

CITY AND COUNTY OF DENVER  
STATE OF COLORADO



Department of Public Works

Contract Documents

Contract Number: 201840245



RED ROCKS CCC CAMP BARRACKS –  
BUILDING 1 REHABILITATION

February 12, 2018



## NOTICE OF APPARENT LOW BIDDER

Centerre Construction, Inc.  
4100 E. Mississippi Ave., Suite 900  
Denver, CO 80246

The EXECUTIVE DIRECTOR OF PUBLIC WORKS has considered the Bids submitted on **March 8, 2018**, for work to be done and materials to be furnished in and for:

### 201840245 – Red Rocks CCC Camp Barracks – Building 1 Rehabilitation

as set forth in detail in the Contract Documents for the City and County of Denver, Colorado. It appears that your Bid is fair, equitable, and to the best interest of the City and County; therefore, said Bid is hereby accepted at the bid price contained herein, subject to the approval and execution of the Contract Documents by the City in accordance with the Charter of the City and County of Denver, and to your furnishing the items specified below. The award is based on the **Lump Sum Bid Total**, the total estimated cost thereof being: **Six Hundred Ninety-Eight Thousand, Five Hundred Thirty Dollars, and No Cents (\$698,530.00)**.

It will be necessary for you to appear forthwith at the office of the Department of Public Works, Contract Administration, 201 W. Colfax Ave., Dept 614, Denver, Colorado 80202, to receive the said Contract Documents, execute the same and return them to the Department of Public Works, Contract Administration within the time limit set forth in the Bid Package Documents.

In accordance with the requirements set forth in the Contract Documents, you are required to furnish the following documents:

- a. Insurance Certificates: General Liability and Automotive Liability, Workman's Compensation and Employer Liability;
- b. Payment and Performance Bond along with One original Power of Attorney relative to Performance and/or Payment Bond; and,

All construction Contracts made and entered into by the City and County of Denver are subject to Affirmative Action and Equal Opportunity Rules and Regulations, as adopted by the Manager of Public Works, and each contract requiring payment by the City of one-half million dollars (\$500,000.00) or more shall first be approved by the City Council acting by ordinance and in accordance with Section 3.2.6 of the Charter of the City and County of Denver.

Prior to issuance of Notice to Proceed, all Equal Opportunity requirements must be completed. Additional information may be obtained by contacting the Director of Contract Compliance at (720-913-1700).

Denver Public Works/Office of the Executive Director  
201 West Colfax Avenue, Dept 608 | Denver, CO 80202  
[www.denvergov.org/dpw](http://www.denvergov.org/dpw)  
p. 720.865.8630 | f. 720.865.8795



**NOTICE OF APPARENT LOW BIDDER**

CONTRACT NO.201840245

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The Bid Security submitted with your Bid, will be returned upon execution of the Contract and furnishing of the Performance Bond. In the event you should fail to execute the Contract and to furnish the performance Bond within the time limit specified, said Bid Security will be retained by the City and County of Denver as liquidated damages, and not as a penalty for the delay and extra work caused thereby.

Dated at Denver, Colorado this 19<sup>th</sup> day of March 2018.

CITY AND COUNTY OF DENVER

By: *Eulois Steckley*  
Eulois Steckley  
Executive Director of Public Works

cc: (CAO), [taxauditadmin@denvergov.org](mailto:taxauditadmin@denvergov.org), Cindy Ackerman (DSBO), Elizabeth Hamilton (PM), Brad Eckert (PM), (PW-Aud), File.

Denver Public Works/Office of the Executive Director  
201 West Colfax Avenue, Dept 608 | Denver, CO 80202  
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Department of Public Works

Bid Documents

Contract Number: 201840245



RED ROCKS CCC CAMP BARRACKS –  
BUILDING 1 REHABILITATION

February 12, 2018

CITY AND COUNTY OF DENVER  
STATE OF COLORADO

**CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS  
PUBLIC WORKS FCPM**

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*This Checklist is provided solely for the assistance of the bidders, and need not be returned by Bidders with your BID FORM PACKAGE.*

**BIDDER'S CHECKLIST**

These forms comprise the Bid Form and Submittal Package. Designated forms must be completed and turned in at the time of Bid Opening. Bidders should refer to the Contract Documents, particularly the Instructions to Bidders, accompanying this package, in completing these forms.

FORM/ PAGE NO.	COMMENTS	COMPLETE
BF-4 – BF-5	a.) Legal name, address, Acknowledgment signature and attestation (if required.)	<input type="checkbox"/>
BF-6+	a.) Fill in individual bid item dollars and totals in Numerical figures only b.) Complete all blanks c.) Legal name required	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
BF-7	a.) Write out bid total or bid totals in words and figures in the blank form space(s) provided b.) Calculate Textura® Construction Payment Management System Fee from chart on pg. BF-3 and write % and fee in the space provided	<input type="checkbox"/>
BF-8	a.) List all subcontractors who are performing work on this project	<input type="checkbox"/>
BF-9 – BF-10	a.) Fully complete List of Proposed Minority /Woman Business Enterprise Bidders, Subcontractors, Suppliers, Manufacturers, or Brokers – check appropriate boxes.	<input type="checkbox"/>
BF-11	a.) Complete all blanks b.) If Addenda have been issued, complete bottom section.	<input type="checkbox"/> <input type="checkbox"/>
BF-12	a.) Complete appropriate sections - signature(s) required. b.) If corporation, then corporate seal required.	<input type="checkbox"/> <input type="checkbox"/>
BF-13	a.) Fully complete Commitment to Participation	<input type="checkbox"/>
BF-16	a.) If applicable, fully complete Joint Venture Affidavit (Submit 10 days prior to Bid Opening date)	<input type="checkbox"/>
BF-17 – BF-19	a.) If applicable, fully complete Joint Venture Eligibility Form (Submit 10 days prior to Bid Opening date)	<input type="checkbox"/>
BF-20	a.) Fill in all Bid Bond blanks b.) Signatures required c.) Corporate Seal if required d.) Dated e.) Attach Surety Agents Power of Attorney or Certified or cashier's check made out to the Manager of Revenue referencing Bidder's Company and Contract Number.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
BF-21- BF-24	a.) Each bidder, as a condition of responsiveness to this solicitation, shall <u>complete and return</u> the "Diversity and Inclusiveness in City Solicitations Information Request Form" with their Bid.	<input type="checkbox"/>

**Textura ® Construction Payment Management System (CPM System)**

Contractor recognizes and agrees that it shall be required to use the Textura® Construction Payment Management System (CPM System) for this Project. All fees associated with the CPM System are to be paid by the Contractor for billings for work performed. Bidders are required, when preparing a bid, to enter the price of the CPM service on the line provided for the service. The fee is all inclusive of all subcontractor, project and subscription fees associated with the CPM system. The bidder will calculate the fee based on a percentage of their total bid, and then should include it on the line item provided in the bid form labeled “Textura® Construction Payment Management System Fee”. This expense becomes part of the contract and billable to the City. All costs including but not limited to costs associated with training, entering data or utilizing Textura other than the Textura Construction Payment Management System Fee are overhead and shall not be reimbursed by the City. Contractor is responsible for any tax on Textura fee. As with other taxes, the City will not reimburse Contractor for this cost and therefore this cost should be included in Contractor’s bid. Textura will invoice the awarded contractor directly.

Project Value	Project Fee (GC + Sub Usage)
\$250,000 - \$499,999.99	\$1,625
\$500,000 - \$999,999.99	\$3,250
\$1,000,000 - \$2,999,999.99	\$5,850
\$3,000,000 - \$4,999,999.99	\$9,100
\$5,000,000 - \$9,999,999.99	\$12,220
\$10,000,000 - \$19,999,999.99	\$20,345
\$20,000,000 - \$49,999,999.99	\$32,500
\$50,000,000 - \$99,999,999.99	\$48,750
\$100,000,000 - \$199,999,999.99	\$69,095
\$200,000,000 - \$299,999,999.99	\$85,345
\$300,000,000 - \$399,999,999.99	\$109,720
\$400,000,000 - \$499,999,999.99	\$142,220
\$500,000,000 - \$999,999,999.99	\$162,500
\$1,000,000,000 - \$1,999,999,999.99	\$345,345
\$2,000,000,000 - \$4,999,999,999.99	\$650,000
\$5,000,000,000 - \$9,999,999,999.99	\$1,015,625
\$10,000,000,000 or greater	\$1,503,125

For more information:

<http://www.denvergov.org/content/denvergov/en/contract-administration/bidding-process.html>

**CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS  
PUBLIC WORKS FCPM**

**BID FORM AND SUBMITTAL PACKAGE ACKNOWLEDGMENT**

**CONTRACT NO. 201840245**

**RED ROCKS CCC CAMP BARRACKS - BUILDING 1 REHABILITATION**

**BIDDER:** Centerre Construction, Inc  
(Legal Name per Colorado Secretary of State)

**ADDRESS:** 4100 E. Mississippi Ave, Suite 900  
Denver, CO 80246  
   
 

The undersigned bidder states that the undersigned bidder has received and had an opportunity to fully and thoroughly examine a complete set of the Contract Documents for **Contract No. 201840245, RED ROCKS CCC CAMP BARRACKS - BUILDING 1 REHABILITATION**, made available to the undersigned bidder pursuant to Notice of Invitation for Bids dated February 12, 2018.

The undersigned bidder acknowledges that a complete and final set of the Contract Documents for the referenced Project, the components of which are identified below, are bound and maintained as the record set of Contract Documents by the Contract Administration Division of the Department of Public Works and that this Record Set is available for examination by the undersigned bidder.

The undersigned bidder, having thoroughly examined each of the components identified below and contained in Contract Documents, HEREBY SUBMITS THIS BID FORM AND SUBMITTAL PACKAGE, fully understanding that the Contract Documents, as defined in Paragraph 1 of the contract, including this executed Bid Form and Submittal Package, constitute all of the terms, conditions and requirements upon which this submission is based and further understanding that, by submission of this Bid Form and Submittal Package, the City shall rely on the representations and commitments of the undersigned bidder contained herein.

The following completed documents comprising this Bid Form and Submittal Package will be included with and, by this reference, are expressly incorporated into the Contract Documents specified at Paragraph 1 of the Contract:

- Bid Form and Submittal Package Acknowledgment Form
- Bid Form
- List of Proposed Minority/Woman Owned Business Enterprise(s)
- Commitment to Minority/Woman Owned Business Enterprise Participation
- Minority/Woman Owned Business Enterprise(s) of Intent
- Joint Venture Affidavit (if applicable)
- Joint Venture Eligibility Form (if applicable)
- Bid Bond
- Certificate of Insurance



The following designated documents constitute that portion of the Contract Documents made available by the Notice of Invitation for Bids, but not included in the Bid Form and Submittal Package:

- Notice of Invitation for Bids
- Instructions to Bidders
- Addenda (as applicable)
- Equal Employment Opportunity Provisions (Appendix A and Appendix F)
- Contract Form
- General Contract Conditions
- Special Contract Conditions
- Performance and Payment Bond
- Notice to Apparent Low Bidder
- Notice to Proceed
- Contractor's Certification of Payment Form
- Final/Partial Lien Release Form
- Final Receipt
- Change Orders (as applicable)
- Federal Requirements (as applicable)
- Prevailing Wage Rate Schedule(s)
- Technical Specifications
- Contract Drawings
- Accepted Shop Drawings

The undersigned bidder expressly assumes responsibility for the complete contents of these designated documents as bound together with the Bid Form and Submittal Package submitted herewith and designated the Contract Documents.

IN WITNESS WHEREOF, the undersigned bidder has signed personally or by duly authorized officer or agent and duly attested.

**BIDDER:**

**Name:** Stephen M. Hritz

**By:** 

**Title:** President

**ATTEST:**

**By:** 

[SEAL]

**CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS  
PUBLIC WORKS FCPM**

**BID FORM**

**CONTRACT NO. 201840245  
RED ROCKS CCC CAMP BARRACKS - BUILDING 1 REHABILITATION**

**BIDDER** Centerre Construction, Inc.  
**(Legal Name per Colorado Secretary of State)**

**TO:** The Manager of Public Works  
City and County of Denver  
c/o Contract Administration  
201 West Colfax, Dept. 614  
Denver, Colorado 80202

The Undersigned Bidder, having examined the plans, technical specifications, and remainder of the proposed Contract Documents as designated and enumerated in the General and Special Contract Conditions and any and all addenda thereto; having investigated the location of and conditions affecting the proposed Work; and being acquainted with and fully understanding the extent and character of the Work covered by this bid, and all factors and conditions affecting or which may be affected by Work, HEREBY SUBMITS THIS BID, pursuant to an advertisement of a Notice of Invitation for Bids as published on **February 12, 2018**, to furnish all required materials, tools, appliances, equipment and plant; to perform all necessary labor and to undertake and complete: **CONTRACT NO. 201840245, RED ROCKS CCC CAMP BARRACKS - BUILDING 1 REHABILITATION**, in Denver, Colorado, in full accordance with and conformity to the Plans, Technical Specifications, and Contract Documents hereto attached or by reference made a part hereof, at and for the following price(s) set forth on this Bid Form.

The following documents, which taken as a whole constitute the Contract Documents for this Project, and which are incorporated herein, by reference, were made available to the Bidder as provided in the Advertisement of Notice of Invitation for Bids, were received by the bidder, and form the basis for this bid:

*Advertisement of Notice of Invitation for Bids*  
*Instructions to Bidders*  
*Commitment to M/WBE Participation*  
*Article III, Divisions 1 and 3 of Chapter 28, D.R.M.C.*  
*Bid Bond*  
*Addenda (as applicable)*  
*Equal Employment Opportunity Provisions (Appendix A and Appendix F)*  
*Bid Form*  
*Contract Form*  
*General Contract Conditions*  
*Special Contract Conditions*  
*Performance and Payment Bond*  
*Notice to Apparent Low Bidder*  
*Notice to Proceed*  
*Contractor's Certification of Payment Form*  
*Final/Partial Lien Release Form*  
*Final Receipt*  
*Change Orders (as applicable)*  
*Federal Requirements (as applicable)*  
*Prevailing Wage Rate Schedule(s)*  
*Technical Specifications*  
*Contract Drawing*  
*Accepted Shop Drawings*  
*Certificate of Insurance*

**Bid Item Total Amount (Lump Sum )**

\$ 695,280

**Textura ® Fee from table on Page BF-30.0047 % of Bid Items  
Total Amount**

\$ 3,250

**Bid Item Total Amount plus Textura® Fee equals Total Bid  
Amount**

\$ 698,530

<p><b>Total Bid Amount:</b>  <u>Six Hundred ninety eight Thousand Five Hundred Thirty</u>  <hr/> Dollars (\$ <u>698,530</u> )</p>
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If the Manager mails a written Notice of Apparent Low Bidder, addressed to the Bidder's business address stated on this Bid Form, the Undersigned Bidder shall, in accordance with the Contract Documents, be ready to, and shall, within five (5) days after the date of the Notice: (i) execute the attached form of Contract in conformity with this bid; (ii) furnish the required proofs of insurance; and (iii) furnish the required bond or bonds in the sum of the full amount of this bid, executed by a surety company acceptable to the Manager.

The Berkley Insurance Company, a corporation of the State of Delaware, is hereby offered as Surety on said bond. If such surety is not approved by the Manager, another and satisfactory surety company shall be furnished.

Enclosed with this bid is a bid guarantee, as defined in the attached Instructions to Bidders, in the amount of five percent (5%). The Undersigned Bidder agrees that the entire amount of this bid guarantee is to be paid to and become the property of the City as liquidated damages, and not as a penalty, if: (i) the bid is considered to be the best by the City; (ii) the City notifies the Undersigned Bidder that it is the Apparent Low Bidder; and (iii) the Undersigned Bidder fails to execute the Contract in the form prescribed or to furnish the required bond and proofs of insurance, within five (5) days after the date of such notification.

The following persons, firms or corporations are interested with the Undersigned Bidder in this bid:

Name: Centerre COstruction, Inc. Name: \_\_\_\_\_

Address: 4100 E. Mississippi Ave, #900 Denver Address: \_\_\_\_\_

If there are no such persons, firms, or corporations, please so state in the following space:

The Undersigned Bidder proposes to subcontract the following Work in accordance with General Contract Conditions, Title 5, SUBCONTRACTS, and represents that, to the greatest degree practical, all subcontractors known at the time of bid submittal have been identified.

Item of Work	Percent (%) of Total; Work	Proposed Subcontractor and Address
Demolition, Excavation		Superior Demo -
Roofing		MB Roofing
Plumbing		Diamond Plumbing
Electrical		<del>ADK Electric</del> MIBR Electric
Mechanical		Rogers and Sons
Drywall		Pro Wall
D/F/H		Colorado Doorways
Insulation		Tru Team
Utilities		J&L Pipeline
Misc. Specialties		Colorado Specialties
Signage		Advantage Signage
Steel		Ken's Welding
Low Voltage		K&M Communications

(Copy this page if additional room is required.)



**List of Proposed  
MWBE  
Bidders, Subcontractors,  
Suppliers (Manufacturers) or  
Brokers**

**City & County of Denver Contract No.:** 201840245

The undersigned Bidder proposes to utilize all listed firms. The following MWBE(s) firms listed are CURRENTLY certified by the City and County of Denver. Only the level of MWBE participation listed at the bid opening will count toward satisfaction of the project goal. Only bona fide commissions may be counted for Brokers. MWBE prime bidders must detail their bid information below. Please copy and attach this page to list additional MWBE.

**Prime Bidder**

**Business Name:** Centerre Construction, Inc.

**Address:** 4100 E Mississippi Ave, Denver, CO 80246 **Contact Person:** Steve Hritz

**Type of Service:** Prime Contractor

**Dollar Amount:** \$:

**Percent of Project**

**Certified MWBE Prime Bidder**

**Business Name:**

**Address:**

**Contact Person:**

**Type of Service:**

**Dollar Amount:** \$:

**Percent of Project**

**Subcontractors, Suppliers Manufacturers or Brokers (check one box)**

<input checked="" type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer (✓)	<input type="checkbox"/>	Broker (✓)
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**Business Name:** Superior Demolition, Inc.

**Address:** 1310 W. Jewell Avenue

**Type of Service:** Demolition and Excavation

**Contact Person:** Bob Hritz

**Dollar Amount:** \$: ~~77,510~~  
52,170

**Percent of Project:** 7.5%

<input checked="" type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer (✓)	<input type="checkbox"/>	Broker (✓)
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**Business Name:** MB Roofing Inc.

**Address:** 6961 Colorado Blvd, Commerce City, CO

**Type of Service:** Roofing

**Contact Person:** Mark Brady

**Dollar Amount:** \$: 23,985

**Percent of Project:** 3.45%

<input checked="" type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer (✓)	<input type="checkbox"/>	Broker (✓)
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**Business Name:** Diamond Plumbing, Inc

**Address:** 5300Vallejo St, Denver, CO 80221

**Type of Service:** Plumbing

**Contact Person:** Mike Potter

**Dollar Amount:** \$: 34,055

**Percent of Project:** 5.10%

**Subcontractors, Suppliers Manufacturers or Brokers (check one box)**

<input checked="" type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer ( )	<input type="checkbox"/>	Broker (✓)
Business Name: KM Communications							
Address: 7100 Broadway, #6H, Denver, CO				Type of Service: Low Voltage			
Contact Person: Tony Moreno				Dollar Amount: \$: 12,188		Percent of Project: 1.75%	

<input checked="" type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer (✓)	<input type="checkbox"/>	Broker (✓)
Business Name: MBR Electric							
Address: 7135 Newton St, Westglens				Type of Service: Electrical			
Contact Person: Adam Svigel				Dollar Amount: \$: 76,000		Percent of Project: 10.93%	

<input type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer ( )	<input type="checkbox"/>	Broker (✓)
Business Name:							
Address:				Type of Service:			
Contact Person:				Dollar Amount: \$:		Percent of Project:	

<input type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer ( )	<input type="checkbox"/>	Broker (✓)
Business Name:							
Address:				Type of Service:			
Contact Person:				Dollar Amount: \$:		Percent of Project:	

<input type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer ( )	<input type="checkbox"/>	Broker (✓)
Business Name:							
Address:				Type of Service:			
Contact Person:				Dollar Amount: \$:		Percent of Project:	

<input type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer ( )	<input type="checkbox"/>	Broker (✓)
Business Name:							
Address:				Type of Service:			
Contact Person:				Dollar Amount: \$:		Percent of Project:	

<input type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer ( )	<input type="checkbox"/>	Broker (✓)
Business Name:							
Address:				Type of Service:			
Contact Person:				Dollar Amount: \$:		Percent of Project:	

Rev 031816JE

The undersigned Bidder hereby certifies that the aforementioned subcontractors and suppliers have full knowledge that their names have been offered as subcontractors and suppliers for the work, and the Bidder further certifies that the dollar amount of work to be performed by the aforementioned M/WBE(s) was furnished to the Bidder prior to the bid opening. The undersigned Bidder agrees that after the bid opening, it shall submit to the City an executed and completed W/MBE "Letter of Intent" in three working days (3) on each of its M/WBE subcontractors. The "Letter of Intent" form is contained in the Contract Documents.

The undersigned Bidder acknowledges the right of the City to reject any or all bids submitted, to waive informalities in bids and to re-advertise this Project for bids.

The undersigned certifies that it has carefully checked all works and figures and all statements made in these Bid Forms.

This bid is submitted upon the declaration that neither, I (we), nor, to the best of my (our) knowledge, none of the members of my (our) firm or company have either directly or indirectly entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this bid.

Business Address of Bidder: 4100 E. Mississippi Ave, Suite 900

City, State, Zip Code: Denver, CO 80246

Telephone Number of Bidder: 303-220-9400 Fax No. 303-220-9893

Social Security or Federal Employer ID Number of Bidder: 84-1107385

Name and location of the last work of this kind herein contemplated upon which the Bidder was engaged:  
U.S. Custom House Modernization - 721 19th St, Denver, CO 80202

For information relative thereto, please refer to:

Name: Tammy Quinn - General Services Administration

Title: Project Manager

Address: 1 Denver Federal Center, Lakewood, CO 80225

The undersigned acknowledges receipt, understanding, and full consideration of the following addenda to the Contract Documents:

Addenda Number 1 Date February 15, 2018

Addenda Number 2 Date March 2, 2018

Addenda Number \_\_\_\_\_ Date \_\_\_\_\_


Dated this 8th day of March, 2018.

**Signature of Bidder:**

If an Individual: \_\_\_\_\_ doing business  
as \_\_\_\_\_.

If a Partnership: \_\_\_\_\_  
by: \_\_\_\_\_ General Partner.

If a Corporation: \_\_\_\_\_  
Centerre Construction, Inc.  
a Colorado \_\_\_\_\_ Corporation,  
by: Stephen M. Hritz \_\_\_\_\_, its President.

Attest:   
Secretary \_\_\_\_\_ (Corporate Seal)

**If a Joint Venture, signature of all Joint Venture participants.**

Firm: \_\_\_\_\_

Corporation ( ), Partnership ( ) or ( ) Limited Liability Company

By: \_\_\_\_\_ (If a Corporation)  
Attest: \_\_\_\_\_  
Title: \_\_\_\_\_ Secretary (Corporate Seal)

Firm: \_\_\_\_\_

Corporation ( ), Partnership ( ) or ( ) Limited Liability Company

By: \_\_\_\_\_ (If a Corporation)  
Attest: \_\_\_\_\_  
Title: \_\_\_\_\_ Secretary (Corporate Seal)

Firm: \_\_\_\_\_

Corporation ( ), Partnership ( ) or ( ) Limited Liability Company

By: \_\_\_\_\_ (If a Corporation)  
Attest: \_\_\_\_\_  
Title: \_\_\_\_\_ Secretary (Corporate Seal)





**COMMITMENT TO MWBE  
PARTICIPATION**

**The undersigned has satisfied the MWBE participant requirements in the following manner  
(Please check the appropriate box):**

The Bidder/Proposer is committed to the minimum 25 % **MWBE** utilization on the project, and will submit Letters of Intent (LOI) for each subcontractor/subconsultant listed in the Bid Forms as follows:  
**Hard Bids: Three (3)** business days after the bid opening.  
**Request for Proposals/Qualifications:** With the proposal when due.  
**Compliance Plans:** With each task/work order

The Bidder/Proposer is unable to meet the project goal of \_\_\_\_\_% **MWBE**, but is committed to a minimum of \_\_\_\_\_% **MWBE** utilization on the project. The Bidder/Proposer understands that they must submit a detailed statement of their good faith effort under sealed bid procedures, as a matter of responsiveness, or with initial proposals, under contract negotiation procedures; or no later than **three (3)** days after bid opening as a matter of responsibility as in accordance with DRMC Section 28-62 and 28-67 of Ordinance 85 to the Division of Small Business Opportunity.

The Bidder/Proposer is a certified **MWBE** in good standing with the City and is committed to self-perform a minimum of \_\_\_\_\_% of the work on the contract.

Bidder/Proposer (Name of Firm): Centerre Construction, Inc

Firm's Representative (Please print): Stephen M. Hritz

Signature (Firm's Representative):

Title: President

Address: 4100 E. Mississippi Ave, Suite 900

City: Denver

State: CO

Zip: 80246

Phone: 303-220-9400

Fax: 303-220-9893

Email: [stevehritz@centerre.com](mailto:stevehritz@centerre.com)

**A copy of the MWBE Certification letter must be attached to each Letter of Intent (LOI).**



Office of Economic Development  
 Division of Small Business Opportunity  
 Compliance Unit  
 201 West Colfax Ave., Dept. 907  
 Denver, CO 80202  
 Phone: 720-913-1999

**LETTER OF INTENT (LOI)**  
**INSTRUCTIONS FOR COMPLETION & SUBMISSION:**

- All lines must be completed or marked N/A for Not Applicable
- Certification Letter must be submitted with LOI
- Submit the attached completed checklist with this letter
- Email to [dsbo@denvergov.org](mailto:dsbo@denvergov.org),
- FOR RFPs and RFQs: LOIs should be included with Submittal

Contract No.:		Project Name:					
<b>A. The Following Section Is To Be Completed by the Bidder/Consultant</b> <b>This Letter of Intent Must be Signed by the Bidder/Consultant and M/WBE, SBE, EBE or DBE</b>							
Name of Bidder/Consultant:				Self-Performing: <input type="checkbox"/> Yes <input type="checkbox"/> No		Phone:	
Contact Person:			Email:			Fax:	
Address:			City:		State:	Zip:	
<b>B. The Following Section is To Be Completed by the M/WBE, SBE, EBE or DBE, at any Tier</b> <b>This Letter of Intent Must be Signed by the M/WBE, SBE, EBE or DBE and Bidder/Consultant</b>							
Name of Certified Firm:					Phone:		
Contact Person:			Email:			Fax:	
Address:			City:		State:	Zip:	
Please check the designation which applies to the certified firm.		M/WBE ( <input type="checkbox"/> )	SBE ( <input type="checkbox"/> )	EBE ( <input type="checkbox"/> )	DBE ( <input type="checkbox"/> )		
Indirect Utilization: If this M/WBE, SBE, EBE or DBE is not a direct first tier subcontractor/subconsultant, supplier or broker to the Bidder/ Consultant, please indicate the name of the subcontractor/subconsultant, supplier or broker which is utilizing the participation of this firm:							
<b>A Copy of the M/WBE, SBE, EBE or DBE Letter of Certification must be Attached</b>							
Identify the scope of the work to be performed or supply item that will be provided by the M/WBE/SBE/DBE. <u>On unit price bids only, identify which bid line items the M/WBE/SBE/EBE/DBEs scope of work or supply corresponds to.</u>							
Subcontractor/Subconsultant ( <input type="checkbox"/> )		Supplier ( <input type="checkbox"/> )			Broker ( <input type="checkbox"/> )		
Bidder intends to utilize the aforementioned M/WBE, SBE, EBE or DBE for the Work/Supply described above. The cost of the work and percentage of the total subcontractor M/WBE, SBE, EBE or DBE bid amount is:							
\$				%			
Consultant intends to utilize the aforementioned M/WBE, SBE, EBE or DBE for the Work/Supply described above. The percentage of the work of the total sub consultant M/WBE, SBE, EBE or DBE will perform is:							
If the fee amount of the work to be performed is requested, the fee amount, is:				\$			
Bidder/Consultant's Signature:						Date:	
Title:							
M/WBE, SBE, EBE or DBE or Self-Performing Firm's Signature:						Date:	
Title:							
If the above named Bidder/Consultant is not determined to be the successful Bidder/Consultant, this Letter of Intent shall be null and void.							

## Letter of Intent (LOI) Checklist

*All lines must be completed or marked N/A for Not Applicable*

*Submit the attached completed checklist with this letter.*

<b>Completed ✓</b>	
<input type="checkbox"/>	Project Number & Project Name
<input type="checkbox"/>	Section A: Name of Bidder/Consultant, Contact Person, Address, City, State, Zip, Phone, Email
<input type="checkbox"/>	Section B: Name of Certified Firm, Contact Person, Address, City, State, Zip, Phone, Email
<input type="checkbox"/>	Designation checked for MBE/WBE, SBE, EBE or DBE
<input type="checkbox"/>	Indirect Utilization: Name of subcontractor/subconsultant, supplier or broker is indicated if using the participation of a 2 <sup>nd</sup> tier subcontractor/subconsultant, supplier or broker.
<input type="checkbox"/>	Scope of work performed or item supplied by M/WBE, SBE, EBE or DBE
<input type="checkbox"/>	Line items performed, if line-item bid.
<input type="checkbox"/>	Copy of M/WBE, SBE, EBE or DBE Letter of Certification Attached
<input type="checkbox"/>	Designation checked for Subcontractor/Subconsultant, Supplier or Broker
	<b>If project is a hard bid...</b>
<input type="checkbox"/>	Bidder has indicated dollar amount for value of work going to Subcontractor/ Subconsultant, Supplier or Broker
<input type="checkbox"/>	Bidder has indicated percentage for value of work going to Subcontractor/ Subconsultant, Supplier or Broker
	<b>If project is an RFP/RFQ...</b>
<input type="checkbox"/>	Consultant has indicated percentage for value of work going to Subcontractor/ Subconsultant, Supplier or Broker Name & contact name for MWBE.
<input type="checkbox"/>	Fee amount if fee amount of work to be performed is requested.
<input type="checkbox"/>	Bidder/Consultant's Signature, Title & Date
<input type="checkbox"/>	M/WBE, SBE, EBE or DBE Firm's Signature, Title and Date

<b>Select One ✓</b>	<b>SUBMITTED VIA...</b> For Construction Hard Bids ONLY, Bidders are strongly urged to deliver the LOI via one of the methods below. (The preferred method is to scan/email completed forms to email address below. Delivery to any other point cannot be guaranteed timely delivery.)
<input type="checkbox"/>	Email to <a href="mailto:DSBO@denvergov.org">DSBO@denvergov.org</a>

**The complete and accurate information that is required for the Letter of Intent is based on the following sections of the Ordinance 85: Section 28-63 and Section 28-68. Failure to complete this information on the Letter of Intent (LOI) may automatically deem a bid or proposal non-responsive.**



# Joint Venture Affidavit

Office of Economic Development  
 Division of Small Business Opportunity  
 Compliance Unit  
 201 W. Colfax Ave. Dept. 907  
 Denver, CO 80202  
 Phone: 720-913-1999  
[DSBO@denvergov.org](mailto:DSBO@denvergov.org)

The Undersigned swears that the foregoing statements are correct and include all material information necessary to identify and explain the terms and operation of our joint venture and the intended participation by each joint venturer in the undertaking. Further, the Undersigned covenant and agree to provide the City current, complete, and accurate information regarding actual joint venture work and the payment thereof and any proposed changes in any of the joint venture arrangements and to permit the audit and examination of the books, records, and files of the joint venture, by authorized representatives of the City or Federal funding agency, if applicable. Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initialing action under Federal or State laws concerning false statements.

Name of Firm: _____	
Print Name: _____	Title _____
Signature: _____	Date: _____

Notary Public		
County of _____	State of _____	My Commission Expires: _____
Subscribed and sworn before me this _____ day of _____, 20____		Notary Seal
Notary Signature: _____		
Notary Commission #: _____		
Address: _____		

Name of Firm: _____		
Print Name: _____	Title _____	
Signature: _____	Date: _____	
Notary Public		
County of _____	State of _____	My Commission Expires: _____
Subscribed and sworn before me this _____ day of _____, 20____		Notary Seal
Notary Signature: _____		
Notary Commission #: _____		
Address: _____		



# JOINT VENTURE ELIGIBILITY FORM

Office of Economic Development  
 Division of Small Business Opportunity  
 Compliance Unit  
 201 W. Colfax Ave. Dept. 907  
 Denver, CO 80202  
 Phone: 720-913-1999  
[DSBO@denvergov.org](mailto:DSBO@denvergov.org)

**Joint Venture means** an association of two (2) or more business enterprises to constitute a single business enterprise to perform a City construction or professional design and construction services contract for which purpose they combine their property, capital, efforts, skills and knowledge, and in which each joint venturer is responsible for a distinct, clearly defined portion of the work of the contract, performs a commercially useful function, and whose share in the capital contribution, control, management responsibilities, risks and profits of the joint venture are equal to its ownership interest. Joint ventures must have an agreement in writing specifying the terms and conditions of the relationships between the joint venturers and their relationship and responsibility to the contract.

The Division of Small Business Opportunity (DSBO) requires the following information be provided from participants of a prospective joint venture, to assist DSBO in evaluating the proposed joint venture. This Joint Venture Eligibility form and the Joint Venture Affidavit apply if SBEs, EBEs, MBEs, WBEs or DBEs participate in this joint venture.

Please return this form, the Joint Venture Affidavit, and a copy of your Joint Venture Agreement to: Division of Small Business Opportunity, 201 West Colfax Avenue, Denver, CO 80202, at least **ten (10) working days** prior to bid opening or proposal.

If you have questions regarding this process, please contact DSBO at 720-913-1999.

### Joint Venture Information

Name:		Contact Person:	
Address:			
City:	State:	Zip:	Phone:

### Joint Venture Participants

Name:		Contact Person:	
Address:			
City:	State:	Zip:	Phone:
% Ownership:	Certifying Entity:	Type Certification & Date: (S/E/M/W or DBE)	
Type of Work for which Certification was granted:			

Name:		Contact Person:	
Address:			
City:	State:	Zip:	Phone:
% Ownership:	Certifying Entity:	Type Certification & Date: (S/E/M/W or DBE)	
Type of Work for which Certification was granted:			

### General Information

SBE/EBE/MBE/WBE/DBE Initial Capital Contributions: \$	%
Future capital contributions (explain requirements) (attach additional sheets if necessary):	
Source of Funds for the SBE/EBE/MBE/WBE/DBE Capital Contributions:	
Describe the portion of the work or elements of the business controlled by the SBE/EBE/MBE/WBE or DBE: (attach additional sheets if necessary)	

Describe the portion of the work or elements of the business controlled by non-SBE/EBE/MBE/WBE or DBE: (attach additional sheets if necessary)


**JOINT VENTURE ELIGIBILITY FORM**

**General information**

Describe the SBE/EBE/MBE/WBE or DBE's involvement in the overall management of the joint venture (e.g., participation on a management committee or managing board voting rights, etc.) (attach additional sheets if necessary)


Describe the SBE/EBE/MBE/WBE or DBE's share in the profits of the joint venture:


Describe the SBE/EBE/MBE/WBE or DBE's share in the risks of the joint venture:


Describe the roles and responsibilities of each joint venture participant with respect to managing the joint venture (use additional sheets if necessary):

a. SBE/EBE/MBE/WBE or DBE joint venture participant:


b. Non- SBE/EBE/MBE/WBE or DBE joint venture participant:


Describe the roles and responsibilities of each joint venture participant with respect to operation of the joint venture (use additional sheets if necessary):

a. SBE/EBE/MBE/WBE or DBE joint venture participant:


b. Non- SBE/EBE/MBE/WBE or DBE joint venture participant:


Which firm will be responsible for accounting functions relative to the joint venture's business?

Explain what authority each party will have to commit or obligate the other to insurance and bonding companies, financing institutions, suppliers, subcontractors, and/or other parties?

Please provide information relating to the approximate **number** of management, administrative, support and non-management employees that will be required to operate the business and indicate whether they will be employees of the S/E/MWBE/DBE, non- S/E/MWBE/DBE or joint venture:

	Non- SBE/EBE/M/WBE/DBE	SBE/EBE/M/WBE/DBE	Joint Venture
Management			
Administrative			
Support			
Hourly Employees			

**JOINT VENTURE ELIGIBILITY FORM**

**General Information**

Please provide the name of the person who will be responsible for hiring employees for the joint venture.

Who will they be employed by?

Are any of the proposed joint venture employees currently employees of any of the joint venture partners?  Yes (✓)  No (✓)

If yes, please list the number and positions and indicate which firm currently employs the individual(s), (use additional sheets if necessary)

Number of employees	Position	Employed By

Attach a copy of the proposed joint venture agreement, promissory note or loan agreement (if applicable), and any and all written agreements between the joint venture partners.

List all other business relationships between the joint venture participants, including other joint venture agreements in which the parties are jointly involved.

If there are any significant changes in or pertaining to this submittal, the joint venture members must immediately notify the Division of Small Business Opportunity.

COMP-FRM-015

**CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS**

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS:

THAT CENTERRE CONSTRUCTION, INC., 4100 East Mississippi Avenue, Suite 900, Denver, Colorado 80246, as Principal, and BERKLEY INSURANCE COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and authorized to do business within the State of Colorado, as Surety, are held and firmly bound unto the City and County of Denver, Colorado, as Obligee, in full and just sum of Five Percent (5%) of the Total Amount of the Bid Dollars, (\$ \_\_\_\_\_), lawful money of the United States, for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents:

WHEREAS, the said Principal is herewith submitting its bid, dated March 8, 2018, for the construction of: **Contract No. 201840245, RED ROCKS CCC CAMP BARRACKS - BUILDING 1 REHABILITATION**, as set forth in detail in the Contract Documents for the City and County of Denver, Colorado, and said Obligee has required as a condition for receiving said bid that the Principal deposit specified bid security in the amount of not less than five percent (5%) of the amount of said bid, as it relates to work to be performed for the City, conditioned that in event of failure of the Principal to execute the Contract, for such construction and furnish required Performance and Payment Bond if the contract is offered him that said sum be paid immediately to the Obligee as liquidated damages, and not as a penalty, for the Principal's failure to perform.

The condition of this obligation is such that if the aforesaid Principal shall, within the period specified therefore, on the prescribed form presented to him for signature, enter into a written contract with the Obligee in accordance with his bid as accepted and give Performance and Payment Bond with good and sufficient surety or sureties, upon the form prescribed by the Obligee, for the faithful performance and the proper fulfillment of said Contract, or in the event of withdrawal of said bid within the time specified, or upon the payment to the Obligee of the sum determined upon herein, as liquidated damages and not as penalty, in the event the Principal fails to enter into said contract and give such Performance and Payment Bond within the time specified, then this Obligation shall be null and void, otherwise to remain in full force and effect.

Signed, sealed and delivered this 8th day of March, 2018.

ATTEST

By \_\_\_\_\_  
Secretary

CENTERRE CONSTRUCTION, INC.

Principal

By \_\_\_\_\_

Title President

BERKLEY INSURANCE COMPANY

Surety

By \_\_\_\_\_

Cynthia M. Burnett, Attorney-in-Fact

Seal if Bidder is Corporation  
(Attach Power-of-Attorney)

[SEAL]



POWER OF ATTORNEY  
BERKLEY INSURANCE COMPANY  
WILMINGTON, DELAWARE

NOTICE: The warning found elsewhere in this Power of Attorney affects the validity thereof. Please review carefully.

KNOW ALL MEN BY THESE PRESENTS, that BERKLEY INSURANCE COMPANY (the "Company"), a corporation duly organized and existing under the laws of the State of Delaware, having its principal office in Greenwich, CT, has made, constituted and appointed, and does by these presents make, constitute and appoint: *Douglas J. Rothery, Erik E. Ulibarri or Cynthia M. Burnett of Surescape Insurance Services, LLC of Littleton, CO* its true and lawful Attorney-in-Fact, to sign its name as surety only as delineated below and to execute, seal, acknowledge and deliver any and all bonds and undertakings, with the exception of Financial Guaranty Insurance, providing that no single obligation shall exceed *Fifty Million and 00/100 U.S. Dollars (U.S.\$50,000,000.00)*, to the same extent as if such bonds had been duly executed and acknowledged by the regularly elected officers of the Company at its principal office in their own proper persons.

This Power of Attorney shall be construed and enforced in accordance with, and governed by, the laws of the State of Delaware, without giving effect to the principles of conflicts of laws thereof. This Power of Attorney is granted pursuant to the following resolutions which were duly and validly adopted at a meeting of the Board of Directors of the Company held on January 25, 2010:

**RESOLVED**, that, with respect to the Surety business written by Berkley Surety Group, the Chairman of the Board, Chief Executive Officer, President or any Vice President of the Company, in conjunction with the Secretary or any Assistant Secretary are hereby authorized to execute powers of attorney authorizing and qualifying the attorney-in-fact named therein to execute bonds, undertakings, recognizances, or other suretyship obligations on behalf of the Company, and to affix the corporate seal of the Company to powers of attorney executed pursuant hereto; and said officers may remove any such attorney-in-fact and revoke any power of attorney previously granted; and further

**RESOLVED**, that such power of attorney limits the acts of those named therein to the bonds, undertakings, recognizances, or other suretyship obligations specifically named therein, and they have no authority to bind the Company except in the manner and to the extent therein stated; and further

**RESOLVED**, that such power of attorney revokes all previous powers issued on behalf of the attorney-in-fact named; and further

**RESOLVED**, that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any power of attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligation of the Company; and such signature and seal when so used shall have the same force and effect as though manually affixed. The Company may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Company, notwithstanding the fact that they may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, the Company has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 10 day of May, 2013.

Attest:

Berkley Insurance Company

(Seal)

By

By

Ira S. Lederman  
Senior Vice President & Secretary

Jeffrey M. Hafter  
Senior Vice President

**WARNING: THIS POWER INVALID IF NOT PRINTED ON BLUE "BERKLEY" SECURITY PAPER.**

STATE OF CONNECTICUT )

) ss:

COUNTY OF FAIRFIELD )

Sworn to before me, a Notary Public in the State of Connecticut, this 10 day of May, 2013, by Ira S. Lederman and Jeffrey M. Hafter who are sworn to me to be the Senior Vice President and Secretary, and the Senior Vice President, respectively, of Berkley Insurance Company.

Kathleen Corey  
Notary Public, State of Connecticut  
**KATHLEEN COREY  
NOTARY PUBLIC  
CONNECTICUT  
MY COMMISSION EXPIRES OCTOBER 31, 2017**

**CERTIFICATE**

I, the undersigned, Assistant Secretary of BERKLEY INSURANCE COMPANY, DO HEREBY CERTIFY that the foregoing is a true, correct and complete copy of the original Power of Attorney; that said Power of Attorney has not been revoked or rescinded and that the authority of the Attorney-in-Fact set forth therein, who executed the bond or undertaking to which this Power of Attorney is attached, is in full force and effect as of this date.

Given under my hand and seal of the Company, this 8th day of March, 2018.

(Seal)

Andrew M. Tuma  
Andrew M. Tuma

WARNING - Any unauthorized reproduction or alteration of this document is prohibited. This power of attorney is void unless seals are readable and the certification seal at the bottom is embossed. The background imprint, warning and confirmation (on reverse) must be in blue ink.



Office of Economic Development  
 Division of Small Business Opportunity  
 201 W. Colfax Ave, Dept. 907  
 Denver, CO 80202  
 p: 720.913.1999  
 f: 720.913.1809  
[www.denvergov.org/dsbo](http://www.denvergov.org/dsbo)

## Diversity and Inclusiveness \* in City Solicitations Information Request Form

Type in your response, print out, sign and date; or print out and complete manually. Please print legibly.

Denver Executive Order No. 101 establishes strategies between the City and private industry to use diversity and inclusiveness to promote economic development in the City and County of Denver and to encourage more businesses to compete for City contracts and procurements. The Executive Order requires, among other things, the collection of certain information regarding the practices of the City's contractors and consultants toward diversity and inclusiveness and encourages/requires City agencies to include diversity and inclusiveness policies in selection criteria where legally permitted in solicitations for City services or goods.

Answer each question below. Missing or incomplete responses will be recorded as "no", "not applicable", or "none". **A proposal or response to a solicitation by a contractor/consultant that does not include this completed form shall be deemed non-responsive and rejected.**

Business Email Address: estimating@centerre.com

Please include the Email address of the contact person facilitating this solicitation for the City and County of Denver: Stephen Hritz - stevehritz@centerre.com

Agency Name:

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Arts and Venue               | <input type="checkbox"/> Purchasing Division     | <input type="checkbox"/> Sheriff Department  |
| <input type="checkbox"/> Auditor Office               | <input type="checkbox"/> Human Services          | <input type="checkbox"/> Technology Services |
| <input type="checkbox"/> Community Planning           | <input type="checkbox"/> Economic Development    | <input type="checkbox"/> Other               |
| <input type="checkbox"/> Denver International Airport | <input type="checkbox"/> Parks and Recreation    |  |
| <input type="checkbox"/> Environmental Health         | <input type="checkbox"/> Police Department       |  |
| <input type="checkbox"/> Fire Department              | <input checked="" type="checkbox"/> Public Works |  |

Project Name: Red Rocks CCC Camp Barracks Building 1 Rehab

BID / RFP No.: 201840245

Name of Contractor/Consultant: Centerre Construction, Inc

What industry is your business? General Contractor

Address:

4100 E. Mississippi Ave, Suite 900  
Denver, CO 80246

Business Phone No.: 303-220-9400

Business Facsimile No.: 303-220-9893

OED - Executive Order No. 101  
 Diversity and Inclusiveness in City Solicitations Information Request Form  
 Rev. 12/29/2015

1. How many employees does your company employ?

- 1-10                       51-100  
 11-50                       over 100

1.1. How many of your company's employees are:

Full-time   27                        Part-Time           

2. Do you have a Diversity and Inclusiveness Program?  Yes                       No

If **No**, and your company size is less than 10 employees continue to question 11.  
Complete and sign the form.

