-M12 C22 A41, clear.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions: Examine system components, substrate, and conditions where railing systems are to be installed. If unsatisfactory conditions exist, notify Engineer in writing of unsatisfactory conditions and do not begin this Work until such conditions have been corrected.
- B. Commencing installation of this Work constitutes acceptance of conditions.

3.2 PREPARATION

- A. Prepare surrounding construction to receive railing system installations complying with railing manufacturer's requirements

- B. Review and coordinate setting drawings, shop drawings, templates, and instructions for assembly and installation of railing system and related items to be embedded in concrete and masonry.

3.3 DISSIMILAR MATERIALS

- A. When aluminum railing components come into contact with dissimilar metals, masonry, or concrete, surfaces shall be kept from direct contact by painting the contact surface with a heavy coat of bituminous paint (cast aluminum) or two coats of clear lacquer (extruded aluminum).

3.4 INSTALLATION

- A. Install railing system and related components in strict accordance with approved shop drawings and manufacturer's printed instructions.
- B. Preassemble railing system, including posts, rails, and pickets, into the largest practical sections possible.
 - 1. Align rails so that variations from level for horizontal members and from parallel with rake of steps and ramps for sloping members, do not exceed tolerances specified in this Section. Erect work free from distortion or defects detrimental to appearance or performance.
 - 2. Separate aluminum which might contact concrete, masonry and other dissimilar metals to prevent electrolytic action.
- C. Align railings prior to securing in place to assure proper matching at abutting and expansion joints and correct alignment throughout their length.
 - 1. Provide for thermal expansion and contraction by use of expansion joints in top rails at 20-foot maximum intervals.
 - 2. Space posts not more than 6 feet on center.
 - 3. Space wall brackets not more than 5 feet on center.
- D. Provide anchorage for posts as indicated on Contract Drawings and in the following manner:
 - 1. Top of concrete and masonry walls, slabs, walkways, stairs and removable railing sections:
 - a. Furnish posts with floor flange, welded or mechanically attached to post, with predrilled holes for bolting to surface.
 - 2. Side of concrete and masonry walls, slabs, walkways, stairs and removable railing sections:
 - a. Furnish posts with side plate, welded or mechanically attached to post, with predrilled holes for bolting to surface
 - 3. Install removable railing sections, where indicated, in slip-fit metal sockets cast in concrete or attached to side as indicated on Drawings.
- E. Attach wall railings to wall with wall brackets except where end flanges are used. Provide brackets with 1-1/2-inch clearance from inside face of handrail and finished wall surface. Locate brackets as indicated or, if not indicated, at spacing required to support structural loads.
 - 1. Use type of bracket with predrilled hole for exposed bolt anchorage.

- F. Gates and removable sections:
1. Provide safety gates in railing systems where ladder tops occur and at other locations shown on the Contract Drawings. Safety chains will not be accepted. Provide gates with self-closing hinges and self-closing latch bolts.
 2. Provide removable railing sections where indicated on the Contract Drawings.
 3. Provide gate and removable railing section hardware with color to match the railing system of which it is a part.

3.5 TOLERANCES

- A. Limit variation of cast-in-place inserts, sleeves, and field-drilled anchor and fastener holes to the following:
1. Spacing: $\pm 3/8$ inch.
 2. Alignment: $\pm 1/4$ inch.
 3. Plumbness: $\pm 1/8$ inch.
- B. Handrails and Guardrail System Plumb Criteria:
1. Limit variation of completed handrail and guardrail system alignment to $1/4$ inch in 12 feet with posts set plumb to within $1/16$ inch in 3 foot.
 2. Align rails so variations from level for horizontal members and from parallel with rake of stairs and ramps for sloping members do not exceed $1/4$ inch in 12 feet.
- C. Provide "hair-line" thin butt joints.

3.6 CLEANING

- A. As installation is completed, clean the railings in accordance with the manufacturer's printed instructions.
- B. If cleaning operations remove anodized finish, remove the affected rail and replace with new material.
- C. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop painting.
1. Apply by brush or spray to provide a minimum 2.0-mil dry film thickness.

3.7 PROTECTION

- A. Suitably protect rail surfaces against lime mortar stains, discoloration, surface abrasion, and other construction abuses. Remove stained or otherwise defective work and replace with material that meets specification.

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SECTION 32 90 01
LANDSCAPE RESTORATION

PART 1 - GENERAL

1.1 SUMMARY

- A. The Contractor shall provide landscaping and appurtenant work, complete and in place, in accordance with the Contract Documents.
- B. Landscaping as referred to herein shall include supplying and placing topsoil, soil preparation, installation of headers, weed control, finish grading, furnishing and installing plant materials, seeding, erosion control, cleanup, and maintenance guarantee.

1.2 DEFINITIONS

- A. The terms "plant material" or "plants" refer to all vegetation, including but not limited to seed and seeded areas, etc.
- B. "Quality" refers to general development without consideration of size or condition. "Standard quality" indicates the least acceptable quality. "Standard quality" seeded and germinated plants shall be typical of the species and variety of good average uniform growth, shall be well formed.
- C. "Condition" is the factor controlled by vitality and ability to survive and thrive and be comparable with normal plants of the same species and variety in the vicinity at the same season of the year. Plants shall be free from physical damage or adverse conditions that would prevent thriving. "Condition" also sometimes refers to state of growth, i.e., whether "dormant condition" or "growing condition" and this state shall be comparable to plants of similar species in the vicinity for leaves, formation of buds, and the like.

1.3 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Commercial Standards:

ASTM D 422	Method for Particle-Size Analysis of Soils
ANSI Z60.1	Nursery Stock
American Association of Rules and Grading Provisions Nurserymen, Inc.	