If **Yes**, does it address:

- 2.1 Employment and retention?                       Yes                       No  
2.2 Procurement and supply chain activities?                       Yes                       No  
2.3 Customer service?                       Yes                       No

3. Provide a detailed narrative of your company's diversity and inclusiveness principles and programs. This may include, for example, (i) diversity and inclusiveness employee training programs, equal opportunity policies, and the budget amount spent on an annual basis for workplace diversity; or (ii) diversity and inclusiveness training and information to improve customer service.

4. Does your company regularly communicate its diversity and inclusiveness policies to employees?

If **Yes**, how does your company regularly communicate its diversity and Inclusiveness policies to employees? (select all that apply)

- Employee Training  
 Pamphlets  
 Public EEO postings  
 Other  
 Not Applicable

5. If you responded that you do not have a diversity and inclusiveness program, describe any plans your company may have to adopt such a program.

Centerre is currently in the process of completing our diversity program and will be completed in April of 2018

6. How often do you provide training in diversity and inclusiveness principles?

- Monthly                       Annually  
 Quarterly                       Not Applicable                       Other \_\_\_\_\_

6.1 What percentage of the total number of employees generally participate?

- 0 - 25%                       51 - 75%  
 26 - 50%                       76 - 100%                       Not Applicable

7. State how you achieve diversity and inclusiveness in supply and procurement activities. This may include, for example, narratives of training programs, equal opportunity policies, diversity or inclusiveness partnership programs, mentoring and outreach programs, and the amount and description of budget spent on an annual basis for procurement and supplier diversity and inclusiveness.

[Empty text box for response to question 7]

8. Do you have a diversity and inclusiveness committee?  Yes  No

8.1 If Yes, how often does it meet?

- Monthly                       Annually                       No Committee  
 Quarterly                       Other \_\_\_\_\_

8.2 If you responded that you do not have a diversity and inclusiveness committee, describe any plans your company may have to establish such a committee.

[Empty text box for response to question 8.2]

9. Do you have a budget for diversity and inclusiveness efforts?  Yes  No

10. Does your company integrate diversity and inclusion competencies into executive/manager performance evaluation plans?  Yes  No

11. Would you like information detailing how to implement a Diversity and Inclusiveness program?  
 Yes  No

If yes, please email [X0101@denvergov.org](mailto:X0101@denvergov.org).

I attest that the information represented herein is true, correct and complete, to the best of my knowledge.

  
\_\_\_\_\_  
Signature of Person Completing Form

March 8, 2018  
\_\_\_\_\_  
Date

Stephen M. Hritz  
\_\_\_\_\_  
Printed Name of Person Completing Form

**NOTE: Attach additional sheets or documentation as necessary for a complete response.**

\*"Diversity and inclusiveness program" means a program that invites values, perspectives and contributions of people from diverse backgrounds, and integrates diversity into its hiring and retention policies, training opportunities, and business development methods to provide an equal opportunity for each person to participate, contribute, and succeed within the organization's workplace. "Diversity" encompasses a wide variety of human differences, including differences such as race, age, gender, gender identity, sexual orientation, ethnicity, physical disabilities, appearance, historically underutilized and disadvantaged persons, as well as social identities such as religion, marital status, socio-economic status, lifestyle, education, parental status, geographic background, language ability, and veteran status."



Department of Public Works

Bid Form Packet

Contract Number: 201840245



RED ROCKS CCC CAMP BARRACKS –  
BUILDING 1 REHABILITATION

February 12, 2018

CITY AND COUNTY OF DENVER

STATE OF COLORADO

**CITY AND COUNTY OF DENVER**  
**DEPARTMENT OF PUBLIC WORKS**  
**PUBLIC WORKS FCPM**

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**DENVER**  
THE MILE HIGH CITY  
CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS

**STATEMENT OF QUANTITIES**

<u>Item No.</u>	<u>Description</u>	<u>Quantity</u>	<u>Estimated</u>
010100-01	Mobilization	1	LS
010500-01	Construction Surveying	1	LS
015000-01	Temporary Construction Fence	1	LS
029100-01	Tree Retention and Protection	1	LS
015150-01	Erosion and Sediment Control	1	LS
Division 2 - Existing Conditions			
	Remove wood posts, crawlspace	45	EA
	Remove wood siding, salvage	560	SF
	Remove wood flooring, salvage	220	SF
	Remove roofing system	2,500	SF
	Remove doors and frames	2	EA
	remove finishes and gypsum board	2,500	SF
	Remove misc items, allow	1	LS
Division 3 - Concrete			
	Concrete spread footing, rein	28	CY
	Concrete pad - 6"	20	SF
Division 4 - Masonry			
	CMU Pedestals, Foundation (24"x12"x48")	35	EA
Division 5 - Metals			





**DENVER**  
THE MILE HIGH CITY  
CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS

**STATEMENT OF QUANTITIES**

<u>Item No.</u>	<u>Description</u>	<u>Quantity</u>	<u>Estimated</u>
	Steel Structure, Floor beams	3	Ton
Division 6 - Woods & Plastic			
	wood structure, strengthen & reinforce existing	800	SF
	wood sheathing, floor 3/4 "	220	SF
	wood sheathing, roof 3/8 "	2,500	SF
	wood sheathing, roof match existing	625	SF
	wood trim, wall base	735	LF
	wood trim, crown molding reinstall existing	280	LF
	wood siding, exterior wall - reinstall existing	260	SF
	wood siding, exterior wall - match existing	300	SF
	wood studs, shear wall 2 x 6	440	SF
	wood studs, sister joists 2 x 6	2,800	SF
	wood studs, interior walls 2 x 6	2,000	SF
	base and upper cabinets	38	LF
Division 7 - Thermal & Moisture Protection			
	Batt insulation, exterior wall (R-20)	2,800	SF
	Batt insulation, roof (R-38)	1,250	SF
	Spray foam insulation, Roof (R-38)	1,250	SF

**STATEMENT OF QUANTITIES**

<u>Item No.</u>	<u>Description</u>	<u>Quantity</u>	<u>Estimated</u>
	Rolled roofing, granulated	2,500	SF
	Metal flashings, prefinished	280	LF
Division 8 - Doors and Windows			
	exterior windows, restore existing	250	SF
	wood door w/frame and hardware, entry	2	EA
	wood door w/frame and hardware, interior	13	EA
Division 9 - Finishes			
	gypsum board, walls	7,860	SF
	gypsum board ceiling	2,500	SF
	sound insulation, batt	2,440	SF
	marmoleum, floor and wall	300	SF
	rubber base wall	40	LF
	wood flooring re-finish existing	2,280	SF
	paint, wall and ceilings	9,980	SF
	paint/stain, wood trim and molding	1,015	LF
	paint/stain, door and frame	15	EA
	patch & repair, allowance	1	LS

Division 10 -  
Specialities



**DENVER**  
THE MILE HIGH CITY  
CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS

**STATEMENT OF QUANTITIES**

<u>Item No.</u>	<u>Description</u>	<u>Quantity</u>	<u>Estimated</u>
	Fire extinguisher w/cabinet	1	EA
	bath accessories small	1	SET
	residential appliances, allowance	1	LS
	building signage and specialties	2,500	SF
Division 22 - Plumbing			
	plumbing fixture water closet	1	EA
	plumbing fixture lacatory/sink	2	EA
	plumbing fixture drinking fountain	1	EA
	plumbing fixture janitor sink	1	EA
	plumbing equipment electric water heater instantansous	1	EA
	plumbing equipment electric water heater 20-gal	1	EA
	plumbing specialties	2,500	SF
Division 23 - Heating, Ventilating & Air Conditioning			
	HVAC demolition minimal	2,500	SF
	sheetmetal duct and insulation	1,800	LBS
	grilles registers and diffusers	21	EA
	evaporative cooler 2,625 to 3,150 CFM	3	EA
	baseboard heaters 500 to 1,000 Watt	16	EA



**DENVER**  
THE MILE HIGH CITY  
CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS

**STATEMENT OF QUANTITIES**

<u>Item No.</u>	<u>Description</u>	<u>Quantity</u>	<u>Estimated</u>
	HVAC piping and specialties	2,500	SF
	HVAC control system DDC	2,500	SF
	HVAC test and balance	24	HRS
	exhaust /transfer fans 89 - 110 CFM	2	EA
	HVAC misc work	1	LS
Division 26 - Electrical			
	electrical demolition, minimal	2,500	SF
	distribution panel 125 amp	1	EA
	light fixtures surface (LED)	6	EA
	light fixtures, downlights (LED)	37	EA
	light fixtures, wall (LED)	10	EA
	light fixtures exit (LED)	5	EA
	light switches/sensors	12	EA
	power outlets	53	EA
	equipment connections	2,500	SF
	lighting control systems	2,500	SF
	feeder & breach circuitry	2,500	SF
	electrical specialties	2,500	SF
	electric misc work	1	LS



**STATEMENT OF QUANTITIES**

<u>Item No.</u>	<u>Description</u>	<u>Quantity</u>	<u>Estimated</u>
Division 27 - Communications			
	telecom/communications system outlets	16	EA
Division 28 Electrical Safety and Security			
	fire alarm system	2,500	GSF
Division 31 - Earthwork			
	re-grading crawlspace	2,500	SF
	excavation & backfill foundation	170	CY
Division 33 - Utilities			
	water line 1 in	300	LF
	sanitary sewer line 4 in	120	LF
	trenching and backfill utilities	420	LF

**CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS  
PUBLIC WORKS FCPM**

**NOTICE FOR INVITATION FOR BIDS  
FOR CONTRACT NO. 201840245**

**RED ROCKS CCC CAMP BARRACKS - BUILDING 1 REHABILITATION**

**BID SCHEDULE:  
11:00 AM, Local Time  
MARCH 08, 2018**

Sealed bids will be received in Room 6.G.7, 201 W. Colfax Ave., Denver, CO 80202, beginning at 10:30 AM, no later than 11:00 AM, on bid day. All properly delivered bids will then be publicly opened and read aloud.

Bids submitted prior to 10:30 AM, on the specified bid opening date/time shall be presented at the Office of Contract Administration, Attention: Public Works Contract Administration, 201 W. Colfax Ave., Department 614, Denver, CO 80202.

Prior to submitting a bid, the bidder shall consult the Contractor's Bulletin Board located at 201 W. Colfax Ave., 2<sup>nd</sup> Floor, Denver, CO 80202 and/or [www.work4denver.com](http://www.work4denver.com).

**GENERAL STATEMENT OF WORK:**

Rehabilitation of a CCC Camp barrack building at Red Rocks Park into office and administration space to include stabilization and repairs to foundation, floor and roof framing, interior and exterior improvements, windows, HVAC systems installation and utilities.

**ESTIMATED CONSTRUCTION COST:**

The estimated cost of construction for this project is between \$585,000.00 and \$715,000.00.

**TEXTURA CONSTRUCTION PAYMENT MANAGEMENT:**

Bidders are required, when preparing a bid, to agree that it shall use the Textura® Construction Payment Management System (CPM System) for this Project and recognizes that all fees associated with the CPM System are to be paid by the awarded Contractor for billings for work performed. Use the pricing scale provided in Instructions to Bidders to price the Textura service appropriately. For details on the company and service contact the Textura® Corporation 866-TEXTURA or [www.texturacorp.com](http://www.texturacorp.com).

**DOCUMENTS AND BID INFORMATION AVAILABLE:**

Contract Documents complete with Technical Specifications and, if applicable, construction drawings will be available on the first day of publication at: [www.work4denver.com](http://www.work4denver.com). To download digital Contract Documents at a cost of \$10.00 per download, reference eBid Document Number #5545586. Contact QuestCDN at 952-233-1632 or [info@questcdn.com](mailto:info@questcdn.com) for assistance.

**PRE-BID CONFERENCE:**

A pre-bid conference will be held for this Project at 10:00 AM, local time, on February 22, 2018. This meeting will take place at: WEBB Building, 201 W Colfax Avenue, 4<sup>th</sup> floor conference room 4.G.2., Denver, CO 80202. A non-mandatory visit will be held at the project site after the pre-bid conference.

**DEADLINE TO SUBMIT QUESTIONS:** March 1, 2018 by 2:00 PM local time.

**PREQUALIFICATION REQUIREMENTS:** None

**MINORITY AND WOMAN BUSINESS ENTERPRISE PARTICIPATION:**

Construction, reconstruction and remodeling contracts made and entered into by the City and County of Denver are subject to Article III, Divisions 1 and 3 of Chapter 28 of the Denver Revised Municipal Code, (Sections 28-31 to 28-

36 and 28-52 to 28-90 D.R.M.C) and all Minority and Woman Business Enterprise and Equal Employment Opportunity Rules and Regulations adopted by the Director of the Division of Small Business Opportunity.

Article III, Division 3 of Chapter 28 of the D.R.M.C. directs the Director of the Division of Small Business Opportunity to establish a project goal for expenditures on construction, reconstruction, and remodeling work contracted by the City and County of Denver. The specific goal for this project is:

**25% Minority and Woman Business Enterprise (M/WBE) Participation**

Project goals must be met with certified participants as set forth in Section 28-60, D.R.M.C. or through the demonstration of a sufficient good faith effort under Section 28-62 D.R.M.C. For compliance with good faith requirements under Section 28-62(b), **the M/WBE percentage solicitation level required for this project is 100%.**

The Director of the Division of Small Business Opportunity urges all participants in City construction, reconstruction and remodeling projects to assist in achieving these goals.

**MISCELLANEOUS:**

Contracts for construction, reconstruction, and remodeling are subject to the City prevailing wage rate requirements established pursuant to Section 20-76, D.R.M.C.

As its best interest may appear, the City and County of Denver reserves the right to reject any or all bids and to waive informalities in bids.

A modified version of this Notice of Invitation for Bids and the project's Statement of Quantities is available on the City and County of Denver's website at: [www.work4denver.com](http://www.work4denver.com).

Publication Dates: February 12,13,14, 2018  
Published In: The Daily Journal

**CITY AND COUNTY OF DENVER**  
**DEPARTMENT OF PUBLIC WORKS**  
**PUBLIC WORKS FCPM**

**INSTRUCTIONS TO BIDDERS**

**IB-1 INSTRUCTION TO BIDDERS**

These Instructions to Bidders are a part of the Contract Documents and are intended to serve as a guide to bidders. They are general in nature and may be amended or supplemented as needed to support any one specific invitation to bid. Each bidder shall prepare its bid in strict compliance with all requirements of the Contract Documents and by careful application of these instructions.

**IB-2 BIDDING**

The copy of the Contract Documents contains the Bid Form and Submittal Package for this Project, which must be used to submit a bid hereunder. The bidder must fully complete, execute and submit this Bid Form and Submittal Package, along with any other specified components of the Contract Documents, as its bid for the referenced Project.

A bidder is not required to submit as part of its bid the entire set of Contract Documents distributed by the City pursuant to the Notice of Invitation for Bids, if the bidder executes and submits the Bidder Acknowledgment Form included with the Bid Form and Submittal Package as part of its bid. However, each bidder, by submitting its bid, shall be conclusively presumed to have received and reviewed all of the information contained in the Contract Documents as this term is further defined herein.

Each bid must be enclosed in a sealed envelope, must be addressed to the Manager and must show on the face of the envelope the full name of the bidder, the City Project number, and descriptive title of the Project for which the bid is made.

The advertisement for Notice of Invitation for Bids will identify where and when the bid must be delivered.

**IB-3 CONTRACT DOCUMENTS AS PUBLISHED BY CITY**

Each bidder shall be responsible for, and shall be deemed to have received, all the information contained in the Contract Documents as distributed by the City pursuant to the Notice of Invitation for Bids, including addenda, whether or not such bidder has reviewed all or part of the Contract Documents in either its hard copy form or in any other format. If organizations or companies other than the City or its design professional distribute the City's Contract Documents for review by prospective bidders, whether in hard copy or via electronic or other media, neither the City nor its design professional shall be responsible for the content, completeness or accuracy of any information distributed or transmitted by any such organization or company.

**IB-4 COMPLETING AND SIGNING THE BID FORMS**

The bidder must complete the Bid Form by legibly writing or printing in ink, in words and figures as required, all the bidder's prices offered for the Work to be performed. All blank spaces, which require a response of the bidder, must be properly completed in full. If in the process of evaluating a bid, words and figures, as written on the Bid Form by the bidder, do not agree, the written words will govern.

For Bid Forms requiring unit price bids, the bidder shall write in the Bid Form spaces provided a unit price for each item for which a quantity is given and shall also write the product of each unit price and the quantity specified in the "Amount" or "Total" space provided.

Each bidder must sign the Bid Form and give the bidder's current business address. If an individual, the signature must be of the individual offering the bid; if a partnership, the signature must be that of a general partner; and if a corporation, both the president and the secretary must sign and the seal of the corporation must be affixed. Signatures of other persons may be acceptable if the bid contains sufficient evidence, satisfactory to the City in its sole discretion, to indicate that the other persons are authorized to bind the bidder.



**IB-5 UNACCEPTABLE BIDS**

The City will not accept bids from Bidders not prequalified with the Department of Public Works (if prequalification is required for this project), in arrears to the City upon debt or contract, or which are defaulters (as surety or otherwise) upon any obligation to the City.

**IB-6 INFORMAL AND UNBALANCED BIDS**

Any alteration, interlineations, erasure, omission, deletion or addition by the bidder to the Bid Form and Submittal Package or other parts of the Contract Documents submitted with the Bid Form and Submittal Package, as originally issued to the bidder, shall render the accompanying bid informal and may constitute cause for rejection.

Any unauthorized addition, conditional or alternate bids, failure to provide a unit price, lump sum amount or authorized alternate item specified or other irregularities of any kind which tend to render the bid incomplete, indefinite or ambiguous shall render the bid informal and may constitute cause for rejection.

Bids that are unbalanced so that each item does not reasonably carry its own proportion of cost or that contain inadequate or unreasonable prices for any item may be rejected. Bids, which have not acknowledged all addenda to the Contract Documents issued for this bid, may also be rejected.

The right is reserved by the City to reject any or all bids and to waive any informalities where it is deemed by the City to be in the best interests of the City to do so.

**IB-7 ONLY ONE BID ACCEPTED**

The City will accept only one bid for the same work from any one bidder. This includes bids that may be submitted under different names by one business enterprise.

**IB-8 BID GUARANTEE**

As a guarantee of good faith on the part of the bidder, each bid must be accompanied by a bid guarantee, consisting of either a certified or cashier's check made payable without condition to the order of the City and County of Denver or a bid bond written by an approved corporate surety in favor of the City and County of Denver. If the bid of a bidder is acceptable and the bidder is notified by the Manager that it is considered to be the Apparent Low Bidder and said bidder fails to execute a contract in the form prescribed or to furnish a performance and payment bond with a legally responsible and approved surety or to furnish the required evidence of insurance or satisfy all conditions precedent to contract execution within five (5) days after such notice is made by the City, said bid guarantee shall be forfeited to the City as liquidated damages and not as a penalty.

The bid guarantee shall be in the amount of five percent (5%) of the total bid unless otherwise specified in the Notice of Invitation for Bids and on the form appearing in the Contract Documents in the Bid Form and Submittal Package. Failure to submit a properly executed bid guarantee, on the form provided herein may, in the City's sole discretion, constitute cause for rejection.

Following award and execution of the Contract by the Apparent Low Bidder, or earlier in the sole discretion of the City, bid guarantees of all but the Apparent Low Bidder will be returned. When the Apparent Low Bidder executes the Contract and delivers to the City satisfactory performance and payment bonds, required insurance documentation, and has satisfied all conditions precedent to contract execution by the City, and after approval, if any, by the Council of the City of the proposed Contract with the Apparent Low Bidder, the bid guarantee of the Apparent Low Bidder shall be returned. Such return shall be made within one hundred twenty (120) days from date bids are opened unless otherwise specified in the Special Contract Conditions.

**IB-9 SITE INSPECTION AND INVESTIGATIONS**

Prior to submitting a bid, the bidder is invited to inspect the work site and its surroundings. Although the bidder is not required to make such an inspection before bidding, for purposes of the Contract it shall be conclusively presumed that by failing to make such an inspection, the bidder has waived the right to later claim additional compensation or time extensions for conditions which would have been evident had the site been inspected.

Drawings and Technical Specifications, defining the Work to be done, were prepared on the basis of interpretation by the design professionals of information derived from investigations of the work site. Such information and data are subject to sampling errors, and the interpretation of the information and data depends to a degree on the judgment of the design professional. In view of this, the bidder is invited to make such additional investigations as the bidder's judgment dictates the need for such investigations. Information about the degree of difficulty of the Work to be done cannot totally be derived from either the Drawings or Technical Specifications or from the Manager or his representatives.

Since the bid information cannot be guaranteed, the Contractor shall have assumed the risks attendant to successful performance of the Work and shall never make claim for additional compensation or time extensions on the grounds that the nature or amount of work to be done was not understood by the bidder at the time of the bidding.

**IB-10 INCONSISTENCIES**

Any seeming inconsistencies or ambiguities between different provisions of the Contract Documents or any point which the bidder believes requires a decision or interpretation by the City must be inquired into by the bidder by addressing a formal written communication to the Manager of Public Works and sending or delivering it to the offices of the Division of Public Works advertising this Project for bid at least forty-eight (48) hours, excluding Saturdays, Sundays, and holidays, before the time set for the opening of bids

Information about the decision or interpretation made in response to any inquiry will be posted on the Contractor's Bulletin Board (refer to IB-12 CONTRACTOR'S BULLETIN BOARD, for the location of the Contractor's Bulletin Board). If the matter raised requires, in the sole discretion of the Manager, that an addendum to the bid documents be issued, such addendum will be published and each bidder shall be required to acknowledge the addendum by signing and identifying it in the Bid Form when submitting the bid.

After bids are opened, all bidders must abide by the formal response of the Manager, as to any interpretation. The City shall not be bound and the bidder shall not rely on any oral communication, interpretation clarification or determination of the Contract Documents prior to bid opening.

**IB-11 WITHDRAWAL OF BID**

A bidder may withdraw its bid at any time prior to the time for receipt of bids set forth in the Notice of Invitation for Bids by making written request upon the Manager of Public Works. After such time, no bid may be withdrawn or modified.

Such request must be signed by the persons authorized to bind the bidder as defined in IB-3, COMPLETING AND SIGNING BID FORMS.

**IB-12 CONTRACTOR'S BULLETIN BOARD**

It shall be conclusively presumed that the bidder has, before submitting any bid, read and shall take full responsibility for all addenda, posted decisions, and other information relevant to the bid posted by the City on the Contractor's Bulletin Board. The Contractor's Bulletin Board is located at 201 W. Colfax, 2<sup>nd</sup> Floor, Denver, CO 80202, in the Wellington E. Webb Municipal Office Building.

**IB-13 PRE-BID MEETING**

Bidders are urged to attend the pre-bid meeting(s) scheduled for this Project. Attendance is not mandatory; however, bidders will be held responsible for all information presented at such meeting(s).

**IB-14 ADDENDA**

As its best interests may require, the City may issue addenda to the Contract Documents. Such addenda shall be posted on the Contractor's Bulletin Board and made available to all persons having purchased a set of Contract Documents as set forth in the Notice of Invitation for Bids contained herein. All bidders must acknowledge receipt of all addenda on the Bid Form at the time of submission of the bid.

**IB-15 BID OPENING**

Bidders are invited to be present at the bid opening. Unless otherwise suspended, delayed or canceled by posted notice from the Manager, bid opening will occur at the time and place designated in the Notice of Invitation for Bid.

**IB-16 EVALUATION OF BIDS AND BASIS OF BID SELECTION**

Bids will be evaluated after being read in open meeting at the place designated for such bid opening. All low bidders' bids will be reviewed for responsiveness to the requirements of the Contract Documents and whether or not the bids contain irregularities which could give any bidder an unfair advantage.

Selection will be made on the basis of the lowest, total, responsive, qualified bid, which bid shall include the total base bid set forth on the Bid Form, plus the total of any alternates set forth on the Bid Form and selected by the City during evaluation. Alternates, if any are included in the bid, will be selected in the priority shown on the Bid Form, subject to the limits of available funds. Bid selection will be subject to all requirements and special bidder qualifications contained herein and subject to approval of such resulting Contract in accordance with the Charter and Revised Municipal Code of the City and County of Denver. In addition to all other specified requirements, the City will correct arithmetical errors in all bids and corrected totals only will be considered as the basis of selection.

Upon concluding that the bid is, in fact, the lowest, total, responsive bid to the bidding conditions and that of a responsible, qualified bidder, the City will notify the Apparent Low Bidder.

As its best interests may appear, the City and County of Denver reserves the right to waive informalities in bids, to reject any and all bids and to rebid the Project.

**IB-17 NOTICE TO APPARENT LOW BIDDER**

The Notice to Apparent Low Bidder, a form of which is included in the Contract Special Conditions Section of the Contract Documents, is issued by the City directly to the selected bidder and informs the bidder that the Manager intends to seek approval of the execution of the Contract by the City in accordance with the Charter and Revised Municipal Code of the City and County of Denver. Specifically, it informs the bidder of its obligations with respect to execution of the Contract and instructs the bidder on how to proceed toward execution of the Contract. The City reserves the right to notify the Apparent Low Bidder, at any time within one hundred twenty (120) days from the date of the opening of the bids, that approval to contract with the Apparent Low Bidder shall be sought in accordance with the Charter and Revised Municipal Code of the City and County of Denver.

In accordance with the terms and conditions contained in the Bid Form and Submittal Package and any additional requirements set forth in the Notice to Apparent Low Bidder or elsewhere in the Contract Documents, the Apparent Low Bidder shall execute the Contract Form contained in the Contract Documents made available by the City for execution in the appropriate number of counterparts. The Apparent Low Bidder shall return the fully executed Contract Document sets, along with any supplemental documents required herein, to the City and shall comply with all other conditions precedent to Contract execution within five (5) days of the date of issuance of the Notice to Apparent Low Bidder by the City. Failure to comply with each of these requirements within five (5) days of the date of issuance of the Notice to Apparent Low Bidder by the City shall render the bid nonresponsive and may constitute cause for rejection.

Issuance of such Notice shall not, however, constitute a commitment on the part of the City or create any rights in the Apparent Low Bidder to any contract with the City.

**IB-18 EXECUTION OF CONTRACT**

The process of executing a contract requires action by both the apparent low bidder and the City. After it notifies the Apparent Low Bidder, the City will prepare the Contract Documents by incorporating all of the documents submitted by the Apparent Low Bidder into one or more executable copies. Upon notification that contracts documents are ready for execution the Apparent Low Bidder shall execute the contract documents. At this time, the successful bidder shall also provide certain supplemental documents for incorporation into the Contract Documents. These supplemental documents shall include: the properly executed Certificate of Insurance Forms evidencing the apparent low bidder's satisfactory compliance with

the insurance requirements set forth in the Contract Documents; a properly executed Payment and Performance Bond Form and appropriate Power of Attorney evidencing the Apparent Low Bidder's satisfactory compliance with the bonding requirements set forth in the Contract Documents; and documentation of compliance with any other conditions precedent to execution of the Contract by the City set forth in the Contract Documents. The insurance and bond forms contained in the Contract Special Conditions Section of the Contract Documents must be used in satisfying these supplemental document requirements.

These documents are then delivered to the City within the prescribed time period for examination of the documents to determine whether or not the Contractor has correctly executed the Contract and has correctly provided the required supplemental documents and that these documents are satisfactorily and properly completed. From here, all of the documents are forwarded to the City Attorney who will, if the insurance and bonding offered is acceptable and if all other elements of the Contract Documents are in order, recommend that the Manager and the Mayor approve the documents and, when required by the City Charter, prepare an ordinance for submittal to City Council authorizing the execution of the Contract. The City Attorney shall in all applicable instances submit the proposed contract and ordinance to City Council. After City Council approval, the Contract shall be reviewed by the City Attorney and routed for execution by the Mayor, the Clerk for attestation and the Auditor for countersignature and registration. When the total process of contract execution is complete, a Notice to Proceed will be issued and a single executed copy of the Contract will be delivered to the Contractor. Any work performed or a material purchased prior to the issuance of Notice to Proceed is at the Contractor's risk.

**IB-19 BONDING REQUIREMENTS**

In accordance with the provisions of General Contract Conditions, Title 15, PERFORMANCE AND PAYMENT BONDS, the minimum bonding requirements for this Contract are set forth in the form **CITY AND COUNTY OF DENVER PERFORMANCE AND PAYMENT BOND** contained in the Special Conditions Section of the Contract Documents. Upon receipt of Notice to Apparent Low Bidder, the apparent low bidder must cause this form bond to be purchased, executed and furnished, along with appropriate Powers of Attorney and a surety authorization letter (in form similar to the one attached), to the City in accordance with the instructions contained herein.

**IB-20 INSURANCE REQUIREMENTS**

The minimum insurance requirements for this Contract are set forth in the Special Conditions Section of the Contract Documents. Bidders are urged to consider, in preparing a bid hereunder, that each condition, requirement or specification set forth in the form certificate must be complied with by the Contractor and all subcontractors performing Work on the Project, unless such requirements are specifically accepted in writing by the City's Risk Management Office. The Contractor must either include all subcontractors performing work hereunder as insureds under each required policy or furnish a separate certificate for each subcontractor. In either case, the Contractor shall insure that each subcontractor complies with all of the coverage requirements.

**IB-21 PERMITS AND LICENSES**

All permits, licenses and approvals required in the prosecution of the work shall be obtained and paid for by the Contractor.

**IB-22 PREVAILING WAGE REQUIREMENTS**

Contractor shall comply with, and agrees to be bound by, all requirements, conditions and City determinations regarding the Payment of Prevailing Wages Ordinance, Sections 20-76 through 20-79, D.R.M.C. including, but not limited to, the requirement that every covered worker working on a City owned or leased building or on City-owned land shall be paid no less than the prevailing wages and fringe benefits in effect on the date the bid or request for proposal was advertised. In the event a request for bids, or a request for proposal, was not advertised, Contractor shall pay every covered worker no less than the prevailing wages and fringe benefits in effect on the date funds for the contract were encumbered.

Date bid or request for qualifications/proposals was advertised: February 12, 2018.

Prevailing wage and fringe rates will adjust on, and only on, the anniversary of the date the Contract was fully executed. Unless expressly provided for in this Agreement, Contractor will receive no additional compensation for increases in prevailing wages or fringe benefits.

Contractor shall provide the Auditor with a list of all subcontractors providing any services under the contract.

Contractor shall provide the Auditor with electronically-certified payroll records for all covered workers employed under the contract.

Contractor shall prominently post at the work site the current prevailing wage and fringe benefit rates. The posting must inform workers that any complaints regarding the payment of prevailing wages or fringe benefits may be submitted to the Denver Auditor by calling 720-913-5000 or emailing [auditor@denvergov.org](mailto:auditor@denvergov.org).

If Contractor fails to pay workers as required by the Prevailing Wage Ordinance, Contractor will not be paid until documentation of payment satisfactory to the Auditor has been provided. The City may, by written notice, suspend or terminate work if Contractor fails to pay required wages and fringe benefits.

### **IB-23 TAX REQUIREMENTS**

General. Bidders are referred to the General Contract Condition 323, TAXES, as to taxes to which they may be subject in performing the Work under this Contract, including but not limited to sales and use taxes and the Denver Occupational Privilege Tax. The following instructions are to be considered along with the General Contract Conditions and not in lieu of them.

Sales and Use Tax. Construction and building materials sold to contractors and subcontractors for use on structures, roads, streets, highways, and other public works owned by the City and County of Denver are exempt from state, RTD, and Cultural Facilities District sales and use taxes. However, such materials will be subject to sales and use taxes imposed by the City and County of Denver.

It is the responsibility of the Contractor and its subcontractors to apply to the Colorado Department of Revenue (“CDOR”) for a certificate, or certificates, of exemption indicating that their purchase of construction or building materials is for a public project, and to deliver to the City copies of such applications as soon as possible after approval by the CDOR. Bidders shall not include in their bid amounts the exempt state, RTD, and Cultural Facilities District Sales and Use Taxes.

Denver Occupational Privilege Tax. Any employee working for a contractor, or a subcontractor, who earns over \$500 working in Denver during a calendar month, is subject to the payment of the Employee Occupational Privilege Tax. The Contractor and any subcontractor must pay the Business Occupational Privilege Tax for each of its employees who are subject to such tax.

### **IB-24 DIVERSITY AND INCLUSIVENESS IN CITY SOLICITATIONS**

Each bidder shall, as a condition of responsiveness to this solicitation, complete and return the “Diversity and Inclusiveness in City Solicitations Information Request Form” with their Bid.

Using the “Diversity and Inclusiveness in City Solicitations Information Request Form” provided, please state whether you have a diversity and inclusiveness program for employment and retention, procurement and supply chain activities, or customer service and provide the additional information requested on the form. The information provided on the “Diversity and Inclusiveness in City Solicitations Information Request Form” will provide an opportunity for City contractors to describe their own diversity and inclusiveness practices. Contractors are not expected to conduct intrusive examinations of its employees, managers, or business partners in order to describe diversity and inclusiveness measures. Rather, the City simply seeks a description of the contractor’s current practices, if any.

Diversity and Inclusiveness information provided by City contractors in response to City solicitations for services or goods will be collated, analyzed, and made available in reports consistent with City Executive Order No. 101. However, no personally identifiable provided by or obtained from contractor’s will be in such reports.

## **IB-25 MINORITY AND WOMAN BUSINESS ENTERPRISE (M/WBE) REQUIREMENTS**

Article III, Divisions 1 and 3 of Chapter 28, Denver Revised Municipal Code (D.R.M.C.), designated as Sections 28-31 – 28-36 and 28-52 – 28-90 D.R.M.C. and referred to in these Bid Documents as the “M/WBE Ordinance” and any Rules or Regulations promulgated pursuant thereto apply to this Project and are incorporated into these Bid Documents by reference. Generally, the M/WBE Ordinance provides for the adoption of a good faith goals program, to be administered by the Division of Small Business Opportunity (DSBO), devised to provide increased bidding opportunities for Minority and Woman Business Enterprises (M/WBEs). As such, each bidder must comply with the terms and conditions of the M/WBE Ordinance in making its bid and, if awarded the Contract, in performing all Work thereunder. A bidder’s failure to comply with the M/WBE Ordinance, any Rules or Regulations promulgated pursuant thereto, or any additional requirement contained herein shall render the bid non-responsive and shall constitute cause for rejection. Failure by the contractor awarded the contract to comply with M/WBE Ordinance requirements during the performance of the contract is a material breach of the contract, which may result in the imposition of sanctions on the Contractor, as deemed appropriate by DSBO. Copies of the M/WBE Ordinance and its accompanying Rules and Regulations are available for the use and review of bidders from DSBO. In order to comply with the bid requirements of the M/WBE Ordinance, a bidder shall either meet the established project goal or, in the alternative, demonstrate that the bidder has made sufficient good faith efforts to meet the goal in accordance with the M/WBE Ordinance.

### **Meeting Established Goal**

In preparing a bid to meet the established Project goal, bidders should consider the following instructions relating to compliance with the M/WBE Ordinance:

1. Under the M/WBE Ordinance, the Director of DSBO (“Director”) is directed to establish project goals for expenditures on construction, reconstruction, and remodeling work performed for the City and County of Denver. The specific goal for this project is stated in the Notice of Invitation for Bids bound herein.
2. In preparing its bid, each bidder shall list on the Bid Form pages entitled "List of Proposed MWBE Bidders, Subcontractors, Suppliers, Manufacturers, Manufacturers' Representatives or Brokers" the name, address, work description/supply, committed level of participation and other required information for each M/WBE of any tier which the bidder intends to use in performing the work on this Project. **Only the M/WBEs identified and the precise levels of participation listed for each on the Bid Form page, at the time of bid opening, will be considered in determining whether the bidder has met the designated participation goal. Additional, revised or corrected participation submitted after bid opening will not be considered.** M/WBE bidders may count self-performance or joint venture activity in meeting the M/WBE project goal, but only for the scope of work performed as a commercially useful function and at a percentage level the M/WBE will be performing itself.
3. Any agreement between a bidder or proposer and an MBE or WBE in which the bidder or proposer requires that the MBE or WBE not provide subcontracting quotations to other bidders or proposers is prohibited and shall render a bidder's bid or proposer's proposal nonresponsive. D.R.M.C. 28-63(f)
4. If a bidder/proposer is participating in a joint venture with a certified M/WBE firm, complete the Joint Venture Eligibility Form and Joint Venture Affidavit contained in this bid document/RFP. Submit the aforementioned forms with the firm’s Joint Venture Agreement, to the DSBO Director, **at least 10 working days prior to the proposal submittal.** The Joint Venture must be approved prior to the bid opening or proposal submittal by the DSBO Director. Approval by the DSBO Director includes determining the amount the Joint Venture will count towards meeting the project goal.
5. All M/WBEs listed on the Bid Form must be properly certified by the City on or before the date bids are opened in order to count towards meeting the designated goal. DSBO maintains an M/WBE Directory (“Directory”), which is a current listing of M/WBEs that have been certified by the City. A copy of the DSBO Directory is located at DSBO web site at <https://www.denvergov.org/dsbo>.

Bidders are encouraged to use the Directory to assist in locating M/WBEs for the work and supplies required on the Project. Bidders are reminded that changes may be made to the Directory at anytime in accordance with the City's M/WBE Ordinance and procedures established to administer this program and a current copy of the Directory must always be used in preparing a bid. M/WBE certification or listing in the Directory is not a representation or warranty by the City as to the qualifications of any listed M/WBE.

6. In accordance with the provisions of the M/WBE Ordinance, DSBO will evaluate each bid to determine the responsiveness of the bid to the requirements of the M/WBE Ordinance. In determining whether a bidder's committed level of participation meets or exceeds the stated M/WBE goal, DSBO shall base its calculation of applicable amounts and percentages on the total base bid amount, not including any listed alternates, of each bid as follows:
  - a. The bid information provided by the agency will be used to determine the total base bid amount of each bid. Each bidder's total base bid amount will be multiplied by the M/WBE percentage established for the project to determine the exact dollar amount of required M/WBE participation for the Project. This amount will then be compared against the exact dollar amounts for the M/WBE committed for participation by the bidder. If the total dollar amount of participation listed meets or exceeds the established M/WBE dollar amount goal listed, then DSBO will determine that the goal has been met.
  - b. In addition, DSBO will determine the exact commitment percentage for each listed M/WBE by dividing the dollar amount listed for each M/WBE by the total base bid dollar amount submitted by the bidder. These individual percentages, when totaled for all listed M/WBE, will establish the total committed percentage level of M/WBE participation that the bidder must comply with during the life of the contract. In all cases, the committed percentage level of M/WBE participation must equal or exceed the assigned M/WBE goal for the Project.
  - c. In providing the exact dollar amount of participation for each listed M/WBE, a bidder should take care never to round up in determining whether or not the total of these amounts meets or exceeds the established percentage goal. The goal must be met or exceeded by dollar amounts and percentages in order for DSBO to determine that the bidder has met or exceeded the applicable M/WBE goal.
  - d. As previously mentioned, compliance with the M/WBE goal will be determined on the base bid alone. If a bid contains alternates, participation contained in any alternate will not count towards satisfaction of the Project goal. However, should any designated alternate be selected by the City for inclusion in the contract ultimately awarded, the M/WBE goal percentage level submitted at bid time, on the base bid, will also apply to the selected alternates and must be maintained for the life of the contract on the total contract amount, including any alternate work. Thus, even though such participation will not be considered in evaluating bids, bidders are urged to consider participation in preparing bids for designated alternates.
  - e. On projects where force account or allowance bid items have been included, bidders must meet the M/WBE goal percentage based upon the total base bid, including all such items that are submitted to the City. However, when a force account or allowance is designated by the City to be either performed or purchased from a specific company, the bidder may back out the dollar amount of the force account or allowance from the total base bid and meet the M/WBE goal on the remaining reduced amount.
  - f. On bids which, at the time of bid opening, are equal to or exceed Five Million Dollars (\$5,000,000.00), including any alternates which may be selected, only sixty percent (60%) of the value of the commercially useful function performed by M/WBE suppliers shall count toward satisfaction of the Project goal. On Projects under Five Million (\$5,000,000.00) the value of the commercially useful function of M/WBE supplier(s) will

count at a one hundred percent (100%) level. Manufacturer's representatives and packagers shall be counted in the same manner as brokers.

- g. In utilizing the M/WBE participation of a Broker only the bona fide commissions earned by such Broker for its performance of a commercially useful function will count toward meeting the Project goals. The bidder must separate the bona fide brokerage commissions from the actual cost of the supplies or materials provided to determine the actual dollar amount of participation that can be counted towards meeting the goal.
7. On or before the third (3<sup>rd</sup>) working day after bid opening, all of the Bidders are required to submit an executed "Letter of Intent" for each M/WBE listed on the Bid Form as a joint venture member, subcontractor, supplier, manufacturer, manufacturers' representative or broker of any tier. **An MBE or WBE Prime Bidder needs to submit a Letter of Intent for itself for self-performed work**, and must identify their level of participation on the designated M/WBE participation page bound herein. A Letter of Intent shall be submitted only for the M/WBEs listed at the time of bid opening, since this is the only participation that will be counted toward satisfaction of the project goal. A form for the M/WBE Letter of Intent is included with the Bid Form. The M/WBE Letter of Intent is a written communication from the Bidder to the City evidencing an understanding that the Bidder has or will enter into a contractual relationship with the M/WBE or that its subcontractor(s) and supplier(s), manufacturer(s), manufacturers' representative(s) and broker(s) will do so. Each M/WBE Letter of Intent shall be accompanied by a copy of the City and County of Denver's M/WBE certification letter for each proposed M/WBE identified at bid time. Bidders are urged to carefully review these Letters before submission to the City to ensure that they are properly completed and executed by the appropriate parties.

#### **Good Faith Effort.**

In preparing a bid to demonstrate a good faith effort, bidders should consider the following instructions relating to compliance with the M/WBE Ordinance:

1. If the bidder or proposer has not fully met the project goal as provided in section 28-60, then it shall demonstrate that it has made good faith efforts to meet such goal. The bidder or proposer shall furnish to the director, within three (3) working days after bid opening by the City or on or before the time of the final project-specific proposal submitted to and authorized by the City pursuant to a competitive selection process, or bid selection by a private owner, a detailed statement of its good faith efforts to meet the project goal set by the director. This statement shall address each of the items in subsection (b) and any additional criteria that the director may establish by rule or regulation consistent with the purposes of this division 3. Good faith efforts must be demonstrated to be meaningful and not merely for formalistic compliance with this Division 3. The scope and intensity of the efforts will be considered in determining whether the bidder or proposer has achieved a good faith effort.
2. The statement of good faith efforts shall include a specific response and verification with respect to each of the following good faith effort categories, which may be further defined by rule or regulation. A bidder or proposer may include any additional information it believes may be relevant. Failure of a bidder or proposer to show good faith efforts as to any one (1) of the following categories shall render its overall good faith effort showing insufficient and its bid or proposal non-responsive:
  - a. If prebid or preselection meetings are scheduled by the City at which MBEs and WBEs may be informed of subcontracting or joint venture opportunities under a proposed contract to be bid, or procured pursuant to the competitive selection process, attendance at such prebid or preselection meetings is not mandatory; however, bidders and proposers are responsible for the information provided at these meetings.
  - b. The bidder or proposer must solicit through all reasonable and available means, the interest of all MBEs and WBEs certified in the scopes of work of the contract. The bidder or proposer must solicit the interest of such MBEs and WBEs within sufficient time, prior to the bid opening or date of final project-specific proposal in the case of a competitive selection process, to allow such MBEs and WBEs to respond to the solicitation. The bidder or proposer must determine with certainty



- if the MBEs and WBEs are interested by demonstrating appropriate steps to follow up initial solicitations.
- c. The bidder or proposer must select portions of the work of the contract to be performed by MBEs and WBEs in order to increase the likelihood that the project goal will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate MBE and WBE participation as subcontractors or joint venturers, and for bidder or proposer self-performed work, as suppliers, manufacturers, manufacturer's representatives and brokers, all reasonably consistent with industry practice, even when the bidder or proposer would otherwise prefer to perform these work items with its own forces. The bidder or proposer must identify what portions of the contract will be self-performed and what portions of the contract will be opened to solicitation of bids, proposals and quotes from MBE and WBEs. All portions of the contract not self-performed must be solicited for MBE and WBE participation. The ability or desire of a bidder or proposer to perform the work of a contract with its own forces does not relieve the bidder or proposer of the responsibility to meet the project goal or demonstrate good faith efforts to do so.
  - d. The bidder or proposer, consistent with industry practice, must provide MBEs and WBEs at a clearly stated location with timely, adequate access to and information about the plans, specifications, and requirements of the contract, including bonding and insurance requirements, if any, to assist them in responding to a solicitation.
  - e. The bidder or proposer must negotiate in good faith with interested MBEs and WBEs and provide written documentation of such negotiation with each such MBE or WBE.
  - f. For each MBE or WBE which contacted the bidder or proposer or which the bidder or proposer contacted or attempted to subcontract or joint venture with, consistent with industry practice, the bidder or proposer must supply a statement giving the reasons why the bidder or proposer and the MBE or WBE did not succeed in negotiating a subcontracting, supplier, manufacturer, manufacturer's representative, broker or joint venture agreement, as applicable.
3. The bidder or proposer must provide verification that it rejected each non-utilized MBE and WBE because the MBE or WBE did not submit the lowest bid or it was not qualified. Such verification shall include a verified statement of the amounts of all bids received from potential or utilized subcontractors, suppliers, manufacturers, manufacturer's representatives, brokers or joint venturers on the contract, whether or not they are MBEs or WBEs. In making such a determination of not being qualified, the bidder or proposer shall be guided by the definition of qualified in section 28-54(42), but evidence of lack of qualification must be based on factors other than solely the amount of the MBE's or WBE's bid. For each MBE or WBE found not to be qualified by the bidder or proposer, the verification shall include a statement giving the bidder's or proposer's reasons for its conclusion. A bidder's or proposer's industry standing or group memberships may not be the cause of rejection of an MBE or WBE. A bidder or proposer may not reject an MBE or WBE as being unqualified without sound reasons based on a reasonably thorough investigation and assessment of the MBE's or WBE's capabilities and expertise.
  4. If requested by a solicited MBE or WBE, the bidder or proposer must make reasonable efforts to assist interested MBEs and WBEs in obtaining bonding, lines of credit, or insurance as required by the City or by the bidder or proposer, provided that the bidder or proposer need not provide financial assistance toward this effort.
  5. If requested by a solicited MBE or WBE, the bidder or proposer must make reasonable efforts to assist interested MBEs and WBEs in obtaining necessary and competitively priced equipment, supplies, materials, or related assistance or services for performance under the contract, provided that the bidder or proposer need not provide financial assistance toward this effort.

6. The bidder or proposer must use the DSBO MBE/WBE directories to identify, recruit, and place MBEs and WBEs.
7. In determining whether a bidder or proposer has satisfied good faith efforts as to a project goal, the success or failure of other bidders or proposers on the contract in meeting such project goal may be considered.

### **Continuing Commitments.**

In accordance with the provisions of the M/WBE Ordinance, the bidder agrees that it is committed to meeting either the M/WBE participation goal or the M/WBE participation set forth in its statement of good faith. This commitment must be expressly indicated on the "Commitment to MWBE SBE Participation" form included with the Bid Form. This commitment includes the following understandings:

1. The bidder understands it must maintain M/WBE goals throughout the performance of the Contract pursuant to the requirements set out in D.R.M.C. 28-72.
2. The bidder understands that it must establish and maintain records and submit regular reports, as required, which will allow the City to assess progress in achieving the M/WBE participation goal.
3. The bidder understands that if change orders or any other contract modifications are issued under the contract, the bidder shall have a continuing obligation to immediately inform DSBO in writing of any agreed upon increase or decrease in the scope of work of such contract, upon any of the bases discussed in Section 28-73 of the M/WBE Ordinance, regardless of whether such increase or decrease in scope of work has been reduced to writing at the time of notification.
4. The bidder understands that if change orders or other contract modifications are issued under the contract, that include an increase in scope of work of a contract for construction, reconstruction, or remodeling, whether by amendment, change order, force account or otherwise which increases the dollar value of the contract, whether or not such change is within the scope of work designated for performance by an M/WBE at the time of contract award, such change orders or contract modification shall be immediately submitted to DSBO for notification purposes. Those amendments, change orders, force accounts or other contract modifications that involve a changed scope of work that cannot be performed by existing project subcontractors or by the contractor shall be subject to a goal for M/WBEs equal to the original goal on the contract which was included in the bid. The contractor shall satisfy such goal with respect to such changed scope of work by soliciting new M/WBEs in accordance with Section 28-73 of the M/WBE Ordinance as applicable, or the contractor must show each element of modified good faith set out in Section 28-75(c) of the M/WBE Ordinance. The contractor shall supply to the director the documentation described in Section 28-75(c) of the M/WBE Ordinance with respect to the increased dollar value of the contract.

All bidders are charged with knowledge of and are solely responsible for complying with each and every provision of the M/WBE Ordinance in making a bid and, if awarded, in performing the work described in the Contract Documents. Failure to comply with these provisions could constitute cause for rejection of a bid or subject the selected contractor to sanctions set forth in the M/WBE Ordinance. These instructions are intended only to generally assist the bidder in preparing and submitting a compliant bid. Should any questions arise regarding specific circumstances, bidders must consult the M/WBE Ordinance or contact the Project's designated DSBO representative at (720) 913-1999.

### **IB- 26 DISCLOSURE OF INFORMATION**

All submissions and other materials provided or produced pursuant to this Invitation for Bids may be subject to the Colorado Open Records Law, C.R.S. 24-72-201, et seq. As such, bidders are urged to review these disclosure requirements and any exceptions to disclosure of information furnished by another party and, prior to submission of a bid to the City, appropriately identify materials that are not subject to disclosure. In the event of a request to the City for disclosure of such information, the City shall advise the bidder of such request to give the bidder an opportunity to object to the disclosure of designated confidential materials furnished to the City. In the event of the filing of a lawsuit to compel such disclosure, the City will tender all such material to the court for judicial determination of the issue of disclosure and each bidder agrees to intervene in such lawsuit to protect and assert its claims of privilege against disclosure of such material. Each

bidder further agrees to defend, indemnify and save and hold harmless the City, its officers, agents and employees, from any claim, damages, expense, loss or costs arising out of the bidder's intervention to protect and assert its claims of privilege against disclosure under the Open Records Law including, but not limited to, prompt reimbursement to the City of all reasonable attorney fees, costs and damages that the City may incur directly or may be ordered to pay by such court.

**IB-27 GENERAL BIDDING INFORMATION**

Bidders are instructed to contact the Contract Administrator designated below for this Project for pre-bid, post-bid and general City bidding information. Bidders can also visit [www.work4denver.com](http://www.work4denver.com) for information, both general and project specific. The Contract Administrator assigned to this project is David Relaford who can be reached via email at [david.relaford@denvergov.org](mailto:david.relaford@denvergov.org).

**IB-28 PAYMENT PROCEDURE REQUIREMENTS**

Contractor recognizes and agrees that it shall be required to use the Textura® Construction Payment Management System (CPM System) for this Project. All fees associated with the CPM System are to be paid by the Contractor for billings for work performed. Bidders are required, when preparing a bid, to enter the price of the CPM service on the line provided for the service. The fee is all inclusive of all subcontractor, project and subscription fees associated with the CPM system. The bidder will calculate the fee based on a percentage of their total bid, and then should include it on the line item provided in the bid form labeled “Textura® Construction Payment Management System Fee”. This expense becomes part of the contract and billable to the City. Textura will invoice the awarded contractor directly. All costs including but not limited to costs associated with training, entering data or utilizing Textura other than the Textura Construction Payment Management System Fee are overhead and shall not be reimbursed by the City. Contractor is responsible for tax on Textura fee. As with other taxes, the City will not reimburse Contractor for this cost and therefore this cost should be included in Contractor's bid. Textura will invoice the awarded contractor directly.

Project Value	Project Fee (GC + Sub Usage)
\$500,000 - \$999,999.99	\$3,250
\$1,000,000 - \$2,999,999.99	\$5,850
\$3,000,000 - \$4,999,999.99	\$9,100
\$5,000,000 - \$9,999,999.99	\$12,220
\$10,000,000 - \$19,999,999.99	\$20,345
\$20,000,000 - \$49,999,999.99	\$32,500
\$50,000,000 - \$99,999,999.99	\$48,750
\$100,000,000 - \$199,999,999.99	\$69,095
\$200,000,000 - \$299,999,999.99	\$85,345
\$300,000,000 - \$399,999,999.99	\$109,720
\$400,000,000 - \$499,999,999.99	\$142,220
\$500,000,000 - \$999,999,999.99	\$162,500
\$1,000,000,000 - \$1,999,999,999.99	\$345,345
\$2,000,000,000 - \$4,999,999,999.99	\$650,000
\$5,000,000,000 - \$9,999,999,999.99	\$1,015,625
\$10,000,000,000 or greater	\$1,503,125

**RULES AND REGULATIONS  
REGARDING  
EQUAL EMPLOYMENT OPPORTUNITY**

Promulgated and adopted by the Manager of Public Works pursuant to and by authority of Article III, Division 2, Chapter 28 of the Revised Municipal Code of the City and County of Denver, and for the purpose of insuring that contractors, subcontractors and suppliers soliciting and receiving compensation for contract work from or through the City and County of Denver provide equal opportunity in employment without regard to race, color, creed, sex, national origin, age, religion, marital status, political opinion or affiliation or mental or physical handicap and meet certain requirements for the hiring, training, promotion, and treatment during employment of members of ethnic groups subject to differential treatment, including persons of African descent (Black), Spanish-surnamed (Hispanic), Asian-American and American Indian Groups.

**RULE I - DEFINITIONS**

- A. "City" means the City and County of Denver.
- B. "Manager" shall mean the Manager of Public Works for the City and County of Denver.
- C. "Contract" means a contract entered into with the City and County of Denver, financed in whole or in part by local resources or funds of the City and County of Denver, for the construction of any public building or prosecution or completion of any public work.
- D. "Contractor" means the original party to a contract with the City and County of Denver, also referred to as the "general" or "prime" contractor.
- E. "Director" means the Director of the Division of Small Business Opportunity.
- F. "Subcontractor" means any person, company, association, partnership, corporation, or other entity, which assumes by subordinate agreement some or all of the obligations of the general or prime contractor.
- G. The phrase "Bidding Specifications" as used in Article III, Division 2 of Chapter 28 of the Revised Municipal Code shall include BID CONDITION, INVITATION TO BID, and NOTICE OF PROPOSAL.
- H. "Affirmative Action Program" means a set of specific and result-oriented procedures or steps to which a contractor commits himself to apply every good faith effort to employ members of ethnic minority groups, to include persons of African descent (Black), Spanish surnamed (Hispanic), Asian-American, American Indians, and persons with mental or physical handicap.
- I. "Division of Small Business Opportunity" means the City agency established pursuant to Article III, Division 1 of Chapter 28 of the Denver Revised Municipal Code.

**RULE II - NOTICE OF HEARING**

When results of conciliation efforts are unsatisfactory to the Manager and he is informed in accordance with Article III, Division 2 of Chapter 28 of the Revised Municipal code that a contractor or subcontractor has apparently failed to meet affirmative action and equal employment opportunity requirements after a reasonable period of notice to correct deficiencies, the Manager will, prior to imposition of any sanctions, afford the general contractor a hearing in order to determine whether the contractor or his subcontractors have failed to comply with the affirmative action and equal employment opportunity requirements of Article III, Division 2 of Chapter 28 of the Revised Municipal Code or of the contract. Written notice of such hearing shall be delivered personally or sent by certified mail, return receipt requested, to the contractor and to any subcontractor involved, at least ten (10) days prior to the date scheduled for the hearing.

### **RULE III - HEARING**

- A. Contractors will appear at hearings and may be represented by counsel, and may present testimony orally and other evidence.
- B. Hearings shall be conducted by one or more hearing examiners designated as such by the Manager.
- C. The Director of the Division of Small Business Opportunity may participate in hearings as a witness.
- D. Hearings shall be held at the place specified in the notice of hearing.
- E. All oral testimony shall be given under oath or affirmation and a record of such proceedings shall be made.
- F. All hearings shall be open to the public.
- G. The hearing officer shall make recommendations to the Manager who shall make a final decision.

### **REGULATIONS**

#### **REGULATION NO. 1 - ORDINANCE:**

The Rules and Regulations of the Manager shall be inserted in the bidding specifications for every contract for which bidding is required.

#### **REGULATION NO. 2 - EXEMPTIONS:**

Each contract and subcontract, regardless of the dollar amount, shall be subject to affirmative action requirements unless specifically exempted in writing individually by the Manager. Exemptions apply only to "affirmative action" in equal employment opportunity, and are not to be construed as condonation in any manner of "discrimination" or "discriminatory practices" in employment because of race, color, creed, sex, age, national origin, religion, marital status, political opinion or mental or physical handicap.

#### **REGULATION NO. 3 - DIRECTOR OF CONTRACT COMPLIANCE:**

The Director of the Division of Small Business Opportunity shall perform the duties assigned to such official by Article III, Division 2 Chapter 28 of the Revised Municipal Code and by the Manager. (1) The Director of the Division of Small Business Opportunity or designated representatives shall inform bidders and contractors of affirmative action procedures, programs, and goals in accordance with the Ordinance at pre-bid and pre-construction conference; (2) make regular on-site inspections; (3) supply contractors and subcontractors with report forms to be completed by them when requested, and furnished to the Director of the Division of Small Business Opportunity; and (4) review payroll records, employment records and practices of general contractors and their subcontractors and suppliers during the performance of any contract. The Director of the Division of Small Business Opportunity shall promptly report apparent affirmative action deficiencies to the Manager.

#### **REGULATION NO. 4 - GOALS AND TIMETABLES:**

In general, goals and timetables should take into account anticipated vacancies and the availability of skills in the market place from which employees should be drawn. In addition, where discrimination in employment by a general contractor or any of his subcontractors is indicated, a corrective action program will take into account the need by the general contractor and his subcontractors to correct past discriminatory practices and reach goals of minority manpower utilization on a timely basis through such recruiting and advertising efforts as are necessary and appropriate.

#### **REGULATION NO. 5 - AWARD OF CONTRACTS:**

It shall be the responsibility of the Director of the Division of Small Business Opportunity to determine the affirmative action capability of bidders, contractors and subcontractors and to recommend to the Manager the award of contracts to those bidders, contractors and subcontractors and suppliers who demonstrate the ability and willingness to comply with the terms of their contract.

**REGULATION NO. 6 - PUBLICATION AND DUPLICATION:**

Copies of these Rules and Regulations as amended by the Manager from time to time, shall as soon as practicable and after Notice being published will be made a part of all City Contracts.

**REGULATION NO. 7 - NOTICE TO PROCEED:**

Prior to issuance of the Notice to Proceed, a sign-off will be required of the Director of the Division of Small Business Opportunity or his designee.

**REGULATION NO. 8 - CONTRACTS WITH SUBCONTRACTORS:**

To the greatest extent possible, the contractor shall make a good faith effort to contract with minority contractors, subcontractors and suppliers for services and supplies by taking affirmative actions, which include but are not limited to the following:

1. Advertise invitations for subcontractor bids in minority community news media.
2. Contact minority contractor organizations for referral of prospective subcontractors.
3. Purchase materials and supplies from minority material suppliers.

**REGULATION NO. 9 - AGENCY REFERRALS:**

It shall be no excuse that the union with which the contractor or subcontractor has an agreement providing for referral, exclusive or otherwise, failed to refer minority employees.

**REGULATION NO. 10 - CLAUSES:**

The Manager shall include the appropriate clauses in every contract and the contractor shall cause to be inserted in every subcontract the appropriate clauses:

1. APPENDIX A: City and County of Denver Equal Opportunity Clause - ALL CONTRACTS funded only with City and County of Denver monies.
2. APPENDIX B: Equal Opportunity Clause (11246) - ALL FEDERAL ASSISTED.
3. APPENDIX C: Section 3 - Assurance of Compliance - HUD ASSISTED PROJECTS.
4. APPENDIX D: Section 3 - Clause - HUD ASSISTED PROJECTS.

All amendments to the appendices shall be included by reference.

**REGULATION NO. 11 - SHOW CAUSE NOTICES:**

When the Manager has reasonable cause to believe that a contractor has violated Article III, Division 2 of Chapter 28 of the Denver Revised Municipal Code, he may issue a notice requiring the contractor to show cause, within fifteen (15) days why enforcement procedures, or other appropriate action to insure compliance, should not be instituted.

**REGULATION NO. 12 - BID CONDITIONS - AFFIRMATIVE ACTION REQUIREMENTS - EQUAL EMPLOYMENT OPPORTUNITY:**

1. APPENDIX E: The Bid Conditions - Affirmative Action Requirements - Equal Employment Opportunity as amended and published by the U.S. Department of Labor Employment Standards Administration, Office of Federal Contract Compliance, shall be inserted verbatim for bidding specification for every non-exempt contract involving the use of Federal funds.
2. APPENDIX F: The Bid Conditions - Affirmative Action Requirements - Equal Employment Opportunity as published by the Department of Public Works, City and County of Denver, shall be inserted verbatim as bidding specifications for every non-exempt contract using City funds.

**CITY AND COUNTY OF DENVER**  
**DEPARTMENT OF PUBLIC WORKS**  
**PUBLIC WORKS FCPM**

**APPENDIX A**

**CITY AND COUNTY OF DENVER EQUAL OPPORTUNITY CLAUSE -  
ALL CONTRACTS**

1. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, age, national origin, religion, marital status, political opinion or affiliation, or mental or physical handicap. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, creed, color, sex, age, national origin, religion, marital status, political opinion or affiliation, or mental or physical handicap. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, sex, age, national origin, religion, marital status, political opinion or affiliation, or mental or physical handicap.
3. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided, advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. Each Contractor will comply with all provisions of Article III, Division 2 of Chapter 28 of the Revised Municipal Code, and the rules, regulations, and relevant orders of the Manager and the Director.
5. The Contractor will furnish all information and reports required by Article III, Division 2 of Chapter 28 of the Revised Municipal Code, and by rules, regulations and orders of the Manager and Director or pursuant thereto, and will permit access to his books, records, and accounts by the Manager, Director, or their designee for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
6. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further City contracts in accordance with procedures authorized in Article III, Division 2, Chapter 28 of the Revised Municipal Code, or by rules, regulations, or order of the Manager.
7. The Contractor will include Regulation 12, Paragraph 2 and the provisions of paragraphs (1) through (6) in every subcontract of purchase order unless exempted by rules, regulations, or orders of the Manager issued pursuant to Article III, Division 2, Chapter 28 of the Revised Municipal Code, so that such provisions will be binding on each subcontractor or supplier. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance.

The applicant further agrees to be bound by the above equal opportunity clauses with respect to its own employment practices when it participates in City contracts. The Contractor agrees to assist and cooperate actively with the Manager and the Director in obtaining compliance of subcontractors and suppliers with the equal opportunity clause and the rules, regulations and relevant orders of the Manager, and will furnish the Manager and the Director such information as they may require for the supervision of compliance, and will otherwise assist the Manager and Director in the discharge of the City's primary responsibility for securing

compliance. The Contractor further agrees to refrain from entering into any contract or contract modification subject to Article III, Division 2 of Chapter 28 of the Revised Municipal Code with a contractor debarred from, or who has not demonstrated eligibility for, City contracts.

The Contractor will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the Manager and Director. In addition, the Contractor agrees that failure or refusal to comply with these undertakings the Manager may take any or all of the following actions:

- A. Cancellation, termination, or suspension in whole or in part of this contract.
- B. Refrain from extending any further assistance to the applicant under the program with respect to which the failure occurred until satisfactory assurance of future compliance has been received from such applicant.
- C. Refer the case to the City Attorney for appropriate legal proceedings.

**SUBCONTRACTS:** Each prime Contractor or Subcontractor shall include the equal opportunity clause in each of its subcontracts.



**CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS  
PUBLIC WORKS FCPM**

**APPENDIX F**

**AFFIRMATIVE ACTION REQUIREMENTS**

**EQUAL EMPLOYMENT OPPORTUNITY**

For All Non-Exempt Construction Contracts to Be Awarded by the  
City and County of Denver, Department of Public Works.

**NOTICE**

EACH BIDDER, CONTRACTOR OR SUBCONTRACTOR (HEREINAFTER THE CONTRACTOR) MUST FULLY COMPLY WITH THE REQUIREMENTS OF THESE BID CONDITIONS AS TO EACH CONSTRUCTION TRADE IT INTENDS TO USE ON THIS CONSTRUCTION CONTRACT, AND ALL OTHER CONSTRUCTION WORK (BOTH CITY AND NON-CITY) IN THE DENVER AREA DURING THE PERFORMANCE OF THIS CONTRACT OR SUBCONTRACT. THE CONTRACTOR COMMITS ITSELF TO THE GOALS FOR MINORITY MANPOWER UTILIZATION, AS APPLICABLE, AND ALL OTHER REQUIREMENTS, TERMS AND CONDITION OF THESE BID CONDITIONS BY SUBMITTING A PROPERLY SIGNED BID.

THE CONTRACTOR SHALL APPOINT A COMPANY EXECUTIVE TO ASSUME THE RESPONSIBILITY FOR THE IMPLEMENTATION OF THE REQUIREMENTS, TERMS AND CONDITIONS OF THESE BID CONDITIONS.

/s/ \_\_\_\_\_

Executive Director of Public Works  
City and County of Denver

**A. REQUIREMENTS - AN AFFIRMATIVE ACTION PLAN:**

Contractors shall be subject to the provisions and requirements of these bid conditions including the goals and timetables for minority\* and female utilization, and specific affirmative action steps set forth by the Division of Small Business Opportunity (DSBO). The contractor's commitment to the goals for minority, and female utilization as required constitutes a commitment that it will make every good faith effort to meet such goals.

**1. GOALS AND TIMETABLES:**

The goals and timetables for minority and female participation, expressed in percentage terms for the contractor's aggregate workforce in each trade are as follows:

GOALS FOR MINORITY PARTICIPATION FOR EACH TRADE	GOALS FOR FEMALE PARTICIPATION FOR EACH TRADE
From January 1, 1982 to Until Further Notice	From January 1, 1982 to Until Further Notice
<b>21.7% - 23.5%</b>	<b>6.9%</b>

The goals for minority and female utilization above are expressed in terms of hours of training and employment as a proportion of the total number of hours to be worked by the contractor's aggregate workforce, which includes all supervisory personnel, in each trade, on all projects for the City and County of Denver during the performance of its contract (i.e., The period beginning with the first day of work on the City and County of Denver funded construction contract and ending with the last day of work).

The hours of minority and female employment and training must be substantially uniform throughout the length of the contract in each trade and minorities and females must be employed evenly on each of a contractor's projects. Therefore, the transfer of minority or female employees from contractor to contractor or from project to project for the purpose of meeting the contractor's goals shall be a violation of these Bid Conditions.

If the Contractor counts the nonworking hours of apprentices they must be employed by the Contractor during the training period; the Contractor must have made a commitment to employ apprentices at the completion of their training subject to the availability of employment opportunities; and the apprentices must be trained pursuant to training programs approved by the Bureau of Apprenticeship and Training.

\* "Minority" is defined as including, Blacks, Spanish Surname Americans, Asian Americans, and American Indians, and includes both men and minority women.

**2. SPECIFIC AFFIRMATIVE ACTION STEPS:**

No contractor shall be found to be in noncompliance solely on account of its failure to meet its goals, but will be given an opportunity to demonstrate that the contractor has instituted all the specific affirmative action steps specified and has made every good faith effort to make these steps work toward the attainment of its goals within the timetables, all to the purpose of expanding minority and female utilization in its aggregate workforce. A contractor, who fails to comply with its obligation under the Equal Opportunity Clause of its contract and fails to achieve its commitments to the goals for minority and female utilization has the burden of proving that it has engaged in an Affirmative Action Program directed at increasing minority and female utilization and that such efforts were at least as extensive and as specific as the following:

- a. The Contractor should have notified minority and female organizations when employment opportunities were available and should have maintained records of the organization's response.

- b. The Contractor should have maintained a file of the names and addresses of each minority and female referred to it by any individual or organization and what action was taken with respect to each such referred individual, and if the individual was not employed by the Contractor, the reasons. If such individual was sent to the union hiring hall for referral and not referred back by the union or if referred, not employed by the Contractor, the file should have documented this and their reasons.
- c. The Contractor should have promptly notified the Department of Public Works, and the Division of Small Business Opportunity when the union or unions with which the Contractor has collective bargaining agreements did not refer to the contractor a minority or female sent by the contractor, or when the Contractor has other information that the union referral process has impeded efforts to meet its goals.
- d. The Contractor should have disseminated its EEO policy within its organization by including it in any employee handbook or policy manual; by publicizing it in company newspapers and annual reports and by advertising such policy at reasonable intervals in union publications. The EEO policy should be further disseminated by conducting staff meetings to explain and discuss the policy; by posting of the policy; and by review of the policy with minority and female employees.
- e. The Contractor should have disseminated its EEO policy externally by informing and discussing it with all recruitment sources; by advertising in news media, specifically including minority and female news media; and by notifying and discussing it with all subcontractors.
- f. The Contractor should have made both specific and reasonably recurrent written and oral recruitment efforts. Such efforts should have been directed at minority and female organizations, schools with substantial minority and female enrollment, and minority and female recruitment and training organizations within the Contractor's recruitment area.
- g. The Contractor should have evidence available for inspection that all tests and other selection techniques used to select from among candidates for hire, transfer, promotion, training, or retention are being used in a manner that does not violate the OFCCP Testing Guidelines in 41 CFR Part 60-3.
- h. The Contractor should have made sure that seniority practices and job classifications do not have a discriminatory effect.
- i. The Contractor should have made certain that all facilities are not segregated by race.
- j. The Contractor should have continually monitored all personnel activities to ensure that its EEO policy was being carried out including the evaluation of minority and female employees for promotional opportunities on a quarterly basis and the encouragement of such employees to seek those opportunities.
- k. The Contractor should have solicited bids for subcontracts from available minority and female subcontractors engaged in the trades covered by these Bid Conditions, including circulation of minority and female contractor associations.

NOTE: The Director and the Division of Small Business Opportunity will provide technical assistance on questions pertaining to minority and female recruitment sources, minority and female community organizations, and minority and female news media upon receipt of a request for assistance from a contractor.

**3. NON - DISCRIMINATION:**

In no event may a contractor utilize the goals and affirmative action steps required in such a manner as to cause or result in discrimination against any person on account of race, color, religion, sex, marital status, national origin, age, mental or physical handicap, political opinion or affiliation.

**4. COMPLIANCE AND ENFORCEMENT:**

In all cases, the compliance of a contractor will be determined in accordance with its obligations under the terms of these Bid Conditions. All contractors performing or to perform work on projects subject to these Bid Conditions hereby agree to inform their subcontractors in writing of their respective obligations under the terms and requirements of these Bid Conditions, including the provisions relating to goals of minority and female employment and training.

**B. CONTRACTORS SUBJECT TO THESE BID CONDITIONS:**

In regard to these Bid Conditions, if the Contractor meets the goals set forth therein or can demonstrate that it has made every good faith effort to meet these goals, the Contractor shall be presumed to be in compliance with Article III, Division 2 of Chapter 28 of the Revised Municipal Code, the implementing regulations and its obligations under these Bid Conditions. In the event, no formal sanctions or proceedings leading toward sanctions shall be instituted unless the contracting or administering agency otherwise determines that the contractor is violating the Equal Opportunity Clause.

1. Where the Office of Contract Compliance finds that a contractor failed to comply with the requirements of Article III, Division 2 of Chapter 28 of the Revised Municipal Code or the implementing regulations and the obligations under these Bid Conditions, and so informs the Manager, the Manager shall take such action and impose such sanctions, which include suspension, termination, cancellation, and debarment, as may be appropriate under the Ordinance and its regulations. When the Manager proceeds with such formal action it has the burden of proving that the Contractor has not met the goals contained in these Bid Conditions. The Contractor's failure to meet its goals shall shift to it the requirement to come forward with evidence to show that it has met the good faith requirements of these Bid Conditions.
2. The pendency of such proceedings shall be taken into consideration by the Department of Public Works in determining whether such contractor can comply with the requirements of Article III, Division 2 of Chapter 28 of the Revised Municipal Code, and is therefore a "responsible prospective contractor".
3. The Division of Small Business Opportunity shall review the Contractor's employment practices during the performance of the contract. If the Division of Small Business Opportunity determines that the Contractor's Affirmative Action Plan is no longer an acceptable program, the Director shall notify the Manager.

**C. OBLIGATIONS APPLICABLE TO CONTRACTORS:**

It shall be no excuse that the union with which the Contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority or female employees. Discrimination in referral for employment, even if pursuant to provisions of a collective bargaining agreement, is prohibited by the National Labor Relations Act, as amended, Title VI of the Civil Rights Act of 1964, as amended, and Article III, Division 2 of Chapter 28 of the Revised Municipal Code. It is the policy of the Department of Public Works that contractors have a responsibility to provide equal employment opportunity, if they wish to participate in City and County of Denver contracts. To the extent they have delegated the responsibility for some of their employment practices to a labor organization and, as a result, are prevented from meeting their obligations pursuant to Article III, Division 2, Chapter 28 of the Revised Municipal Code, such Contractors cannot be considered to be in compliance with Article III, Division 2, Chapter 28 of the Revised Municipal Code, or its implementing rules and regulations.

**D. GENERAL REQUIREMENTS:**

Contractors are responsible for informing their subcontractors in writing regardless of tier, as to their respective obligations. Whenever a Contractor subcontracts a portion of work in any trade covered by these Bid Conditions, **it shall include these Bid Conditions in such subcontracts and each subcontractor shall**

**be bound by these Bid Conditions to the full extent as if it were the prime contractor.** The Contractor shall not, however, be held accountable for the failure of its subcontractors to fulfill their obligations under these Bid Conditions. However, the prime contractor shall give notice to the Director of any refusal or failure of any subcontractor to fulfill the obligations under these Bid Conditions. A subcontractor's failure to comply will be treated in the same manner as such failure by a prime contractor.

1. Contractors hereby agree to refrain from entering into any contract or contract modification subject to Article III, Division 2, Chapter 28 of the Revised Municipal Code with a contractor debarred from, or who is determined not to be a "responsive" bidder for the City and County of Denver contracts pursuant to the Ordinance.
2. The Contractor shall carry out such sanctions and penalties for violation of these Bid Conditions and the Equal Opportunity Clause including suspension, termination and cancellation of existing subcontracts and debarment from future contracts as may be ordered by the Manager pursuant to Article III, Division 2, Chapter 28 of the Revised Municipal Code and its implementing regulations.
3. Nothing herein is intended to relieve any contractor during the term of its contract from compliance with Article III, Division 2, Chapter 28 of the Revised Municipal Code, and the Equal Opportunity Clause of its contract with respect to matters not covered in these Bid Conditions.
4. Contractors must keep such records and file such reports relating to the provisions of these Bid Conditions as shall be required by the Office of Contract Compliance.
5. Requests for exemptions from these Bid Conditions must be made in writing, with justification, to the Manager of Public Works, 201 W. Colfax, Dept. 608, Denver, Colorado 80202, and shall be forwarded through and with the endorsement of the Director.

**CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS  
PUBLIC WORKS FCPM**

**CONTRACT NO. 201840245**

**Red Rocks CCC Camp Barracks - Building 1 Rehabilitation**

**CONTRACT**

**THIS CONTRACT AND AGREEMENT**, made and entered into by and between the City and County of Denver, a municipal corporation of the State of Colorado, hereinafter referred to as the "City," party of the first part, and , hereinafter referred to as the "Contractor," party of the second part,

Centerre Construction, Inc.  
4100 E. Mississippi Ave., Suite 900  
Denver, CO 80246

**WITNESSETH**, Commencing on **February 12, 2018**, and for at least three (3) days the City advertised that sealed bids would be received for furnishing all labor, tools, supplies, equipment, materials, and everything necessary and required for the following:

<p><b>CONTRACT NO. 201840245</b> <b>Red Rocks CCC Camp Barracks - Building 1 Rehabilitation</b></p>
---

**WHEREAS**, bids pursuant to said advertisement have been received by the Manager of Public Works, who has recommended that a Contract for said work be made and entered into with the above named Contractor who was the lowest, responsive, qualified bidder therefore, and

**WHEREAS**, said Contractor is now willing and able to perform all of said work in accordance with said advertisement and its bid.

**NOW THEREFORE**, in consideration of the compensation to be paid the Contractor, the mutual agreements hereinafter contained, and subject to the terms hereinafter stated, it is mutually agreed as follows:

**1. CONTRACT DOCUMENTS**

It is agreed by the parties hereto that the following list of documents, instruments, technical specifications, plans, drawings and other materials which are attached hereto and bound herewith, incorporated herein by reference or otherwise referenced in these documents constitute and shall be referred to either as the "Contract Documents" or the "Contract," and all of said documents, instruments, technical specifications, Plans, Drawings and other materials taken together as a whole constitute the Contract between the parties hereto, and they are as fully a part of this agreement as if they were set out verbatim and in full herein:

*Advertisement of Notice of Invitation for Bids*  
*Instructions to Bidders*  
*Commitment to M/WBE Participation*  
*Article III, Divisions 1, 2, and 3 of Chapter 28, D.R.M.C.*  
*Bid Bond*  
*Addenda (as applicable)*

*Equal Employment Opportunity Provisions (Appendix A and Appendix F)*  
*Bid Form*  
*Contract Form*  
*General Contract Conditions*  
*Special Contract Conditions*  
*Performance and Payment Bond*  
*Notice to Apparent Low Bidder*  
*Notice to Proceed*  
*Contractor's Certification of Payment Form*  
*Final/Partial Lien Release Form*  
*Certificate of Contract Release*  
*Change Orders (as applicable)*  
*Federal Requirements (as applicable)*  
*Prevailing Wage Rate Schedule(s)*  
*Technical Specifications*  
*Contract Drawings*  
*Accepted Shop Drawings*

**2. SCOPE OF WORK**

The Contractor agrees to and shall furnish all labor, tools, supplies, equipment, materials and everything necessary for and required to do, perform and complete all of the Work described, drawn, set forth, shown and included in said Contract Documents.

**3. TERMS OF PERFORMANCE**

The Contractor agrees to undertake the performance of the Work under this Contract within ten (10) days after being notified to commence work by issuance of a Notice to Proceed in substantially the form contained herein from the Manager and agrees to fully complete said Work within **90** (Ninety Days) consecutive calendar days from the effective date of said Notice, plus such extension or extensions of time as may be granted in accordance with the provisions of the General Contract Conditions and any applicable Special Contract Conditions.

**4. TERMS OF PAYMENT**

The City agrees to pay the Contractor for the performance of all of the Work required under this Contract, and the Contractor agrees to accept as the Contractor's full and only compensation therefore, such sum or sums of money as may be proper in accordance with the price or prices set forth in the Contractor's Bid Form hereto attached and made a part hereof for a **Lump Sum Bid Total Amount**, the total estimated cost thereof being **Six Hundred Ninety-Eight Thousand, Five Hundred and Thirty Dollars and Zero Cents (\$698,530.00)**. Adjustments to said Contract Amount and payment of amounts due hereunder shall be made in accordance with the provisions of the General Contract Conditions and any applicable Special Contract Conditions.

**5. NO DISCRIMINATION IN EMPLOYMENT**

In connection with the performance of work under this contract, the Contractor may not refuse to hire, discharge, promote or demote, or discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, gender, age, military status, sexual orientation, gender identity or gender expression, marital status, or physical or mental disability. The Contractor shall insert the foregoing provision in all subcontracts.

**6. COMPLIANCE WITH M/WBE REQUIREMENT**

This Contract is subject to all applicable provisions of Divisions 1 and 3 of Article III, of Chapter 28, Denver Revised Municipal Code (D.R.M.C.), designated as Sections 28-31 – 28-36 and 28-52 – 28-90 D.R.M.C. and referred to in this Contract as the "M/WBE Ordinance". Without limiting the general applicability of the foregoing, the Contractor acknowledges its continuing duty, pursuant to Sections 28-72, 28-73 and 28-75 of the D.R.M.C., to maintain throughout the duration of this Contract, compliance with the level of minority and Woman business enterprise participation, upon which the City approved the award of this Contract to the Contractor and the Contractor further acknowledges that failure to maintain such participation commitments or otherwise comply with the requirements of the M/WBE Ordinance shall subject the

Contractor to sanctions in accordance with Section 28-77 of the D.R.M.C. Nothing contained in this provision or in the M/WBE Ordinance shall negate the City's right to prior approval of subcontractors, or substitutes therefore, under this Contract

**7. WAGE RATE REQUIREMENTS**

In performance of all Work hereunder, the Contractor agrees to comply with and be bound by all requirements and conditions of the City's Payment of Prevailing Wages Ordinance, Sections 20-76 through 20-79, D.R.M.C. and any determinations made by the City pursuant thereto.

**8. APPLICABILITY OF LAWS**

The Agreement between the Contractor and the City shall be deemed to have been made in the City and County of Denver, State of Colorado and shall be subject to, governed by, and interpreted and construed by or in accordance with the laws of the State of Colorado and the Charter, Revised Municipal Code, Rules, Regulations, Executive Orders and fiscal rules of the City. As such, the Contractor shall at all times comply with the provisions of the Charter, Revised Municipal Code, Rules, Regulations, Executive Orders and fiscal rules of the City, and those State of Colorado and Federal Laws, Rules and Regulations, which in any manner limit, control or apply to the actions or operations of the Contractor, any subcontractors, employees, agents or servants of the Contractor engaged in the Work or affecting the materials and equipment used in the performance of the Work, as the same may be, from time to time, promulgated, revised or amended. The Charter and Revised Municipal Code of the City and County of Denver, as the same may be amended from time to time, are hereby expressly incorporated into this Agreement as if fully set out herein by this reference.

**9. APPROPRIATION**

The amount of money, which has been appropriated and encumbered for the purpose of this contract, to date, is equal to or in excess of the Contract Amount. The Manager, upon reasonable written request, will advise the Contractor in writing of the total amount of appropriated and encumbered funds, which remain available for payment for all Work under the Contract.

The issuance of any change order or other form or order or directive by the City which would cause the aggregate payable under the contract to exceed the amount appropriated for the contract is expressly prohibited. In no event shall the issuance of any change order or other form of order or directive by the City be considered valid or binding if it requires additional compensable work to be performed, which work will cause the aggregate amount available under the Contract to exceed the amount appropriated and encumbered for this Contract, unless and until such time as the Contractor has been advised in writing by the Manager that a lawful appropriation, sufficient to cover the entire cost of such additional work, has been made.

It shall be the responsibility of the Contractor to verify that the amounts already appropriated for this Contract are sufficient to cover the entire cost of such work, and any work undertaken or performed in excess of the amount appropriated is undertaken or performed in violation of the terms of this contract, without the proper authorization for such work, and at the Contractor's own risk.

**10. APPROVALS**

In the event this Contract calls for the payment by the City of five hundred thousand dollars (\$500,000.00) or more, approval by the Board of Councilmen of the City and County of Denver, acting by ordinance, in accordance with Section 3.2.6 of the Charter of the City and County of Denver, is and shall be an express condition precedent to the lawful and binding execution and effect and performance of this contract.

**11. ASSIGNMENT**

The Contractor shall not assign any of its rights, benefits, obligations or duties under this Contract except upon the prior written consent and approval of the Manager to such assignment.

**12. DISPUTES RESOLUTION PROCESS**

It is the express intention of the parties to this Contract that all disputes of any nature whatsoever regarding the Contract including, but not limited to, any claims for compensation or damages arising out of breach or default under this Contract, shall be resolved by administrative hearing pursuant to the provisions of Section 56-106, D.R.M.C., or, as applicable, Section 28-33 D.R.M.C. for Minority and Woman Business Enterprise disputes. The Contractor expressly agrees that this dispute resolution process is the only dispute resolution



mechanism that will be recognized by the parties for any claims put forward by the Contractor, notwithstanding any other claimed theory of entitlement on the part of the Contractor or its subcontractors or suppliers.

**13. CONTRACT BINDING**

It is agreed that this Contract shall be binding on and inure to the benefit of the parties hereto, their heirs, executors, administrators, assigns and successors.

**14. PARAGRAPH HEADINGS**

The captions and headings set forth herein are for convenience of reference only and shall not be construed so as to define or limit the terms and provisions hereof.

**15. SEVERABILITY**

It is understood and agreed by the parties hereto that, if any part, term, or provision of this Contract, except for the provisions of this Contract requiring prior appropriation and limiting the total amount to be paid by the City, is by the courts held to be illegal or in conflict with any law of the State of Colorado, the validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Contract did not contain the particular part, term or provision held to be invalid.

**16. ELECTRONIC SIGNATURES AND ELECTRONIC RECORDS:**

Contractor consents to the use of electronic signatures by the City. The Agreement, and any other documents requiring a signature hereunder, may be signed electronically by the City in the manner specified by the City. The Parties agree not to deny the legal effect or enforceability of the Agreement solely because it is in electronic form or because an electronic record was used in its formation. The Parties agree not to object to the admissibility of the Agreement in the form of an electronic record, or a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

**Contract Control Number:**

IN WITNESS WHEREOF, the parties have set their hands and affixed their seals at Denver, Colorado as of

SEAL

**CITY AND COUNTY OF DENVER**

ATTEST:

By \_\_\_\_\_

\_\_\_\_\_

APPROVED AS TO FORM:

REGISTERED AND COUNTERSIGNED:

By \_\_\_\_\_

By \_\_\_\_\_

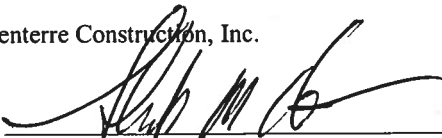
By \_\_\_\_\_



IN WITNESS WHEREOF, the parties have executed this agreement and affixed their seals at Denver, Colorado as of the day first above written.

**Contract Control Number:** 201840245

**Vendor Name:** Centerre Construction, Inc.

By: 

Name: Stephen Hertz  
(please print)

Title: President  
(please print)

**ATTEST: [if required]**

By: 

Name: Mark Ewema  
(please print)

Title: Secretary  
(please print)



**CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS**

**General Contract Conditions**

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**CITY AND COUNTY OF DENVER**  
**DEPARTMENT OF PUBLIC WORKS**  
**PUBLIC WORKS FCPM**

**SPECIAL CONTRACT CONDITIONS**

**SC-1 CONSTRUCTION SPECIFICATIONS**

Except as amended herein or in the attached Technical Specifications, all Work performed under the terms of this Contract shall be governed by the applicable provisions of the following latest editions:

City and County of Denver:

*Standard Specifications for Construction, GENERAL CONTRACT CONDITIONS,*  
2011 Edition.

*Transportation Standards and Details for the Engineering Division*

*City and County of Denver Traffic Standard Drawings*

Wastewater Management Division

– *Standard Detail Drawings*

– *Public Works Wastewater Capital Projects Management Standard Construction Specifications*

Colorado Department of Transportation:

*Standard Specifications for Road and Bridge Construction*  
(Sections 200 through 700 of the 2011 Edition)

Federal Highway Administration:

*Manual on Uniform Traffic Control Devices for Streets & Highways (MUTCD)*

Building & Fire Codes:

*Building Code of the City and County of Denver*

(International Building Code 2015 Series, City and County of Denver Amendments 2016)

*National Fire Protection Association Standards*

(As referenced in the Building Code of the City and County of Denver)

The aforementioned City and County of Denver documents are available for review at the Capital Projects Management Office, 201 W. Colfax Ave., Dept. 506, (5<sup>th</sup> floor), Denver, CO 80202. The *Standard Specifications for Construction, GENERAL CONTRACT CONDITIONS* is available at: <https://www.denvergov.org/content/denvergov/en/contract-administration/contractor-resources.html>. *Transportation Standards and Details for the Engineering Division* and the Wastewater Management Division – *Standard Detail Drawings*, are available at <http://www.denvergov.org>.

The “*Colorado Department of Transportation Standard Specifications for Road and Bridge Construction*” is available for review on CDOT’s website at <http://www.coloradodot.info/> and can be purchased from the Colorado Department of Transportation.

The *Manual on Uniform Traffic Control Devices for Streets & Highways* is available for review at the Federal Highway Administration Website at: [www.fhwa.dot.gov](http://www.fhwa.dot.gov), The FHWA website also contains purchasing information.

**SC-2 DEPUTY MANAGER / CITY ENGINEER**

General condition 109 DEPUTY MANAGER is hereby deleted in its entirety and replaced with the following:

The "Deputy Manager" means the official who reports directly to the Manager and exercises supervisory responsibility in the City agency defined in Title 2 herein that is responsible for the Project. The Manager hereby designates the City Engineer as the Deputy Manager for purposes of this Contract. The City Engineer shall have responsibility for this Project and shall undertake all duties, responsibilities, rights and authority, including specific actions and decisions, delegated to the Deputy Manager under the various terms and conditions of this Contract.

**SC-3 ENGINEERING DIVISION / CITY ENGINEER**

The Engineering Division is a unit of the Department of Public Works and is supervised by the City Engineer, who is subordinate to the Executive Director of Public Works. This Division is responsible for the planning, design, construction, operation and maintenance of all of the City's transportation facilities and the planning, design and construction of all of the City's wastewater facilities, except for the City's Municipal Airport System. All other references to the Transportation Division or the Deputy Manager of Public Works for Transportation are deleted and replaced with references to the Engineering Division and City Engineer, respectively.

**SC-4 WASTEWATER MANAGEMENT DIVISION**

The Wastewater Management Division is a unit of the Department of Public Works and is supervised by the Deputy Manager of Public Works for Wastewater Management, who is subordinate to the Manager of Public Works. This Division is responsible for the operation and maintenance of the City's wastewater facilities.

**SC-5 CITY DELEGATION OF AUTHORITY**

With reference to General Contract Condition 109, DEPUTY MANAGER and General Contract Condition 212, CITY'S CONTRACT ADMINISTRATION LINE OF AUTHORITY, the Manager hereby designates the City Engineer as the City official responsible for those certain actions and decisions designated as the responsibility of the Deputy Manager under the General Conditions and delegates to the City Engineer the authority necessary to undertake those responsibilities under this Contract. The Director shall have supervisory responsibility over the Project Manager. Additionally, Contractor questions concerning the Plans and Technical Specifications shall be directed to:

**Denver Department of Public Works / Engineering Division,**

City Project Manager  
Elizabeth Hamilton

Telephone  
720-913-8814

Consultant  
Anderson Hallas Architects

Name  
Andy Duckett-Emke

Telephone  
303-278-4375

**SC-6 LIQUIDATED DAMAGES**

Should the Contractor fail to complete all Work within the Contract Time allocated under the Contract Form at Paragraph 3, TERMS OF PERFORMANCE, the Contractor shall become liable to the City and County of Denver for liquidated damages, and not as a penalty, at the rate of \$500.00 for each Day that the Contractor exceeds the time limits herein specified, all in accordance with provisions of General Contract Condition 602, LIQUIDATED DAMAGES; ADMINISTRATIVE COSTS; ACTUAL DAMAGES.

Representative hourly rates for the City administrative costs described in General Contract Condition 602.2 shall be as follows for this Project:

Project Manager	\$69 per hour
Project Engineer	\$63 per hour
Inspector	\$49 per hour
Surveying, if necessary	\$100 per hour

**SC-7 SUBCONTRACTS**

In accordance with General Contract Condition 501, SUBCONTRACTS, no limit shall apply to that percentage of the Work, which may be sublet providing that the subcontractors receive prior approval in accordance with General Contract Condition 502, SUBCONTRACTOR ACCEPTANCE.