1.4 CONTRACTOR SUBMITTALS

- A. General: Submittals shall be furnished in accordance with Section 01 33 20 - Contractor Submittals.
- B. Product Information
 - 1. Manufacturer's product information on slow-release fertilizer, fertilizer tablets, seed, and erosion control materials.

2. **Topsoil Analysis Report:** A report certified by an analytical laboratory which shows results of analyzing representative samples of topsoil proposed for use. Approval of the report does not constitute final acceptance of the topsoil. Topsoil report will only be required if imported topsoil is used for the site. It is anticipated that existing topsoil will be stripped, stockpiled, and then redistributed across the site after fine grading is complete.
 3. Supplier's information and testing information on compost for soil amendment.
- C. Certificate
1. Certificates shall accompany each product delivery stating source, quantity, and type of material. All certificates shall be submitted to the Landscape Architect at the time of delivery.
 2. Certificates of inspection of plant material, as may be required by Federal, State, or other authorities having jurisdiction, which accompany the shipment, shall be submitted to the Landscape Architect at the time of delivery.
 3. Landscaping Subcontractor guarantee to perform seed maintenance and weeding services during the one-year correction of defects period.

1.5 QUALITY ASSURANCE

- A. General: All plants shall be true to type or name as indicated in the Contract Documents and shall be tagged in accordance with the standard practice recommended by the Agricultural Code of the State of Utah however, determination of plant species or variety will be made by the Landscape Architect.
- B. All plants shall comply with Federal and Utah State laws requiring inspection for plant diseases and infestations.
- C. The Contractor shall obtain clearance from the County Agricultural Commissioner, as required by law, before planting plants delivered from outside the County in which they are to be planted. Evidence that such clearance has been obtained shall be filed with the Engineer or Landscape Architect.
- D. Inspections will be made by the Engineer or Landscape Architect. The Contractor shall request inspection at least 24 hours in advance of the time inspection is required. Inspection is required on the following stages of the Work:
 1. During preliminary grading, soil preparation, and initial weeding.
 2. When approved, amended topsoil is placed.
 3. When finish grading has been completed.
 4. When seed is to be applied.
 5. Once seed application has been complete and erosion control is in place.
 6. When all Work except the maintenance period has been completed.
 7. Final inspection before acceptance of the project.

1.6 CLEANUP

- A. Upon completion of all planting operations, the portion of the Site used for a work or storage area by the Contractor shall be cleaned of all debris, superfluous materials, and equipment.

All such materials and equipment shall be entirely removed from the Site in accordance with Section 01 70 10 – Project Closeout.

- B. All walks or pavement shall be swept or washed clean upon completion of the Work of this Section.
- C. During the entire Contract period, plant containers that have been cut or removed from plant materials shall be removed from the site daily.
- D. All fertilizer packaging shall be cleared from the site at the end of every day.

1.7 MAINTENANCE OF LANDSCAPING PLANTING PRIOR TO ACCEPTANCE OF PROJECT

- A. General: The Contractor shall be responsible for protecting and maintaining all seeded areas until final acceptance of all Work under the Contract.
- B. Protection: The Contractor shall provide adequate protection to all newly seeded areas including the installation of approved temporary fences to prevent trespassing and damage, as well as erosion control, until the end of the correction of defects period.
- C. The Contractor shall replace any materials or equipment that its employees or Subcontractors have damaged.
- D. Partial utilization of the project shall not relieve the Contractor of any of the requirements contained in the Contract Documents.
- E. Seeded areas shall be maintained by weeding, fertilizing, spraying, and other operations necessary.
- F. Maintenance shall include, in addition to the foregoing, cleaning, the repair of erosion, reseed bare areas, and all other necessary maintenance work. Sidewalks, retaining walls and paved areas shall be kept clean while seeding and maintenance are in progress.

1.8 FINAL INSPECTION AND GUARANTEE

- A. Inspection of all seeded areas will be part of final inspection under the Contract.
- B. Written notice requesting inspection shall be submitted to the Landscape Architect at least 10 days prior to the anticipated inspection date.
- C. Final acceptance prior to start of the guarantee period of the Contract will be on written approval by the Engineer or Landscape Architect, on the satisfactory completion of all Work, including maintenance, but exclusive of the replacement of plant material or reseed areas that have less than 30% coverage of non-invasive weeds.
- D. Any delay in the completion of any item of work in the planting operation which extends the seeding into more than one season shall extend the correction period in accordance with the date of completion given above.

- E. The Contractor shall reseed, as soon as weather conditions permit, all bare areas or areas that show less than 30% seed germination which are noted at the end of the one-year correction period.
 - F. All Work under this Section shall be left in good order to the satisfaction of the Owner and the Landscape Architect, and the Contractor shall, without additional expense to the Owner.
- 1.9 MAINTENANCE AND GUARANTEE FOLLOWING ACCEPTANCE OF PROJECT
- A. General: The Contractor shall be responsible for a period of one year after date of acceptance of the Work of this Section, for maintaining all seeded areas, including fertilizing, controlling insects and diseases and weeding. During the one-year maintenance and correction period, areas that show 10% or greater of invasive weed growth shall be treated with an herbicide or pulled and reseeded. Contractor shall conduct a site visit monthly to monitor invasive and noxious weed growth. **The Contractor shall obtain a written guarantee from the landscaping Subcontractor embodying the provisions of this paragraph.**
 - B. The Work covered by the maintenance and guarantee portions of this paragraph includes providing all reseeding of seeding areas for the one year maintenance period or for 2 full growing seasons if the maintenance periods starts in the fall or winter, labor, materials, chemicals, equipment, and supplies and in performing all operations in connection with maintenance and guarantees.
 - C. The Contractor shall clean-up and remove unused or waste materials from the Site and leave the area in a neat condition satisfactory to the Owner whenever it performs work during the maintenance period.
 - D. Final Inspection: The Owner and Contractor shall make a final inspection at the end of the one-year maintenance and correction period. Any bare seed areas, or less than 30% coverage of non-invasive/weed species at time of final inspection, shall be reseeded within a time agreed upon by both parties. If it is outside of the seeding window for seeding, seeding shall take place within the next seeding window even though reseeding may run beyond the maintenance and correction period.

PART 2 - PRODUCTS

2.1 GENERAL

- A. All landscaping materials including but not limited to, soil amendments, fertilizer, herbicides, pesticides, seed mixtures and erosion control materials shall be first-grade, commercial quality and shall have certificates indicating the source of material, analysis, quantity, or weight attached to each sack or container or furnished with each delivery. Delivery certificates shall be given to the Landscape Architect as each shipment of material is delivered. A list of the materials used, together with typical certificates of each material, shall be submitted to the Landscape Architect prior to final acceptance.

2.2 TOPSOIL

- A. It is anticipated that existing topsoil will be stripped, stockpiled, and then redistributed across the site after fine grading is complete. If imported is required by the Owner, imported topsoil shall be obtained from naturally drained areas and shall be fertile, friable loam suitable for plant growth. Topsoil shall be subject to inspection and approval by the Landscape Architect at the source of supply and upon delivery to the site. All laboratory soil testing shall be ordered and paid by the Contractor.
- B. Onsite or imported topsoil shall be of uniform quality, free from toxic substances, subsoil, stiff or lumpy clay, hard clods, hardpan, rocks, disintegrated debris, plants, roots, seeds, and any other materials that would be toxic or harmful to plant growth. **Topsoil shall contain no noxious weeds or noxious weed seeds. If stockpiled topsoil contains weeds it must be sterilized 2 weeks prior to seeding and application of erosion control blanket.**
- C. Topsoil used for this Work shall meet the following requirements.
1. Soluable salts (EJe) Less than 4 dS/m or mmho/cm
 2. ph Between 5.0 and 7.5
 3. Sand, silt, clay content Less than 30% clay
 - a. Less than 70% sand and
 - b. Less than 70% silt.
 4. Soil texture Sand clay loam (SLC)
 - a. sandy loam (SL)
 - b. clay loam (CL)
 5. Organic matter content (by weight) Minimum 0.5 Percent
 6. SAR (sodium absorption ratio) Less than 7
 7. Percent coarse fragments (rocks>2mm) Less than 5 percent
 8. Nitrate Nitrogen (ppm) Greater than 20
 9. Phosphorus (ppm) Greater than 15
 10. Potassium (ppm) Greater than 150
 11. Iron (ppm) Greater than 10

2.3 FERTILIZER AND AMENDMENTS

- A. Fertilizer shall be furnished in bags or other standard containers with name, weight, and guaranteed analysis of contents clearly marked thereon.
- B. Chemical fertilizers shall be a mixed commercial fertilizer with percentages of nitrogen, phosphoric acid, and potash at 16-16-8 slow release formula. Fertilizers shall be uniform in composition, dry, and free flowing.
- C. Fertilizer tablets shall be 12 grams each 20-10-5 "Agriform," "Lesslie", or equal.
- D. Compost: Onsite topsoil shall be amended with one part compost to 5 parts topsoil. Compost shall consist of composed leaves and yard grass. Compost shall meet the following requirements:
1. Compost shall be dark brown to black in color,
 2. Compost shall have no objectionable odor,
 3. Compost shall have a particle size of ½ inch or less,

4. Compost shall have a pH of 5.0 to 7.8,
5. Compost shall have a soluble salt concentration (mmhos/cm or dS/m) of less than 5 and
6. Compost shall have a carbon-to-nitrogen ration of less than 25:1.

2.4 SEED

- A. Seed shall conform with applicable City, County, State, Federal regulations and meet Utah Seed Law. Seed shall be mixed by dealer. The Contractor shall furnish dealer's guaranteed germination figure for each variety. Grass seed shall not be delivered until samples have been approved in writing by the Engineer, Landscape Architect or its authorized landscape representative. Approval of samples, however, shall not affect the right of the Engineer, Landscape Architect or the authorized landscape representative to reject seed upon or after delivery. Seed that has become wet, moldy, or otherwise damaged prior to use will not be accepted.
- B. Grass seed shall be fresh, clean, new-crop seed, composed of the following varieties mixed in the proportions by weight. Purity and germination percentage shall be the results of testing.
- C. Weather Conditions: Fertilizing, seeding, or mulching operations will not be permitted when wind velocities exceed 5 miles per hour or when the ground is frozen, unduly wet, or otherwise not in a tillable conditions. Seeding shall not be conducted when temperatures exceed 75°F.
- D. Topsoil: Four inches of approved, onsite or imported, amended topsoil shall be placed in all areas delineated to be seeded. Imported, amended topsoil shall be placed and raked smooth prior to seeding. Stripped and stockpiled topsoil for wetlands shall be kept in separate piles from upland stripped and stockpiled topsoil and shall not be intermixed. Contractor shall use stockpiled wetland stockpile for wetland restoration areas and upland stockpile for upland areas prior to seeding.
- E. Soil Preparation: The ground to be seeded shall be graded in conformance with the Drawings and shall be loose and reasonably free of large rocks, roots, and other material which will interfere with the work. The site shall be rough and scraped with the teeth of a track hoe bucket or similar.
- F. Supply seed on a pure live seed (PLS) basis.
- G. Obtain seed from lots that have been tested by a state certified seed testing laboratory. (Association of Seed Analyst (AOSA) or Society of Commercial Seed Technologists (SCST). Seed germination tests older than 18 months for grass seed, and 9 months for shrub or tree seed are not acceptable.
- H. Do not use wet, moldy or otherwise damaged seed.
- I. See the end of this specification for seed mix(s).
- J. In disturbed areas, complete all weed removal, final grading, trench settling, surface preparation and irrigation work (if applicable) before seeding begins.