**SC-8 RESERVED**

**SC-9 PAYMENTS TO CONTRACTORS**

The application for payment shall be submitted through Textura® Corporations Construction Management Website. Contractor recognizes and agrees that it shall be required to use the Textura Construction Payment Management System for this Project. Contractor further agrees that, to the fullest extent possible within the CPM System, the City shall be entitled to all non-Confidential records, reports, data and other information related to the project that are available to Contractor through the CPM System, including, but not limited to, information related to Contractor and subcontractor billings. To that end, Contractor agrees that it will activate any available settings within the CPM System that are necessary to grant the City access to such non-Confidential information related to the contract and the project. Applications for payment shall be based on the Contract Unit Prices or the approved Schedule of Values described in GC 903.1

In accordance with General Contract Condition 902, PAYMENT PROCEDURE, the party(ies) responsible for review of all Pay Applications shall be:

<u>Agency/Firm</u>	<u>Name</u>	<u>Telephone</u>
Public Works/Engineering Division	Elizabeth Hamilton	720-913-8814

In accordance with General Contract Condition 906, APPLICATIONS FOR PAYMENT, each Application submitted shall include the following:

1. The estimate of Work completed shall be based on the approved schedule of values or unit prices, as applicable, and the percent of the Work complete.
2. Each Application for Payment shall include each and every independent subcontractor's payroll information including pay dates and pay amounts.
3. The Contractor shall also submit to the Auditor and other appropriate officials of the City in a timely fashion, information required by General Contract Condition 1004, REPORTING WAGES PAID.
4. Applications for Payment must be accompanied by completed Partial or Final Claim Release Form, as appropriate, from EACH subcontractor and supplier, **AND** the Contractors' Certification of Payment Form (CCP), unless an exception is approved pursuant to General contract condition 907.

The forms, Final/Partial Release and Certificate of Payment (Subcontractor/Supplier) and the Contractor's Certification of Payment (CCP), both of which must be used are attached below. If subcontractor or supplier payments are disbursed via Textura® CPM, those systems generated Release and CCP forms are acceptable.

DEPARTMENT OF PUBLIC WORKS  
Engineering Division

FINAL/PARTIAL RELEASE AND CERTIFICATE OF PAYMENT  
(SUBCONTRACTOR/SUPPLIER)

\_\_\_\_\_  
(PROJECT NO. and NAME)  
\_\_\_\_\_  
(NAME OF CONTRACTOR)  
\_\_\_\_\_  
(NAME OF SUBCONTRACTOR/SUPPLIER)

Date: \_\_\_\_\_, 20\_\_.

Subcontract #: \_\_\_\_\_.

Subcontract Value: \$ \_\_\_\_\_.

Last Progress Payment: \$ \_\_\_\_\_.

Date: \_\_\_\_\_.

Total Paid to Date: \$ \_\_\_\_\_.

Date of Last Work: \_\_\_\_\_.

Check Applicable Box:  
 MBE     WBE

The Undersigned hereby certifies that all costs, charges or expenses incurred by the undersigned or on behalf of the undersigned for any work, labor or services performed and for any materials, supplies or equipment provided on the above referenced Project or used in connection with the above referenced Subcontract (the "Work Effort") have been duly paid in full.

The Undersigned further certifies that each of the undersigned's subcontractors and suppliers that incurred or caused to be incurred, on their behalf, costs, charges or expenses in connection with the undersigned's Work Effort on the above referenced Project have been duly paid in full.

In consideration of \$ \_\_\_\_\_ representing the Last Progress Payment referenced above and in further consideration of the Total Paid to Date, also referenced above, and other good and valuable consideration received and accepted by the undersigned this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, the Undersigned hereby releases and discharges the City and County of Denver (the "City"), the above referenced City Project, the City's premises and property and the above referenced Contractor from all claims, liens, rights, liabilities, demands and obligations, whether known or unknown, of every nature arising out of or in connection with the performance of the work effort.

As additional consideration for the payments referenced above, the undersigned agrees to defend, indemnify and save and hold harmless the City, its officers, employees, agents and assigns and the above-referenced Contractor from and against all costs, losses, damages, causes of action, judgments under the subcontract and expenses arising out of or in connection with any claim or claims against the City or the Contractor which arise out of the Undersigned's performance of the Work Effort and which may be asserted by the Undersigned or any of its suppliers or subcontractors of any tier or any of their representatives, officers, agents, or employees.

It is acknowledged that this release is for the benefit of and may be relied upon by the City and the referenced Contractor.

The foregoing shall not relieve the undersigned of any obligation under the provisions of the Undersigned's subcontract, as the subcontract may have been amended, which by their nature survive completion of the Undersigned's work effort including, without limitation, warranties, guarantees, insurance requirements and indemnities.

STATE OF COLORADO ) ss.  
CITY OF \_\_\_\_\_)

\_\_\_\_\_  
(Name of Subcontractor)

Signed and sworn before me this  
day of \_\_\_\_\_, 20\_\_.

By: \_\_\_\_\_

\_\_\_\_\_  
Notary Public/Commissioner of Oaths  
My Commission Expires \_\_\_\_\_

Title: \_\_\_\_\_





## Instructions for Completing the Contractor/Consultant Certification of Payment Form

Office of Economic Development  
Division of Small Business Opportunity  
Compliance Unit  
201 W. Colfax Ave. Dept. 807  
Denver, CO 80202  
Phone: 720-913-1999  
[DSBO@denvergov.org](mailto:DSBO@denvergov.org)

**Note:** The attached Contractor/Consultant Certification of Payment form must be completed by the Contractor/ Subconsultant and all subcontractors/subconsultant or suppliers used on the project at any tier and submitted with each pay application. The Contractor/Consultant is responsible for the accuracy of all information provided and is required to have each subcontractor/subconsultant or supplier fill out the appropriate forms. Please be sure to complete all information requested at the top of the form, including the name of the person who prepared this form.

If you reproduce this form, you must continue to list each of the originally listed firms, as well as any additional firms used during the performance period of the contract. Please complete an additional CCP if there is second tier-ing involved.

If you have any questions, please call the Compliance Unit of DSBO at 720.913.1999.

### Instructions for Completing the Contractor/Consultant Certification of Payment Form, per Column

**Contractor/Subcontractor or Subconsultant/Supplier Name:** In the space provided, list all subcontractors/ subconsultants and suppliers used on the project. For all M/W/S/E/DBEs use the exact name listed in the DSBO Directory.

**M/W/S/E/DBE/NON:** For each name listed, indicate whether the entity is a certified M/W/S/E/DBE.

**Column A:** Provide the contract amount, as listed at bid time, for the Contractor/Consultant and each subcontractor/subconsultant or supplier.

**Column B:** Provide the percentage portion of each listed subcontractor/subconsultant or supplier contract amount (Column A) compared to the total original contract amount in (I).

**Column C:** Provide the original contract amount (Column A) for each subcontractor/subconsultant or supplier plus any awarded alternate and/or change order amounts applicable. If an alternate/change order does not apply to the listed firm, re-enter the original contract amount (Column A).

**Column D:** Provide the percent portion of each listed subcontractor/subconsultant or supplier contract amount (Column C) compare to the current total contract amount in (II).

**Column E:** Provide the amount requested for work performed or materials supplied by each listed subcontractor/subconsultant or supplier for this pay application. The sum of the items in this column should equal the estimated amount requested for this pay application.

**Column F:** Provide the amount paid to each subcontractor/subconsultant or supplier on the previous pay application. Enter the previous pay application number in the column heading. The sum of the items listed in this column should equal the warrant amount paid to the Contractor/Consultant on the previous pay application. The amounts paid to the subcontractor/subconsultant or suppliers should be the actual amount of each check issued.

**Column G:** Provide the net paid to date for the Contractor/Subconsultant and each listed subcontractor/subconsultant or supplier.

**Column H:** Provide the percent portion of the net paid to date (Column G) for the Contractor/Subconsultant and each listed subcontractor/subconsultant or supplier of the current total contract amount in (II).

Rev 031816

**SC-10 CONTRACT FORMS**

In accordance with the terms and conditions of the Contract Documents, the City requires the use of certain form documents in complying with or satisfying various obligations, notifications and conditions in contracting with the City or performing Work hereunder. These form documents are referenced by title throughout the Contract Documents for mandatory use as directed. The following are the forms that shall be detached and utilized in accordance with the Contract Documents:

- 1. Performance and Payment Bond
- 2. Performance and Payment Bond Surety Authorization Letter (Sample)
- 3. Final/Partial Lien Release.

The following are forms that will be issued by the City during construction:

- 1. Notice to Apparent Low Bidder (Sample)
- 2. Notice to Proceed (Sample)
- 3. Certificate of Contract Release (Sample)

**SC-11 CONSTRUCTION INSPECTION BY THE CITY**

General Condition 1701, CONSTRUCTION INSPECTION BY THE CITY, is modified as follows:

.1 Persons who are employees of the City or who are under contract to the City or the City as lessee will be assigned to inspect and test the Work. These persons may perform any tests and observe the Work to determine whether or not designs, materials used, manufacturing and construction processes and methods applied, and equipment installed satisfy the requirements of the drawings and specifications, accepted Shop Drawings, Product Data and Samples, and the General Contractor's warranties and guarantees. The General Contractor shall permit these inspectors unlimited access to the Work and provide means of safe access to the Work, which cost shall be included as a Cost of the Work without any increase to the Guaranteed Maximum Price. In addition, General Contractor shall provide whatever access and means of access are needed to off-site facilities used to store or manufacture materials and equipment to be incorporated into the Work and shall respond to any other reasonable request to further the inspector's ability to observe or complete any tests. Such inspections shall not relieve the General Contractor of any of its quality control responsibilities or any other obligations under the Contract. All inspections and all tests conducted by the City are for the convenience and benefit of the City. These inspections and tests do not constitute acceptance of the materials or Work tested or inspected, and the City may reject or accept any Work or materials at any time prior to the inspections pursuant to G.C. 2002, whether or not previous inspections or tests were conducted by the inspector or a City representative.

.2 Building Inspection will perform building code compliance inspections for structures designed for human occupancy. It is the General Contractor's responsibility to schedule and obtain these inspections. If a code compliance inspection results in identification of a condition which will be at variance to the Contract Documents, the General Contractor shall immediately notify the Project Manager and confirm such notification with formal correspondence no later than forty-eight (48) hours after the occurrence.

.3 When any unit of government or political subdivision, utility or Railroad Corporation is to pay a portion of the cost of the Work, its respective representatives shall have the right to inspect the Work. This inspection shall not make any unit of government or political subdivision, utility or Railroad Corporation a party to the Contract, and shall not interfere with the rights of either party.

**SC-12 DISPOSAL OF NON-HAZARDOUS WASTE AT DADS**

In accordance with the Landfill Agreement made between the City and Waste Management of Colorado, Inc., bidders will be required to haul dedicated loads (non-hazardous entire loads of waste) to the Denver-Arapahoe Disposal Site ("DADS") for disposal. DADS is located at Highway 30 and Hampden Avenue in Arapahoe County, Colorado. The City will pay all fees associated with such disposal but the bidder shall be responsible for the costs of transporting the loads. Non-hazardous waste is defined as those substances and materials not defined or classified as hazardous by the Colorado Hazardous Waste Commission pursuant to C.R.S. §25-15-101(6), as amended from time to time, and includes construction debris, soil and asbestos. Bidders shall not use Gun Club Road between I-70 and Mississippi Avenue as a means of access to DADS.

**SC-13 PROHIBITION ON USE OF CCA-TREATED WOOD PRODUCTS**

The use of any wood products pressure-treated with chromated copper arsenate (CCA) is prohibited. Examples of CCA-treated wood products include wood used in play structures, decks, picnic tables, landscaping timbers, fencing, patios, walkways and boardwalks.

**SC-14 WAIVER OF: PART 8 OF ARTICLE 20 OF TITLE 13, COLORADO REVISED STATUTES.**

The Contractor specifically waives all the provisions of Part 8 of Article 20 of Title 13, Colorado Revised Statutes regarding defects in the Work under this Construction Contract.

**SC-15 ATTORNEY'S FEES**

Colorado Revised Statute 38-26-107 requires that in the event any person or company files a verified statement of amounts due and unpaid in connection with a claim for labor and materials supplied on this project, the City shall withhold from payments to the Contractor sufficient funds to insure the payment of any such claims. Should the City and County of Denver be made a party to any lawsuit to enforce such unpaid claims or any lawsuit arising out of or relating to such withheld funds, the Contractor agrees to pay to the City its costs and a reasonable attorney's fee which cost shall be included as a Cost of the Work.

Because the City Attorney Staff does not bill the City for legal services on an hourly basis, the Contractor agrees a reasonable fee shall be computed at the rate of one hundred dollars per hour of City Attorney time.

**SC-16 INSURANCE**

General Condition 1601 is hereby deleted in its entirety and replaced with the following:

(1) **General Conditions:** Contractor agrees to secure, at or before the time of execution of this Agreement, the following insurance covering all operations, goods or services provided pursuant to this Agreement. Contractor shall keep the required insurance coverage in force at all times during the term of the Agreement, or any extension thereof, during any warranty period, and for eight (8) years after termination of the Agreement. The required insurance shall be underwritten by an insurer licensed or authorized to do business in Colorado and rated by A.M. Best Company as "A-"VIII or better. Each policy shall contain a valid provision or endorsement requiring notification to the City in the event any of the required policies be canceled or non-renewed before the expiration date thereof. Such written notice shall be sent to the parties identified in the Notices section of this Agreement. Such notice shall reference the City contract number listed on the signature page of this Agreement. Said notice shall be sent thirty (30) days prior to such cancellation or non-renewal unless due to non-payment of premiums for which notice shall be sent ten (10) days prior. If such written notice is unavailable from the insurer, contractor shall provide written notice of cancellation, non-renewal and any reduction in coverage to the parties identified in the Notices section by certified mail, return receipt requested within three (3) business days of such notice by its insurer(s) and referencing the City's contract number. If any policy is in excess of a deductible or self-insured retention, the City must be notified by the Contractor. Contractor shall be responsible for the payment of any deductible or self-insured retention. The insurance coverages specified in this Agreement are the minimum requirements, and these requirements do not lessen or limit the liability of the Contractor. The Contractor shall maintain, at its own expense, any additional kinds or amounts of insurance that it may deem necessary to cover its obligations and liabilities under this Agreement.

(2) **Proof of Insurance:** Contractor shall provide a copy of this Agreement to its insurance agent or broker. Contractor may not commence services or work relating to the Agreement prior to placement of coverage. Contractor certifies that the certificate of insurance attached as part of the Contract Documents, preferably an ACORD certificate, complies with all insurance requirements of this Agreement. The City requests that the City's contract number be referenced on the Certificate. The City's acceptance of a certificate of insurance or other proof of insurance that does not comply with all insurance requirements set forth in this Agreement shall not act as a waiver of Contractor's breach of this Agreement or of any of the City's rights or remedies under this Agreement. The City's Risk Management Office may require additional proof of insurance, including but not limited to policies and endorsements.

(3) **Additional Insureds:** For Commercial General Liability and Auto Liability, Contractor and subcontractor's insurer(s) shall name the City and County of Denver, its elected and appointed officials, employees and volunteers as additional insured.

(4) **Waiver of Subrogation:** For all coverages, Contractor's insurer shall waive subrogation rights against the City.

(5) **Subcontractors and Subconsultants:** All subcontractors and subconsultants (including independent contractors, suppliers or other entities providing goods or services required by this Agreement) shall be subject to all of the requirements herein and shall procure and maintain the same coverages required of the Contractor. Contractor shall include all such subcontractors as additional insured under its policies (with the exception of Workers' Compensation) or shall ensure that all such subcontractors and subconsultants maintain the required



coverages. Contractor agrees to provide proof of insurance for all such subcontractors and subconsultants upon request by the City.

(6) **Workers' Compensation/Employer's Liability Insurance:** Contractor shall maintain the coverage as required by statute for each work location and shall maintain Employer's Liability insurance with limits of \$100,000 per occurrence for each bodily injury claim, \$100,000 per occurrence for each bodily injury caused by disease claim, and \$500,000 aggregate for all bodily injuries caused by disease claims. Contractor expressly represents to the City, as a material representation upon which the City is relying in entering into this Agreement, that none of the Contractor's officers or employees who may be eligible under any statute or law to reject Workers' Compensation Insurance shall effect such rejection during any part of the term of this Agreement, and that any such rejections previously effected, have been revoked as of the date Contractor executes this Agreement.

(7) **Commercial General Liability:** Contractor shall maintain a Commercial General Liability insurance policy with limits of \$1,000,000 for each occurrence, \$1,000,000 for each personal and advertising injury claim, \$2,000,000 products and completed operations aggregate, and \$2,000,000 policy aggregate.

(8) **Business Automobile Liability:** Contractor shall maintain Business Automobile Liability with limits of \$1,000,000 combined single limit applicable to all owned, hired and non-owned vehicles used in performing services under this Agreement

(9) **Additional Provisions:**

- (a) For Commercial General Liability, the policies must provide the following:
  - (i) That this Agreement is an Insured Contract under the policy;
  - (ii) Defense costs in excess of policy limits;
  - (iii) A severability of interests or separation of insureds provision (no insured vs. insured exclusion); and
  - (iv) A provision that coverage is primary and non-contributory with other coverage or self-insurance maintained by the City.
- (b) For claims-made coverage:
  - (i) The retroactive date must be on or before the contract date or the first date when any goods or services were provided to the City, whichever is earlier
- (c) Contractor shall advise the City in the event any general aggregate or other aggregate limits are reduced below the required per occurrence limits. At their own expense, and where such general aggregate or other aggregate limits have been reduced below the required per occurrence limit, the Contractor will procure such per occurrence limits and furnish a new certificate of insurance showing such coverage is in force.

**SC-17 GREENPRINT DENVER REQUIREMENTS**

In accordance with the City and County of Denver Executive Order 123: Greenprint Denver Office and Sustainability Policy, as amended, Contractor shall adhere to sections of Executive Order 123 pertinent to the construction of the built environment. This includes but is not limited to: all construction and renovation of buildings shall follow instructions and memorandum for high performance buildings; horizontal projects shall include the use of fly ash concrete and recycled aggregate where possible; and, all projects shall recycle construction and demolition waste, and install materials that contain recycled content whenever possible using the U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) as guidance. Non-hazardous solid waste that is eligible for reuse or recycling is not subject to the DADS disposal requirement defined in SC-12.

A completed "Greenprint Denver Closeout Form for Construction Projects" shall be delivered to the Project Manager as a submittal requirement of Final Acceptance.

<http://www.denvergov.org/constructioncontracts/Home/ContractorResources/tabid/443154/Default.aspx>

**CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS**

**PERFORMANCE AND PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned CENTERRE CONSTRUCTION, INC., 4100 East Mississippi Avenue, Suite 900, Denver, Colorado 80246

a corporation organized and existing under and by virtue of the laws of the State of Colorado, hereafter referred to as the "Contractor", and BERKLEY INSURANCE COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and authorized to transact business in the State of Colorado, as Surety, are held and firmly bound unto the CITY AND COUNTY OF DENVER, a municipal corporation of the State of Colorado, hereinafter referred to as the "City", in the penal sum of Six Hundred Ninety-Eight Thousand, Five Hundred Thirty Dollars, and No Cents (\$698,530.00), lawful money of the United States of America, for the payment of which sum, well and truly to be made, we bind ourselves and our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents;

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH THAT:

WHEREAS, the above bounden Contractor has entered into a written contract with the aforesaid City for furnishing all labor and tools, supplies, equipment, superintendence, materials and everything necessary for and required to do, perform and complete the construction of **CONTRACT NO. 201840245, RED ROCKS CCC CAMP BARACKS - BUILDING 1 REHABILITATION**, Denver, Colorado, and has bound itself to complete the project within the time or times specified or pay liquidated damages, all as designated, defined and described in the said Contract and Conditions thereof, and in accordance with the Plans and Technical Specifications therefore, a copy of said Contract being made a part hereof;

NOW, THEREFORE, if the said Contractor shall and will, in all particulars well and truly and faithfully observe, perform and abide by each and every Covenant, Condition and part of said Contract, and the Conditions, Technical Specifications, Plans, and other Contract Documents thereto attached, or by reference made a part thereof and any alterations in and additions thereto, according to the true intent and meaning in such case, then this obligation shall be and become null and void; otherwise, it shall remain in full force and effect;

PROVIDED FURTHER, that if the said Contractor shall satisfy all claims and demands incurred by the Contractor in the performance of said Contract, and shall fully indemnify and save harmless the City from all damages, claims, demands, expense and charge of every kind (including claims of patent infringement) arising from any act, omission, or neglect of said Contractor, its agents, or employees with relation to said work; and shall fully reimburse and repay to the City all costs, damages, and expenses which it may incur in making good any default based upon the failure of the Contractor to fulfill its obligation to furnish maintenance, repairs or replacements for the full guarantee period provided in the Contract Documents, then this obligation shall be null and void; otherwise it shall remain in full force and effect;

PROVIDED FURTHER, that if said Contractor shall at all times promptly make payments of all amounts lawfully due to all persons supplying or furnishing it or its subcontractors with labor and materials, rental machinery, tools or equipment used or performed in the prosecution of work provided for in the above Contract and that if the Contractor will indemnify and save harmless the City for the extent of any and all payments in connection with the carrying out of such Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect;

PROVIDED FURTHER, that if the said Contractor fails to duly pay for any labor, materials, team hire, sustenance, provisions, provender, gasoline, lubricating oils, fuel oils, grease, coal, or any other supplies or materials used or consumed by said Contractor or its subcontractors in performance of the work contracted to be done, or fails to pay any person who supplies rental machinery, tools or equipment, all amounts due as the result of the use of such machinery, tools or equipment in the prosecution of the work, the Surety will pay the same in any amount not exceeding the amount of this obligation, together with interest as provided by law;

PROVIDED FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract, or to contracts with others in connection with this project, or the work to be performed thereunder, or the Technical Specifications and Plans accompanying the same, shall in any way affect its obligation on this bond and it does hereby waive notice of any change, extension of time, alteration or addition to the terms of the Contract, or contracts, or to the work, or to the Technical Specifications and Plans.

IN WITNESS WHEREOF, said Contractor and said Surety have executed these presents as of this 2<sup>nd</sup> day of April, 2018

Attest:  
By: [Signature]  
Secretary

CENTERRE CONSTRUCTION, INC.  
Contractor  
By: [Signature]  
President

BERKLEY INSURANCE COMPANY  
Surety  
By: [Signature]  
Attorney-In-Fact Cynthia M. Burnett

(Accompany this bond with Attorney-in-Fact's authority from the Surety to execute bond, certified to include the date of the bond).

APPROVED AS TO FORM:  
Attorney for the City and County of Denver  
By: [Signature]  
Assistant City Attorney

APPROVED FOR THE CITY AND COUNTY OF DENVER  
By: [Signature]  
MAYOR  
By: [Signature]  
EXECUTIVE DIRECTOR OF PUBLIC WORKS

POWER OF ATTORNEY  
BERKLEY INSURANCE COMPANY  
WILMINGTON, DELAWARE

NOTICE: The warning found elsewhere in this Power of Attorney affects the validity thereof. Please review carefully.

KNOW ALL MEN BY THESE PRESENTS, that BERKLEY INSURANCE COMPANY (the "Company"), a corporation duly organized and existing under the laws of the State of Delaware, having its principal office in Greenwich, CT, has made, constituted and appointed, and does by these presents make, constitute and appoint: *Douglas J. Rothey, Erik E. Ulibarri or Cynthia M. Burnett of Surescape Insurance Services, LLC of Littleton, CO* its true and lawful Attorney-in-Fact, to sign its name as surety only as delineated below and to execute, seal, acknowledge and deliver any and all bonds and undertakings, with the exception of Financial Guaranty Insurance, providing that no single obligation shall exceed *Fifty Million and 00/100 U.S. Dollars (U.S.\$50,000,000.00)*, to the same extent as if such bonds had been duly executed and acknowledged by the regularly elected officers of the Company at its principal office in their own proper persons.

This Power of Attorney shall be construed and enforced in accordance with, and governed by, the laws of the State of Delaware, without giving effect to the principles of conflicts of laws thereof. This Power of Attorney is granted pursuant to the following resolutions which were duly and validly adopted at a meeting of the Board of Directors of the Company held on January 25, 2010:

**RESOLVED**, that, with respect to the Surety business written by Berkley Surety Group, the Chairman of the Board, Chief Executive Officer, President or any Vice President of the Company, in conjunction with the Secretary or any Assistant Secretary are hereby authorized to execute powers of attorney authorizing and qualifying the attorney-in-fact named therein to execute bonds, undertakings, recognizances, or other suretyship obligations on behalf of the Company, and to affix the corporate seal of the Company to powers of attorney executed pursuant hereto; and said officers may remove any such attorney-in-fact and revoke any power of attorney previously granted; and further

**RESOLVED**, that such power of attorney limits the acts of those named therein to the bonds, undertakings, recognizances, or other suretyship obligations specifically named therein, and they have no authority to bind the Company except in the manner and to the extent therein stated; and further

**RESOLVED**, that such power of attorney revokes all previous powers issued on behalf of the attorney-in-fact named; and further

**RESOLVED**, that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any power of attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligation of the Company; and such signature and seal when so used shall have the same force and effect as though manually affixed. The Company may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Company, notwithstanding the fact that they may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, the Company has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 10 day of May, 2013.

Attest:

Berkley Insurance Company

(Seal)

By Ira S. Lederman  
Ira S. Lederman  
Senior Vice President & Secretary

By Jeffrey M. Hafter  
Jeffrey M. Hafter  
Senior Vice President

**WARNING: THIS POWER INVALID IF NOT PRINTED ON BLUE "BERKLEY" SECURITY PAPER.**

STATE OF CONNECTICUT )

) ss:

COUNTY OF FAIRFIELD )

Sworn to before me, a Notary Public in the State of Connecticut, this 10 day of May, 2013, by Ira S. Lederman and Jeffrey M. Hafter who are sworn to me to be the Senior Vice President and Secretary, and the Senior Vice President, respectively, of Berkley Insurance Company.

Kathleen Corey  
KATHLEEN COREY  
NOTARY PUBLIC  
CONNECTICUT  
MY COMMISSION EXPIRES OCTOBER 31, 2017

**CERTIFICATE**

I, the undersigned, Assistant Secretary of BERKLEY INSURANCE COMPANY, DO HEREBY CERTIFY that the foregoing is a true, correct and complete copy of the original Power of Attorney; that said Power of Attorney has not been revoked or rescinded and that the authority of the Attorney-in-Fact set forth therein, who executed the bond or undertaking to which this Power of Attorney is attached, is in full force and effect as of this date.

Given under my hand and seal of the Company, this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

(Seal)

Andrew M. Tuma  
Andrew M. Tuma

WARNING - Any unauthorized reproduction or alteration of this document is prohibited. This power of attorney is void unless seals are readable and the certification seal at the bottom is embossed. The background imprint, warning and confirmation (on reverse) must be in blue ink.



**PERFORMANCE AND PAYMENT BOND  
SURETY AUTHORIZATION  
(SAMPLE)**

FAX NUMBER: 720-913-3183  
TELEPHONE NUMBER: 720-913-3267

Assistant City Attorney  
201 W. Colfax Ave. Dept. 1207  
Denver, Colorado 80202

RE: (Company name)

Contract No:201840245

Project Name: RED ROCKS CCC CAMP-BARRACKS - BUILDING 1 REHABILITATION

Contract Amount:

Performance and Payment Bond No.:

Dear Assistant City Attorney,

The Performance and Payment Bonds covering the above captioned project were executed by this agency, through \_\_\_\_\_ insurance company,  
on \_\_\_\_\_, 20\_\_.

We hereby authorize the City and County of Denver, Department of Public Works, to date all bonds and powers of attorney to coincide with the date of the contract.

If you should have any additional questions or concerns, please don't hesitate to give me a call at \_\_\_\_\_.

Thank you.

Sincerely,

Denver Public Works/Office of the Executive Director  
201 West Colfax Avenue, Dept. 608 | Denver, CO 80202  
[www.denvergov.org/dpw](http://www.denvergov.org/dpw)  
p. 720.865.8630 | f. 720.865.8795

**311 | POCKETGOV.COM | DENVERGOV.ORG | DENVER 8 TV**



**NOTICE OF APPARENT LOW BIDDER**  
**(SAMPLE)**

Current Date

To:

Gentlemen:

The MANAGER OF PUBLIC WORKS has considered the Bids submitted on March 08, 2018 for work to be done and materials to be furnished in and for:

**PROJECT No. 201840245 RED ROCKS CCC CAMP BARRACKS - BUILDING 1 REHABILITATION**

as set forth in detail in the Contract Documents for the City and County of Denver, Colorado. It appears that your Bid is fair, equitable, and to the best interest of the City and County; therefore, said Bid is hereby accepted at the bid price contained herein, subject to execution of the Contract Documents and your furnishing the items specified below, the total cost thereof (Contract Amount Written), (Contract Amount Numeric).

It will be necessary for you to appear forthwith at the office of the Department of Public Works, Finance and Administration, 201 W. Colfax Ave. Dept. 614, Denver, Colorado 80202, to receive the said Contract Documents, execute the same and return them to the Department of Public Works, Finance and Administration, within the time limit set forth in the Bid Proposal.

In accordance with the requirements set forth in the Contract Documents, you are required to furnish the following documents:

- a. Insurance Certificates: General Liability and Automotive Liability, Workman's Compensation and Employer Liability; or any other coverage required by the contract; and
- b. One original plus four copies of the Power of Attorney relative to Performance and/or Payment Bond;

All construction Contracts made and entered into by the City and County of Denver are subject to Affirmative Action and Equal Opportunity Rules and Regulations, as adopted by the Manager of Public Works, and each contract requiring payment by the City of one-half million dollars (\$500,000.00) or more shall first be approved by the City Council acting by ordinance and in accordance with Section 3.2.6 of the Charter of the City and County of Denver.

Prior to issuance of Notice to Proceed, all Equal Opportunity requirements must be completed. Additional information may be obtained by contacting the Director of Contract Compliance at (720-913-1700).

**NOTICE OF APPARENT LOW BIDDER  
(SAMPLE)**

PROJECT NO. 201840245  
Page 2

The Bid Security submitted with your Bid, will be returned upon execution of the Contract and furnishing of the Performance Bond. In the event you should fail to execute the Contract and to furnish the performance Bond within the time limit specified, said Bid Security will be retained by the City and County of Denver as liquidated damages, and not as a penalty for the delay and extra work caused thereby.

Dated at Denver, Colorado this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_.

CITY AND COUNTY OF DENVER

By \_\_\_\_\_  
Executive Director of Public Works

Denver Public Works/Office of the Executive Director  
201 West Colfax Avenue, Dept. 608 | Denver, CO 80202  
[www.denvergov.org/dpw](http://www.denvergov.org/dpw)  
p. 720.865.8630 | f. 720.865.8795

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Current Date

**NOTICE TO PROCEED  
(SAMPLE)**

Name  
Company  
Street  
City/State/Zip

**CONTRACT NO. 201840245, RED ROCKS CCC CAMP BARRACKS - BUILDING  
1 REHABILITATION**

In accordance with General Contract Condition 302 of the Standard Specifications for Construction, General Contract Conditions, 2011 Edition, you are hereby authorized and directed to proceed on \_\_\_\_\_ with the work of constructing contract number 201840245, as set forth in detail in the contract documents for the City and County of Denver.

With a contract time of \_\_\_\_\_ calendar days, the project must be complete on or before \_\_\_\_\_.

If you have not already done so, you must submit your construction schedule, in accordance with General Contract Condition 306.2.B, to the Project Manager within 10 days. Additionally, you must submit your tax exempt certificate, and copies of your subcontractors' certificates, in accordance with General Contract Condition 323.5, to the Project Manager as soon as possible. Failure to submit these certificates will delay processing of payment applications.

Sincerely,

Lesley B. Thomas  
City Engineer

cc:

Denver Public Works/Office of the Executive Director  
201 West Colfax Avenue, Dept. 608 | Denver, CO 80202  
[www.denvergov.org/dpw](http://www.denvergov.org/dpw)  
p. 720.865.8630 | f. 720.865.8795

**311 | POCKETGOV.COM | DENVERGOV.ORG | DENVER 8 TV**





Certificate of Contract Release  
(SAMPLE)

Date

Name  
Company  
Street  
City/State/Zip

RE: Certificate of Contract Release for  
**201840245, RED ROCKS CCC CAMP BARRACKS - BUILDING 1 REHABILITATION**

Received this date of the City and County of Denver, as full and final payment of the cost of the improvements provided for in the foregoing contract, \_\_\_\_\_ dollars and \_\_\_\_\_ cents (\$\_\_\_\_\_), in cash, being the remainder of the full amount accruing to the undersigned by virtue of said contract; said cash also covering and including full payment for the cost of all extra work and material furnished by the undersigned in the construction of said improvements, and all incidentals thereto, and the undersigned hereby releases said City and County of Denver from any and all claims or demands whatsoever, regardless of how denominated, growing out of said contract.

And these presents are to certify that all persons performing work upon or furnishing materials for said improvements under the foregoing contract have been paid in full and this payment to be made is the last or final payment.

\_\_\_\_\_  
Contractor's Signature

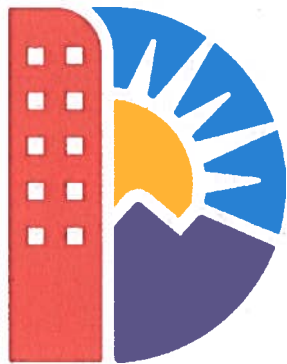
\_\_\_\_\_  
Date Signed

If there are any questions, please contact me by telephone at (720) 913-XXXX. Please return this document via facsimile at (720) 913-1805 and mail to original to the above address.

Denver Public Works/Office of the Executive Director  
201 West Colfax Avenue, Dept. 608 | Denver, CO 80202  
[www.denvergov.org/dpw](http://www.denvergov.org/dpw)  
p. 720.865.8630 | f. 720.865.8795

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**CITY AND COUNTY OF DENVER**  
**STATE OF COLORADO**



**DENVER**<sup>®</sup>  
THE MILE HIGH CITY

**Department of Public Works**

**Addendum**

**Contract Number: 201840245**



**RED ROCKS CCC CAMP BARRACKS –  
BUILDING 1 REHABILITATION**

**February 12, 2018**

CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS

CONTRACT NO.: 201840245  
PROJECT NAME: Red Rocks CCC Barracks – Building 1 Rehabilitation

**ADDENDUM NO. 1 TO CONTRACT DOCUMENTS**

Bidders are hereby instructed that the drawings, specifications, and other contract documents are modified, corrected, supplemented, and/or superseded for the above-mentioned project as hereinafter described in the following attachments:

**BID DOCUMENTS**

- Remove and delete pages **BF – 6.1** through **BF – 6.7**.

**BID DOCUMENT PACKAGE**

- Remove and delete pages **SQ-1** through **SQ-6**.
- Replace **Section 4. TERMS OF PAYMENT, BDP – 27** with the following:

**4. TERMS OF PAYMENT**

The City agrees to pay the Contractor for the performance of all of the Work required under this Contract, and the Contractor agrees to accept as the Contractor's full and only compensation therefore, such sum or sums of money as may be proper in accordance with the price or prices set forth in the Contractor's Bid Form hereto attached and made a part hereof for a **Lump Sum**, the total estimated cost thereof being (\$ \_\_\_\_\_). Adjustments to said Contract Amount and payment of amounts due hereunder shall be made in accordance with the provisions of the General Contract Conditions and any applicable Special Contract Conditions.

**DRAWINGS**

- Plan Sheet **D 1 00, General Demo Plan Notes**– delete note #5 as follows:

**GENERAL DEMO PLAN NOTES**

1. ALL REMOVAL/DEMO ACTIVITIES SHALL BE EXECUTED IN A MANNER WHICH PROTECTS ANY/ALL UNDERLYING HISTORIC MATERIALS.
2. ANY QUESTION AS TO SALVAGE/REUSE OF AN EXISTING ON-SITE OR STORED ITEM SHALL BE DIRECTED TO THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
3. REMOVE ALL CONDUIT; WIRING TO BE ABANDONED.
4. REMOVE AND SALVAGE ALL WOOD TRIM, LABEL AND STORE.
- ~~5. ALL HISTORIC WINDOWS SHALL BE REHABILITATED. THEY ARE NOT SHOWN AS DEMO SINCE THEY WILL BE REINSTALLED IN CURRENT LOCATION.~~
6. COORDINATE DEMOLITION ACTIVITIES AMONG ALL TRADES; REF STRUCTURAL, MEP DRAWINGS.
7. FOR UTILITY; MECHANICAL DEMOLITION SPECIFIC, REFER TO MEP DRAWINGS.
8. PROTECT EXISTING EXPOSED "TRUSS" IN PLACE.
9. REMOVE ALL INTERIOR GYPSUM BOARD TO STRUCTURE.
10. REMOVE AND SALVAGE EXTERIOR WOOD COMPOSITE SIDING AND TONGUE AND GROOVE SIDING. CONTRACTOR TO REMOVE AND SALVAGE UP TO THE LEVEL OF THE FLOOR STRUCTURE TO PROVIDE ACCESS FOR STRUCTURAL STABILIZATION @ NORTH & SOUTH ELEVATION.

- Plan Sheet A 3 00, delete Window Hazardous Materials note as follows:

~~WINDOW HAZARDOUS MATERIALS  
NOTE: EXISTING WINDOWS TESTED POSITIVE FOR LEAD & ASBESTOS. ABATEMENT & MITIGATION SHALL BE DONE BY A LICENSED CONTRACTOR WITH MINIMUM 5 YEARS ABATEMENT & MITIGATION EXPERIENCE.~~

- Plan Sheet A 3 00, delete notes # 3 – 8 as follows:

## GENERAL WINDOW NOTES

1. PROVIDE NEW REMOVABLE WOODEN EXTERIOR STORMS AT ALL OPENINGS
2. PROVIDE NEW REMOVABLE WOODEN SCREENS AT ALL OPENINGS.
- ~~3. REPLACE ALL BROKEN GLAZING TO MATCH EXISTING ASSUME 25%~~
- ~~4. REPLACE MISSING GLAZING COMPOUND~~
- ~~5. CLEAN ALL GLASS~~
- ~~6. SCRAPE, SAND, PRIME AND PAINT EXTERIOR AND INTERIOR OF SASH, FRAME, SILL AND TRIM~~
- ~~7. REPLACE ALL MISSING STOPS.~~
- ~~8. CAULK ALL JOINTS.~~
9. VERIFY ALL DIMENSIONS IN FIELD.
10. REMOVE, DOCUMENT, AND SALVAGE ALL 1X WOOD TRIM. INSTALL SALVAGED WOOD TRIM. SCRAPE, PRIME AND PAINT.
11. PROVIDE JAMB EXTENSIONS AT INTERIOR OF WINDOWS TO ACCOMMODATE NEW WALL FURRING.
12. AT ALL RE-OPENED WINDOWS, PROVIDE EXTERIOR JAMB AND SILL EXTENSIONS AND NEW TRIM TO MATCH EXISTING
13. ALL WINDOWS SHALL BE MADE OPERATIONAL.
14. ALL NEW MEMBERS SHALL MATCH <E> IN KIND.

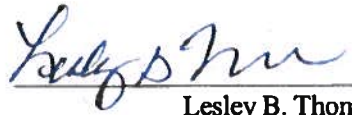
- Remove and replace image 6 East Elevation, Plan Sheet A 9 00 with the following:
  - o delete "Remove Tree"; the tree slated for removal has already been cut down.



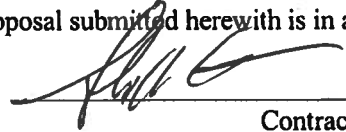
- <E> ROOF VENTILATOR-TYP (3)
- REUSE <F> ATTIC VENTILATION
- ~~REMOVE 5 TILE~~
- <E> CONCRETE PAD TO REMAIN
- NEW ACCESSIBLE WALK: REF 4:A4.0

6 EAST ELEVATION  
NTS

This **ADDENDUM** shall be attached to, become a part of, and be returned with the Bid Proposal.

  
\_\_\_\_\_  
Lesley B. Thomas  
City Engineer  
2.15.18  
\_\_\_\_\_  
Date

The undersigned bidder acknowledges receipt of this Addendum. The Proposal submitted herewith is in accordance with the stipulations set forth herein.

  
\_\_\_\_\_  
Contractor

**ADDENDUM NO. 1** \_\_\_\_\_ **DATE:** 4-2-18

CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS

CONTRACT NO.: 201840245  
PROJECT NAME: Red Rocks CCC Barracks – Building 1 Rehabilitation

ADDENDUM NO. 2 TO CONTRACT DOCUMENTS

Bidders are hereby instructed that the drawings, specifications, and other contract documents are modified, corrected, supplemented, and/or superseded for the above-mentioned project as hereinafter described in the following attachments:

**Construction Plan Set Clarifications**

There are several sheets that note 'shore building before work begins, shoring by others' (S101, S504). The 'shoring by others' should be deleted and removed from the plans.

**Questions and Answers**

- Q1 After viewing the barrack and peaking our head under the building we noticed there was no access to install the footers running down the middle of the building. The idea to solve this issue was to lift the building around 3'. This would provide access under the building to hand dig the new footings in the middle and use equipment on the sides footings. Also, raising the building would alter other portion of the plans such as the ramps and hand rails. Your thoughts?
- A1 ***We have no objection to temporarily lifting the building. The final floor elevation is as designed, and the Contractor takes total responsibility for the process.***
- Q2 Instead of installing the rolled roofing which has no warranty, has there been any consideration of using an SBS granular product? The warranty would be 10 years and the look would be the same as the rolled roofing.
- A2 ***The rolled "Awaflex" roofing specified on the drawings is a basis of design for bidding purposes. A substitution can be proposed and investigated as a potential future change order.***
- Q3 Have a start date, and completion date been identified for this project?
- A3 ***Start date will be determined by length of contracting process and issuance of a NTP. Preferred start date is May 1, 2018 with 90-day construction duration.***
- Q4 Is a large size plan set available?
- A4 ***Yes, provided.***
- Q5 Can the final building elevation be different than specified?
- A5 ***No, final elevation should be per plans.***
- Q6 Can the building be lifted for more clearance room so that machinery can be used to excavate for the footers?
- A6 ***Lifting and moving the building is an acceptable method to gain access for excavation and structural stabilization. The final floor elevation shall be as designed. See question 1 above.***

Q7 Is a soil report available?

**A7 *No soil report is available.***

Q8 We understand the wish to save the floors, but the scope does not seem possible due to the existing wear and tear on the boards. The wood floor is cupped because of the moisture over time. This cupping is ¼" in depth which means that if we attempt to sand we will hit the high spots on each board. The sanding down of the high spots on the boards will create a tongue and groove that is brittle and susceptible to damage with foot traffic. Walking on the floor after we sand will possibly break the tongue and groove sections. In our last round of questions, we talked about lifting the building, and lifting will require beams to be placed under the floor. The install of this beam will require sections of the floor to be removed and then reinstalled after the lift is complete. Because of the conditions of the floor, Halcyon is recommending full replacement of the floor.

**A8 *The design intent is not for a "full restoration" of the existing wood floors. Due to the historic nature of the floor, the intent is to lightly sand the top surface, fill and seal the existing wood floor. Areas wood floor that are damaged and require replacement have been identified. The Owner is aware that the final product will not be a "like new" finish.***

Q9 What is the condition of the present foundation/floor joist? Structure Assessment report for Barrack 1 attached.

**A9 *Structure Assessment report for Barrack 1 (attached).***

Q10 What is the Cable Type Cat 5E or Cat 6?

**A10 *CAT 6***

Q11 Are there going to be access points for WIFI? And if yes how many?

**A11 *No***

Q12 Is Data Rack a 7ft stand alone or a wall mount?

**A12 *To be determined by vendor/supplier***

Q13 In room 103 conference, is a HDMI, Cat 5 or Cat 6 Cable and a VGA cable needed to run from floor box to TV outlet on wall?

**A13 *Voice/Data should be supplied***

Q14 Are there requirements for CCTV, and Access Control?

**A14 *No***

Q15 On Bid Doc's – Statement of Quantities – Division 27 – Communications: it shows: Telecom/Communications system outlet 16 ea. The drawings E1.00 show 18 outlets with 1 TV outlet what should we bid from Drawing or spec sheet?

**A15 *Provide pricing for 18 outlets with 1 TV outlet***

Q16 TV outlet in room 103 Drawing E1.00 does it get 1 Coax only or 1 Coax and 1 Data?

**A16 *TV outlet gets 1 Coax and 1 Data***

Q17 How many cables to each outlet, Icon on Drawing E1.00 shows a Voice/Data which indicates 2 cables to each outlet is this correct?

**A17 *Voice/Data should be supplied.***

Q18 Is this project tax exempt?

**A18 *No construction projects are tax exempt in Denver. Subcontractors, as well as general contractors, are deemed to be the end user of all materials, supplies, tools and equipment used on a Denver job. Denver does not provide an exemption from sales or use tax on materials used on any construction project located in Denver including government, religious or charitable.***

Q19 The wood flooring subcontractor is afraid that the floor is unsalvageable and if sanded will show the tongue and groove. Would you like there to be an alternate to furnish and install a new wood floor?

**A19 *The design intent is not for a "full restoration" of the existing wood floors. Due to the historic nature of the floor, the intent is to lightly sand the top surface, fill and seal the existing wood floor. Areas of wood floor that are damaged and require replacement have been identified. The Owner is aware that the final product will not be a "like new" finish.***

Q20 What are the signage requirements for this project?

**A20 *Only as identified on plans***

Q21 What is the construction schedule for this project?

**A21 *90-day construction schedule once NTP received with final completion Aug 15, 2018.***

Q22 Restroom elevations (A.4) show FRP, Finish schedule (A.3) shows Epoxy Paint and FRP in Janitors closet. Please advise.

**A22 *Restroom wall shall be RFP as show on elevations A.4.***

Q23 Is there a Soils report available?

**A23 *No Soil Report is available.***

Q24 Per Note 5 on A.3 an allowance of \$250.00x14 doors have been added to our base bid for door hardware?

**A24 *Yes.***

Q25 Can we assume that the entire interior will be painted one color?

**A25 *A single paint color shall be selected by Architect and approved by Owner. The single color will be used throughout the building interior.***

Q26 Can you confirm that all appliances will be provided by owner?

**A26 *Appliances to be provided by owner.***



Q27 Its calling for insulation in the walls for the crawlspace. Are these walls concrete foundation walls, or framed? The plans also state that the crawlspace is 18" high, it would be very hard for an installer to lay down a vapor barrier and secure to the walls. Also, its calling for unfaced batts throughout the entire building, is there a vapor barrier required for these? On the front page it says this following the 2015 IECC, as far as I know this code calls for R-49 in the attic not R-38.

**A27 The crawl space walls are wood framed per 2:A500. Drawings 1:A500 shows concrete block, however, this section only happens at the new piers locations. The crawl space is primarily wood framed between block piers.**

- The vapor barrier is a code requirement and will need to be installed at grade.
- The design intent is to use unfaced batt insulation throughout the building.
- The exception to unfaced batt insulation is the use of closed cell spray foam insulation indicated at roof locations: reference details 1 & 2: A500.

The insulation design is based on the 2015 IECC. The project is located within Jefferson County which is in Zone 5. Per Table C402.1.3. Zone 5 is R38. Residential zone 5 calls for R49.

Q28 Sheet E200 Detail #2 Note #1  
States "Provide EMT for all cabling routed through areas with exposed structural ceilings and through inaccessible ceilings." The detail depicts 1" EMT from box in wall to ceiling space above with a bushing on the end. (Conduit Stubs) As entire ceiling is called for ½" GWB, please clarify whether EC is to provide conduit from data outlets, all the way back to phone room, or conduit stubs as depicted.

**A28 Provide EC to conduit stubs.**

Q29 M00, Baseboard Heat Schedule, M10 Detail #2, E100 Detail #1, E200 Mechanical Equipment Schedule. Other than MOO, Baseboard Heat Schedule Note #1 stating "PROVIDE WITH 7DAY PROGRAMMABLE WALL MOUNTED THERMOSTAT" It is understood that they are to be furnished by MC however as it is a line voltage connection, the EC will have to install. No locations nor quantities are stated. Please provide quantities and locations of t-stats to control baseboard heat.

**A29 The baseboards are available with a low-voltage relay as an accessory, which could be used in conjunction with a 24V thermostat. This is the direction intended and would recommend, although understandable that it is not explicitly noted in the drawings. This direction should allow the mechanical contractor to bid thermostats. Cooling thermostats are currently shown. Quantity wise, the schedule indicates one thermostat per baseboard unit (although the conference room could be controlled by one and the open office area would be controlled by two).**

This ADDENDUM shall be attached to, become a part of, and be returned with the Bid Proposal.

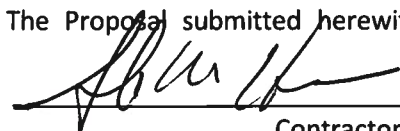


Lesley B. Thomas  
City Engineer

3.2.2018

Date

The undersigned bidder acknowledges receipt of this Addendum. The Proposal submitted herewith is in accordance with the stipulations set forth herein.



Contractor

ADDENDUM NO. 2

DATE: 4-2-18

Structure Assessment report for Barrack 1

## Building 1

Morrison CCC Camp

### Building Overview

Building 1 is a single story, rectangular building measuring approximately 120' x 20' with the long dimension oriented east-west. Based on the building configuration and sign remaining on other similar buildings, it likely served as sleeping quarters for the CCC Camp workers. Today the building is used for wood and materials storage. Potential future use for this building is likely to be classrooms, workshop or dormitories.



*East and north elevations of Building 1*

### Architectural Element Conditions

#### Exterior Façade & Roof

Building 1 is clad with painted wood siding with approximately 10" exposure with wood trim at the building corners. See the Wood Siding and Trim section above. Most of the newer siding is in good condition with a few boards which have come loose and deterioration of the boards near grade. Generally the trim is in good condition, though the wood is deteriorated in a few places. Small wood birdhouses, which are a modern addition to the building, are mounted on the north and south walls. Paint on all exterior wood elements is in fair to poor condition with wood exposed in places.

Building 1 has a gable roof with granulated roll roofing which is in good condition. Three vents are spaced along the roof which are in good condition, though there is no sealant at the edges where the vents meet the roof. Painted wood 2x6 rafters are visible at the east and west elevations and exposed rafter tails on the north and south elevations are painted. Painted trim board is installed around the rafter tails. The plywood sheathing appears to have been installed recently, likely at the same time as the roofing. All of the roof elements are in good condition.

A concrete ramp, located at the west entrance to the building, is in fair condition. The concrete topping layer is deteriorated and rough. A concrete stoop is located at the east entrance and is in good condition, with a slight chip in the northeast corner.

#### Windows and Doors

Eight original windows are visible on the building exterior, four on both the north and south elevations. However, windows and/or window openings visible on the interior indicate the original configuration was fourteen windows on both the north and south walls. Siding was installed over many of the windows. Windows are in fair to poor condition, see Windows section above.

East and west entry doors are constructed of vertical wood boards in wood framed door openings with a wood sill and trim. Hardware on both doors consists of strap hinges and a door knob. Doors are secured by a steel strap which is the width of the door and a padlock. In addition to this, the west door

has a pull handle and the east door has a second hasp and eye that is no longer used to lock the door. All elements of the doors, including the trim and hardware are painted to match the building trim. Both doors are in poor condition. Neither the doors nor the hardware is in keeping with the character of the building.

#### Interior Finishes

All of the interior space is one open room, with no dividing walls but the floor and walls finishes are obscured in many places by the materials stored in the building. Flooring throughout is 1x6 wood tongue and groove boards, which are in fair condition where visible. Walls and the ceiling have a gypsum board finish which is in poor condition with significant water damage throughout and sections which have been removed.

#### Code Compliance

Building 1 is 2,400 gsf, which translates to as many as 160 occupants if used as an assembly space or as few as 8 occupants if used as a storage space. The minimum number of egress doors is two doors, except if the occupancy is business, "factory," or storage, when one egress door would be permitted.

#### Accessible Access

Both the east and west doors are 3'-0" and therefore meet clearance requirements. However, both doors have a step at the threshold and there is a step at the east entry. The ramp on the west elevation has a greater slope than allowed by accessibility standards.

#### **Structural Element Conditions**

##### General Structural System

Building 1 of the Morrison CCC Camp is a single story, rectangular building measuring approximately 20' x 120'. The building is currently used to store lumber, other building materials and wood working tools. Wood cripple walls resting on concrete footings support the wood framed floor, walls and roof.

##### Foundations

At the base of the exterior first floor walls in Building 1, the 2x4 bottom plates bear on the ends of the 2x6 joists. The joist ends in turn bear on a double 2x6 beam running along the long dimension of the building. The double 2x6 dropped beam is supported by 2x4 cripple studs spaced at 16" on center. 6x6 posts, notched to receive the double 2x6 beam, are interspersed along the cripple wall at a random, but average spacing of approximately 8'. The cripple studs and 6x6 posts bear on segmented 7x7 wood timber plates (*RE: Figure Twelve*). On the south side of the building, the 7x7 plate is supported by a continuous concrete footing approximately 19" wide. On the north side of the building, some of the 7x7 plate segments are supported on poured concrete footings while others bear directly in the soil. These concrete footings measure 16" by 16" by 8" in depth and are centered about the 7x7 plate. The footings' spacing could not be confirmed. The 1x tongue and groove sheathing extends down over the cripple wall.



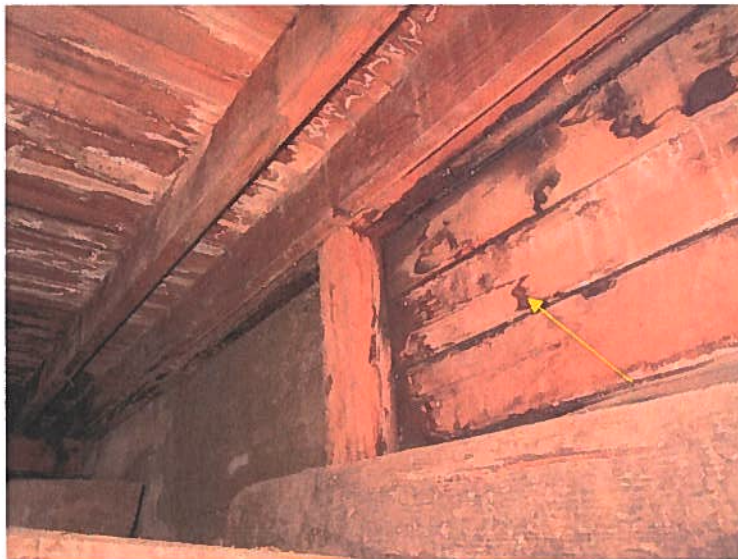
*Figure Twelve: The double 2x6 beam supported on studs and posts. The posts and studs bear on a 7x7 plate visible at bottom of image.*

A secondary bearing line, located at the mid-point of the short dimension of the building, extends along the long axis of the structure. Although the beam was not directly accessible (visible distantly through a vermin hole), most likely it is a double 2x6 beam based on observations of the other similar buildings on the site. This center beam is supported by stacked field stones that were most likely gathered from the site. The floor joists are also supported intermediately between the three primary support lines in various locations along the building length. These supports were likely added where there were perceptible floor deflections or beneath lumber storage racks. These intermediate supports involve dropped beams of varying lengths that are supported by wood posts bearing on locally gathered field stones (*RE: Figure Thirteen*).



*Figure Thirteen: Floor framing of Building 1. Note the joists, the tongue and groove decking, the intermediate bearing support, the lateral diagonal (beyond) and the posts below the center bearing line to the right of the image. Also note the stains on the decking and joists*

Where visible at the northwest corner of Building 1, the foundations appeared to be in fair condition. There are portions of the wood foundation system which are directly bearing on the soil or on which the soil has encroached. There is evidence of decay of these wood members due to water infiltration allowed by the direct contact between the soil and the wood elements. There is also deterioration visible in the wall sheathing behind the concrete stoop on the west end of the building where water can be trapped (RE: Figure Fourteen).



*Figure Fourteen: The west wall of the crawlspace of Building 1. Note the water stains on the decking and the concrete stoop beyond the post*

The exterior grade is in contact with the exterior sheathing of the structure and is at an elevation above the 7x7 plate around the entire perimeter of the building. This proximity of the wood elements to the

soil is encouraging decay of the sheathing and, most likely, the base of the cripple wall foundation. It is assumed that wood decay is a widespread condition throughout the foundation.

Like many other buildings on this site, the grade to the south of the structure slopes towards the building encouraging water to flow towards the building, come in contact with the wood foundations and infiltrate the crawlspace. Along the south elevation of the building there are indications of water damage visible in the siding boards. Also, the soil is piled up against the bottom of the building allowing moisture to remain adjacent to the wood elements and create an environment ideal for wood decay.

Parallel to the short dimension of the building, the floor framing crowns over the central bearing line. This deflection is likely due to deterioration of the perimeter wood foundation wall. Lumber is stored along the long walls of the building and where lumber stacks are particularly large, they exacerbate the settling behavior of the structure's sidewalls.

#### Walls

See the "Elements and Materials Issues Relevant to all Buildings" section of the Executive Summary for a description of the wall framing.

The wall framing of Building 1 is assumed to be in good condition. Although the framing was only visible in isolated locations, there were no issues noticed in those areas and there are no structural condition issues such as out of plane bowing.

#### Floor and Roof Framing

For a description of the floor and roof framing of Building 1, see the "Elements and Materials Issues Relevant to all Buildings" section of the Executive Summary. The floor framing was visible through one break in the 7x7 wood plate in the west end of the north wall. The roof framing was visible in multiple areas where the finishes had been removed for one reason or another.

The floor and roof framing of Building 1 are in fair condition. It appears that most of the framing does not require any treatment at this time but there are several areas that should be investigated further or remedied. From the small access point along the north elevation of the building there is visible staining on the floor joists and the underside of the floor sheathing, which may have been caused by a substance spilling from above (*RE: Figure Thirteen*). Due to lack of access, it is left undetermined whether or not the staining is indicative of decay. At the west entrance to the building, the first two finish floor boards and the ends of the structural tongue and groove 1x sheathing are broken and show signs of decay, most likely due to their proximity to the concrete stoop poured in this location (*RE: Figure Fifteen*). The crown in the floor, the amplitude of which varies along the building's length, is primarily an issue with the foundation despite the lumber storage which exceeds the load carrying capacity of the floor system in some locations.



Figure Fifteen: Decay and wear of the subfloor and finish floor at west end of building at door sill

At the roof framing, the 4x4 faux ridge beam at the east gable end has begun to rot. Although this element does not provide a structural purpose, it can provide a path for water and fungi to migrate inside the building envelope and invite deterioration of the framing.

Along the north elevation of the building there is a noticeable undulating wave in the eave line of the building, especially on the north elevation of the building. This displacement could be due to several factors. The most likely explanation given the condition of the foundation where visible, the wood portions of the foundation have started to rot away and subside, allowing the wall and roof to displace sympathetically.

#### Lateral Force Resisting System

The lateral system of Building 1 is as described in the Executive Summary and is in poor condition. From the access point to the crawlspace, several of the diagonals forming the chevrons in the crawlspace were visible, although it should be confirmed that all of the diagonal braces remain in place and are spaced at maximum 10'-8" apart.

Throughout the building, portions of the knee-brace frames have been cut back, especially the diagonals, to allow for increased storage space. Consequently, there are also several members of the frames showing signs of distress such as splitting (*RE: Figure Sixteen*). Splitting of the remaining elements of the frames prompted the LFRS's poor rating.





Figure Sixteen: Diagonal of a wood lateral frame in Building 1 the end of which is split

### Recommended Treatments

- Remove modern siding and trim.
- Remove 1x6 siding, retain boards which are in good condition.
- Install insulation and water resistant barrier.
- Install new 1x6 tongue and groove siding.
- Install new wood trim at building corners.
- Repaint all exterior wood elements (existing to remain and new).
- Install a 2" concrete topping slab over the west porch or grind the top layer smooth.
- Replace the east and west doors and install new hardware.
- Rehabilitate all windows.
- Seal the edges at all three roof vents.
- Replace damaged / deteriorated floor boards in kind.
- Refinish wood flooring.
- Remove all of the gypsum board wall and ceiling finish and install new.
- Regrade around the building to provide positive drainage away from the structure and its foundations.
- Remove built up soil in contact with wood foundation elements.
- Remove the bottom siding boards and underlying tongue and groove sheathing around the entire building perimeter so that the base of the cripple walls can be inspected and treated.
- Replace wood elements severely affected by rot.
- Repair less severely affected elements, after they are allowed to dry out, with compatible wood-based filler and epoxy.
- Replace deteriorated wood plates atop the concrete footings with pressure treated timbers. Intact timber plates can remain in service provided that they are at least 8" above the final grade elevation or they are treated with borate rods.
- Where the timber plate is supported directly on the soil, underpin with a continuous concrete footing.
- Provide at least three crawlspace access hatches, one at each end of the building and near the middle, so that framing visible in the crawlspaces can be inspected, repaired where damaged, and regularly maintained.

- Remove soil from bottom of interior wood posts and verify that posts are supported by either stone or concrete footings. Where post bases are deteriorated, cut off deteriorated material and re-support on a steel standoff post base that is anchored to an existing or new concrete footing.
- Verify or provide post spacing of 5' maximum under the central, long-axis dropped beam. New posts should be placed in steel post bases that are anchored into new concrete footings.
- Replace in kind any rotted wood elements of the wall, floor and roof framing. Repair split members with sisters of matching depth.
- Confirm that the chevron's diagonal braces in the crawlspace extend beyond the western portion of the building that is currently visible and reinstate where missing.
- Reinstall the diagonal members of the first level frames where they have been removed or are broken.
- Recruit partition walls to the LFRS by sheathing with plywood or gypsum, tying to the roof and floor diaphragms, and by providing a shear resisting element directly below in the crawlspace. The crawlspace element can be a concrete, masonry or plywood sheathed cripple stud shear wall founded on a continuous concrete footing.
- Replace or overlay the 1x horizontal sheathing on the gable end walls with plywood.
- Remove all storage exceeding 40 psf in the building to relieve the floor framing from calculated overstresses.
- Where heavy storage must remain programmatically, strengthen the floor framing and foundations that are tributary to the items being stored.

# CCC MORRISON CAMPUS FOR HISTORICORPS

Google Maps

C470

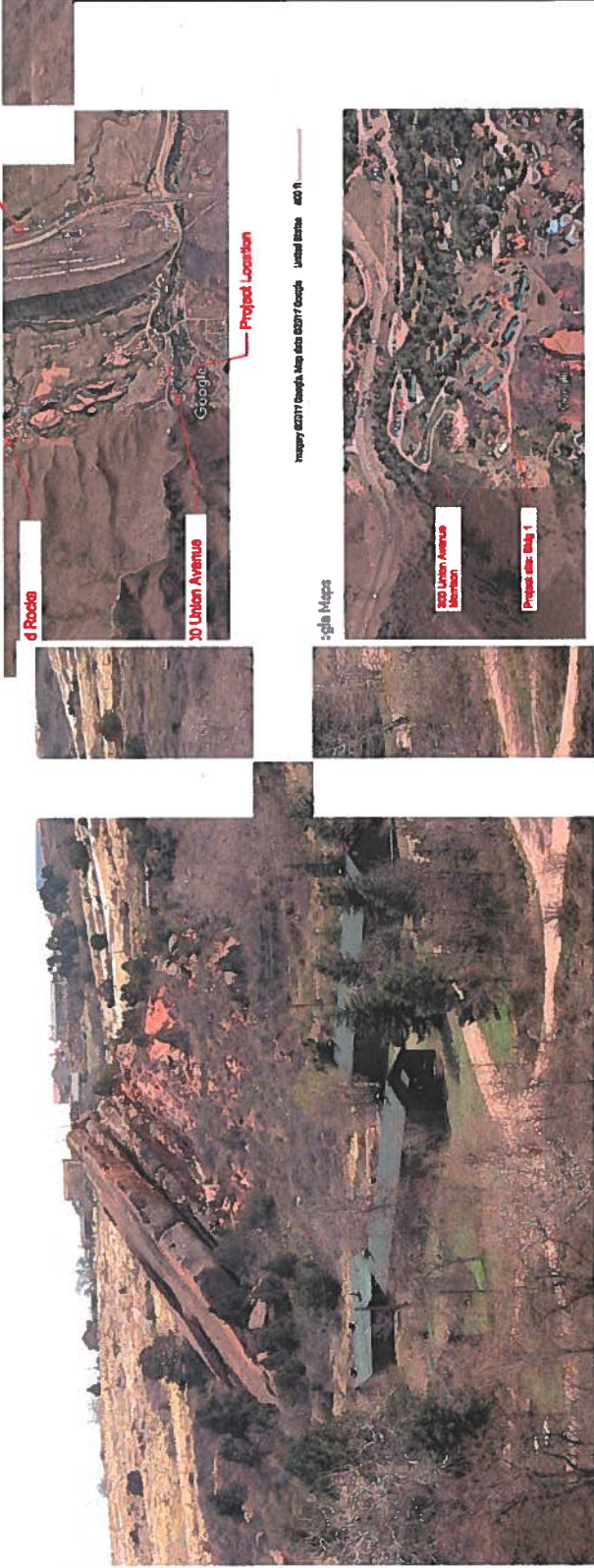


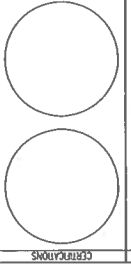
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**CITY AND COUNTY OF DENVER**  
 DEPARTMENT OF PUBLIC WORKS  
 1701 California Street, Suite 1000  
 Denver, CO 80202  
 (303) 861-3100  
 www.denvergov.org

**ARCHITECT**  
 ANDERSON HALLAS ARCHITECTS, PC  
 1701 California Street, Suite 1000  
 Denver, CO 80202  
 (303) 861-3100  
 www.andersonhallas.com

**ENGINEER**  
 SAN ENGINEERING LLC  
 801 W. Mineral Avenue, Suite 200  
 Englewood, CO 80120  
 (303) 853-9014  
 www.sanengineering.com

**CONTRACTOR**  
 HANSON CONSTRUCTION, INC.  
 1701 California Street, Suite 1000  
 Denver, CO 80202  
 (303) 861-3100  
 www.hansonconstruction.com



CERCKCTIONS

KEY PLAN

MARK	DATE	DESCRIPTION
1	12.12.2017	ISSUED FOR PERMIT & CONSTRUCTION
2	01.02.2018	ADDITION 2

REVISION NOTES

## INDEX

1	A000 COVER SHEET	1	ELECTRICAL	1	Provide new roller roofing to match existing. Roofing to include all existing roof areas.
2	A001 CODE SHEET	2	E000 ELECTRICAL COVER SHEET	2	Contractor shall repair existing roofing abutting with new sheathing to match depth of existing (assuming 20% replacement). Provide all associated under-layment and new 1/2" plywood over entire roof surface.
3	C-01 OVERALL UTILITY PLAN	3	E100 ELECTRICAL ONE-LINE & SCHEDULES	3	1. Provide new storm windows and screen windows per per sheet.
4	C-02 PRIVATE WATER & SANITARY	4	E200 ELECTRICAL LIGHTING CONTROLS	4	2. Provide new water line per C-100.
5	C-03 UTILITY DETAILS	5	E300 ENERGY COMPLIANCE DOCUMENTS	5	3. Provide new cabinets per A-400.
6	D100 DEMO PLANS	6	ADD ALTERNATES		
7	A100 FLOOR PLANS				
8	A200 REFLECTED CEILING PLAN				
9	A300 SCHEDULES				
10	A400 EXTERIOR FINISHES / INTERIOR ELEVATIONS				
11	A500 BUILDING SECTIONS / DETAILS				
12	A600 ELEVATIONS / DETAILS				
13	S000 GENERAL NOTES				
14	S101 FOUNDATION FIRST FLOOR FRAMING				
15	S102 ROOF FRAMING PLAN				
16	S200 DETAILS				
17	S300 DETAILS				
18	S400 DETAILS				
19	S500 DETAILS				
20	S600 DETAILS				
21	M0.0 MECHANICAL SCHEDULES & NOTES				
22	M0.1 MECHANICAL DETAILS				
23	M0.2 MECHANICAL COME-UP				
24	M1.0 MECHANICAL FLOOR PLAN				
25	M1.1 MECHANICAL SECTIONS				
26	P0.0 PLUMBING COVER SHEET				
27	P1.0 PLUMBING FLOOR PLAN				

## DIRECTORY

**CLIENT**  
 City of Denver  
 Parks and Recreation  
 Brad Eckert - Mountain Parks Planner  
 Brad.Eckert@denvergov.org

**ARCHITECT**  
 Anderson Hallas Architects, PC  
 715 Fourteenth Street  
 Golden, CO 80401  
 Andrew Dickstein-Enkha, AIA, Project Architect  
 Phone: 303.278.4378  
 andrew.dickstein@andah.com  
 andy.dickstein@andah.com

**STRUCTURAL**  
 JVA, Inc  
 1319 Spruce Street  
 Boulder, CO 80502  
 Chris Brannon  
 Phone: 303.444.1951  
 jbrannon@jva.com  
 colton@jva.com

**MECHANICAL**  
 360 Engineering  
 1600 Jackson Street, Suite 360  
 Denver, CO 80202  
 Dennis PE, LEED BD+C, CSA  
 Bryan Jack, LEED AP BD+C  
 Keli Walker, PE  
 Cole Luffner  
 Phone: 303.892.5568  
 dennis@360eng.com  
 bryan@360eng.com  
 keli@360eng.com  
 cole@360eng.com

**ELECTRICAL**  
 AE Design  
 1900 W. 38th Street No. 205  
 Thornton, CO 80229  
 Phone: 720.287.0100 ext235  
 anderson@historicorps.org

**LANDSCAPE**  
 DHM Design  
 200 S. Broadway, Suite 200  
 Salt Lake, UT 84121  
 Bill Neumann  
 Phone: 801.733-5900  
 J.R. Anzer  
 JR@Parametric-Cool.com

**COST ESTIMATOR**  
 Paramark, Inc  
 200 S. Broadway, Suite 200  
 Salt Lake, UT 84121  
 Phone: 801.733-5900  
 J.R. Anzer  
 JR@Parametric-Cool.com

**CIVIL**  
 San Engineering LLC  
 801 W. Mineral Avenue, Suite 200  
 Englewood, CO 80120  
 Patrick Linsalata  
 Phone: 303.853.9014  
 psalinsalata@sanengineering.com  
 psalinsalata@sanengineering.com

**PHOTOGRAPHER**  
 Historicorps  
 1600 W. 38th Street Ste 103  
 Thornton, CO 80229  
 Phone: 720.287.0100 ext235  
 anderson@historicorps.org

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DATE	DESCRIPTION
12.12.2017	ISSUED FOR PERMIT & CONSTRUCTION
01.02.2018	ADDITION 2

**CITY AND COUNTY OF DENVER**  
 DEPARTMENT OF PUBLIC WORKS  
 RECEIVING OFFICER OF PUBLIC WORKS  
 CITY OF DENVER  
 PROJECT NO. 17-117-017  
 SHEET NO. 27 OF 37

**PROJECT NO.** 17-117-017  
**SHEET NO.** 27 OF 37  
**DATE** 01/17/2018  
**SCALE** 1/8" = 1'-0"

# Building Code Analysis

2015 INTERNATIONAL BUILDING CODE  
2015 INTERNATIONAL ENERGY CONSERVATION CODE

## CCC Morrison

1. Occupancy  
2. Construction Type V-5  
3. Table 602 Fire Resistance Rating Requirements for structure walls based on the Separation Distance  
4. Table 602 Fire Resistance Rating Requirements for structure walls based on the Separation Distance  
5. Table 602 Fire Resistance Rating Requirements for structure walls based on the Separation Distance

Direction	Separation	Code Minimum (ft.)	Proposed (ft.)	Notes
East	30'-0"	0	0	No Limit
West	30'-0"	0	0	No Limit
North	30'-0"	0	0	No Limit
South	30'-0"	0	0	No Limit

6. Vertical Clearances Table 104  
7. Table 104 Vertical Clearances  
8. Table 104 Vertical Clearances

Direction	Clearance	Code Minimum (ft.)	Proposed (ft.)	Notes
East	30'-0"	No Limit	No Limit	No Limit
West	30'-0"	No Limit	No Limit	No Limit
North	30'-0"	No Limit	No Limit	No Limit
South	30'-0"	No Limit	No Limit	No Limit

Item	Code	Actual	Notes
1. Occupancy	200	200	
2. Construction Type	V-5	V-5	
3. Fire Resistance Rating	2.00	2.00	
4. Fire Resistance Rating	2.00	2.00	
5. Fire Resistance Rating	2.00	2.00	
6. Fire Resistance Rating	2.00	2.00	
7. Fire Resistance Rating	2.00	2.00	
8. Fire Resistance Rating	2.00	2.00	
9. Fire Resistance Rating	2.00	2.00	
10. Fire Resistance Rating	2.00	2.00	
11. Fire Resistance Rating	2.00	2.00	
12. Fire Resistance Rating	2.00	2.00	
13. Fire Resistance Rating	2.00	2.00	
14. Fire Resistance Rating	2.00	2.00	
15. Fire Resistance Rating	2.00	2.00	
16. Fire Resistance Rating	2.00	2.00	
17. Fire Resistance Rating	2.00	2.00	
18. Fire Resistance Rating	2.00	2.00	
19. Fire Resistance Rating	2.00	2.00	
20. Fire Resistance Rating	2.00	2.00	

9. Occupancy Separations  
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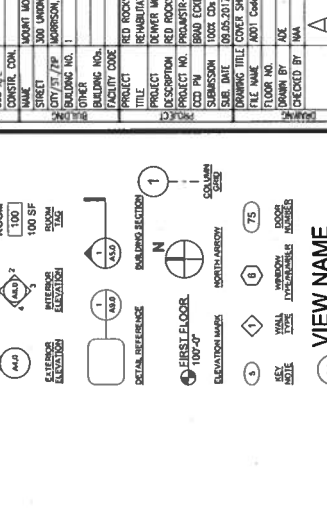
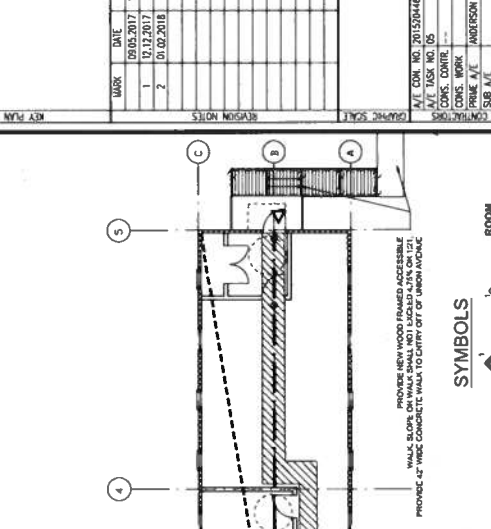
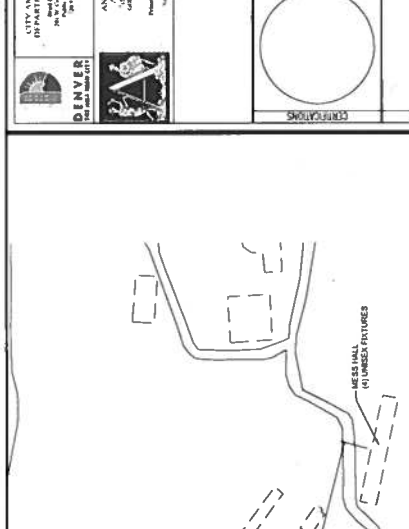
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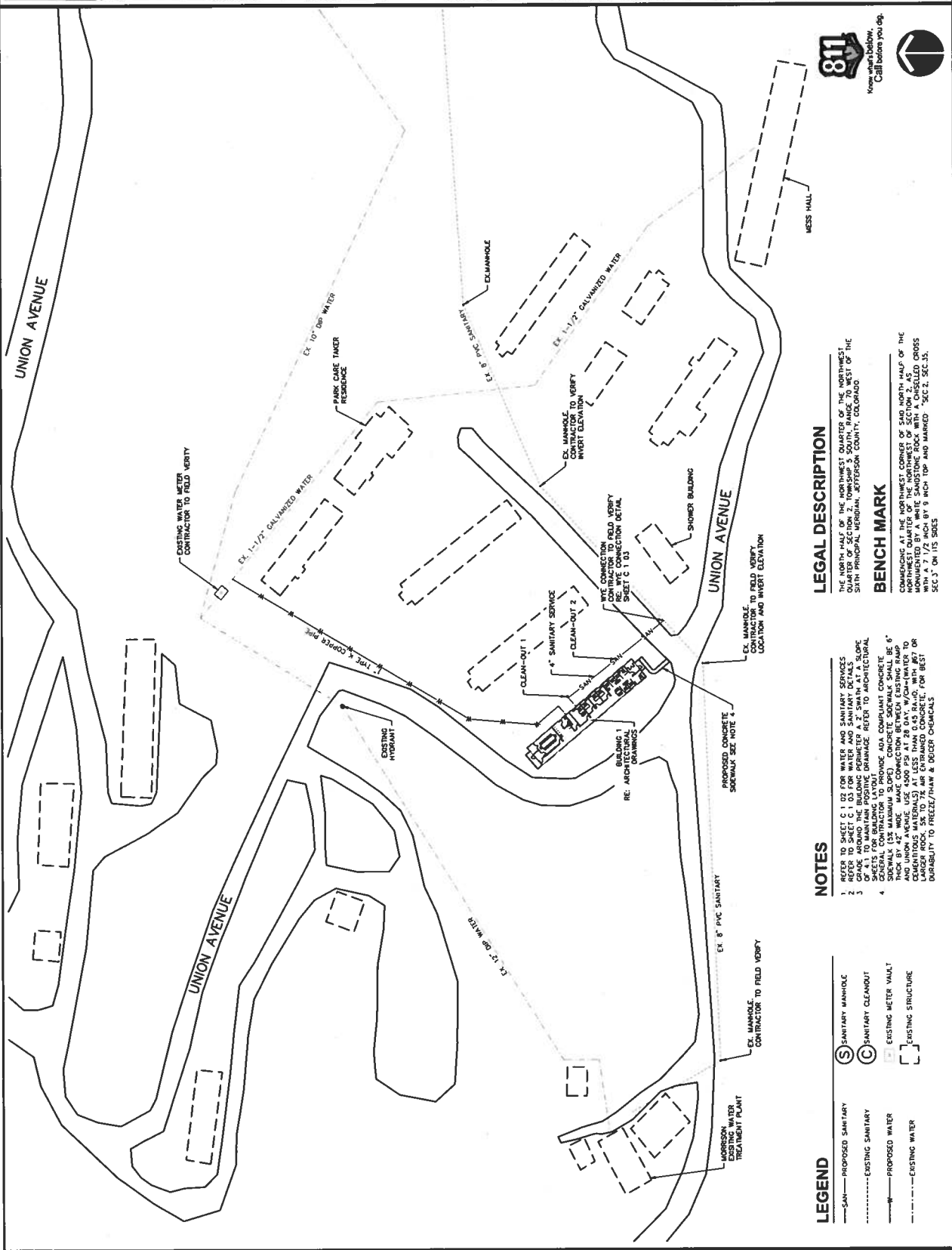


Room	Area (SF)	Volume (CF)	Notes
100	100	100	PROVIDED
101	100	100	PROVIDED
102	100	100	PROVIDED
103	100	100	PROVIDED
104	100	100	PROVIDED
105	100	100	PROVIDED
106	100	100	PROVIDED
107	100	100	PROVIDED
108	100	100	PROVIDED
109	100	100	PROVIDED
110	100	100	PROVIDED
111	100	100	PROVIDED
112	100	100	PROVIDED
113	100	100	PROVIDED
114	100	100	PROVIDED
115	100	100	PROVIDED
116	100	100	PROVIDED
117	100	100	PROVIDED
118	100	100	PROVIDED
119	100	100	PROVIDED
120	100	100	PROVIDED

MARK	DATE	DESCRIPTION
1	10/12/2017	ISSUED FOR PERMIT & CONSTR
2	01/02/2018	ADDENDUM 1
		ADDENDUM 2

NO.	REVISION	DATE	DESCRIPTION
1	ISSUED FOR PERMIT & CONSTR	10/12/2017	
2	ADDENDUM 1	01/02/2018	
3	ADDENDUM 2	01/02/2018	

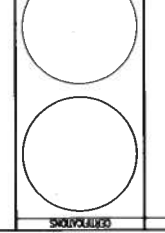
NO.	REVISION	DATE	DESCRIPTION
1	ISSUED FOR PERMIT & CONSTR	10/12/2017	
2	ADDENDUM 1	01/02/2018	
3	ADDENDUM 2	01/02/2018	



**CITY AND COUNTY OF DENVER**  
 DEPARTMENT OF PUBLIC WORKS  
 1501 Sherman Street, Room 1504  
 DENVER, CO 80202

**DENVER**  
 1501 Sherman Street, Room 1504  
 DENVER, CO 80202

MARK	DATE	DESCRIPTION
1	08/15/2017	LOGGED FOR PERMIT & CONSTR
	12/12/2017	ADDENDUM 1



PROJECT NO.	PROJECT TITLE

DATE	DATE	DATE	DATE
08/15/2017	08/15/2017	08/15/2017	08/15/2017

PROJECT NO.	PROJECT TITLE

CITY/STATE	CITY/STATE

CONTRACTOR	CONTRACTOR

DATE	DATE

ISSUED BY	ISSUED BY

CHECKED BY	CHECKED BY

DATE DRAFTED	DATE DRAFTED
08/29/2017	08/29/2017



**LEGAL DESCRIPTION**  
 THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 30, TOWNSHIP 3 SOUTH, RANGE 70 WEST OF THE SIXTH PRINCIPAL MERIDIAN, JOFFERSON COUNTY, COLORADO

**BENCH MARK**  
 A BENCH MARK WAS SET IN THE CORNER OF SEASIDE BY MAP OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 30, AS MONUMENTED BY A WHITE SANDSTONE ROCK WITH A CHELLED CROSS MARKED BY 9 INCH TOP AND MARKED - SEC 3 - SEC 35.

- NOTES**
- 1 REFER TO SHEET C 1 02 FOR WATER AND SANITARY SERVICES GRADE AROUND THE BUILDING PERIMETER A 2' SWAN AT A SLOPE OF 1% TO MAINTAIN PROPER DRAINAGE. REFER TO ARCHITECTURAL SHEETS FOR FURTHER DETAILS.
  - 2 GENERAL CONTRACTOR TO PROVIDE ADA COMPLIANT CONCRETE SIDEWALK TO PROVIDE MAXIMUM CLEARANCE BETWEEN EXISTING RAMP AND UNION AVENUE. USE 4000 PSI AT 28 DAY, W/C=18 (WATER TO CEMENTitious MATERIAL) 15% ESTERED BLENDED GRANULITE FOR BEST DURABILITY TO FREEZE/THAW & DECEIT CHEMICALS.

- LEGEND**
- SAN- PROPOSED SANITARY
  - EXISTING SANITARY
  - PROPOSED WATER
  - EXISTING WATER
  - (S) SANITARY MANHOLE
  - (C) SANITARY CLEANOUT
  - [ ] EXISTING METER VAULT
  - [ ] EXISTING STRUCTURE

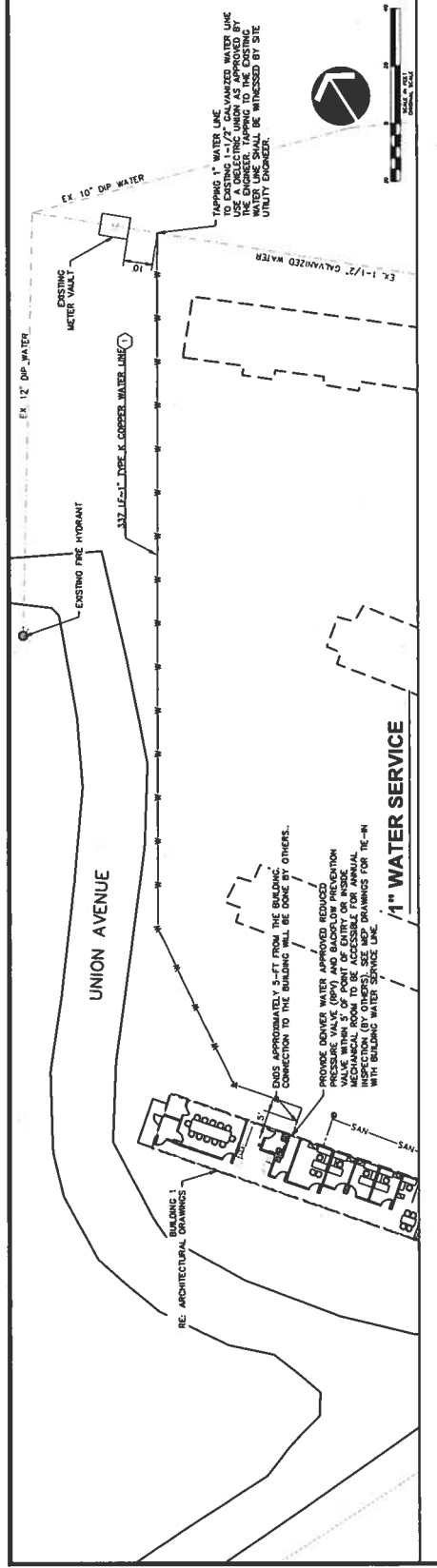
**CITY OF DENVER**  
 CITY ENGINEER  
 DENVER WATER DEPARTMENT  
 1500 BROADWAY, 15TH FLOOR  
 DENVER, CO 80202  
 PHONE: 303.321.1422  
 WWW.DENVER.GOV

**ANDREASINI ITALIAN ARCHITECTS, P.C.**  
 1500 BROADWAY, 15TH FLOOR  
 DENVER, CO 80202  
 PHONE: 303.321.1422  
 WWW.ANDREASINIARCHITECTS.COM



NO.	DATE	DESCRIPTION
1	12.13.2017	ISSUED FOR PERMITS & CONSTRUCTION 1

PROJECT NO.	16-1138048
SUBJECT	CONCRETE SIDEWALK AND SANITARY SERVICE
CLIENT	CITY OF DENVER
ENGINEER	ANDREASINI ITALIAN ARCHITECTS, P.C.
DESIGNER	ANDREASINI ITALIAN ARCHITECTS, P.C.
DATE	08/14/2017
DRAWING NO.	C-101
DATE	08/14/2017
SHEET NO.	22
SHEET TOTAL	22
DRAWN BY	CS
CHECKED BY	CS
DATE	08/14/2017
PROJECT NO.	16-1138048



QUANTITY OF MATERIAL - WATER LINE			
DESCRIPTION	UNIT	QUANTITY	NOTE
TAPPING TO EX WATER LINE	EA	1	
1 IN. TYPE 'K' COPPER PIPE	LF	337	
1 IN. BACKFLOW PREVENTER	EA	1	BY OTHERS
1 IN. PRESSURE REDUCING VALVE	EA	1	BY OTHERS

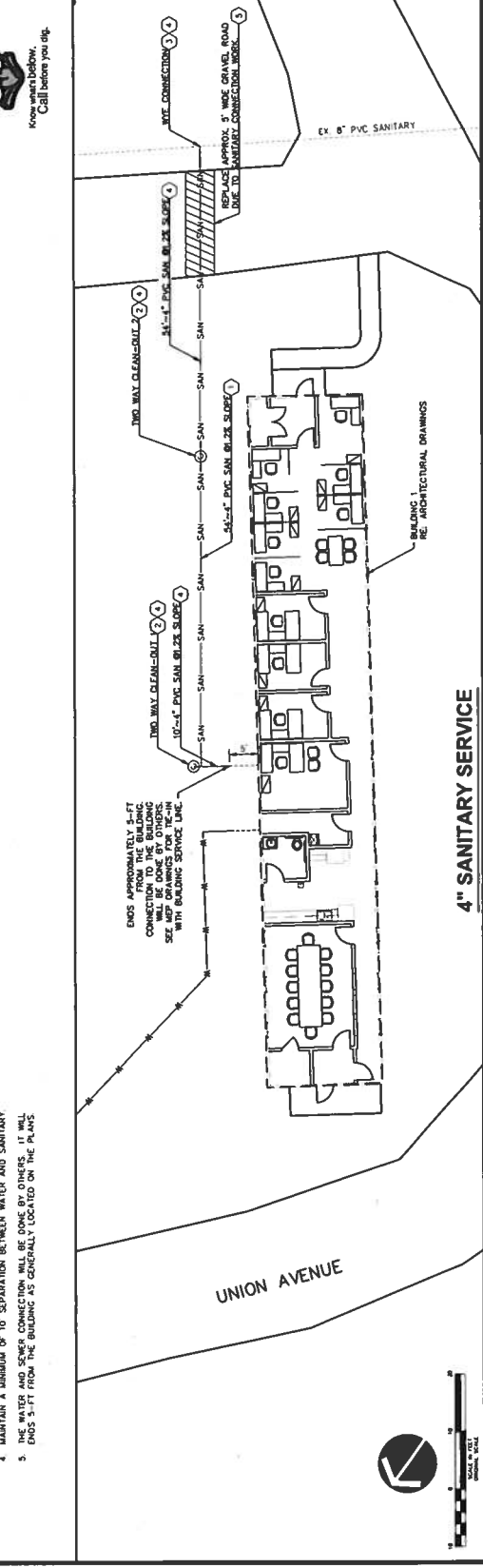
QUANTITY OF MATERIAL - SANITARY LINE			
DESCRIPTION	UNIT	QUANTITY	NOTE
4 IN. PVC PIPE	LF	118	
2 WAY CLEANOUT	EA	2	
WYE CONNECTION	EA	1	

QUANTITY OF MATERIAL - CONCRETE SIDEWALK			
DESCRIPTION	UNIT	QUANTITY	NOTE
6" x 12" CONCRETE SIDEWALK	CY	5	MATCH EX THICKNESS
APPROX 5" WIDE GRAVEL ROAD REPLACEMENT	SY	12	MATCH EXISTING

- DETAILS**
- 1) TYPICAL WATER TRENCH DETAIL/C-103
  - 2) CLEAN-OUT DETAIL/C-103
  - 3) WYE CONNECTION DETAIL/C-103
  - 4) TYPICAL SANITARY TRENCH DETAIL/C-103
  - 5) TRENCH PATCH DETAIL/C-103

- LEGEND**
- SAN - PROPOSED SANITARY
  - EXISTING SANITARY
  - PROPOSED WATER
  - EXISTING WATER
  - SANITARY MANHOLE
  - SANITARY CLEANOUT
  - EXISTING METER VAULT
  - EXISTING STRUCTURE

- NOTES**
1. WATER SERVICE LINE TO BE AT A MINIMUM DEPTH OF 4.5'
  2. REFER TO SHEET C-103 FOR WATER AND SANITARY DETAILS
  3. CONTRACTOR TO FIELD VERIFY UTILITY LOCATIONS AND ITS INVERT ELEVATIONS PRIOR TO CONSTRUCTION
  4. MAINTAIN A MINIMUM OF 10' SEPARATION BETWEEN WATER AND SANITARY.
  5. THE WATER AND SEWER CONNECTION WILL BE DONE BY OTHERS. IT WILL ENDS 5'-FT FROM THE BUILDING AS CORRALY LOCATED ON THE PLANS



**SANITARY NOTES**

1. SANITARY SEWER CONNECTIONS SHALL BE MADE BY ANY OF THE FOLLOWING METHODS, UNLESS OTHERWISE SPECIFIED BY THE CONTRACT DOCUMENTS:

- a. MECHANICAL JOINT
- b. GASKETED FITTINGS
- c. BUTT WELD
- d. FURNISHED AS NOTED

2. SANITARY SEWER CONNECTIONS SHALL BE MADE BY MECHANICAL JOINTS UNLESS OTHERWISE SPECIFIED BY THE CONTRACT DOCUMENTS.

3. SANITARY SEWER CONNECTIONS SHALL BE MADE BY MECHANICAL JOINTS UNLESS OTHERWISE SPECIFIED BY THE CONTRACT DOCUMENTS.

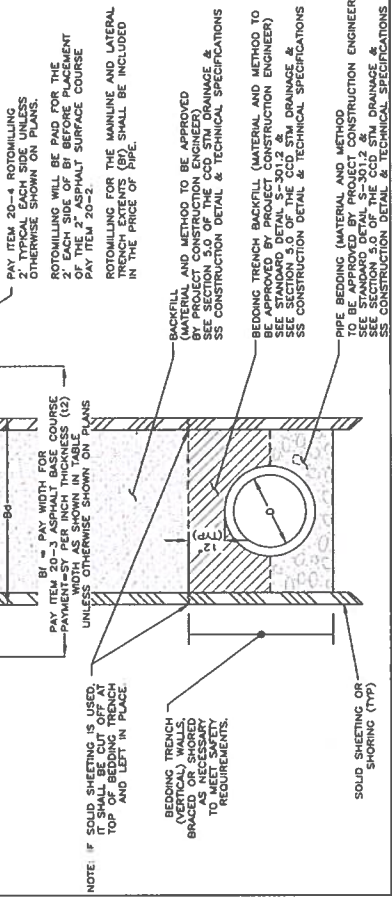
4. SANITARY SEWER CONNECTIONS SHALL BE MADE BY MECHANICAL JOINTS UNLESS OTHERWISE SPECIFIED BY THE CONTRACT DOCUMENTS.