- K. Roughen soil receiving seed.
- L. Do not install when seed or soil is saturated or frozen.
- M. MAINTENANCE
 - 1. During the maintenance period the contractor shall be responsible for removing weeds and maintaining the site to provide as good of conditions as possible for seed to grow.
 - 2. Contractor shall plan on one re-seeding if the upland and wetland seed has not established to a minimum of 30% coverage at the end of the warranty period.

2.5 BROADCAST SEED

- A. Broadcast seed is not allowed. Only drill or hydroseeding is allowed.

2.6 DRILL SEEDING

- A. Drill seeding of the native seed may occur between October 30 and February 28. The actual seeding period must be approved by the Engineer or Landscape Architect because weather conditions vary from year to year. No seed shall be conducted until approved.
- B. All areas that are designated for seeding with the seed mix shown on sheet L-01 in the Contract Documents shall be seeded by drilling unless otherwise approved in writing by the Engineer or Landscape Architect. Only those areas that are too steep to drill may be hydroseeded.
- C. Seeding: Seed shall be uniformly drilled to an average depth of 1/4 to 1/2 inch at the rate specified using equipment having drills not more than 6-1/2 inches apart. Row markers shall be used with the drill seeder. Drill seeding shall take place 3 days after application of herbicide.
- D. Rolling: Immediately after seeding, the entire area shall be firmed with a roller not exceeding 90 pounds for each foot of roller width. Areas seeded with drills equipped with rollers shall not be rolled.
- E. Hydromulch: Apply hydromulch over the entire seeded area at a rate of 2000 pounds per acre. Hydromulching operation shall be conducted as described in Section 3.13 Hydroseeding.

2.7 HYDROSEEDING

- A. Hydroseeding shall only be used in areas that are too steep for drill seeding.
- B. Hydroseeding of the native seed mix may occur between September 15 to November 15. Fall seeding is preferred. The actual seeding period must be approved by the Engineer or Landscape Architect because weather conditions vary from year to year. No seed shall be conducted until approved.
- C. Hydromulch or slurry shall conform to the following:

1. Echofiber or Conwed or approved equal wood fiber mulch, applied at a rate of 2000 pounds per acre.
 2. M-binder or Plantego tackifier, applied at a rate of 100 pounds per acre.
 3. 16-16-8 slow release fertilizer, applied at a rate of 150 pounds per acre
 4. Water at a rate of 4000 gallons per acre.
- D. Hydromulch shall be applied using a hydro-seeding equipment manufactured by Finn or Bowie or approved equal. Machines shall be equipped with heavy duty cast iron pumps and agitators capable of thoroughly mixing the slurry.
- E. Spray of hydromulch shall begin immediately after the tank is full and the slurry components are mixed.
- F. Apply hydromulch in a downward drilling motion using a fan stream nozzle. It is important to ensure that all of the components enter and mix with the topsoil.
- G. Only qualified and trained personnel shall perform hydroseeding to insure the uniformity of the hydroseeding application.
- H. Tracer to allow for visual application and coverage verification.

2.8 EROSION CONTROL BLANKET

- A. Erosion Control Blanket shall be AEC Premier Coconut or approved equivalent and placed on slopes 3:1 or greater.
- B. Erosion control blanket shall be keyed in at the top of the slope as per manufacturer specifications.
- C. Anchorage devices shall be 9-inch, two-legged staples furnished by the manufacturer, or staples of the proper length as recommended by the manufacturer for specific soil conditions.

PART 3 - EXECUTION

3.1 GENERAL

- A. The landscape work shall not be performed at any time when it may be subject to damage by climatic conditions.
- B. The Contractor shall carefully scale or otherwise verify all dimensions in the Contract Documents. Dimensions and plant locations shall be coordinated with Engineer or Landscape Architect and final location shall be Site-oriented by the planter and Engineer or Landscape Architect. Any discrepancies or inconsistencies shall be brought to the attention of the Engineer.
- C. In case of conflict between the Plant List totals and total plant count of the Contract Documents, the Contractor shall provide the higher number of plants.

- D. Delivery of materials may begin only after samples and tests have been approved by the Engineer or Landscape Architect. Materials provided shall be not less quality than the approved sample.
- E. Substitutions for the indicated plant materials may be considered pursuant to the Contract Documents.
- F. The Contractor shall provide temporary fencing, barricades, covering, or other protections to preserve existing landscaping items indicated to remain and to protect the adjacent properties and other structures when they may be damaged by the landscape work.
- G. Waste materials shall be removed and disposed of off the Site, unless otherwise indicated.
- H. It shall be the responsibility of the Contractor to obtain information regarding utilities in the area of work and to prevent damage to the same. The Contractor shall protect the utilities as necessary.
- I. Burning of combustible materials on the Site shall not be permitted.
- J. The Contractor shall protect structures, sidewalks, pavements, existing irrigation system, and other facilities that are subject to damage during landscape work. Open excavations shall be provided with barricades and warning lights which conform to the requirements of governing authorities and the State's OSHA safety requirements from dusk to dawn each day and when needed for safety.
- K. Planting areas include all areas to be landscaped unless indicated otherwise.