**WATER NOTES**

1. PIPES, FITTINGS, VALVES, SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA C200.
2. WATER SERVICE LINE PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA C200.
3. BACKFILL AND COMPACTION SHALL BE DONE TO THE SAME STANDARDS AS THE PIPE.
4. THE PIPE JOINT SHALL BE APPROVED BY THE OWNER.
5. THE PIPE JOINT SHALL BE APPROVED BY THE OWNER.

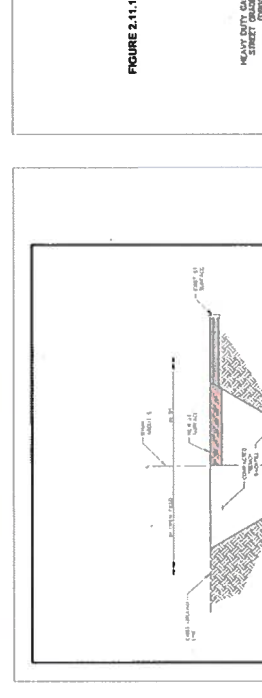
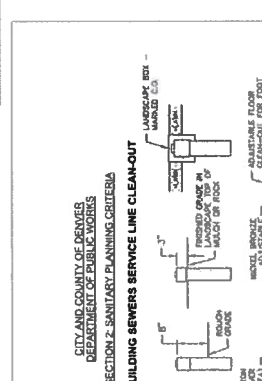
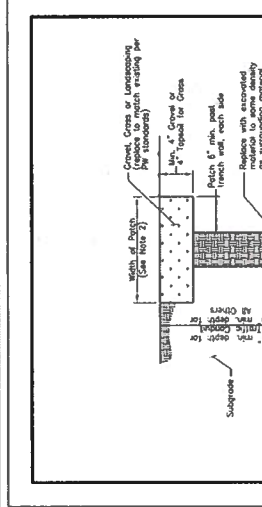
**SANITARY NOTES**

1. SANITARY SEWER CONNECTIONS SHALL BE MADE BY ANY OF THE FOLLOWING METHODS, UNLESS OTHERWISE SPECIFIED BY THE CONTRACT DOCUMENTS:



**4 SANITARY TRENCHING DETAIL**

**5 TRENCH PATCH DETAIL**



**1 TYPICAL TRENCH DETAIL**

**2 CLEAN-OUT DETAIL**

**3 WYE CONNECTION DETAIL**

**4 SANITARY TRENCHING DETAIL**

**5 TRENCH PATCH DETAIL**

**CITY AND COUNTY OF DENVER**  
 DEPARTMENT OF PUBLIC WORKS  
 SECTION 2. SANITARY PLANNING CRITERIA

**FIGURE 2.11.1 - BUILDING SEWERS SERVICE LINE CLEAN-OUT**

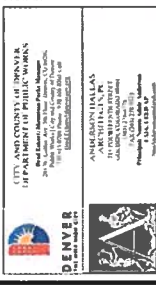
**CITY AND COUNTY OF DENVER**  
 DEPARTMENT OF PUBLIC WORKS

**2 CLEAN-OUT DETAIL**

**3 WYE CONNECTION DETAIL**

**4 SANITARY TRENCHING DETAIL**

**5 TRENCH PATCH DETAIL**

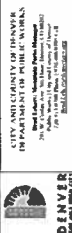


NO.	DATE	DESCRIPTION
1	12/12/2017	ISSUED FOR PERMIT & CONSTRUCTION

NO.	DATE	DESCRIPTION
1	12/12/2017	ISSUED FOR PERMIT & CONSTRUCTION

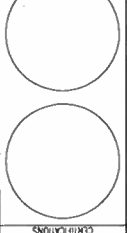
NO.	DATE	DESCRIPTION
1	12/12/2017	ISSUED FOR PERMIT & CONSTRUCTION

FILE NO.	12.12.2017
PROJECT NO.	2017.001.001
PROJECT NAME	REDEVELOPMENT OF 1000 WEST COLFAX AVENUE, DENVER, CO
DRAWING NO.	2017.001.001
DRAWING TITLE	REDEVELOPMENT OF 1000 WEST COLFAX AVENUE, DENVER, CO
DRAWING DATE	08/14/2017
DRAWING BY	C-101 Overall Utilities.dwg
DATE ISSUED	08/14/2017
DRAWING SCALE	AS SHOWN
DRAWING NO.	1
SHEET NO.	5
TOTAL SHEETS	5



**ANDERSON HALLAN ARCHITECTS, PC**  
 1415 CHERRY STREET, SUITE 100  
 DENVER, CO 80202  
 PHONE: 303.733.1111  
 WWW.ANDERSONHALLAN.COM

**ANDERSON HALLAN ARCHITECTS, PC**  
 1415 CHERRY STREET, SUITE 100  
 DENVER, CO 80202  
 PHONE: 303.733.1111  
 WWW.ANDERSONHALLAN.COM



CERTIFICATIONS

KEY PLAN

NO.	DATE	DESCRIPTION
1	09.05.2017	ISSUED FOR PERMIT & CONSTR.
2	10.12.2018	ADDENDUM 2

REVISION NOTES

GRAPHIC SCALE

CONTRACTORS

A/E: CON. NO. 20152944E  
 A/E: TASK NO. 05  
 COMS. CONTR. [ ]  
 PRIME A/E: ANDERSON HALLAN ARCHITECTS, PC  
 SUB A/E: [ ]  
 CONTRACTOR: [ ]  
 STREET: 1501 W. WASHINGTON AVENUE  
 CITY/STATE/ZIP: DENVER, CO 80202  
 BUILDING NO.: 1  
 OTHER: [ ]  
 BUILDING CODE: [ ]  
 FACILITY CODE: [ ]

PROJECT

REDEMPTION

LOWER MOUNTAIN PARKS

PROJECT NO. PROLAMSTER-20080473

COO. PM. BRAD EXERT

SUBMISSION LOOK ODR FOR PERMIT & CONSTRUCTION

SUB. DATE: 09.05.2017

DRAWING TITLE: DEMO PLANS

FILE NAME: D:\Demos\Plans.dwg

FLOOR NO. [ ]

DATE DATED: 09/11/2017

DESIGNED BY: [ ]

SHEET SIZE: 22 X 34

DATE: [ ]

SCALE: [ ]

DRAWING NO. [ ]

SHEET 6 OF 32

**GENERAL DEMO ROOF NOTES**

- REMOVE EXISTING ROLLED ROOFING DOWN TO SUBSTRATE.
- REMOVE ALL FLASHING AND ASSOCIATED ACCESSORIES.
- REMOVE ALL EXISTING ROOFING MATERIALS AND REPLACE WITH NEW ROOFING MATERIALS IN ACCORDANCE WITH CURRENT CODES.

**DEMO ROOF KEYNOTES**

- REMOVE AND SALVAGE EXISTING ROOF VENTILATORS

**GENERAL DEMO PLAN NOTES**

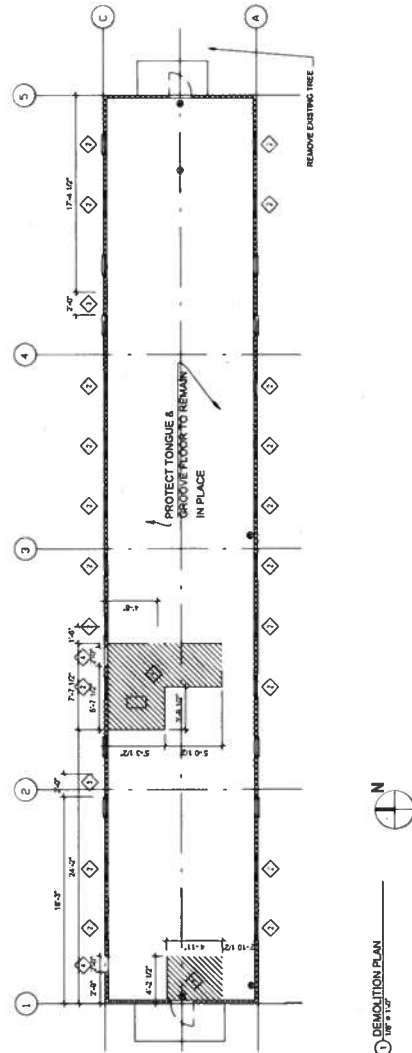
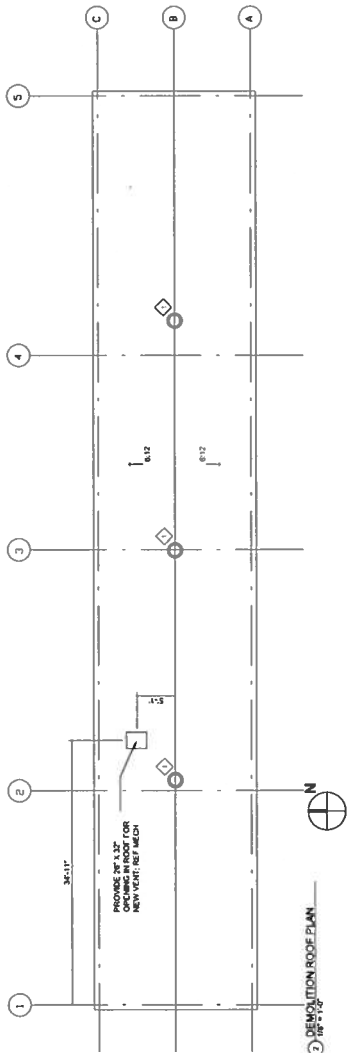
- ALL DEMOLITION ACTIVITIES SHALL BE EXECUTED IN A MANNER WHICH PROTECTS ANY WALL.
- ANY QUESTIONS AS TO SALVAGE OF AN EXISTING ON-SITE OR STORED ITEM SHALL BE DIRECTED TO THE ARCHITECT IMMEDIATELY PRIOR TO DEMOLITION OF THE ITEM.
- REMOVE ALL CONCRETE WORK TO BE DEMOLISHED.
- REMOVE AND SALVAGE ALL WOOD TRIM, LAMBS AND STORED MATERIALS TO BE DEMOLISHED. THEY WILL BE REINSTALLED IN CURRENT LOCATION.
- REMOVE ALL EXISTING ROOFING MATERIALS AND REPLACE WITH NEW ROOFING MATERIALS IN ACCORDANCE WITH CURRENT CODES.
- FOR UTILITY, MECHANICAL, OR SOLUTION SPECIES, REFER TO MEP DRAWINGS.
- REMOVE ALL EXISTING ROOFING MATERIALS AND REPLACE WITH NEW ROOFING MATERIALS IN ACCORDANCE WITH CURRENT CODES.
- REMOVE AND SALVAGE EXTERIOR WOOD COMPOSITE SIDING AND TONGUE AND GROOVE Siding.
- REMOVE AND SALVAGE EXTERIOR WOOD COMPOSITE SIDING AND TONGUE AND GROOVE Siding TO PROVIDE ACCESS FOR STRUCTURAL STABILIZATION @ NORTH & SOUTH ELEVATION.

**DEMO PLAN KEYNOTES**

- REMOVE AND SALVAGE EXISTING HARDWOOD FLOORING. REF LEGEND FOR EXTENTS.
- REMOVE WOOD SIDING AT WINDOW LOCATIONS - APP. 2" UP X 2" DOWN @ 24" WINDOWS.
- REMOVE EXISTING EXTERIOR SIDING AND FRAMING TO PROVIDE NEW CHASEWAY ACCESS. 24" W X 24" H.
- PROVIDE NEW WALL PENETRATIONS FOR NEW MECH REF MECH.

**LEGEND**

- REMOVE AND SALVAGE 4" x 8" EXISTING TONGUE AND GROOVE FLOORING
- DEMO WOOD SIDING AT WINDOW LOCATIONS, APPROXIMATELY 2" UP X 2" DOWN
- V.I.F.
- DEMO DOOR
- EXTERIOR MATERIAL REMOVAL AND SALVAGE





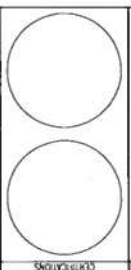




CITY AND COUNTY OF DENVER  
 DEPARTMENT OF PUBLIC WORKS  
 1400 Larimer Street, Suite 1000, Denver, CO 80202  
 Phone: 303.555.3000  
 Fax: 303.555.3001  
 Email: info@denvergov.org



ANDERSON HALLAS  
 ARCHITECTS  
 1400 Larimer Street, Suite 1000  
 Denver, CO 80202  
 Phone: 303.733.7333  
 Fax: 303.733.7334  
 Email: info@andersonhallas.com



KEY PLAN

WORK	DATE	DESCRIPTION
1	09.05.2017	ISSUED FOR PERMIT & CONSTR.
2	12.12.2017	ADDITION 1
3	01.02.2018	ADDITION 2

A/E	DATE	DESCRIPTION
1	09.05.2017	ISSUED FOR PERMIT & CONSTR.
2	12.12.2017	ADDITION 1
3	01.02.2018	ADDITION 2

PROJECT NO. 201320416  
 TASK NO. 05  
 CONSTRUCTION NO. ---  
 PROJECT NAME: ANDERSON HALLAS ARCHITECTS, PC  
 PROJECT ADDRESS: 1400 LARIMER STREET, DENVER, CO 80202  
 CLIENT: CITY AND COUNTY OF DENVER  
 CONTRACT NO. ---  
 CONTRACT DATE: ---

DATE: 09/05/2017  
 TIME: 10:00 AM  
 DRAWN BY: JWA  
 CHECKED BY: JWA  
 DATE PRINTED: 09/14/2017  
 SHEET NO.: 22 X 34  
 SHEET SIZE: 22 X 34

DATE: 09/05/2017  
 TIME: 10:00 AM  
 DRAWN BY: JWA  
 CHECKED BY: JWA  
 DATE PRINTED: 09/14/2017  
 SHEET NO.: 22 X 34  
 SHEET SIZE: 22 X 34

DATE: 09/05/2017  
 TIME: 10:00 AM  
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 CHECKED BY: JWA  
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 SHEET SIZE: 22 X 34

**GENERAL RCP NOTES**

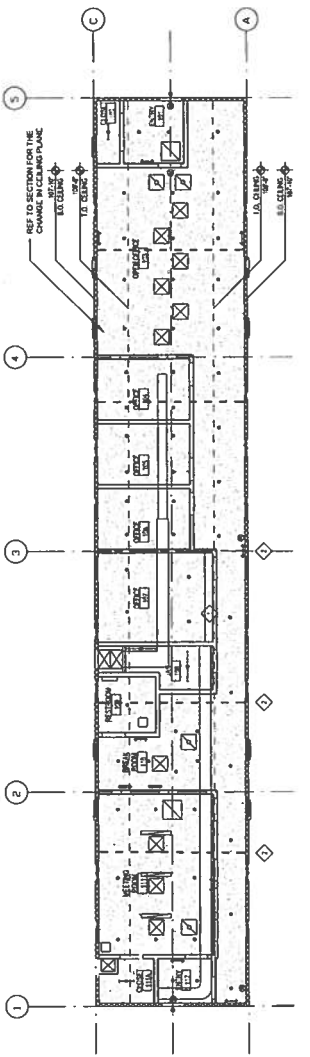
- PROVIDE NEW 1/2" DWS CEILING THROUGHOUT
- PROVIDE NEW 1/2" DWS CEILING THROUGHOUT
- PROVIDE NEW 1/2" DWS CEILING THROUGHOUT
- REFER TO ELECTRICAL AND MEP FOR ALL CEILING
- SEE SECTIONS FOR INSULATION STRATEGIES AND LOCATION

**KEYNOTES**

- EMERGENCY LIGHT
- WALL MOUNTED LIGHT
- EXISTING TRUSS TO REMAIN IN PLACE
- NEW 1/2" DWS - PT
- 2X2 DEFUSER - REF. MECHANICAL
- 300R SALVAGED OFFUSER
- 1/4" SURFACE MOUNTED LED
- 1/4" SURFACE MOUNT LED
- LED DOWNLIGHT FIXTURES SHALL BE 2X POTENTIAL CEILING
- MECH FAN REF MECH

**LEGEND**

- EMERGENCY LIGHT
- WALL MOUNTED LIGHT
- EXISTING TRUSS TO REMAIN IN PLACE
- NEW 1/2" DWS - PT
- 2X2 DEFUSER - REF. MECHANICAL
- 300R SALVAGED OFFUSER
- 1/4" SURFACE MOUNTED LED
- 1/4" SURFACE MOUNT LED
- LED DOWNLIGHT FIXTURES SHALL BE 2X POTENTIAL CEILING
- MECH FAN REF MECH



REFLECTED CEILING PLAN

1/4" DWS



**CITY OF DENVER**  
 DEPARTMENT OF INFORMATION TECHNOLOGY  
 1700 W. WASHINGTON AVENUE, SUITE 300  
 DENVER, CO 80202  
 PHONE: (303) 861-3000  
 WWW.DENVER.GOV

**ANDERSON HALLAS**  
 ARCHITECTS, P.C.  
 1400 W. WASHINGTON AVENUE, SUITE 300  
 DENVER, CO 80202  
 PHONE: (303) 733-1100  
 WWW.ANDERSONHALLAS.COM

DATE	DESCRIPTION
06/15/2017	ISSUED FOR PERMIT & CONSTR
12/22/2017	REVISION 1
01/02/2018	REVISION 2

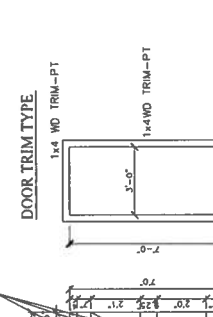
NO.	DATE	DESCRIPTION
1	06/15/2017	ISSUED FOR PERMIT & CONSTR
2	01/02/2018	REVISION 2

**ROOM FINISH SCHEDULE**

NO.	ROOM NAME	FLOOR	WALLS			CEILING	NOTES
			NORTH	EAST	WEST		
101	ENTRY	WD	WD	PT	PT	PT	
102	CLOSET	WD	WD	PT	PT	PT	
103	OFFICE	WD	WD	PT	PT	PT	
104	OFFICE	WD	WD	PT	PT	PT	
105	OFFICE	WD	WD	PT	PT	PT	
106	OFFICE	WD	WD	PT	PT	PT	
107	OFFICE	WD	WD	PT	PT	PT	
108	JAN.	MARBLE/CMU	FRP 48"	FRP 48"	FRP 48"	PT	FRP TO 48" ONB AND PT ABOVE
109	RESTROOM	MARBLE/CMU	WD	PT	PT	PT	FRP UP TO 48" AFT
110	BREAK ROOM	WD	WD	PT	PT	PT	
111	MEETING ROOM	WD	WD	PT	PT	PT	
112	CLOSET	WD	WD	PT	PT	PT	
113	ENTRY	MARBLE/CMU	WD	PT	PT	PT	

**GENERAL FINISH NOTES**

- PROTECT ALL EXISTING FLOORING TO REMAIN. GENTLY SAND ALL WOOD FLOOR SURFACES. FILL ALL GAPS, COAT WITH 2 COATS CLEAR FINISH.
- ALL NEW WALLS, PROVIDE 1/2" WOOD BASE BOARD TO MATCH EXISTING. CLEAR COAT WOOD BASE.
- BRIDGE FRP ON W/ WALL WITH 3/8" OF PLUMBING PUTTY. SET INTERIOR ELEVATIONS.
- ALL EXTERIOR WALLS SHALL BE 8" W/ INSULATION AND MARBLE/CMU FINISH.
- ALL CEILING BOARD SHALL BE 5/8" W/ INSULATION AND MARBLE/CMU FINISH.
- ALL NEW WOOD BASE BOARD TO MATCH EXISTING PROFILE & HEIGHT. NEW WOOD BASE TO BE PAINT GRADE - PRIME & PAINT



**DOOR SCHEDULE**

DOOR NUMBER	ROOM NAME	TYPE	MATERIAL	FINISH	SIZE	THICKNESS	CLASS	GLASS		FRAME		DETAILS
								W	H	JAMB	HEAD	
101	ENTRY 101	X	D	WD	PT	3'-0"	175	AA	WD	PT	PEMO	NEW THRESHOLD SET IN SCAWANT
102	ENTRY 101	X	C	WD	PT	5'-0"	175	AA	WD	PT	PEMO	NEW THRESHOLD SET IN SCAWANT
103	ENTRY 101	X	B	WD	PT	5'-0"	175	AA	WD	PT	PEMO	NEW THRESHOLD SET IN SCAWANT
104	OFFICE 104	X	B	WD	PT	3'-0"	175	AA	WD	PT	PEMO	NEW THRESHOLD SET IN SCAWANT
105	OFFICE 105	X	B	WD	PT	3'-0"	175	AA	WD	PT	PEMO	NEW THRESHOLD SET IN SCAWANT
106	OFFICE 106	X	B	WD	PT	3'-0"	175	AA	WD	PT	PEMO	NEW THRESHOLD SET IN SCAWANT
107	OFFICE 107	X	B	WD	PT	3'-0"	175	AA	WD	PT	PEMO	NEW THRESHOLD SET IN SCAWANT
108	JAN. 108	X	A	WD	PT	3'-0"	175	AA	WD	PT	PEMO	NEW THRESHOLD SET IN SCAWANT
109	RESTROOM 109	X	A	WD	PT	3'-0"	175	AA	WD	PT	PEMO	NEW THRESHOLD SET IN SCAWANT
110	MEETING ROOM 110	X	B	WD	PT	3'-0"	175	AA	WD	PT	PEMO	NEW THRESHOLD SET IN SCAWANT
111	MEETING ROOM 111	X	B	WD	PT	3'-0"	175	AA	WD	PT	PEMO	NEW THRESHOLD SET IN SCAWANT
112	ENTRY 112	X	B	WD	PT	3'-0"	175	AA	WD	PT	PEMO	NEW THRESHOLD SET IN SCAWANT
113	CLOSET 111 A	X	A	WD	PT	3'-0"	175	AA	WD	PT	PEMO	NEW THRESHOLD SET IN SCAWANT
114	ENTRY 112	X	D	WD	PT	3'-0"	175	AA	WD	PT	PEMO	NEW THRESHOLD SET IN SCAWANT

**GENERAL WINDOW NOTES**

- ALL NEW DOORS SHALL BE SOLID CORE WOOD DOORS - PT
- ALL GLASS IN DOORS SHALL BE 24" X 24" AND SHALL BE SAFETY GLASS
- ALL GLASS IN DOORS SHALL BE 24" X 24" AND SHALL BE SAFETY GLASS
- PROVIDE WEATHER STRIPPING AT ALL EXTERIOR DOORS
- ALLOW \$250 PER DOOR FOR NEW HARDWARE, COORDINATE FINISH & MEETING WITH OWNER

**WINDOW SCHEDULE**

WINDOW NUMBER	WINDOW REPAIR TYPE	WINDOW SIZE	REMARKS
101	A	2'-10 3/4" x 2'	
102	A	2'-10 3/4" x 2'	
103	B	2'-10 3/4" x 2'	
104	B	2'-10 3/4" x 2'	
105	C	2'-10 3/4" x 2'	
106	C	2'-10 3/4" x 2'	
107	C	2'-10 3/4" x 2'	
108	C	2'-10 3/4" x 2'	
109	C	2'-10 3/4" x 2'	
110	A	2'-10 3/4" x 2'	
111	B	2'-10 3/4" x 2'	
112	B	2'-10 3/4" x 2'	
113	A	2'-10 3/4" x 2'	
114	A	2'-10 3/4" x 2'	
115	C	2'-10 3/4" x 2'	
116	C	2'-10 3/4" x 2'	
117	B	2'-10 3/4" x 2'	
118	B	2'-10 3/4" x 2'	
119	A	2'-10 3/4" x 2'	
120	A	2'-10 3/4" x 2'	
121	C	2'-10 3/4" x 2'	
122	A	2'-10 3/4" x 2'	
123	C	2'-10 3/4" x 2'	
124	C	2'-10 3/4" x 2'	
125	D	2'-10 3/4" x 2'	
126	D	2'-10 3/4" x 2'	
127	C	2'-10 3/4" x 2'	
128	C	2'-10 3/4" x 2'	
129	C	2'-10 3/4" x 2'	
130	C	2'-10 3/4" x 2'	
131	C	2'-10 3/4" x 2'	

**GENERAL WINDOW NOTES**

- PROVIDE NEW REMOVABLE WOODEN EXTERIOR STORMS AT ALL OPENINGS.
- REMOVE ALL EXISTING WOODEN EXTERIOR STORMS AND NEW TRIM TO MATCH EXISTING
- REPLACE ALL GLAZING TO MATCH EXISTING - ASSURE 2X6
- REPLACE WEATHER STRIPPING AT ALL EXTERIOR DOORS
- ALLOW \$250 PER DOOR FOR NEW HARDWARE, COORDINATE FINISH & MEETING WITH OWNER

**DOOR SCHEDULE**

DOOR NUMBER	ROOM NAME	TYPE	MATERIAL	FINISH	SIZE	THICKNESS	CLASS	GLASS	FRAME	DETAILS	
101	ENTRY 101	X	D	WD	PT	3'-0"	175	AA	WD	PT	NEW THRESHOLD SET IN SCAWANT
102	ENTRY 101	X	C	WD	PT	5'-0"	175	AA	WD	PT	NEW THRESHOLD SET IN SCAWANT
103	ENTRY 101	X	B	WD	PT	5'-0"	175	AA	WD	PT	NEW THRESHOLD SET IN SCAWANT
104	OFFICE 104	X	B	WD	PT	3'-0"	175	AA	WD	PT	NEW THRESHOLD SET IN SCAWANT
105	OFFICE 105	X	B	WD	PT	3'-0"	175	AA	WD	PT	NEW THRESHOLD SET IN SCAWANT
106	OFFICE 106	X	B	WD	PT	3'-0"	175	AA	WD	PT	NEW THRESHOLD SET IN SCAWANT
107	OFFICE 107	X	B	WD	PT	3'-0"	175	AA	WD	PT	NEW THRESHOLD SET IN SCAWANT
108	JAN. 108	X	A	WD	PT	3'-0"	175	AA	WD	PT	NEW THRESHOLD SET IN SCAWANT
109	RESTROOM 109	X	A	WD	PT	3'-0"	175	AA	WD	PT	NEW THRESHOLD SET IN SCAWANT
110	MEETING ROOM 110	X	B	WD	PT	3'-0"	175	AA	WD	PT	NEW THRESHOLD SET IN SCAWANT
111	MEETING ROOM 111	X	B	WD	PT	3'-0"	175	AA	WD	PT	NEW THRESHOLD SET IN SCAWANT
112	ENTRY 112	X	B	WD	PT	3'-0"	175	AA	WD	PT	NEW THRESHOLD SET IN SCAWANT
113	CLOSET 111 A	X	A	WD	PT	3'-0"	175	AA	WD	PT	NEW THRESHOLD SET IN SCAWANT
114	ENTRY 112	X	D	WD	PT	3'-0"	175	AA	WD	PT	NEW THRESHOLD SET IN SCAWANT

**GENERAL WINDOW NOTES**

- ALL NEW DOORS SHALL BE SOLID CORE WOOD DOORS - PT
- ALL GLAZING IN DOORS SHALL BE 24" X 24" AND SHALL BE SAFETY GLASS
- ALL GLAZING IN DOORS SHALL BE 24" X 24" AND SHALL BE SAFETY GLASS
- PROVIDE WEATHER STRIPPING AT ALL EXTERIOR DOORS
- ALLOW \$250 PER DOOR FOR NEW HARDWARE, COORDINATE FINISH & MEETING WITH OWNER

**WINDOW TYPES**



←- WINDOW  
 ←- NEW STORM  
 ←- NEW SCREEN  
 (TRUE DIVIDED LITE)







CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS  
1500 Larimer Street, Suite 1000  
Denver, CO 80202  
Phone: 303.229.3000  
Fax: 303.229.3000



ANDERSON HALLAS  
ARCHITECTS, P.C.  
1400 17th Street, Suite 1000  
Denver, CO 80202  
Phone: 303.733.1100  
Fax: 303.733.1101  
www.andersonhallas.com

CERTIFICATIONS

KEY PLAN

MARK	DATE	DESCRIPTION
1	09.05.2017	ISSUED FOR PERMIT & CONSTRUCTION
2	12.12.2017	ADDITIONAL PERMIT & CONSTRUCTION
3	01.02.2018	ADDITIONAL PERMIT & CONSTRUCTION

REVISION NOTES

GRAPHIC SCALE

CONTRACTORS

PROJECT

TITLE

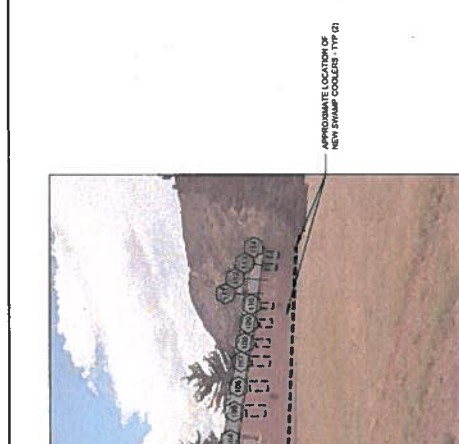
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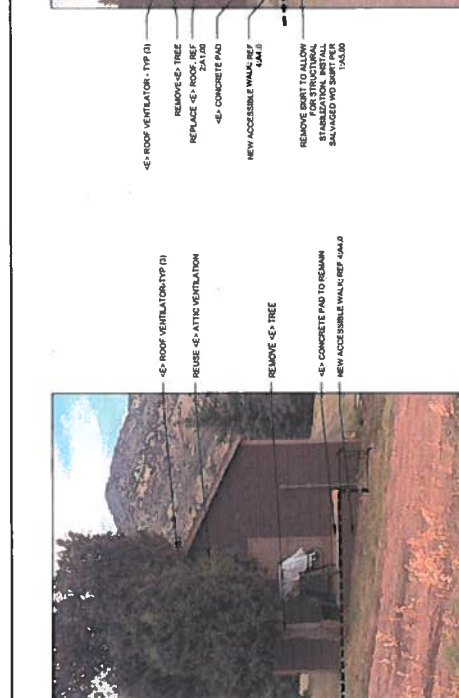
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DATE

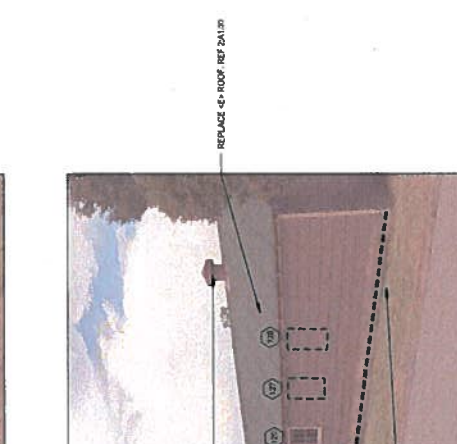
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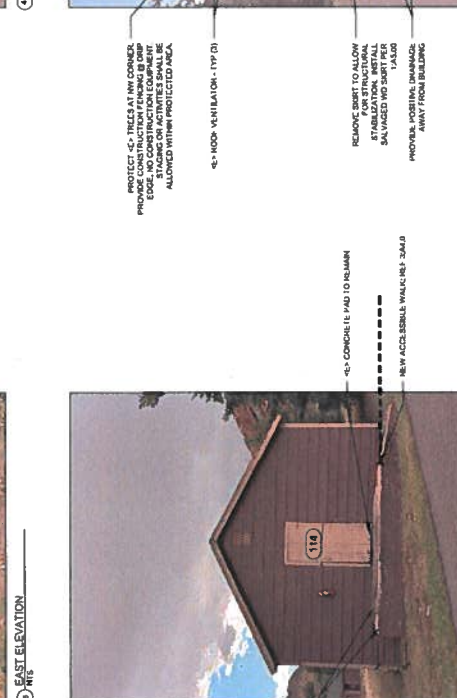
① EAST ELEVATION  
 -R- ROOF VENTILATOR - TYP (D)  
 REMOVE -R- TREE  
 REPLACE -R- ROOF 2" x 10" x 10"  
 -R- CONCRETE PAD  
 NEW ACCESSIBLE WALK REF 344.0  
 REMOVE SHORT TO ALLOW FOR STRUCTURAL STABILIZATION. INSTALL STABILIZATION AND SPREAD 1" x 10" x 10"  
 APPROXIMATE LOCATION OF NEW STAMP COOLERS - TYP (D)



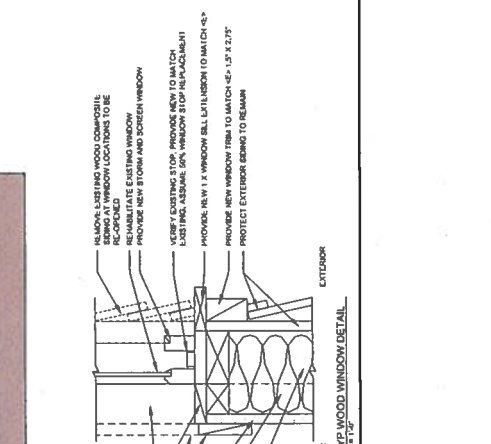
① NORTH ELEVATION  
 -R- ROOF VENTILATOR - TYP (D)  
 REMOVE -R- TREE  
 REPLACE -R- ROOF 2" x 10" x 10"  
 -R- CONCRETE PAD  
 NEW ACCESSIBLE WALK REF 344.0  
 REMOVE SHORT TO ALLOW FOR STRUCTURAL STABILIZATION. INSTALL STABILIZATION AND SPREAD 1" x 10" x 10"



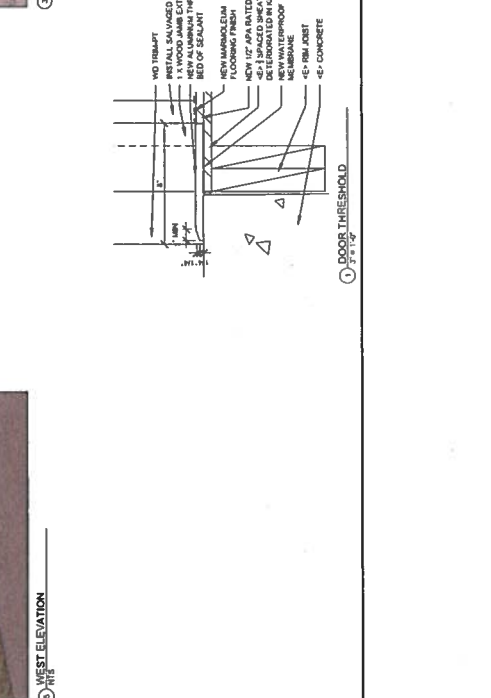
① SOUTH ELEVATION  
 -R- ROOF VENTILATOR - TYP (D)  
 REPLACE -R- ROOF REF 241.0  
 PROTECT -R- TREES AT ANY CORNERS. PROVIDE CONSTRUCTION FENCING @ CORNERS. STAKE AND STAKE STAKES ON ACTIVITIES SHALL BE ALLOWED WITHIN PROTECTED AREA.  
 REMOVE SHORT TO ALLOW FOR STRUCTURAL STABILIZATION. INSTALL STABILIZATION AND SPREAD 1" x 10" x 10"  
 PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING



① WEST ELEVATION  
 CONTINUE EDGE PROTECTION @ EXPOSED CONCRETE EDGES  
 -R- CONCRETE PAD TO REMAIN  
 NEW ACCESSIBLE WALK REF 344.0



① TYP WOOD WINDOW DETAIL  
 INTERIOR  
 EXTERIOR  
 REMOVE EXISTING WOOD COMPOSITE WINDOW SILL AND REFRIGERANT TO BE RECONSTRUCTED  
 REHABILITATE EXISTING WINDOW FRAME  
 PROVIDE NEW STURD AND SOFTEN WINDOW  
 VERIFY EXISTING STOP PRODUCE NEW TO MATCH EXISTING WINDOW STOP AND MATCH  
 PROVIDE NEW WINDOW STOP AND MATCH  
 PROVIDE NEW WINDOW SILL TO MATCH EXISTING WINDOW SILL  
 PROVIDE NEW WINDOW SILL TO MATCH EXISTING WINDOW SILL  
 PROVIDE NEW WINDOW SILL TO MATCH EXISTING WINDOW SILL  
 PROVIDE NEW WINDOW SILL TO MATCH EXISTING WINDOW SILL



① DOOR THRESHOLD  
 TYP  
 REMOVE SHORT TO ALLOW FOR STRUCTURAL STABILIZATION. INSTALL STABILIZATION AND SPREAD 1" x 10" x 10"  
 PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING  
 PROVIDE NEW EXTERIOR JAMB AND SILL EXTENSION WHERE MISSING. PROVIDE NEW EXTERIOR JAMB AND SILL EXTENSION TO MATCH EXISTING WINDOW SILL  
 PROVIDE NEW EXTERIOR JAMB AND SILL EXTENSION TO MATCH EXISTING WINDOW SILL  
 PROVIDE NEW EXTERIOR JAMB AND SILL EXTENSION TO MATCH EXISTING WINDOW SILL  
 PROVIDE NEW EXTERIOR JAMB AND SILL EXTENSION TO MATCH EXISTING WINDOW SILL

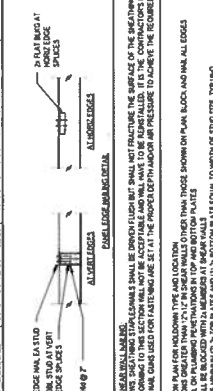






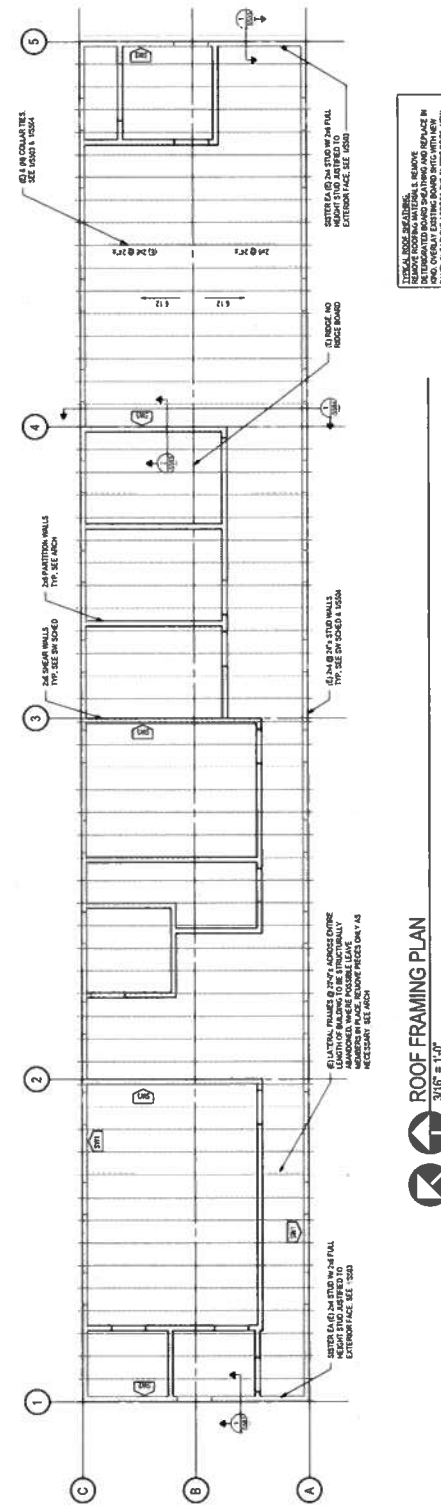


WALL TYPE	WALL SIZE	CAPACITY
3000	24" x 8" x 8' UNBROKEN	145 LF
3000	24" x 8" x 8' UNBROKEN @ 16" ON CENTER	71 LF
3000	24" x 8" x 8' UNBROKEN @ 16" ON CENTER	71 LF
3000	24" x 8" x 8' UNBROKEN @ 16" ON CENTER	71 LF
3000	24" x 8" x 8' UNBROKEN @ 16" ON CENTER	71 LF
3000	24" x 8" x 8' UNBROKEN @ 16" ON CENTER	71 LF



**GENERAL NOTES:**

- SEE FOUNDATION PLAN FOR FOUNDATION TYPE AND LOCATION.
- WOOD BEAM WALLS SHALL BE CONCRETE-CLAD WITH 2" MINIMUM CONCRETE THICKNESS AND 1/2" MINIMUM AIR SPACE. SEE DETAIL 2.
- WOOD BEAM WALLS SHALL BE CONCRETE-CLAD WITH 2" MINIMUM CONCRETE THICKNESS AND 1/2" MINIMUM AIR SPACE. SEE DETAIL 2.
- WOOD BEAM WALLS SHALL BE CONCRETE-CLAD WITH 2" MINIMUM CONCRETE THICKNESS AND 1/2" MINIMUM AIR SPACE. SEE DETAIL 2.
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- WOOD BEAM WALLS SHALL BE CONCRETE-CLAD WITH 2" MINIMUM CONCRETE THICKNESS AND 1/2" MINIMUM AIR SPACE. SEE DETAIL 2.
- WOOD BEAM WALLS SHALL BE CONCRETE-CLAD WITH 2" MINIMUM CONCRETE THICKNESS AND 1/2" MINIMUM AIR SPACE. SEE DETAIL 2.



**GENERAL NOTES:**

- ALL DIMENSIONS TO BE VERIFIED PRIOR TO CONSTRUCTION.
- WOOD BEAM WALLS SHALL BE CONCRETE-CLAD WITH 2" MINIMUM CONCRETE THICKNESS AND 1/2" MINIMUM AIR SPACE. SEE DETAIL 2.
- WOOD BEAM WALLS SHALL BE CONCRETE-CLAD WITH 2" MINIMUM CONCRETE THICKNESS AND 1/2" MINIMUM AIR SPACE. SEE DETAIL 2.
- WOOD BEAM WALLS SHALL BE CONCRETE-CLAD WITH 2" MINIMUM CONCRETE THICKNESS AND 1/2" MINIMUM AIR SPACE. SEE DETAIL 2.
- WOOD BEAM WALLS SHALL BE CONCRETE-CLAD WITH 2" MINIMUM CONCRETE THICKNESS AND 1/2" MINIMUM AIR SPACE. SEE DETAIL 2.
- WOOD BEAM WALLS SHALL BE CONCRETE-CLAD WITH 2" MINIMUM CONCRETE THICKNESS AND 1/2" MINIMUM AIR SPACE. SEE DETAIL 2.
- WOOD BEAM WALLS SHALL BE CONCRETE-CLAD WITH 2" MINIMUM CONCRETE THICKNESS AND 1/2" MINIMUM AIR SPACE. SEE DETAIL 2.



**CITY AND COUNTY OF DENVER**  
DEPARTMENT OF PUBLIC WORKS

**ANDERSON HALL**  
1000 W. PULASKI AVENUE  
DENVER, CO 80202

**ANDERSON HALL**  
1000 W. PULASKI AVENUE  
DENVER, CO 80202

**J.A. Inc.**  
1500 W. PULASKI AVENUE  
DENVER, CO 80202

**KEY PLAN**

WORK	DATE	DESCRIPTION
1	12.12.2017	ISSUE COORDINATION & CONSIDER

**REVISION NOTES**

1. 12.12.2017 ISSUE COORDINATION & CONSIDER

**PROJECT INFORMATION**

**PROJECT:** RED ROCKS PARK CCC CAMP BUILDING 1

**CLIENT:** STATE OF COLORADO

**ARCHITECT:** ANDERSON HALL ARCHITECTS, PC

**DATE:** 12/12/2017

**PROJECT NO.:** PROJ-2017-000473

**SUBMITTAL:** 100% CONSTRUCTION PERMITS & CONSTRUCTION

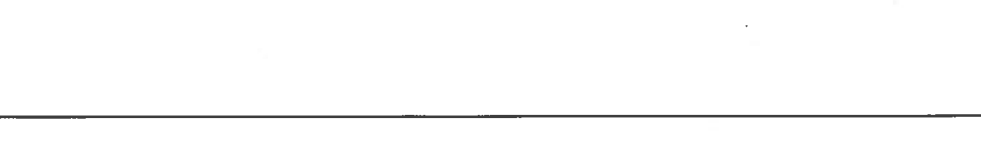
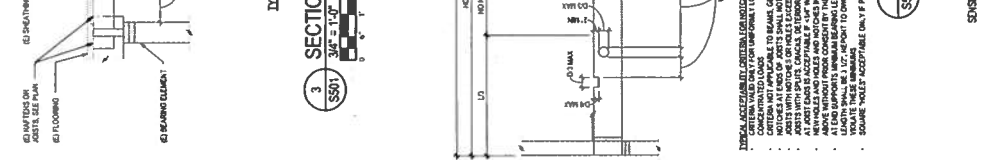
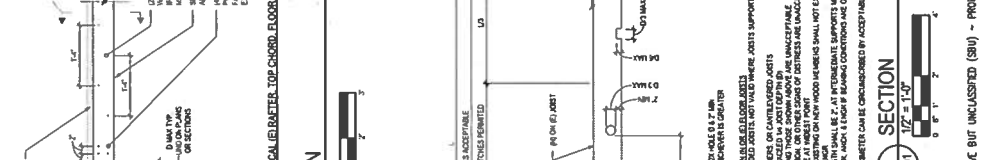
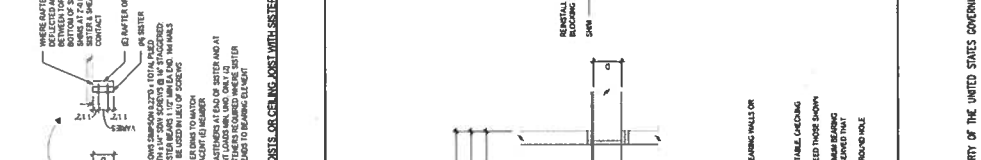
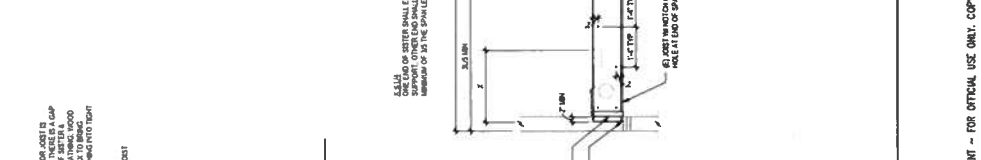
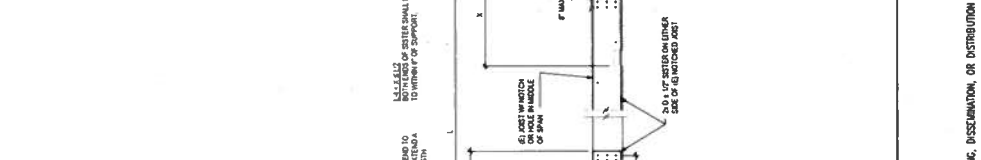
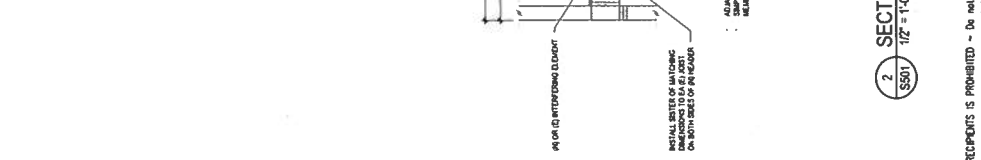
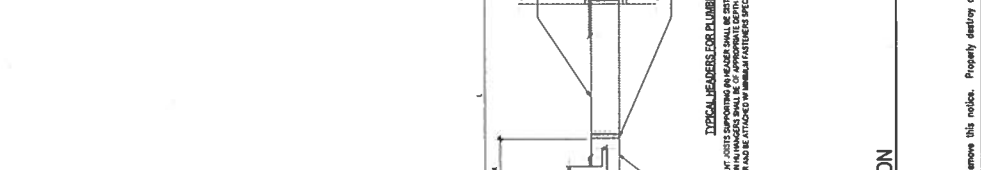
**DATE:** 09/26/2017

**DRAWING TITLE:** ROOF FRAMING PLAN

**DRAWING NO.:** S102

**SHEET NO.:** 16 OF 32

 <b>CITY AND COUNTY OF DENVER</b> DEPARTMENT OF PUBLIC WORKS 150 W. Colfax Ave., 3rd Floor, Denver, CO 80202 (303) 321-3000   Fax: (303) 321-3000   www.denvergov.org	
<b>ANDERSON HALLS ARCHITECTS, P.A.</b> 1500 13TH AVENUE, SUITE 200 DENVER, CO 80202 (303) 733-8000   www.andersonhalls.com	
<b>PROJECT INFORMATION</b> PROJECT NO. 100E CD FOR PERMIT & CONSTRUCTION SUBMISSION 100E CD FOR PERMIT & CONSTRUCTION DRAWING TITLE DETAILS DRAWING NO. <b>S501</b> SHEET NO. 17 OF 22	
<b>MARK</b> <b>DATE</b> <b>DESCRIPTION</b> 1    09/05/2017    100E CD FOR PERMIT & CONSTRUCTION 2    12/12/2017    REVISION 1	
<b>CONTRACTOR</b> A/E CON. NO. 201510446 A/E TASK NO. 02 CONS. CENTER CONS. WORK FRAME A/E ANDERSON HALLS ARCHITECTS, P.C. SUB A/E J.M. INC. CONSTR. CODE SHEET 100E CD FOR PERMIT & CONSTRUCTION CITY/STATE ZIP WOODBRIDGE, CO 80096 BUILDING NO. 1 OTHER BUILDING NO. FACILITY CODE	
<b>PROJECT</b> RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION <b>PROJECT LOCATION</b> DENVER MOUNTAIN PARKS PROJECT NO. PROJMS-000073 CCC PM BMO ECKERT SUBMISSION 100E CD FOR PERMIT & CONSTRUCTION SUB. DATE 09/05/2017 DRAWING TITLE DETAILS DRAWING NO. <b>S501</b> SHEET NO. 17 OF 22 DATE DATED: 09/05/2017 DESIGNED BY: JCB CHECKED BY: JCB DRAWN BY: JCB SCALE: 1/8" = 1'-0"	



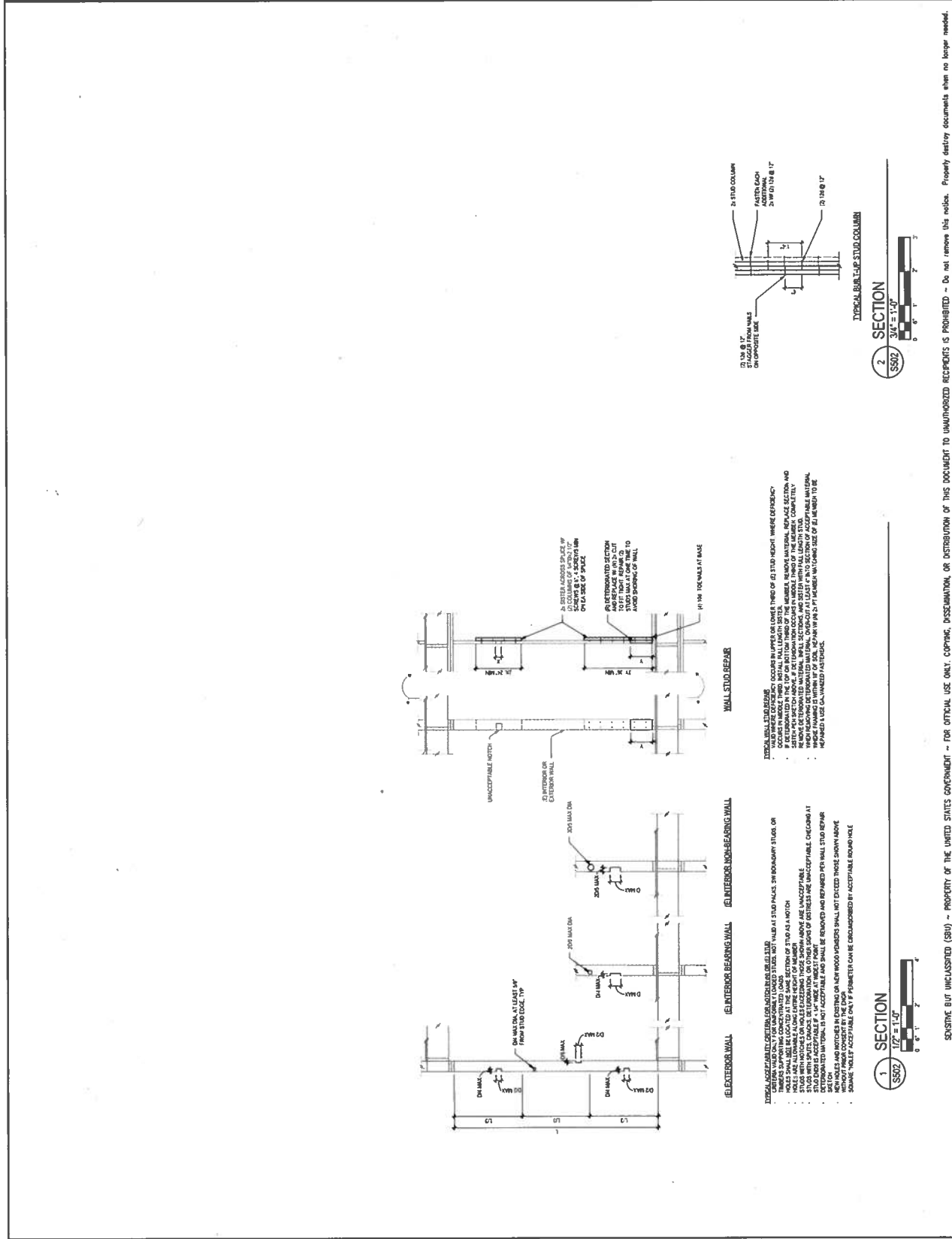
3 SECTION S501 3/8" = 1'-0"

2 SECTION S501 1/2" = 1'-0"

1 SECTION S501 1/2" = 1'-0"

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 <b>CITY AND COUNTY OF DENVER</b> DEPARTMENT OF PUBLIC WORKS 1500 Court and Civic Center Blvd., Suite 200 Denver, Colorado 80202 Phone: 303.269.2000 Fax: 303.269.2001 www.denvergov.org		<b>ANDERSON HALL'S</b> 3100 UNIVERSITY BLVD. DENVER, CO 80202 Project Name: Anderson Hall's Project No.: 1000-CD-2013-0448 Date: 12.12.2017	
<b>PERMITS</b> 1500 Court and Civic Center Blvd., Suite 200 Denver, Colorado 80202 Phone: 303.269.2000 Fax: 303.269.2001 www.denvergov.org		<b>PERMITS</b> 1500 Court and Civic Center Blvd., Suite 200 Denver, Colorado 80202 Phone: 303.269.2000 Fax: 303.269.2001 www.denvergov.org	
<b>KEY PLAN</b> 		<b>DESCRIPTION</b> 1000 CD FOR PERMIT & CONSTR 12.12.2017 ANDERSON HALL'S	
<b>REVISIONS</b> NO. DATE DESCRIPTION 1 12.12.2017 1000 CD FOR PERMIT & CONSTR ANDERSON HALL'S		<b>MARK</b> 1 12.12.2017 1000 CD FOR PERMIT & CONSTR ANDERSON HALL'S	
<b>CONTRACTORS</b> AVE CON. NO. 20130448 AVE TASK NO. 05 CONTS. CONTR. --- CONTS. WORK --- PRIME A/E ANDERSON HALL'S ARCHITECTS, PC A/E FIRM MOUNT MORRISON, CO MOUNT MORRISON, CO 300 UNION AVENUE MOUNT MORRISON, CO 80405		<b>BLDG. NO.</b> 1 <b>BLDG. CODE</b> 1000 CD FOR PERMIT & CONSTR <b>FACILITY CODE</b> 1000 CD FOR PERMIT & CONSTR <b>PROJECT</b> DENVER MOUNTAIN PARKS <b>DESCRIPTION</b> RED ROCKS PARK <b>PROJECT NO.</b> 1000-CD-2013-0448 <b>CONTRACT NO.</b> 1000 CD FOR PERMIT & CONSTR <b>SUBMISSION DATE</b> 09.02.2017 <b>ISSUE DATE</b> 09.02.2017 <b>ISSUED BY</b> GSB <b>DATE DRAWN</b> 08.05.2017 <b>CHECKED BY</b> GSB <b>SHEET NO.</b> S502 <b>DATE</b> 08.05.2017 <b>SCALE</b> 1/8" = 1'-0" <b>SHEET TYPE</b> S502 <b>NO. OF SHEETS</b> 18 OF 32	



**WALL STUD REPAIR**

TYPICAL WALL STUD REPAIR

- 1. VOID WHERE DEFICIENCY OCCURS IN UPPER OR LOWER THIRD OF STUD HEIGHT WHERE DEFICIENCY IS IDENTIFIED IN THE TOP OR BOTTOM THIRD OF THE MEMBER REMOVE MATERIAL, REPLACE SECTION AND REPAIR TO ORIGINAL CONDITION.
- 2. REPAIR SHALL BE LOCATED AT THE SAME SECTION OF STUD AS A NOTCH.
- 3. STUDS WITH NOTCHES OR DEFICIENCIES ON OTHER SPANS OF MEMBERS SHALL BE ACCEPTABLE.
- 4. STUDS WITH SPITS, CRACKS, OR FISSURES, ON OTHER SPANS OF MEMBERS ARE ACCEPTABLE.
- 5. EXTENDED MATERIAL IS NOT ACCEPTABLE AND SHALL BE REMOVED AND REPAIRED PER WALL STUD REPAIR DETAIL.
- 6. NOTCHES AND NOTCHES IN CUTTING OR NEW WOOD MEMBERS SHALL NOT EXCEED THOSE SHOWN ABOVE WITHOUT PRIOR APPROVAL BY THE CDP.
- 7. SPANS WITH ACCEPTABLE SPITS OR FISSURES CAN BE CIRCUMSCRIBED BY ACCEPTABLE ROUND HOLES.

**EXTERIOR WALL**

TYPICAL ACCEPTABLE CRACKS FOR NOTCHES OR HOLES

- 1. UNLESS VISIBLE TO OR DAMAGING TO ADJACENT STUDS, NOTCHES AT STUD JOISTS, THE ROOFING STUDS, OR HOLES SHALL BE LOCATED AT THE SAME SECTION OF STUD AS A NOTCH.
- 2. SPITS, CRACKS, OR FISSURES ON OTHER SPANS OF MEMBERS SHALL BE ACCEPTABLE.
- 3. EXTENDED MATERIAL IS NOT ACCEPTABLE AND SHALL BE REMOVED AND REPAIRED PER WALL STUD REPAIR DETAIL.
- 4. NOTCHES AND NOTCHES IN CUTTING OR NEW WOOD MEMBERS SHALL NOT EXCEED THOSE SHOWN ABOVE WITHOUT PRIOR APPROVAL BY THE CDP.
- 5. SPANS WITH ACCEPTABLE SPITS OR FISSURES CAN BE CIRCUMSCRIBED BY ACCEPTABLE ROUND HOLES.

**INTERIOR BEARING WALL**

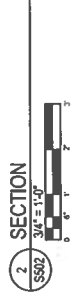
TYPICAL ACCEPTABLE CRACKS FOR NOTCHES OR HOLES

- 1. UNLESS VISIBLE TO OR DAMAGING TO ADJACENT STUDS, NOTCHES AT STUD JOISTS, THE ROOFING STUDS, OR HOLES SHALL BE LOCATED AT THE SAME SECTION OF STUD AS A NOTCH.
- 2. SPITS, CRACKS, OR FISSURES ON OTHER SPANS OF MEMBERS SHALL BE ACCEPTABLE.
- 3. EXTENDED MATERIAL IS NOT ACCEPTABLE AND SHALL BE REMOVED AND REPAIRED PER WALL STUD REPAIR DETAIL.
- 4. NOTCHES AND NOTCHES IN CUTTING OR NEW WOOD MEMBERS SHALL NOT EXCEED THOSE SHOWN ABOVE WITHOUT PRIOR APPROVAL BY THE CDP.
- 5. SPANS WITH ACCEPTABLE SPITS OR FISSURES CAN BE CIRCUMSCRIBED BY ACCEPTABLE ROUND HOLES.

**INTERIOR NON-BEARING WALL**

TYPICAL ACCEPTABLE CRACKS FOR NOTCHES OR HOLES

- 1. UNLESS VISIBLE TO OR DAMAGING TO ADJACENT STUDS, NOTCHES AT STUD JOISTS, THE ROOFING STUDS, OR HOLES SHALL BE LOCATED AT THE SAME SECTION OF STUD AS A NOTCH.
- 2. SPITS, CRACKS, OR FISSURES ON OTHER SPANS OF MEMBERS SHALL BE ACCEPTABLE.
- 3. EXTENDED MATERIAL IS NOT ACCEPTABLE AND SHALL BE REMOVED AND REPAIRED PER WALL STUD REPAIR DETAIL.
- 4. NOTCHES AND NOTCHES IN CUTTING OR NEW WOOD MEMBERS SHALL NOT EXCEED THOSE SHOWN ABOVE WITHOUT PRIOR APPROVAL BY THE CDP.
- 5. SPANS WITH ACCEPTABLE SPITS OR FISSURES CAN BE CIRCUMSCRIBED BY ACCEPTABLE ROUND HOLES.



2 SECTION  
 3/4" = 1'-0"  
 S502

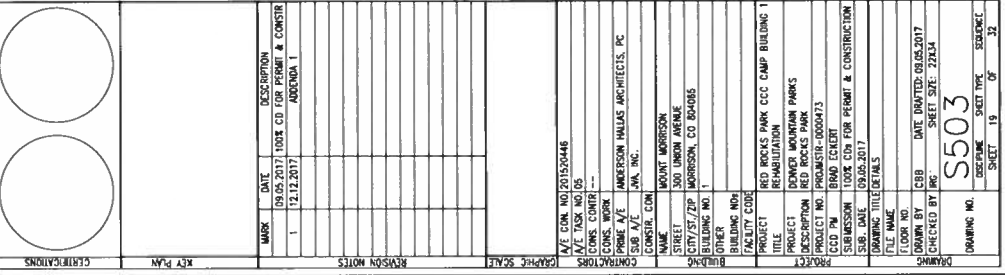
1 SECTION  
 1/2" = 1'-0"  
 S502

**CITY AND COUNTY OF DENVER**  
 DEPARTMENT OF PUBLIC WORKS  
 1015 14th Street, Denver, Colorado 80202  
 (303) 229-3484  
 www.denvergov.org

**ANDREW HALLAS**  
 ARCHITECT  
 1305 14th Street, Suite 1000  
 Denver, Colorado 80202  
 (303) 534-0010  
 Project No.: 2016-000473  
 1305 14th Street, Suite 1000  
 Denver, Colorado 80202

MARK	DATE	DESCRIPTION
1	09/05/2017	100% CD FOR PERMIT & CONSTRUCTION
	12/12/2017	ADDENDA 1

**PROJECT:** RED ROCKS PARK CCC CAMP BUILDING 1  
**LOCATION:** RED ROCKS PARK  
**OWNER:** DENVER  
**DESIGNER:** ANDREW HALLAS ARCHITECTS PC  
**CONTRACT NO.:** 100100473  
**CONTRACT DATE:** 10/24/16  
**SUBMIT DATE:** 09/05/2017  
**DATE DRAUGHT:** 09/05/2017  
**CHECKED BY:** CBB  
**DATE DRAUGHT:** 09/05/2017  
**PROJECT NO.:** PROGRAM-000473  
**CDD PM:** BRAD ECKHART  
**CONSTRUCTION:** 100% CD FOR PERMIT & CONSTRUCTION



**SECTION 1**  
 S503 3/4\"/>

**SECTION 2**  
 S503 3/4\"/>

**SECTION 3**  
 S503 3/4\"/>

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www.denvergov.org



ANDERSON HALL  
1140 SOUTH LAKESIDE AVENUE  
DENVER, CO 80202  
303.733.2300  
www.andersonhall.com

**DENVER**

**ANDERSON HALL**

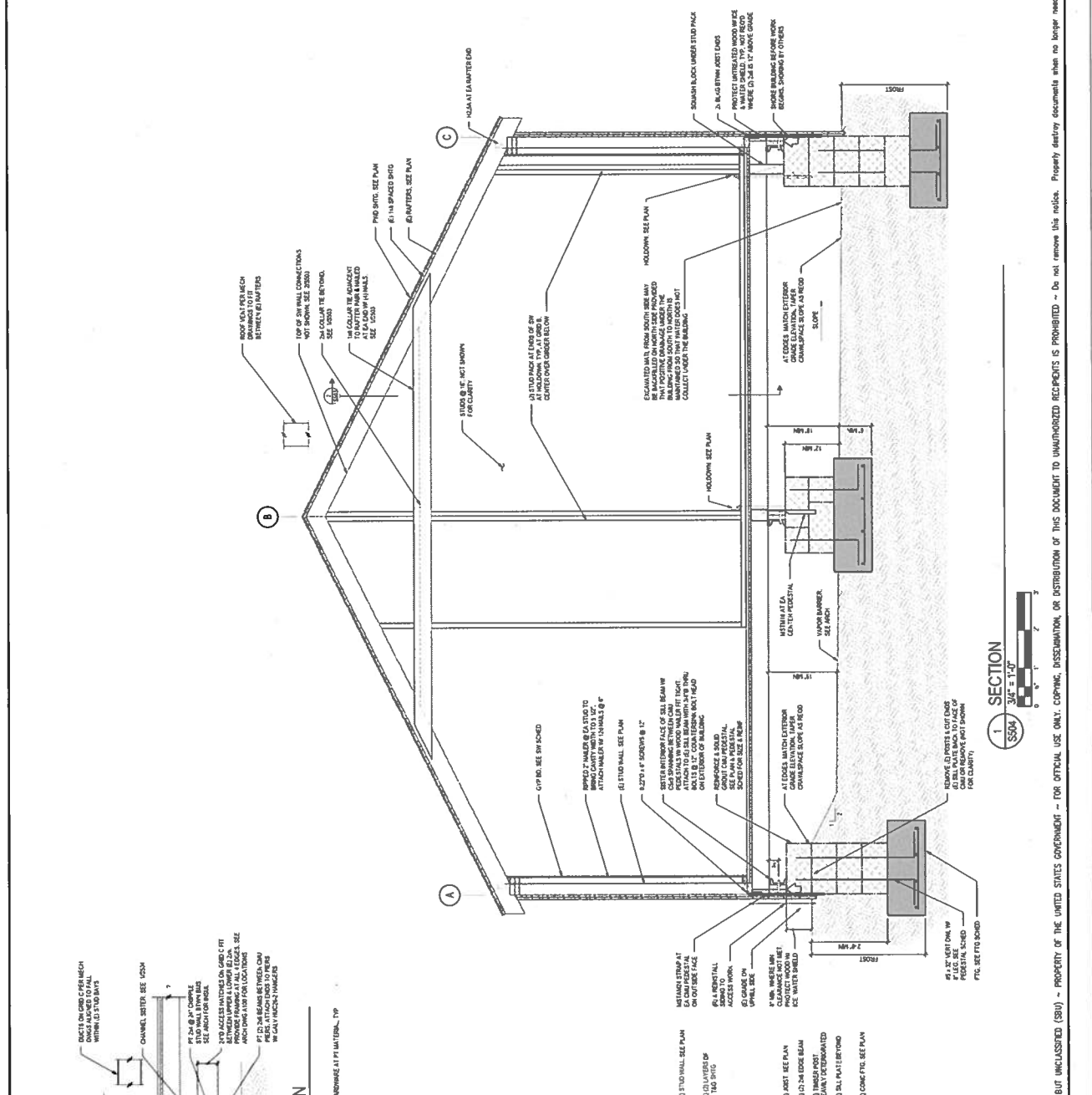
DATE: 09.05.2017  
DESCRIPTION: 100% CD FOR PERMIT & CONSTR. - ADDENDUM 1

MARK: 1  
DATE: 12.12.2017  
DESCRIPTION: 100% CD FOR PERMIT & CONSTR. - ADDENDUM 1

CONTRACTOR:  
CONTRACT NO. 15120448  
GENERAL CONTRACTOR: CONCRETE WORK  
PROJECT NAME: ANDERSON HALLS ARCHITECTURE PC  
PROJECT ADDRESS: 500 UNION AVENUE  
CITY/STATE: MORRISON, CO 80403  
BUILDING NO. 1  
BUILDING CODE: OTHER  
BUILDING INCH: 3/16"  
PROJECT: RED ROCKS PARK CCC CAMP BUILDING 1  
TITLE: FOUNDATION FOR ADDITIONAL PARKS  
PROJECT: RED ROCKS PARK  
PROJECT NO. PROMASTER-0004173

SUBMISSION: BRAD ECKERT  
SUBM DATE: 09.05.2017  
DRAWING TITLE: DETAILS  
FILE NAME: 100% CD FOR PERMIT & CONSTR.  
DRAWING NO. 100% CD FOR PERMIT & CONSTR.  
CHECKED BY: JPL

DATE DRAFTER: 09.05.2017  
DRAWING NO.: S504  
SHEET 70 OF 71



2 SECTION  
3/4" = 1'-0"

USE ONLY FASTENERS & HANGINGS AT PT MATERIAL, TYP

8" 2x4 STUDS @ 16"  
8" 2x4 JOISTS @ 16"  
2x4 GIRDERS  
2x4 BRIMS  
PT 2x2 @ 3' COMPRISE  
SEE ARCHIT FOR INFO  
2x4 ACCESS HATCHES ON GRID C, FTI  
BETWEEN UPPER & LOWER FLOOR LEVELS. SEE  
ARCHIT DWG 110R FOR LOCATIONS  
PT 2x4 BEAMS BETWEEN CANO  
WITH HANGERS  
REMOVE ORIGINAL GIRDING  
BEFORE TO FRAME UP  
WALLS  
AT EACH INTERFACE IN FIELD.  
AT END OF EACH BOUND

1 SECTION  
3/4" = 1'-0"

REMOVE EXISTING CEILING  
AS WELL AS BRACING TO FACE OF  
PIERS. SEE ARCHIT DWG FOR QUANTITY

1/2" MIN  
1/2" MIN  
1/2" MIN  
2'-0" MIN

RELOCATIONS  
8" 2x4 STUDS @ 16"  
8" 2x4 JOISTS @ 16"  
2x4 GIRDERS @ 16" SPACING  
8" 2x4 BRIMS @ 16" SPACING  
PT 2x2 @ 3' COMPRISE  
2x4 ACCESS HATCHES ON GRID C, FTI  
BETWEEN UPPER & LOWER FLOOR LEVELS. SEE  
ARCHIT DWG 110R FOR LOCATIONS  
PT 2x4 BEAMS BETWEEN CANO  
WITH HANGERS



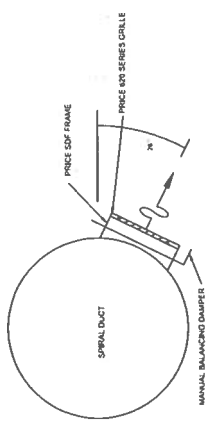




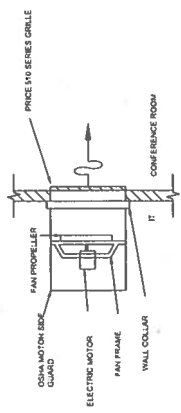
**DENVER**  
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 1701 California Street, Suite 200  
 Denver, CO 80202  
 (303) 861-3000

**ANDERSON HILLMAN**  
 ARCHITECTS, P.C.  
 1415 17th Street, Suite 1000  
 Denver, CO 80202  
 (303) 733-1100  
 www.andersonhillman.com

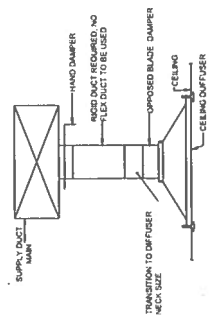
**360**  
 Three Sixty Architecture, Inc.  
 1415 17th Street, Suite 1000  
 Denver, CO 80202  
 (303) 733-1100  
 www.threesixty.com



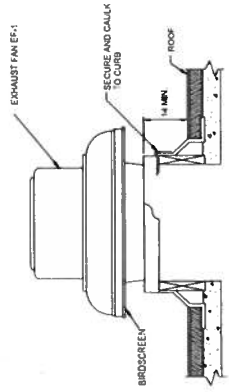
**1** SPIRAL DUCT GRILLE CONNECTION DETAIL  
 1/8" = 1' SCALE; NOT TO SCALE



**2** TRANSFER FAN DETAIL  
 1/8" = 1' SCALE; NOT TO SCALE



**3** TYPICAL DIFFUSER CONNECTION (BOTTOM OF DUCT)  
 1/8" = 1' SCALE; NOT TO SCALE



**4** EXHAUST FAN DETAIL  
 1/8" = 1' SCALE; NOT TO SCALE

MARK	DATE	DESCRIPTION
1	08/28/2017	ISSUED FOR PERMIT & CONSTR
<p> <b>PROJECT:</b> RED ROCKS PARK OCC CAMP BUILDING 1  <b>CLIENT:</b> DENVER METROPOLITAN PARKS AND RECREATION  <b>ARCHITECT:</b> ANDERSON HILLMAN ARCHITECTS, PC  <b>PROJECT NO.:</b> PM-AMST-000413  <b>CDD NO.:</b> 880-ED007  <b>SUBMISSION DATE:</b> 12.11.2017  <b>DRAWING TITLE:</b> MECHANICAL CONCEPT  <b>FILE NAME:</b> 1  <b>DATE PLOTTED:</b> 8/30/2017  <b>CHECKED BY:</b> LAR  <b>SHEET SIZE:</b> 22 X 34  <b>DRAWING NO.:</b> M 0 2  <b>DESIGNER:</b> LAR  <b>SHEET TYPE:</b> SCHEDULE  <b>SHEET:</b> 23 OF 32         </p>		



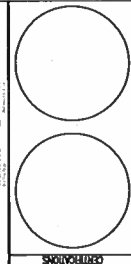


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 CONSTRUCTION  
 1701 W. WASHINGTON AVENUE  
 DENVER, CO 80202  
 TEL: 303.229.3000  
 WWW.DENVERGOVT.COM



**ARCHITECTURAL**  
 ARCHITECTS, P.C.  
 1000 W. WASHINGTON AVENUE  
 SUITE 1000  
 DENVER, CO 80202  
 TEL: 303.733.1100  
 WWW.AAASAP.COM

**360**



DEFINITIONS

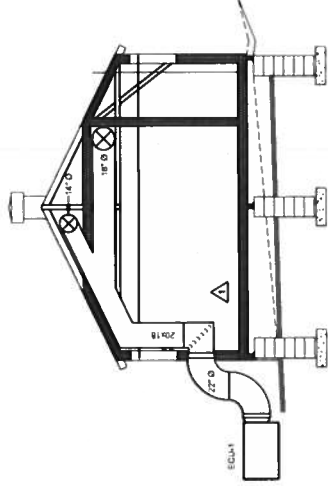
KEY PLAN

MARK	DATE	DESCRIPTION
1	08.05.2017	LOGGED FOR PERMIT & CONSTR.
	12/15/17	BUILDING DEPT. COMMENTS

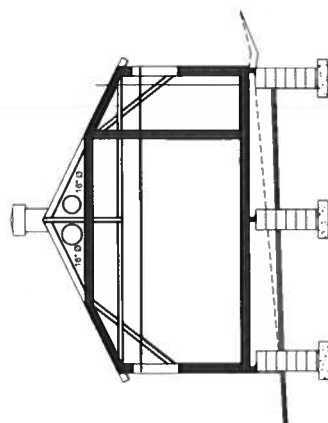
REVISION NOTES

GRAPHIC SCALE

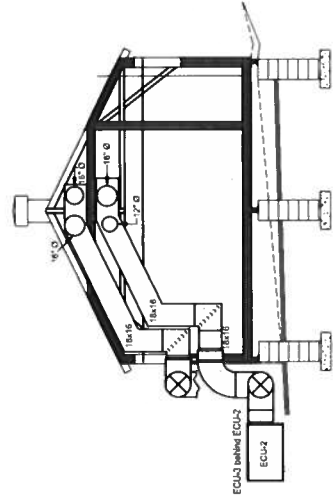
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AVE. TASK NO.	05
CONS. CONTROL	
CONTRACTOR	ANDERSON HALLAS ARCHITECTS, PC
CONTRACT NO.	
CONTRACTOR	MARKET MARKERS
STREET	300 LINCOLN AVENUE
CITY/STATE	WASHINGTON, CO
BUILDING NO.	20
OTHER NO.	
PROJECT	350 ROCKS PARK OCC. CAMP BUILDING 1
TITLE	REHABILITATION
DESCRIPTION	DOWNER MOUNTAIN PARKS
PROJECT NO.	PRMSTR-000473
CONTRACT NO.	
DATE	12.15.2017
DRAWING TITLE	MECHANICAL SETTINGS
FILE NAME	
FLOOR NO.	1
DATE DIMITED	
CHECKED BY	PM
SHEET NO.	22
SHEET TYPE	1
DRAWING NO.	M
SHEET	23
OF	32



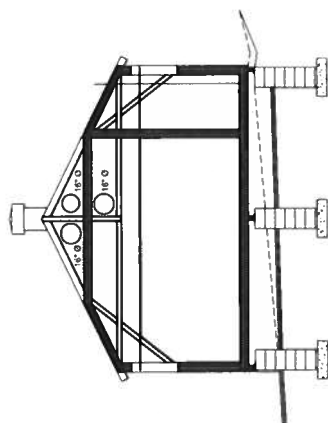
**2 SECTION • ECU-1 BUILDING ENTRY**  
 1/8" = 1'-0" SCALE, NOT TO SCALE



**4 SECTION • GRIDLINE 4**  
 1/8" = 1'-0" SCALE, NOT TO SCALE



**1 SECTION • ECU-2 AND ECU-3 BUILDING ENTRY**  
 1/8" = 1'-0" SCALE, NOT TO SCALE



**3 SECTION • GRIDLINE 3**  
 1/8" = 1'-0" SCALE, NOT TO SCALE

**CITY AND COUNTY OF DENVER**  
DEPARTMENT OF PUBLIC WORKS  
1500 Larimer Street, Denver, Colorado 80202  
Tel: 303.229.3000

**ARCHITECTS: PC**  
1500 Larimer Street, Suite 1500  
Denver, Colorado 80202  
Tel: 303.229.3000

**360**  
THE CITY OF DENVER  
1500 LARIMER STREET, DENVER, CO 80202

NO.	DATE	DESCRIPTION
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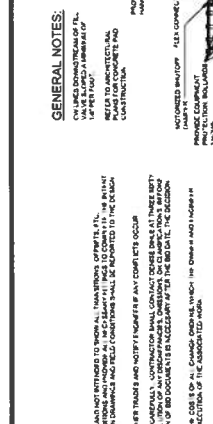
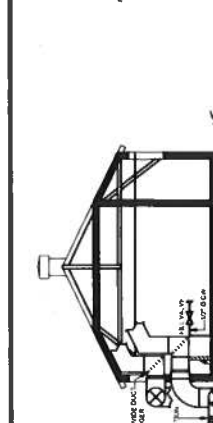
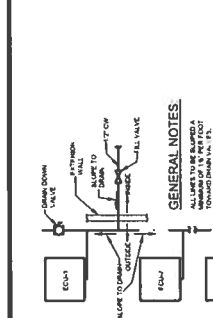
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**PLUMBING SCHEDULE**

TAG	MANUFACTURER & MODEL	QTY	FT. HD.	HP	VOLT/PH	AMPS	LENS	REMARKS
W-1	AMERICAN STANDARD 213AA-10420	1	11.6	1.2	115V	1.4	1.2	
L-1	DELTA 801E-HOF	3						
M-S-1	CHICAGO 48-SPTRK/GP	2						
S-1	DELTA 180U-F-HOF	1						
EW-1	ELKAY E2318LC	1						
BP-1	APOLLO RPJZA	1						

**PLUMBING LEGEND**

---	WASTE LINE
---	COLD WATER IN
---	HOT WATER IN
---	NON-INSULATED HOT WATER LINE
---	WATER VALVE
---	SHUT-OFF VALVE
---	STOP VALVE
---	DRAIN DOWN



**PLUMBING SCHEDULE**

TAG	MANUFACTURER & MODEL	QTY	FT. HD.	HP	VOLT/PH	AMPS	LENS	REMARKS
W-1	AMERICAN STANDARD 213AA-10420	1	11.6	1.2	115V	1.4	1.2	
L-1	DELTA 801E-HOF	3						
M-S-1	CHICAGO 48-SPTRK/GP	2						
S-1	DELTA 180U-F-HOF	1						
EW-1	ELKAY E2318LC	1						
BP-1	APOLLO RPJZA	1						

**ELECTRIC WATER HEATER SCHEDULE**

TAG	MANUFACTURER & MODEL	RECOVERY CAPACITY	DIAMETER	HEIGHT	GALLON CAPACITY	ELECTRICAL VOLTAGE	PHASE	REMARKS
EW-1	A.O. Smith DEX-20	11 GPH	22.14	22.14	20	240	1	2.5

REMARKS:  
1. Provide with 2500W element  
2. Provide with thermal expansion tank

**PLUMBING SCHEDULE**

TAG	DESCRIPTION	MANUFACTURER	MODEL NUMBER	FINISH	CMP/IFF	REMARKS
W-1	WATER CLOSET - FLOOR MOUNTED	AMERICAN STANDARD	213AA-10420	WHITE	1.2R	ELECTRICAL
L-1	LAVATORY - FLOOR MOUNTED	DELTA	801E-HOF	CHROME	0.5	3.5L
M-S-1	MOP SERVICE BASKIN	CHICAGO	48-SPTRK/GP	CHROME	2.2	4.8
S-1	SINK - DOUBLE COMPARTMENT	JUST	DL-600-1833A-4CR	STAINLESS STEEL (304)	1.5	3.5, 6.7
EW-1	ELECTRIC WATER COOLER (ADN)	ELKAY	E2318LC			2.3
BP-1	REDUCED PRESSURE BACKFLOW PREVENTER DOMESTIC	APOLLO	RPJZA			9

**GENERAL NOTES:**

1. PROVIDE WITH 1/2" DIA. 1/2" H. ADJUST AND TO-1 TIME CLOCK.
2. LEAD FREE BRONZE.
3. PROVIDE WITH 2500W ELEMENT.
4. PROVIDE WITH THERMAL EXPANSION TANK.
5. PROVIDE WITH TRIPLE O-RING 1/2" DIA. P-TAP AND SUPPLIES INSULATION KIT.
6. HOSE AND HOSE BRACKET - MOP HANGER - \$5 WALL GUARD.
7. PROVIDE WITH 2" TOWER.

**EVAPORATIVE COOLING UNIT WATER CONSUMPTION**

ENTERING AIR	WET BULB	MAXIMUM WIND SPEED	WATER CONSUMPTION PER UNIT	MAXIMUM WATER CONSUMPTION FOR 3 UNITS	MAKE-UP WATER DUE FOR 3 UNITS
95°F	62°F	2000 CFM	0.125 GALLONS/MINUTE	0.375 GALLONS/MINUTE	17.0 G
44 GRANS OF MOISTURE/LB OF DRY AIR	16.3 CUBIC FT/LB OF DRY AIR				

**PLUMBING SCHEDULE**

TAG	DESCRIPTION	MANUFACTURER	MODEL NUMBER	FINISH	CMP/IFF	REMARKS
W-1	WATER CLOSET - FLOOR MOUNTED	AMERICAN STANDARD	213AA-10420	WHITE	1.2R	ELECTRICAL
L-1	LAVATORY - FLOOR MOUNTED	DELTA	801E-HOF	CHROME	0.5	3.5L
M-S-1	MOP SERVICE BASKIN	CHICAGO	48-SPTRK/GP	CHROME	2.2	4.8
S-1	SINK - DOUBLE COMPARTMENT	JUST	DL-600-1833A-4CR	STAINLESS STEEL (304)	1.5	3.5, 6.7
EW-1	ELECTRIC WATER COOLER (ADN)	ELKAY	E2318LC			2.3
BP-1	REDUCED PRESSURE BACKFLOW PREVENTER DOMESTIC	APOLLO	RPJZA			9

**PLUMBING SCHEDULE**

TAG	DESCRIPTION	MANUFACTURER	MODEL NUMBER	FINISH	CMP/IFF	REMARKS
W-1	WATER CLOSET - FLOOR MOUNTED	AMERICAN STANDARD	213AA-10420	WHITE	1.2R	ELECTRICAL
L-1	LAVATORY - FLOOR MOUNTED	DELTA	801E-HOF	CHROME	0.5	3.5L
M-S-1	MOP SERVICE BASKIN	CHICAGO	48-SPTRK/GP	CHROME	2.2	4.8
S-1	SINK - DOUBLE COMPARTMENT	JUST	DL-600-1833A-4CR	STAINLESS STEEL (304)	1.5	3.5, 6.7
EW-1	ELECTRIC WATER COOLER (ADN)	ELKAY	E2318LC			2.3
BP-1	REDUCED PRESSURE BACKFLOW PREVENTER DOMESTIC	APOLLO	RPJZA			9

**PLUMBING SCHEDULE**

TAG	DESCRIPTION	MANUFACTURER	MODEL NUMBER	FINISH	CMP/IFF	REMARKS
W-1	WATER CLOSET - FLOOR MOUNTED	AMERICAN STANDARD	213AA-10420	WHITE	1.2R	ELECTRICAL
L-1	LAVATORY - FLOOR MOUNTED	DELTA	801E-HOF	CHROME	0.5	3.5L
M-S-1	MOP SERVICE BASKIN	CHICAGO	48-SPTRK/GP	CHROME	2.2	4.8
S-1	SINK - DOUBLE COMPARTMENT	JUST	DL-600-1833A-4CR	STAINLESS STEEL (304)	1.5	3.5, 6.7
EW-1	ELECTRIC WATER COOLER (ADN)	ELKAY	E2318LC			2.3
BP-1	REDUCED PRESSURE BACKFLOW PREVENTER DOMESTIC	APOLLO	RPJZA			9

**REMARKS:**

1. LOOSE KEY ANGLE STOP - STAINLESS STEEL BRAIDED SUPPLIES (OR BATTERY OPERATED)
2. PROVIDE WITH CONCEALED FLOOR MOUNTED CARRIER (COORDINATE WITH WALL THICKNESS)
3. 1/2" GA. P-TAP - LOOSE KEY ANGLE STOP - STAINLESS STEEL BRIDGED SUPPLIES
4. PROVIDE WITH TRIPLE O-RING 1/2" DIA. P-TAP AND SUPPLIES INSULATION KIT
5. PROVIDE WITH TRIPLE O-RING 1/2" DIA. P-TAP AND SUPPLIES INSULATION KIT
6. HOSE AND HOSE BRACKET - MOP HANGER - \$5 WALL GUARD.
7. PROVIDE WITH 2" TOWER.

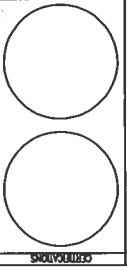








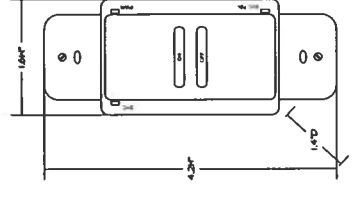




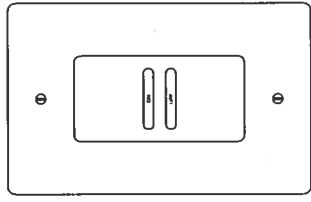
MARK	DATE	DESCRIPTION

MARK	DATE	DESCRIPTION

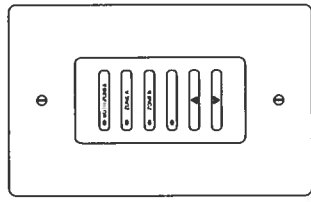
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PROJECT NAME	1771 ANDERSON HALLAN ARCHITECTS, PC
PROJECT ADDRESS	1000 13th Street, Suite 1000, Denver, CO 80202
PROJECT NO.	1771 ANDERSON HALLAN ARCHITECTS, PC
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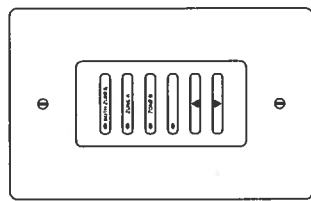
3 WALLSTATION DIMENSIONS  
 1771 ANDERSON HALLAN ARCHITECTS, PC



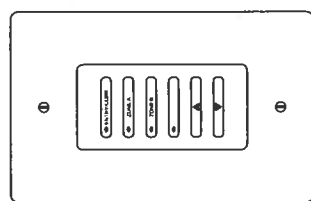
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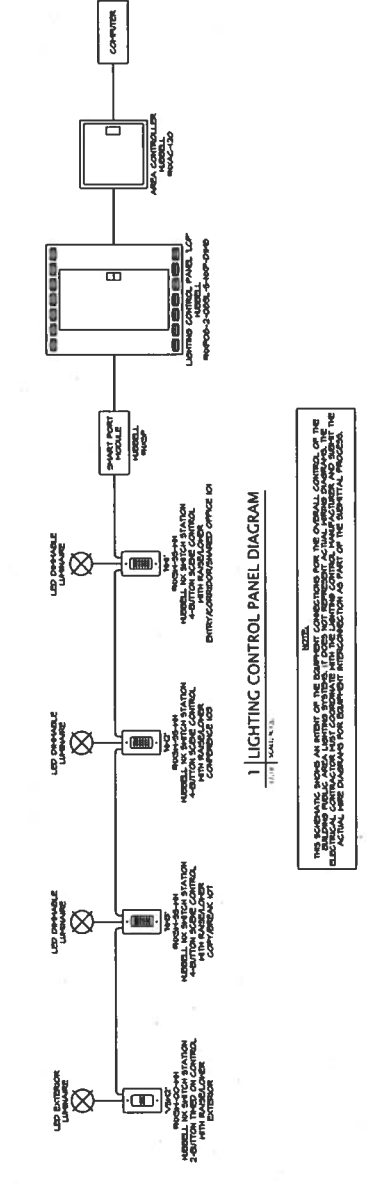
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3	ON	ON	ON	ON	ON	ON	ON	ON
4	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

2 WALLSTATION BUTTON CONFIGURATIONS  
 1771 ANDERSON HALLAN ARCHITECTS, PC

TYPE	DESCRIPTION	REMARKS	DETAILS	COMMENTS
1	2-BUTTON WALLSTATION COMPARISON	1. VERIFY AND/OR REPAIR 2. VERIFY AND/OR REPAIR 3. VERIFY AND/OR REPAIR 4. VERIFY AND/OR REPAIR	RELAY 1: OFF RELAY 2: ON	RELAY 1: OFF RELAY 2: ON
2	4-BUTTON WALLSTATION COMPARISON	1. VERIFY AND/OR REPAIR 2. VERIFY AND/OR REPAIR 3. VERIFY AND/OR REPAIR 4. VERIFY AND/OR REPAIR	RELAY 1: OFF RELAY 2: ON RELAY 3: ON RELAY 4: OFF	RELAY 1: OFF RELAY 2: ON RELAY 3: ON RELAY 4: OFF

LIGHTING RELAY PANEL SCHEDULE

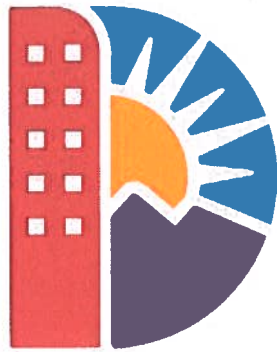
NO.	RELAY	MARKER	RELAY	MARKER	RELAY	MARKER	RELAY	MARKER
1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	ON	ON	ON	ON	ON	ON	ON	ON
3	ON	ON	ON	ON	ON	ON	ON	ON
4	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF



1 LIGHTING CONTROL PANEL DIAGRAM  
 1771 ANDERSON HALLAN ARCHITECTS, PC

THIS SCHEME SHOWS AN OPTION FOR THE BOARD CONNECTIONS FOR THE ORIGNAL CONTROL OF THE RELAY PANEL AND LIGHTING SWITCHES. IT DOES NOT REPRESENT AN ACTUAL WIRING DIAGRAM. THE ACTUAL WIRING DIAGRAM WILL BE SUBMITTED AS PART OF THE SUBMITTAL PROCESS.