3.2 SOIL PREPARATION

- A. The landscape work shall not begin until all other trades have repaired all areas of settlement, erosion, rutting, etc., and the soils have been re-established, recompacted, and refinished to finish grades. The Engineer or Landscape Architect shall be notified of all areas that prevent the landscape work from being executed.
- B. Areas requiring grading by the landscaper including adjacent transition areas shall be uniformly level or sloping between finish elevations to within 0.10-ft above or below required finish elevations.
- C. The landscape work shall not proceed until after walks, roads, vaults, trenching, and reservoir construction is in place. Work under the Contract shall be completed to a point where the landscape areas will not be disturbed. The subgrade shall be free of waste materials of all kinds.
- D. During grading, waste materials in the planting areas such as weeds, rocks 3-inches and larger, building materials, concrete rubble, wires, cans, glass, lumber, masonry, sticks, etc., shall be removed from the Site. All weeds shall be dug out by the roots.
- E. Fertilizers, soil additives, seed, etc. subject to moisture damage shall be kept dry in a weatherproof storage place.

- F. After removal of waste materials, the planting and sod area subgrade shall be scarified and pulverized to a depth of not less than 6 inches, and all surface irregularities below the cover of topsoil shall be removed.
- G. Finish grading shall consist of:
 - 1. Final contouring of the planting areas.
 - 2. Removal of 6 inches of hardpan material and placement of four inches of imported, amended topsoil over all areas to be planted, deeded or sodded unless indicated otherwise.
 - 3. Placing all soil additives and fertilizers.
 - 4. Tilling of planting areas.
 - 5. After tilling, bringing areas to uniform grades by floating and/or hand raking.
 - 6. Making minor adjustment of finish grades as directed by the Engineer or Landscape Architect.
 - 7. Removing waste materials such as stones, roots, weeds or other undesirable foreign material and raking, disking, dragging, and smoothing soil ready for planting.
 - 8. Finished grades shall be one inch below the top of curbs, sills and walkways in all areas for seed, one and a half inches for sod and three inches for areas with mulch or groundcover.
 - 9. Finished grades shall be smoothed to eliminate large puddling or standing water but rough to keep seed in place.
- H. Any unusual subsoil condition that will require special treatment shall be reported to the Engineer or Landscape Architect.
- I. **Unless otherwise specified, seeding areas shall receive a minimum of 4 inches of stockpiled topsoil.**
- J. Surface drainage shall be provided as indicated by shaping the surfaces to facilitate the natural run-off of water. Low spots and pockets shall be filled with topsoil and graded to drain properly.
- K. Finish grade of all planting areas shall be 1-1/2 inches below finish grade of adjacent pavement of any kind.

3.3 SEED MIX, AS SHOWN ON DRAWINGS OR PROVIDED BELOW:

- A. Application rate for hydroseeding: 23.48lbs/acre.
- B. Seed mix:

MIDAS CREEK SEED MIX BC&A 4-5-2023						
SEED NO.	SPECIES NAME		Number of Seeds per Pound (LBS)	SEED		
	BOTANICAL NAME	COMMON NAME		Pounds (LBS) of Pure Live Seed (PLS)/Acre	Percentage of Seed mixture	Number of Seeds (PLS/Sq. Foot)
	<i>GRASSES</i>					
1	<i>Achnatherum hymenoides</i>	Indian ricegrass	141,000	4.00	15.46%	13
2	<i>Elytrigia repens x Pseudoroegneria spicata</i> 'Newhy	Newhy Hybrid wheatgrass	122,000	3.50	11.71%	10
3	<i>Elymus lanceolatus ssp. lanceolatus</i>	Thickspike wheatgrass	154,000	3.50	14.78%	12
4	<i>Elymus trachycaulus ssp. Trachycaulus</i> 'Pryor'	Pryor Slender wheatgrass	159,000	4.00	17.44%	15
5	<i>Festuca ovina</i> 'Covar'	Covar Sheep fescue	680,000	0.60	11.18%	9
6	<i>Poa secunda ssp. Sandbergii</i>	Sandberg bluegrass	1,047,000	0.40	11.48%	10
	<i>FORBS/SHRUBS/COVER CROP</i>					
7	<i>Artemisia fridiga</i>	Fringed sagebrush	4,536,000	0.03	3.73%	3
8	<i>Chrysothamnus viscidiflorus</i>	Douglas rabbitbrush	782,000	0.15	3.22%	3
9	<i>Linum lewisii</i>	Lewis flax	170,000	1.00	4.66%	4
10	<i>Oenothera pallida</i>	White Evening primrose	512,000	0.30	4.21%	4
11	<i>Triticum aestivum x Secale cereale</i>	Triticale	13,000	6.00	2.14%	2
	TOTALS =			23.48	100.00%	84

END OF SECTION

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Invitation for Bid Instructions and General Provisions

"Failure to comply with the following instructions may cause rejection of this bid"

1. Administrative Authority:

The administration of this purchasing process is conducted by the Riverton City Purchasing Agent. No contact of the City Mayor, City Council or any employee in regards to this solicitation other than those listed herein.

2. No Obligation Implied:

This Invitation for Bid implies no obligation on the part of Riverton City.

3. Contract requirements:

Any contract that may arise from this Invitation for Bid is subject to the following Terms and Conditions:

INDEMNIFICATION - The contractor agrees to protect, indemnify and hold Riverton City, the City Council, the Mayor, and all employees (collectively the "Indemnities") free and harmless from and against all losses, claims liens, demands and causes of action of every kind and character arising out of performance of the Work by the contractor or by its subcontractors, including the amount of judgment, penalties, interest, court costs and legal fees incurred by the Indemnities or any of them in defense of the same, arising in favor of any party, including governmental agencies or bodies, on account of, but not limited to, taxes, claims, liens, debts, personal injuries, death or damages to property (including property of Indemnities). The Contractor further agrees to; investigate, handle, respond to, provide defense for and defend any such claim, demand or cause of action at its sole expense, and agrees to bear all other costs and expenses related thereto, even if such claim, demand or cause of action is due solely to the fault of Riverton City and, release, indemnify and hold the Buyer, its officers, agents and employees harmless from liability of any kind or nature, including the contractor's use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article or appliance furnished or used in the performance of this contract. Riverton City is a governmental entity under the Governmental Immunity Act and waives no defenses, limits of liability or other rights.

INDEPENDENT CONTRACT - It is understood and agreed by the parties that the contractor is to act in the capacity of an independent contractor and as such will have no authorization, express or implied to bind Riverton City to any agreements. Contractor's officers and employees shall not be considered as employees or officers of the City and shall not be entitled to any employee benefits as City employees as a result of the execution of this agreement.

INSURANCE - The contractor agrees to acquire and maintain the appropriate insurance, in the appropriate amounts, for the service(s) provided. This may include, but not limited to workers compensation, liability and errors in omission. Proof of insurance will be provided to the City upon request.

WORKFORCE - The Contractor agrees to register and participate in the Status Verification System to verify the work eligibility status of the Contractor's new employees that are employed in the state. The Contractor further agrees to have each contractor or subcontractor who works for or under main contractor, certify by affidavit that the contractor or subcontractor has verified through the Status Verification System the employment status of each new employee of the respective contractor or subcontractor.

4. Riverton City Reservations:

The right is reserved to cancel this Invitation for Bid or to accept or reject any or all bids, and to waive any informality or technicality in any bid, in the interest of Riverton City. Riverton City reserves the right to award multiple contracts to more than one vendor for the same or similar items. Riverton City reserves the right for an option to renew or extend any contract that may arise from this Invitation for Bid, not to exceed four (4) renewals or extensions. Unless specifically provided for elsewhere in this bid, multiple or alternate bids will not be accepted. The City Mayor and City Council reserves the right to purchase such brands as they desires, irrespective of price. The right is reserved, unless supplier countermands, to increase or decrease the quantity of any item(s) as the bid price. Riverton City reserves the right to cancel any item(s) not delivered after the purchase order issued. Riverton City reserves the right to select some or all of the items from any vendor unless an "all or nothing" statement is included in the bid. Riverton City does not guarantee to make any purchase from this bid. Estimated quantities are for bidding purposes only and are not to be interpreted as a guarantee to purchase any amount.

5. Failure to Respond:

Failure to respond may result in the removal of your firm from the vendor's list for the commodity(s) listed. Unless you advise the Purchasing Agent prior to the bid due date that you desire to receive future invitations to bid on this commodity. Three consecutive no responses will result in removal

6. Bid Preparation:

A. Fill out this bid form completely filling in all blanks, either in ink or typewritten. All information provided must be legible.

B. Errors may be crossed out and corrections made in ink or typewritten (no type covers) adjacent and must be initialed in ink by the person signing the bid.

C. Any manufacturer's name, trade names, brand names or catalog number(s) used in this specification are there for the purpose of establishing and describing general performance and quality levels. Such references are not intended to be restrictive, and bids are invited on these and comparable brands or products by any manufacturer. All items will be evaluated on an **"acceptable substitute"** basis unless stated otherwise, Riverton City determining acceptability.

D. Price each item separately and extend, unless each item makes up a complete system or a lot price requested. Unit price will govern if there is an error in the extension.

E. Furnish descriptive literature for each item bid. If a substitute is offered make a full written explanation on the bid as to its brand name, model number etc.

F. Submit your bid on the documents furnished herein.

G. Do not bid on items you cannot supply promptly.

H. Provide information on local availability of parts and service for all items bid and service literature to allow for in-house maintenance and repairs

7. Bid Submittal:

A. The bid must be signed in ink and delivered to Purchasing by the **"Due Date & Time."** The bid number must appear on the outside of the envelope. **Fax bids will not be accepted.**

B. Bids, modifications, or corrections received after the closing time on the **"Due Date"** will be considered late.

C. All purchases are subject to Riverton City purchasing ordinance.

8. Warranties:

Contractor warrants that all equipment, and/or materials, and/or labor that is furnished or performed will be free from defects for a minimum period of twelve (12) months from date of acceptance. Upon notice from the City of any defect during the applicable warranty period, the affected item, parts or work shall be redone, redesigned, repaired or replaced by contractor (at contractor's expense) at a time acceptable to the City.

9. Conformance Warranty:

Vendor warrants the item(s) bid will conform to the description as bid, and applicable specifications, and shall be of good and merchantable quality for the known purpose for which it is sold.

10. Bid Evaluation:

Any item bid is subject to evaluation. Any item which fails to qualify for approval when evaluated shall not be accepted regardless of compliance to bid requirements. Bids **will not be accepted from vendors who require assignment of payment to another agent. Note: Riverton City will only pay the vendor named on the order. Riverton City will not deal with a factor or make payment to such.**

11. Collusion:

The vendor agrees and certifies that there has been no collusion or other anticompetitive practices. If any are suspected among bidders or offerors, a notice of the relevant facts shall be transmitted to the attorney general.

12. Antidiscrimination Act:

The vendor agrees to abide by the provisions of the Utah Antidiscrimination Act, Title 34 Chapter 35, U.C.A. 1953, as amended, and Title VI and Title VII of the Civil Rights Act of 1964 (USC 2000e), which prohibit discrimination against any employee or applicant for employment, or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination on the basis of sex; 45 CFR 90 which prohibits discrimination on the basis of age, and Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap. This purchase may be canceled if the vendor fails to comply with the provisions of these laws and regulations. **Vendor must include this provision in every subcontract or purchase order relating to purchases by Riverton City to insure that subcontractors and vendors are bound by this provision.**

TERMS & CONDITIONS

General

Bidders must meet or exceed all specifications and requirements as set forth in bidding documents. Contractor must furnish all equipment, materials, labor, tools, transportation, supplies and incidentals necessary to complete the entire project.

1. Amendments to invitation for bid

Any changes in quantity, specifications, schedules, opening date, corrections, clarifications, etc. will be in the form of an addendum. Addendums will be in writing, will be distributed to all bidders by the purchasing department and will become part of this bid. Any attempts to alter this bid verbally should be ignored.

2. Bonding

Bidders will be required to provide a **bid bond** or certified check, attached to this bid made payable to Riverton City in the amount of not less than five percent (**5%**) of the amount of the bid price. The bid bond or check of the accepted bidder shall be forfeited in the event said bidder fails or refuses to enter into a contract and/or fails to furnish the additional bonds required herein. Checks submitted in lieu of bid bonds from unsuccessful bidders will be returned upon request.

The successful bidder must submit to Riverton City full **performance and payment bonds** in amounts equal to one hundred percent (**100%**) of the contract price. Work cannot begin until bonds have been received by the City. Bonding costs must be included in bid price.

3. Conflict with submittals/inconsistencies in conditions

In the event of conflict with submittals from bidders or inconsistencies in bidding documents, this bid document will take precedence.

4. Consideration, award and rejection of bids

All bidders must be able to demonstrate that they are responsible, competent contractors with the resources to complete a project of this magnitude and must be prepared to provide documented proof of such upon request including **references and financial statements**. The contractor's past performance history, organization, equipment and demonstrated ability to perform and complete their contracts in the manner and within the time limit specified will be elements along with the dollar amount of the bid which will be considered by the City in the letting of the contract, if any award is made. The City reserves the right to reject any and all bids by reason of this paragraph.

5. Construction dates/ deadlines

Contractor is required to get all permits and complete the project within 90 calendar days after receipt of the Notice to Proceed.

6. Contact

Direct any questions regarding this project to attention Craig Calvert at ccalvert@rivertoncity.com

7. Contract clauses

Any contract arising from this invitation to bid will include the following:

- A. The unilateral right of the City to order written changes in the work and/or time of performance (change order);
- B. Liquidated damages as appropriate;
- C. Specific excusable delays are as follows: if the contractor is delayed by the City by change orders.
- D. The City may terminate the contract for any reason at any time if the contractor fails to perform (default) or if it is in the best interest of the City (convenience).

8. Inspections

Contractor must be prepared, willing and accommodating to on-site inspection of all work, at any time, by a City representative, during job progress.

9. Liability

Any damages occurring from the execution of the contract, incidental or otherwise, to City or private properties must be repaired, at the contractor's expense, to the owner's satisfaction.

10. Indemnification

The contractor agrees to protect, indemnify and hold Riverton City, the City Council, the Mayor, and all employees (collectively the "Indemnities") free and harmless from and against all losses, claims, liens, demands and causes of action of every kind and character arising out of performance of the Work by the contractor or by its subcontractors, including the amount of judgment, penalties, interest, court costs and legal fees incurred by the Indemnities or any of them in defense of the same, arising in favor of any party, including governmental agencies or bodies, on account of, but not limited to, taxes, claims, liens, debts, personal injuries, death or damages to property (including property of Indemnities).

The Contractor further agrees to; investigate, handle, respond to, provide defense for and defend any such claim, demand or cause of action at its sole expense, and agrees to bear all other costs and expenses related thereto, even if such claim, demand or cause of action is due solely to the fault of Riverton City and, release, indemnify and hold the Buyer, its officers, agents and employees harmless from liability of any kind or nature, including the contractor's use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article or appliance furnished or used in the performance of this contract.

Riverton City is a governmental entity under the Governmental Immunity Act and waives no defenses, limits of liability or other rights.

11. Insurance

An ACORD CERTIFICATE must be submitted. The following information must be on the ACORD.

Description of Operations:

Certificate Holder:

Riverton City, its elected officials, appointed officials, officers, employees and volunteers. Coverage is for all operation performed by or on behalf of the named insured.

REQUIREMENTS:

Workers Compensation insurance, sufficient to cover all employees in the employ during the term of the contract including any renewal thereof must be maintained. Coverage amount should be in the amount required by Utah Workmen's Compensation Laws. Liability insurance (general and auto) in the amount of \$1,000,000.00 per occurrence with an aggregate of \$2,000,000.00 must be maintained during the term of the contract including and renewals.

Insurance needs to include Project Name with the location and description of the project, and the Project Number and Bid Number (if known). Insurance must name as the certificate holder; Riverton City, its elected officials, appointed officials, officers, employees and volunteers. Coverage is for all operation performed by or on behalf of the named insured.

Insurance provided is required to be primary and non-contributory.

Proof of coverage must be provided before work can begin, and the Contractor agrees to provide proof of insurance upon demand by the City throughout the terms of the contract. The insurance must have a 30 day written cancelation notice. If any of the required insurance coverage is cancelled or lapse, the City may at the City's discretion, obtain substitute coverage at reasonable rates. The City may deduct the cost of such coverage, plus 10% for administrative charges, from any monies that are owing to contractor.

Riverton City will assume no liabilities for the contractor including any of the contractor's representatives, employees or properties, and agrees to, at all times, protect, indemnify, defend and hold harmless the City and city employees from any and all claims.

Contractor shall, at all times, keep the work area in a neat, clean, safe and secure condition to avoid the risk of loss, theft, vandalism or sabotage.

Any damages occurring during the completion of this project, incidental or otherwise, to city or adjacent properties must be repaired, at the contractor's expense, to the owner's satisfaction.

12. Independent Contract

It is understood and agreed by the parties that the contractor is to act in the capacity of an independent contractor and as such will have no authorization, express or implied to bind Riverton City to any agreements. Contractor's officers and employees shall not be considered as employees or officers of the City and shall not be entitled to any employee benefits as City employees as a result of the execution of this agreement.

13. Workforce

The Contractor agrees to register and participate in the status verification system to verify the work eligibility status of the Contractor's new employees that are employed in the state. The Contractor further agrees to have each contractor or subcontractor who works for or under main contractor, certify by affidavit that the contractor or subcontractor has

verified through the status verification system the employment status of each new employee of the respective contractor or subcontractor.

14. Laws/codes

Contractor must abide by all federal, state and local laws including, but not limited to, employment laws such as the *Americans with Disabilities Act* and meet or exceed all applicable building codes and Utah state energy code requirements.

15. OSHA Requirements

Contractor agrees to comply with all OSHA requirements that may be associated with this project. For any OSAH violation that occurs with this project the Contractor agrees to pay any fine assessed to the City and the City will not accept any bids from the contractor on any project for the next year.

16. Permits

The Contractor is responsible to obtain the following Riverton City Permits. Permits can be viewed at the following web sites:

1. Encroachment Permit (bonding is a requirement of this permit)
<https://www.rivertonutah.gov/engineering/permits.php>
2. Land Disturbance Permit
<https://www.rivertonutah.gov/engineering/permits.php>

17. Licensing

Bidders must meet all current licensing requirements of the City, County and State of Utah to do the type of work required under this bid including the proper license classifications with a sufficient monetary limit as established and issued by the division of occupational and professional licensing, state department of commerce. Licensing must be current and valid at the date of bid opening.

18. Liquidated damages

Time is the essence of the Contract Documents. Contractor agrees that the City will suffer damage or financial loss if the project is not completed on the agreed completion time or within any time extensions that are allowed by written pre approval. The Contractor and the City agree that proof of the exact amount of any such damage or loss is difficult to determine. Accordingly, instead of requiring any such proof of damage or specific financial loss or late completion, the Contractor agrees to pay the following sums to the City as liquidated damages and not as a penalty.

1. Late Time Completion:
Five hundred dollars and no cents (\$500.00) for each day or part thereof that expires after the completion time until the work is accepted as substantially complete.
2. Late Punch List Time:
Punch list items must be completed within 30 calendar days after the list is delivered. 50% of the amount specified for Late Time Completion for each day

or part thereof if the work remains incomplete after the Punch List Time. The Punch List shall be considered delivered on the date it is transmitted by facsimile, hand delivery, or received by the Contractor by certified mail.

3. **Interruption of Public Services:**

No interruption of public services shall be caused by the Contractor, its agents or employees, without the engineer's prior written approval. The City and Contractor agree that in the event the City suffers damages from such interruption, the amount of liquidated damages stipulated below shall not be deemed to be a limitation upon the City's right to recover the full amount of such damages. One thousand dollars and no cents (\$1,000.00) for each day or part thereof of any utility interruption caused by the Contractor without prior written authorization.

4. **Survey Monuments:**

No land survey monument shall be disturbed or moved until the City Engineer has been properly notified and the City Engineer's surveyor has referenced the survey monument for resetting. The parties agree that upon such an unauthorized disturbance it is difficult to determine the damages from such a disturbance, and the parties agree that Contractor will pay as liquidated damages the sum of one thousand dollars and no cents (\$1000.00) to cover such damage and expense.

Time completion may be applied to individual work sequences throughout the project. If it is determined that there will be a number of completion sequences within the project, the above damages will apply to each sequence. The City shall be entitled to deduct and retain liquidated damages out of any money which may be due or become due the Contractor. To the extent that the liquidated damages exceed any amounts that would otherwise be due the Contractor, the Contractor shall be liable for such amounts and shall return such excess to the City.

19. Notice to proceed

Notice to proceed will be in the form of a purchase order from the city purchasing department. Do not proceed without a purchase order.

20. Payment

The city agrees to pay the contractor as the work progresses, but not more than once each month and only upon presentation of an "application and certificate for payment" (AIA document g702) for work performed during the preceding calendar month. **Five-percent (5%) of the earned amount shall be retained** from each monthly payment. Final payment (retained amount) will be held by the city until project completion, clean-up, inspection and approval (signing of the invoice) is made by Mr. Jim Katzdorn. No prepayments or "Draws" against anticipated (future) work will be allowed.

Riverton City reserves the right to make payments with a credit card. If the prices change because of a credit card payment bidder must provide two prices, a price for payment by credit card and a price for payment by check.

21. Subcontractors

Riverton City reserves the right to approve or reject any subcontractor. The City will not

provide drawings, bidder's lists, etc. to subcontractors or suppliers.

22. Submittals

- Complete, sign and return the bid sheet with bid schedule.
- Bid Bond or Cashier's Check.
- Certificate of Non-Collusion and Certificate of Non-Discrimination.
- Acknowledgement of Addendums.

23. Terms and conditions

In the event of breach, the prevailing party will be entitled to attorneys fees, regardless of whether the issue is brought to court.

Riverton City requests assignment of rights to recover damages from any antitrust violations.

24. Warranty

Contractor warrants all equipment, materials, and labor furnished or performed will be free from defects for a period of twelve (12) months from date of acceptance. The Performance Bond must extend through the warranty period. Upon notice from the City of any defect during the applicable warranty period, the affected item, parts or work shall be redone, redesigned, repaired or replaced by contractor (at contractor's expense). Warranty repairs must be completed within 10 calendar days after notice or a negotiated time that is acceptable to the City. All liquidated damages specified for original work will apply on warranty repairs.