**DENVER**<sup>®</sup>  
THE MILE HIGH CITY

**Department of Public Works**

**Prevailing Wage Rates**

**Contract Number: 201840245**

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**RED ROCKS CCC CAMP BARRACKS -  
BUILDING 1 REHABILITATION**

**February 12, 2018**

**CITY AND COUNTY OF DENVER  
STATE OF COLORADO**



**DENVER**  
THE MILE HIGH CITY

Office of Human Resources  
Denver's Human Resource Agency

201 W. Colfax, Department 412

Denver, CO 80202

p: 720.913.5751

f: 720.913.5720

[www.denvergov.org/humanresources](http://www.denvergov.org/humanresources)

**TO:** All Users of the City of Denver Prevailing Wage Schedules  
**FROM:** Susan Keller, Human Resources Technician, Classification & Compensation  
**DATE:** Wednesday, January 24, 2018  
**SUBJECT:** Latest Change to Prevailing Wage Schedules

Please be advised, prevailing wage rates for some building, heavy, highway, and residential construction trades have not been updated by the United States Department of Labor (DOL) since March 1, 2002. The Career Service Board, in their meeting held on April 21, 2011, approved the use of the attached supplemental wage rates until prevailing wage rates for these classifications of work are again published by the United States Department of Labor in accordance with the Davis-Bacon Act.

The attached Prevailing Wage Schedule is effective as of **Friday, January 12, 2018** and applies to the City and County of Denver for **BUILDING CONSTRUCTION PROJECTS** (does not include residential construction consisting of single family homes and apartments up to and including 4 stories) in accordance with the Denver Revised Municipal Code, Section 20-76(c).

General Wage Decision No. CO180030  
Superseded General Decision No. CO20170030  
Modification No. 1  
Publication Date: 01/12/2018  
(6 pages)

Unless otherwise specified in this document, apprentices shall be permitted only if they are employed pursuant to, and individually registered in, a bona fide apprenticeship program registered with the U.S. Department of Labor (DOL). The employer and the individual apprentice must be registered in a program, which has received prior approval, by the DOL. Any employer, who employs an apprentice and is found to be in violation of this provision, shall be required to pay said apprentice the full journeyman scale.

Attachments as listed above.

General Decision Number: CO180030 01/12/2018 CO30

Superseded General Decision Number: CO20170030

State: Colorado

Construction Type: Building

County: Denver County in Colorado.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/05/2018
1	01/12/2018

ASBE0028-002 07/01/2017

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR - MECHANICAL (Duct, Pipe & Mechanical System Insulation).....	\$ 30.73	14.23

CARP0055-002 11/01/2016

	Rates	Fringes
CARPENTER (Drywall Hanging Only).....	\$ 26.25	8.64

CARP1607-001 06/01/2016

Rates Fringes

MILLWRIGHT.....\$ 31.38 12.70

\* ELEC0068-012 01/01/2018

Rates Fringes

ELECTRICIAN (Includes Low Voltage Wiring).....\$ 34.70 15.07

\* ELEV0025-001 01/01/2018

Rates Fringes

ELEVATOR MECHANIC.....\$ 43.66 32.645

FOOTNOTE:

a. Vacation: 6%/under 5 years based on regular hourly rate for all hours worked. 8%/over 5 years based on regular hourly rate for all hours worked.

b. PAID HOLIDAYS: New Year's Day; Memorial Day; Independence Day; Labor Day; Veterans' Day; Thanksgiving Day; the Friday after Thanksgiving Day; and Christmas Day.

-----  
ENGI0009-017 05/01/2017

Rates Fringes

POWER EQUIPMENT OPERATOR (Crane)

141 tons and over.....\$ 29.82 10.10  
50 tons and under.....\$ 27.75 10.10  
51 to 90 tons.....\$ 27.92 10.10  
91 to 140 tons.....\$ 28.55 10.10

-----  
IRON0024-009 05/01/2017

Rates Fringes

IRONWORKER, ORNAMENTAL.....\$ 26.30 12.25

-----  
IRON0024-010 05/01/2017

Rates Fringes

IRONWORKER, STRUCTURAL.....\$ 26.30 12.25

-----  
PAIN0079-006 08/01/2017

Rates Fringes

PAINTER (Brush, Roller and Spray; Excludes Drywall Finishing/Taping).....\$ 20.50 8.41

-----  
PAIN0079-007 08/01/2017

	Rates	Fringes
DRYWALL FINISHER/TAPER.....	\$ 21.20	8.41

-----  
 PAIN0419-001 07/01/2016

	Rates	Fringes
SOFT FLOOR LAYER (Vinyl and Carpet).....	\$ 20.00	10.83

-----  
 PAIN0930-002 07/01/2017

	Rates	Fringes
GLAZIER.....	\$ 31.02	9.37

-----  
 PLUM0003-009 06/01/2017

	Rates	Fringes
PLUMBER (Excludes HVAC Duct, Pipe and Unit Installation).....	\$ 34.53	16.44

-----  
 PLUM0208-008 06/01/2017

	Rates	Fringes
PIPEFITTER (Includes HVAC Pipe and Unit Installation; Excludes HVAC Duct Installation).....	\$ 33.30	17.65

-----  
 SFCO0669-002 04/01/2017

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers).....	\$ 36.73	20.47

-----  
 SHEE0009-004 07/01/2017

	Rates	Fringes
SHEET METAL WORKER (Includes HVAC Duct Installation; Excludes HVAC Pipe and Unit Installation).....	\$ 33.26	16.61

-----  
 SUCO2013-006 07/31/2015

	Rates	Fringes
BRICKLAYER.....	\$ 21.96	0.00
CARPENTER (Acoustical Ceiling Installation Only).....	\$ 22.40	4.85

CARPENTER (Metal Stud Installation Only).....	\$ 17.68	0.00
CARPENTER, Excludes Acoustical Ceiling Installation, Drywall Hanging, and Metal Stud Installation.....	\$ 21.09	6.31
CEMENT MASON/CONCRETE FINISHER...	\$ 20.09	7.03
LABORER: Common or General.....	\$ 14.49	5.22
LABORER: Mason Tender - Brick...	\$ 15.99	0.00
LABORER: Mason Tender - Cement/Concrete.....	\$ 16.00	0.00
LABORER: Pipelayer.....	\$ 16.96	3.68
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 20.78	5.78
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 19.10	3.89
OPERATOR: Grader/Blade.....	\$ 21.50	0.00
ROOFER.....	\$ 16.56	0.00
TRUCK DRIVER: Dump Truck.....	\$ 17.34	0.00
WATERPROOFER.....	\$ 12.71	0.00

---

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.



**Office of Human Resources**  
**Supplemental rates**  
**(Specific to the Denver projects)**  
**Revision Date: 11-28-2016**

<b>Classification</b>		<b>Base</b>	<b>Fringe</b>
Boilermaker		\$30.97	\$21.45
Iron Worker, Reinforcing		\$18.49	\$3.87
Laborer: Concrete Saw		\$13.89	-
Paper Hanger		\$20.15	\$6.91
Plasterer		\$24.60	\$12.11
Plaster Tender		\$10.79	-
Power Equipment Operator	Concrete Mixer - Less than 1 yd	\$23.67	\$10.67
	Concrete Mixer - 1 yd and over	\$23.82	\$10.68
	Drillers	\$23.97	\$10.70
	Loader - up to and incl 6 cu yd	\$23.67	\$10.67
	Loaders - over 6 cu yd	\$23.82	\$10.68
	Mechanic	\$18.48	-
	Motor Grader	\$23.97	\$10.70
	Oilers	\$22.97	\$10.70
	Roller	\$23.67	\$10.67
	Tile Finisher		\$20.87
Tile Setter		\$26.83	\$8.48
Truck Driver	<b>Flatbed</b>	<b>\$19.14</b>	<b>\$10.07</b>
	<b>Semi</b>	<b>\$19.48</b>	<b>\$10.11</b>

- **Boilermaker** – Perform industrial work
- **Caulker** - Receive rate prescribed for craft performing operation to which caulking is incidental .i.e. glazier, painter, brick layer, cement mason.
- **Ironworker – Reinforcing** – Install, tie, and handle all rebar
  - Reinforce with carbon fiber material, includes cleaning, sanding of surface, and application of epoxy and fiber material
  - Plasterers perform fireproofing of this material
- **Laborer – Concrete Saw**
  - Perform concrete coring
  - Perform radar and x-ray for coring or boring for utility location
- Use the “Laborer—Common”, for General Housekeeping, Demolition, Final Cleanup and Indoor Fence Installer
- **Paper Hanger**
  - Install exterior plastic wall covering
  - Install regular or vinyl wallpaper
- **Plasterer**
  - Apply spray-on fireproofing
  - Fireproofing of Carbon Fiber material

- **Plaster Tender**
  - There is no formal ratio for Plasterer Tenders to Plasterers
  - Plaster Tender is the laborer for Plasterer
  - Plaster Tender may mix mud, move hoses, clean up over spray for Plasterers
  - Plaster Tender do not patch plaster or fireproofing by hand, trowel, sprayer, or any other means
  - Plaster Tender may use forklifts/backhoes as a tool of the trade
  - Erect trade-specific scaffolding
  
- **Power Equipment Operator**
  - Concrete mixers
  - Less than 1 yd.
  - Concrete placement pumps under 8"
  - 1 yd. and over
  - Concrete placement pumps over 8"
  - Loader up to and including 6 cubic yards
  - Loaders over 6 cubic yards
  - Motor grader
  - Roller
  - Drillers
  - Oilers
  - M
  
- **Tile Setter**
  - Install granite or other stone countertops
  - Setting sheets of Swanstone (imitation tile or stone product)
  - Marble Masons
  - Sandblast lettering into exterior granite and marble
  - Spreads the mud on the floor, screed the mud flat, and floats the mud
  
- **Tile Finisher**
  - Finishers are the laborers for the tile setters
  - Common laborers are not used for cleanup after tile setters or for any other use
  - Finishers mix mud, put tiles out, or cut tiles
  - Finishers may grind floors and bases
  
- **Truck Driver**
  - Flatbed
  - Semi
  
- Trade classification workers cannot be classified as common laborers for performing incidental cleanup from the installation of their craft. Common Laborers perform final cleanup of the entire jobsite.
- Go to [www.denvergov.org/Auditor](http://www.denvergov.org/Auditor) to view the Prevailing Wage Clarification Document for a list of complete classifications used.



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
04/02/2018

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

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

<b>PRODUCER</b> IMA, Inc. - Colorado Division  1705 17th Street Suite 100 Denver, CO 80202	1-303-534-4567	<b>CONTACT NAME:</b> <b>PHONE (A/C No. Ext):</b> <b>E-MAIL ADDRESS:</b> denaccounttechs@imacorp.com	<b>FAX (A/C No.):</b>														
<b>INSURED</b> Centerre Construction Inc.  4100 East Mississippi Avenue Suite #900 Denver, CO 80246		<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A: VALLEY FORGE INS CO (CNA Insurance)</td> <td>20508</td> </tr> <tr> <td>INSURER B: CONTINENTAL INS CO (CNA Ins)</td> <td>35289</td> </tr> <tr> <td>INSURER C: CONTINENTAL CAS CO (CNA Ins)</td> <td>20443</td> </tr> <tr> <td>INSURER D: PINNACOL ASSUR</td> <td>41190</td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </tbody> </table>		INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: VALLEY FORGE INS CO (CNA Insurance)	20508	INSURER B: CONTINENTAL INS CO (CNA Ins)	35289	INSURER C: CONTINENTAL CAS CO (CNA Ins)	20443	INSURER D: PINNACOL ASSUR	41190	INSURER E:		INSURER F:	
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INSURER F:																	

**COVERAGES**                      **CERTIFICATE NUMBER:** 52498035                      **REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> PD Ded: \$3,000  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			4030405854	04/01/17	10/01/18	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			4030405868	04/01/17	10/01/18	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			4030405871	04/01/17	10/01/18	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
D	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	4150840	10/01/17	10/01/18	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**  
Department of Public Works, the City and County of Denver, its elected and appointed officials, employees and volunteers are included as Additional Insureds on the General Liability including Ongoing and Completed Operations, Automobile and Umbrella Liability Policies if required by written contract or agreement and with respect to work performed by Insured subject to the policy terms and conditions. A Waiver of Subrogation is provided in favor of Additional Insureds on the General, Automobile, Umbrella Liability and Workers Compensation Policies if required by written contract or agreement and with respect to work performed by Insured subject to the policy terms and conditions. This Insurance is Primary and Non-Contributory on the General, Automobile and Umbrella Liability Policies subject to the policy terms and conditions.

<b>CERTIFICATE HOLDER</b> RE: Red Rocks CCC Camp Barracks- Building 1 Rehabilitation Contract #201840245 Department of Public Works Contract Administration  201 W. Colfax Ave., Dept 614  Denver, CO 80202	<b>CANCELLATION</b> SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE  <i>C. P. M.</i>
---	---

NCCI #: WC000313B  
Policy #: 4150840

Centerre Construction Inc  
4100 E Mississippi Ave Ste 1225  
Denver, CO 80246

IMA, Inc  
1705 17th Street  
Suite 100  
Denver, CO 80202  
(303) 534-4567

**ENDORSEMENT: Blanket Waiver of Subrogation**

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.

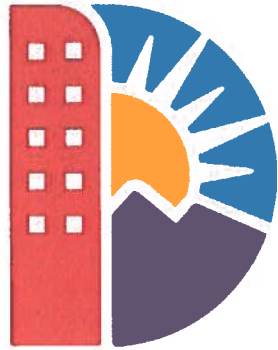
This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

**SCHEDULE**

To any person or organization when agreed to under a written contract or agreement, as defined above and with the insured, which is in effect and executed prior to any loss.

Effective Date: October 1, 2017 Expires on: October 1, 2018  
Pinnacol Assurance has issued this endorsement October 1, 2017.

Center of Excellence  
Phone (303) 361-4550 / (888) 852-2269  
Fax (303) 361-5550 / (888) 329-2213



**DENVER**<sup>®</sup>  
THE MILE HIGH CITY

**Department of Public Works**

**Technical Specifications**

**Contract Number: 201840245**

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**RED ROCKS CCC CAMP BARRACKS –  
BUILDING 1 REHABILITATION**

**February 12, 2018**

**CITY AND COUNTY OF DENVER**

**STATE OF COLORADO**

**TECHNICAL SPECIFICATIONS**

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01 29 73	Schedule of Values .....	4
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01 31 19	Project Meetings .....	3
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**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. The Work specified in this contract consists of furnishing all management, supervision, labor, materials, tools, equipment, services, testing, and incidentals for the construction of the Work indicated in the Contract Documents including lump sum items and unit price items.
- B. Reference General Conditions as listed:
  - 1. Article 301 "Consideration (Contractor's Promise of Performance)".
  - 2. Article 306 "Working Hours and Schedule".
  - 3. Title 8 "Protection of Persons and Property".
  - 4. Article 804 "Protection of Municipal, Public Service, or Public Utility Systems".

**1.3 SITE CONDITIONS**

- A. The Contractor acknowledges satisfaction as to the nature and location of the Work, all of the general and local conditions, particularly those bearing upon availability of transportation, access to the site, disposal, handling and storage of materials, availability of labor, water, power, roads, and uncertainties of weather, or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during work, and all other matters that can in any way affect the work or the cost thereof under this contract.
- B. The Contractor further acknowledges, by submission of a bid and on each change in work proposal, satisfaction as to the character, quality and quantity of all surface and subsurface materials and all features on top of the surface or at worksites that would be encountered from his inspection of the site and from reviewing available records of exploratory work furnished by the City. Failure by the Contractor to become acquainted with the physical conditions of the sites and all the available information will not relieve the Contractor from responsibility for properly estimating the difficulty or cost of performing the Work.
- C. The Contractor warrants that as a result of examination and investigation of all the aforesaid data and the site, that the Contractor can perform the Work in a good and workmanlike manner and to the satisfaction of the City. The City assumes no responsibility for any representations made by any of its officers or agents during or prior to the execution of this contract unless such representation is expressly stated in the contract.

**1.4 DESCRIPTION OF WORK**

- A. The following work items are included in these specifications: Rehabilitation of barracks buildings into office and conference room, as listed in the Table of Contents of these specifications and as shown per the Contract Drawings. The materials and installation methods

specified herein are to be considered standard for all work ordered by and performed for the Department of Parks and Recreation in the construction of new facilities in the parks.

## PART 2 - PRODUCTS (Not used)

## PART 3 - EXECUTION

### 3.1 CONTRACTOR'S DUTIES

- A. Except as otherwise specified, furnish the following to the full extent required by the contract:
  - 1. Labor, superintendence, supervision and products.
  - 2. Construction equipment, tools, machinery and materials.
  - 3. Utilities required for construction and related activities.
  - 4. Other facilities and services necessary to properly execute and complete the Work, including security for worksite, testing and storage and protection of all materials awaiting incorporation into the Work, providing a safe working environment for workers, City representatives, and the public in accordance with all local, state and federal requirements.
  
- B. Prosecute the Work as specified and in a timely manner. Submit a schedule of Work that will be performed at times other than during the eight-hour working day of Monday through Friday, daylight hours. Submit this schedule five working days prior to the beginning of Work to the Project Manager for review and acceptance. Approval to work at night may be obtained after Contractor presents a written program outlining special precautions to be taken to control the extraordinary hazards presented by night work. That program shall include, but not limited to, supplementary lighting of work areas, availability of medical facilities, security precautions, and noise limitations.
  - 1. Noise Ordinance variances through Denver Department of Environmental Health require several weeks advance public notice and approval is not guaranteed.

### 3.2 COORDINATION

- A. Coordinate prosecution of the Work with those public utilities, governmental bodies, private utilities and other contractors performing work on and adjacent to the worksites. Eliminate or minimize delays in the Work and conflicts with those utilities, bodies and contractors. Schedule governmental, private utility and public utility work that relies upon survey points, lines and grades established by the Contractor to occur immediately after those points, lines and grades have been established. Confirm coordination measures for each individual case with the City in writing.
  
- B. In the coordination effort of work by others, the Contractor shall obtain and refer to equipment locations and other layouts, as available, to avoid interface problems.
  
- C. The City reserves the right to permit access to the site of the Work for the performance of work by other contractors and persons at such times that the City deems proper. The exercise of such reserved right shall in no way or to any extent relieve the Contractor from liability for loss and damage to the work due to or resulting from its operations or from responsibility for complete execution of the Contract. The Contractor shall cooperate with other contractors and persons in all matters requiring common effort.



### 3.3 CONTRACTOR USE OF WORKSITE

- A. Confine worksite operations to areas permitted by law, ordinances, permits and the contract.
- B. Consider the safety of the Work and that of the people and property on and adjacent to the worksite when determining amount, location, movement and use of materials and equipment on worksite.
- C. Do not load worksite with equipment and products that would interfere with the Work. Only equipment, tools or materials required for this Work may be stored at the worksite.
- D. Protect products, equipment and materials stored on worksite.
- E. Relocate stored products, equipment and materials which interfere with operations of City, government bodies, public and private utilities, and other contractors.

### PART 4 - MEASUREMENT AND PAYMENT

#### 4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

#### 4.2 PAYMENT

- A. No separate payment will be made for work under this section including any and all necessary relocations requested by the City. The cost of the work described in this section shall be included in the Contract price.

**END OF SECTION 01 11 00**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes submittal requirements for the approval of a different material, equipment, or process than is described in the Contract Documents.
  - 1. If the substitution changes the scope of work, contract cost or contract time, a Change Order is required.
  - 2. Contract Record Drawings and specifications must include all approved substitutions even if a Change Order is not issued.
- B. Reference General Conditions Article 406 "Substitution of Materials and Equipment".

**1.3 QUALITY CONTROL**

- A. The substitution must provide the same quality as what it is replacing. The level of quality is defined by:
  - 1. Maintenance and operating cost.
  - 2. Reliability.
  - 3. Durability.
  - 4. Life expectancy.
  - 5. Ease of cleaning.
  - 6. Ability to be upgraded as needed.
  - 7. Ease of interacting with other systems or components.
  - 8. Ability to be repaired.
  - 9. Availability of replacement parts.
  - 10. Established history of use in similar environments.
  - 11. Performance equal or superior to that which it is replacing.

**1.4 SUBMITTAL**

- A. Refer to Division 01 Sections "Submittals" and "Shop and Working Contract Drawings, Product Data, and Samples" for submittal procedures.
- B. A complete Request for Substitution using the form included in Division 01 Section "Standard Forms" must be made at least sixty (60) days prior to when an order needs to be placed or a method needs to be changed.
- C. The submittal shall contain, as appropriate, detailed product data sheets for the specified items and the substitution. Samples and shop Contract Drawings shall also be submitted of the substitution as applicable. The submittal shall contain all the data required to be submitted for acceptance of the originally specified item or process.

- D. The submittal shall contain all the applicable information required in Article 1.6, below.
- E. A signed statement as outlined in Article 1.7, below, must accompany the Request for Substitution.

#### 1.5 INFORMATION

- A. Provide the following information as applicable with the Request for Substitution on the item or process that is being requested to be substituted:
  - 1. A complete description of the item or process.
  - 2. Utility connections including electrical, plumbing, HVAC, fire protection and controls.
  - 3. The physical dimensions and clearances.
  - 4. A parts list with prices.
  - 5. Samples of color and texture.
  - 6. Detailed cost comparisons of the substitution and the contract specified item or process.
  - 7. Manufacturer warranties.
  - 8. Energy consumption over a one-year period.
  - 9. What local organization is certified to maintain the item.
  - 10. Performance characteristics and production rates.
  - 11. A list of any license fees or royalties that must be paid.
  - 12. A list of all variations for the item or method specified.
  - 13. A list of at least three other projects of similar nature to this contract where the products or methods have been in use for at least one year including telephone number and name of the person to contact at these other projects.
  - 14. An analysis of the effect of the substitution on the schedule and contract cost and on the overall project as it relates to adjoining work.

#### 1.6 SUBSTITUTION REQUEST

- A. The formal Request for Substitution will be evaluated by the Project Manager and the Designer of Record based on the following criteria:
  - 1. Compatibility with the rest of the project.
  - 2. Reliability, ease of use and maintenance.
  - 3. Both initial and long term cost.
  - 4. Schedule impact.
  - 5. The willingness of the Contractor to share equally in any cost savings.
  - 6. The ability of the item or process to meet all applicable governing regulations, rules and laws along with funding agency requirements.
  - 7. The cost of evaluating the substitution.
- B. Based upon the above evaluation the Project Manager will make a final determination of what is in the best interest of the City and either approve, disapprove or approve as noted the requested substitution.

#### 1.7 CONDITIONS

- A. As a condition for submitting a Request for Substitution the Contractor waives all rights to claim for extra cost or change in contract time other than those outlined in the request and approved by the Project Manager. The Contractor, by submitting a Request for Substitution, also accepts all liability for cost and scheduling impact on other contractors or the City due to the substitution.

- B. Included with the Request for Substitution shall be the following statement:
  - 1. “The substitution being submitted is equal to or superior in all respects to the contract-required item or process. All differences between the substitution and the contract-required item or process are described in this request along with all cost and scheduling data.”
- C. The statement shall be signed and dated by the Contractor’s Superintendent.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 25 00**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes Pay Item descriptions for measurement and payment of Work completed.

**1.3 DESCRIPTION****A. General:**

1. NOTE: The Pay Item descriptions listed herein are hypothetical and will vary with each project. Do not prepare pay estimates based on these descriptions.
2. All measurements and payments will be based on work completed in strict accordance with the Drawings and specifications for the project.
3. The method of measurement and basis of payment described are for the work itemized in the Bid Form and in the sections of the specifications. Items may include work within a single section or in more than one section.
4. See the General Conditions for additional information pertaining to measurement and payment. This section is intended to supplement the General and Special Conditions.

**B. Measurement:**

1. Unless otherwise specified, all longitudinal measurements will be made horizontally, and computations will be based on the dimensions shown on drawings and details. No measurement will be made by weight tickets.
2. Quantities will be rounded off to the nearest whole number.
3. The Contractor shall, in the presence of the Project Manager, verify all measurements and quantities required for payment by the unit price method.
4. Contractor shall provide necessary equipment, workers, and survey personnel as required for measurements.

**C. Units:**

1. Measurement by Volumes: Measurement by cubic dimension using mean length, width and height or thickness. Longitudinal measurements will be made horizontally.
2. Measurements by Area: Measured by square dimensions using mean length and width or radius, measured horizontally.
3. Linear Measurement: Measured by linear dimension at the item centerline or mean chord.
4. Measured by Lump Sum or Per Each: Item inclusion as specified by the bid item description.

**D. Payment:**

1. Unit bid prices, as quoted in the Bid Schedule, shall constitute full compensation for labor, materials, equipment, rentals, overhead, profit and incidentals to complete all work for each pay item and for all risk, loss, damage, or expense of whatever nature arising from the nature of the work or prosecution thereof.

2. Work or materials that are essential to the work, but for which there are no pay items, will not be measured and paid for separately, but shall be included in other items of work.
3. Payment for work listed as lump sum bid items completed under this contract shall be paid for on a lump sum fixed price basis.
4. Final payment for work governed by unit prices will be made on the basis of the measurements and quantities accepted by the Project Manager multiplied by the unit price for work which is incorporated in or made necessary by the Work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

PART 4 - MEASUREMENT AND PAYMENT

Refer to each specification section for Measurement and Payment information relative to the contents of that section.

**END OF SECTION 01 29 00**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes requirements for preparing and submitting the Schedule of Values as referenced in the General Conditions. The Schedule of Values will be built upon a breakdown of the Work using specification sections and milestones. The Work also includes the preparing and submitting of updated copies of the Schedule of Values if the Schedule of Values is affected by change orders.
  - 1. A Schedule of Stored Material is a detailed cost breakdown for permanent materials that will be temporarily stored prior to their being installed and for which the Contractor seeks partial payments. The Schedule of Stored Material will be incorporated as a part of the Schedule of Values.
  - 2. Within fourteen (14) calendar days of issuance of the Notice to Proceed, the Contractor shall submit the Schedule of Values including the Schedule of Stored Material if applicable. The Schedule of Values and Schedule of Stored Material used to prepare the work/cost breakdown for the Schedule of Values will be used for the Contractor's billings.
  - 3. Any contract allowances shall be included in the Schedule of Values. Expenditure of allowances shall be done through the use of the Allowance Authorization form. Use of this form does not increase or decrease the contract value.
- A. Reference the General Contract Conditions as listed:
  - 1. Article 902 "Payment Procedure".
  - 2. Article 903 "Schedule of Values in Lump Sum Contracts".
  - 3. Article 906 "Applications for Payment".
- B. Related Sections:
  - 1. Division 01 Section "Submittals".
  - 2. Division 01 Section "Shop and Working Drawings, Product Data, and Samples".
  - 3. Division 01 Section "Standard Forms".

**1.3 DEFINITIONS**

- A. Allowance: A monetary amount specified and included in the construction contract for a certain item of work whose details are not yet determined at the time of contracting.

**1.4 SUBMITTAL**

- A. The Schedule of Values shall be submitted in a format approved by the Project Manager.

- B. The Schedule of Values shall identify each item of work. Work items in the Schedule of Values shall represent all work and shall be referenced with the Technical Specifications section numbers, specification subparagraph, specification section title and the bid item number used for the Schedule of Prices and Quantities when applicable. The Schedule of Values shall address the subcontractor, fabricator or supplier furnishing the materials and or labor for each work item.
- C. Upon request by the City, the Contractor shall support values given with the data which will substantiate the correctness of the values.
- D. The Schedule of Values will be utilized only as a basis for review of the Contractor's application for progress payment on Unit Price Bids. The Schedule of Values will be utilized on a Lump Sum Bid to determine change order costs.

#### 1.5 REVIEW AND RESUBMITTAL

- A. If review by the City indicates that changes to the Schedule of Values are required, the Contractor shall revise and resubmit the Schedule of Values.

### PART 2 - PRODUCTS (Not Used)

### PART 3 - EXECUTION

#### 3.1 PREPARING SCHEDULE OF VALUES

- A. Breakdown of the items used in the Schedule of Values shall include costs as follows:
  - 1. Delivered cost of product with applicable taxes paid.
  - 2. Total installation cost with overhead and profit.
  - 3. Breakdown costs of each lump sum item with a list of products and major operations for which the Contractor seeks to receive progress payments to recover his costs for that bid Item.
  - 4. Each unit price item as listed in the bid Schedule of Prices and Quantities shall list products and major operations for which the Contractor seeks to receive progress payments for that bid item.

#### 3.2 PREPARING SCHEDULE OF VALUES OF STORED MATERIAL

- A. The Contractor shall submit with the Schedule of Values an indication of whether products will be stored on or off the worksite. The Schedule of Stored Material shall show quantities and types of products that will be stored.
- B. Material allowances consist of only the net cost of the product, the cost of delivery and unloading at the storage site, the cost of applicable sales taxes and all discounts.
- C. In no case will the cost paid for a permanent material be greater than ninety percent (90%) of the contract price for the work in which they are included.



### 3.3 PAYMENT FOR STORED MATERIALS

- A. Only materials that are described in the specifications and on the drawings will be considered permanent materials. Permanent materials are materials that will be left in the work after the contract is completed.
- B. Nothing in these specifications shall be interpreted as requiring the City to pay for stored materials. The Project Manager shall decide on a case-by-case basis whether stored materials shall be paid for. No payment will be made for stored materials which have not been submitted and accepted.
- C. The Contractor must, at all times, store permanent materials in accordance with manufacturer's recommendations. Any material not properly stored will not be paid for. Amounts will be deducted from payments for any stored permanent material previously paid for and subsequently found to be improperly stored or not present, based upon a physical inventory of stored permanent material.
- D. Only the neat line quantity of material needed for the finished product may be paid for.
- E. All requests for stored permanent material payment must be accompanied by paid invoices clearly showing the quantity of permanent material, the type of permanent material and discounts or rebates and the net amount paid to the supplier along with a certificate stating that the permanent material is free of any liens or judgments preventing its use by the City.
- F. All permanent material stored off site, for which payment is being requested must be insured and stored in bonded, insured warehouses.
- G. Any permanent material on which payment is requested must be in such a form that it cannot be used on work other than this contract, or stored in a manner acceptable to the Project Manager to ensure that the permanent material cannot be used on work other than this contract.

### 3.4 ALLOWANCE AUTHORIZATION AND PAYMENT

- A. Contractor shall request written approval for expenditure of any contract allowances PRIOR TO performing the Work involved. List work to be performed and estimated cost in the requesting correspondence.
- B. Original copies of all invoices and receipts must be submitted with the Allowance Authorization as part of the request for payment.
- C. Using the format provided by the City, the Contractor's request for payment of all contract allowances shall be included in the Schedule of Values.

## PART 4 - MEASUREMENT AND PAYMENT

### 4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 29 73**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes requirements for project and construction coordination, supervision, and administration for the Work, including but not necessarily limited to:
  - 1. Coordination.
  - 2. Administrative and supervisory personnel.
  - 3. General installation provisions.
  - 4. Cleaning and protection.
  - 5. Utilities and site work.
- B. Reference General Conditions as listed:
  - 1. Title 3 "Contractor Performance and Services".
  - 2. Article 301 "Consideration (Contractor's Promise of Performance)".
  - 3. Article 308 "Communications".
- C. Related Sections:
  - 1. Division 01 Section "Layout of Work and Surveys".
  - 2. Division 01 Section "Administration, Procedures, Codes".
  - 3. Division 01 Section "Project Meetings".

**1.3 GENERAL COORDINATION**

- A. General:
  - 1. The Contractor shall ensure that each entity involved in the performance of the Work shall cooperate in the overall coordination of the Work; promptly, when requested by the Contractor, furnish information concerning the entity's portion of the Work; and respond promptly and reasonably to the decisions and requests of persons designated with coordination, supervisory, administrative, or similar authority.
  - 2. The Contractor shall, where necessary, prepare memoranda for distribution to each party involved outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.
  - 3. Prepare similar memoranda for the Owner and separate Contractors where coordination of their work is required.
- B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction work. Such administrative activities include, but are not limited to, the following:
  - 1. Preparation of schedules
  - 2. Installation and removal of temporary facilities
  - 3. Delivery and processing of submittals
  - 4. Progress meetings

5. Project close-out activities

- C. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water and materials. Salvage materials and equipment involved in performance of, but not actually incorporated in, the Work. Refer to other sections for disposition of salvaged materials that are designated as the City's property.
- D. Site Utilization: In addition to the site utilization limitations and requirements shown on the Contract Drawings and indicated by the Contract Documents, administer the allocation of available space equitably among entities needing access and space, so as to produce the best overall efficiency in the performance of the Work. Schedule deliveries so as to minimize the space and time requirements for storage of materials and equipment on the site; but do not unduly risk delays in the Work.
- E. Coordination Meetings: Include in scheduled meetings, coordination of various entities and activities as set forth in Division 01 Section "Project Meetings". Where necessary, schedule additional coordination meetings for this purpose on an as-needed basis.
- F. Layout: It is recognized that the Contract Documents are diagrammatic in showing certain physical relationships of the various elements and systems and their interfacing with other elements and systems. Establishment and coordination of these relationships is the exclusive responsibility of the Contractor. Do not scale the Contract Drawings. Layout and arrange all elements to contribute to safety, efficiency and to carry the harmony of design throughout the Work. In case of conflict or un-dimensioned locations, verify required positioning with the Project Manager. The Contractor shall provide surveying for the layout of all improvements including both horizontal and vertical control, in accordance with the requirements of Division 01 Section "Construction Surveying".
- G. Substrate Examination: The Contractor shall ensure that the subcontractor of each element of the Work examines the conditions of the substrate to receive the work, dimensions and spaces adjacent, tolerances, interfacing with other elements and services, and the conditions under which the Work will be performed. The Contractor shall require each subcontractor to notify the Contractor in writing of conditions detrimental to the proper or timely completion of the Work, and ensure that they do not proceed with the Work until unsatisfactory conditions have been corrected in a manner acceptable to the subcontractor.

1.4 COMPLETE SYSTEMS

- A. It is the intent of the Contract Documents that the system be complete and functional to provide the intended or specified performance. The Contractor shall provide all incidental items and parts necessary to achieve this requirement.

1.5 COMPATIBILITY

- A. Provide products and equipment which are compatible with other work requiring mechanical interface including connections, control devices, water, drain and other piping connections. Verify requirements and other interface requirements before ordering equipment and resolve conflicts that may arise.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

### 3.1 GENERAL INSTALLATION PROCEDURES

- A. Require the subcontractor of each major component to inspect both the substrate and conditions under which work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Inspect materials or equipment immediately upon delivery and again prior to installation. Reject damaged and defective items. Re-check measurements and dimensions before starting each installation.
- C. Manufacturer's Instructions: Comply with manufacturer's installation instructions and recommendations, to the extent that those instructions and recommendations are more explicit or stringent than requirements contained in Contract Documents.
- D. Installation:
  - 1. Provide attachment and connection devices and methods necessary for securing work. Secure work true to line and level. Allow for expansion and building movement.
  - 2. Install each component during weather conditions and the Work status that will ensure the best possible results. Isolate each part of the completed construction from incompatible materials as necessary to prevent deterioration.
  - 3. Coordinate work with required inspections and tests, to minimize the necessity of uncovering completed construction for that purpose.
- E. Visual Effects: Provide uniform joint widths in exposed work. Arrange joints in exposed work to obtain the best visual effect. Refer questionable choices to the Project Manager for final decision.
- F. Mounting Heights: Where mounting heights are not indicated, install individual components at standard mounting heights recognized within the industry for the particular application indicated. Refer questionable mounting height decisions to the Project Manager for final decision.

### 3.2 CLEANING AND PROTECTION

- A. During handling and installation, clean and protect construction in progress and adjoining materials in place. Apply protective covering where required to ensure protection from damage or deterioration prior to achieving substantial completion.
- B. Clean and maintain completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 31 13**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes requirements for the Contractor, including his field superintendent and quality control representative, to attend meetings scheduled by the City for the collection and dissemination of information related to the subject contract.
  - 1. The Contractor will prepare the minutes of each meeting and distribute them to each of the participants.

**1.3 OTHER MEETINGS**

- A. The Contractor will be advised of times, dates, and places of contract meetings.

**PART 2 - PRODUCTS (Not Used)****PART 3 - EXECUTION****3.1 PRECONSTRUCTION MEETING**

- A. A Preconstruction Meeting will be scheduled by the City after the Contract has been signed by all parties. The purpose of this meeting is to introduce the City's Representatives to their counterparts in the Contractor's organization and to establish lines of communication between the representatives and outline some of the contract requirements. The Contractor's superintendent, and quality control representative(s) shall attend this meeting.
  - 1. The Project Manager will distribute a notice of this meeting, along with an agenda of the subjects to be addressed.
  - 2. The Project Manager will explain and discuss the responsibilities and authorities of the City, the Designer, and the Project Manager's organization.
  - 3. The Project Manager will provide highlights of the following information at this meeting:
    - a. Minority Business Enterprise (MBE) and Women Business Enterprise (WBE) requirements.
    - b. Insurance, laws, codes, traffic regulations, and permit requirements of public agencies and their regulations.
    - c. Procedures for processing change orders.
    - d. Procedures for submitting shop and working drawings, product data and samples.
    - e. Monthly pay estimate cutoff dates.
    - f. Payment procedures.
    - g. Request for information procedures.
    - h. Communication procedures.
    - i. Contractor-required Daily Reports.

- j. Scheduling and coordination requirements.
  - k. Quality Control/Quality Assurance procedures.
  - l. Environmental requirements and permits.
  - m. Milestones for Substantial Completion and Final Acceptance.
  - n. Record documents.
  - o. Project closeout requirements.
- B. The Contractor will introduce the Contractor's representatives and briefly describe each person's responsibilities. The Contractor shall provide the following:
- 1. A list of all subcontractors.
  - 2. Office, storage areas, and construction area layouts, along with temporary easements.
  - 3. Safety, first aid, emergency and security procedures, including the name and contact information for the Contractor's insurance company.
  - 4. 60 day preliminary schedule.
  - 5. Sequence of Work.
  - 6. Construction methods, general worksite layout, and haul plan.
  - 7. Housekeeping procedures.
  - 8. The Contractor's general erosion and sedimentation control plans, noise, hazardous material, air and water pollution control plans, and Quality Control Plan.
  - 9. Coordination and notification requirements for utility work.
  - 10. Deliveries and priorities of major equipment.
  - 11. Submittal schedule.
- C. Explanations provided by the City will not amend, supersede, or alter the terms or meaning of any contract document, and the Contractor shall not claim reliance on such explanations as a defense to any breach or failure by the Contractor to perform as specified in the contract.

### 3.2 CONSTRUCTION PROGRESS MEETINGS

- A. Progress meetings will be scheduled weekly or more often as necessary by the Project Manager to promote the competent and timely execution of the contract.
- B. The meetings will be held at the worksite or at a location selected by the Project Manager. Meetings will be chaired by the Contractor.
- C. The Contractor's personnel, as listed in Paragraph 3.1.A, above, shall attend unless otherwise agreed by the Project Manager.
- D. The Contractor's Project Manager will be responsible for publishing minutes of the meetings.
- E. At a minimum, the following items will be addressed at each meeting. The items addressed in the meeting do not waive notification or submittal requirements as required elsewhere in the contract.
  - 1. Safety: Contractor shall report any safety issues.
  - 2. Quality Control:
    - a. The Contractor's Quality Control Representative shall present and discuss the Independent Testing Agency weekly test report and/or testing schedule.
    - b. The Contractor's Quality Control representative shall report on inspections by other agencies and any follow-up activity required.
    - c. The Project Manager shall present and discuss issues regarding quality control.



3. Quality Assurance: The Project Manager shall present and discuss issues regarding quality assurance.
4. Design Activities: Open discussion.
5. Shop Drawings / Submittals / Material Procurement:
  - a. The Contractor shall provide and review the submittal schedule and provide any updated information and/or changes to the schedule.
  - b. The Contractor shall provide information on the status of submittals requiring re-submittal.
  - c. The Contractor shall review any accepted submittals that the Contractor plans to re-submit with changes.
  - d. Contractor shall provide the status of material procurement for long-lead items (long-lead items are materials and equipment that have a fabrication and/or delivery duration that exceeds 15 working days).
    - 1) This information shall be provided by the Contractor in a format satisfactory to the City Project Manager and shall include, at a minimum:
      - a) Submittal/shop drawing preparation duration.
      - b) Review duration.
      - c) Fabrication duration.
      - d) Delivery duration.
    - 2) All long-lead items shall be identified with a separate activity on the approved CPM project schedule.
6. Construction Activities: Open discussion to include coordination items with other Contractors and / or agencies.
7. Schedule:
  - a. The Contractor shall provide to the Project Manager the Contractor's three week look-ahead schedule and review at the meeting the items on the schedule. The schedule shall be in bar chart format based on the approved CPM, and shall include dates of testing activities, items in progress, percentage of completion of items, responsible subcontractor for the items.

#### PART 4 - MEASUREMENT AND PAYMENT

##### 4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

##### 4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 31 19**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes the requirements for the preparation of a preliminary schedule, construction schedule, related narratives, and monthly progress reports, all encompassing complete performance of contract requirements.
- B. The Contractor shall schedule and coordinate the work of all of its subcontractors and suppliers including their use of the worksite. The Contractor shall keep the subcontractors and suppliers informed of the project construction schedule to enable the subcontractors and suppliers to plan and perform their work properly.
- C. The Contractor shall, in accordance with the requirements of the technical specifications, submit a construction schedule that shall provide for the expeditious and practicable execution of the Work.
- D. The construction schedule for the performance of the Work shall be a Critical Path Method (CPM) system in bar chart format, unless an alternate system is specifically identified in the technical specifications.
- E. Float or slack is defined as the amount of time between the early start date and the late start date or the early finish date and the late finish date of any activities in the schedule. Float or slack is not time for the exclusive use or benefit of either the Contractor or the City.
- F. At a minimum, the Contractor shall submit a monthly progress report and schedule update in accordance with the scheduling provisions or as directed by the Project Manager.
- G. The Contractor shall complete the Work within the contract time and in accordance with the most recent schedule submittal that has been approved in writing by the Project Manager.
- H. Reference the General Conditions as listed:
  - 1. Article 306 "Working Hours and Schedule".
  - 2. Article 603 "Delay Damages".
  - 3. Article 909 "Additional Withholding of Progress Payments".
  - 4. Article 1103 "Contractor Change Request".
  - 5. Article 1202 "Submittal of Claims".

**1.3 PLANNING**

- A. The schedule shall show total contract time, including project milestones, as indicated in the Special Conditions or elsewhere in the contract documents.

- B. The Contractor shall prepare a work plan to complete the work within the contract time and complete those portions of work relating to each milestone date and other contract requirements.
  - 1. The Contractor shall generate a computerized Critical Path Method (CPM) schedule in the Precedence Diagram Method (PDM) format for the Work.
  - 2. The computerized format shall be compatible with the City's Primavera system, version 3.1 or Microsoft Office Project Professional 2003 or later.
  - 3. The Schedule shall be submitted electronically to the Project Manager in a dynamic format which will allow review and manipulation of any part of the schedule, and in reproducible hard copy.
  - 4. The schedule activities shall be resource loaded showing labor man hours by crafts, major construction equipment by type and value of the work.
  - 5. The value of the work shall summarize each pay item shown in the Schedule of Values and balance to their amount.
  
- C. In addition to the construction activities, the schedule shall include activities for furnishing materials and equipment and vendor shop drawing preparation.
  - 1. The construction schedule, a supporting narrative, and the overall progress curve shall be submitted for approval within thirty (30) days after Notice to Proceed.
  - 2. Within thirty (30) days the City will respond with approval or direction to revise and resubmit within ten days.
  - 3. Failure of the Contractor to have a construction schedule approved by the City will be considered cause for withholding progress payment(s).
  
- D. To the extent that the construction schedule or any revisions thereof contains anything not jointly agreed upon in writing, or fails to show anything jointly agreed upon in writing, it shall not be considered to have the approval of the City.
  - 1. Failure to include any work item required for performance of this contract shall not excuse the Contractor from completing all work within applicable completion dates, regardless of the City's approval of the schedule.
  
- E. Failure of the Contractor to comply with this Section will be considered cause for withholding progress payment(s) or termination for default.

#### 1.4 SUBMITTALS

- A. Refer to Division 01 Section "Submittals" for submittal procedures. Submit the following in digital format:
  - 1. Preliminary schedule (with narrative).
  - 2. Construction schedule data and work plan (with narrative).
  - 3. Monthly progress report.
  - 4. Construction schedule change request (as needed).
  - 5. Record construction schedule.

### PART 2 - PRODUCTS

#### 2.1 PLOT AND REPORT FORMAT

- A. All sheet sizes shall be either 24 x 36-inches or 36 x 48-inches. They shall contain a title block with a minimum eighteen (18) point font showing:
  - 1. Contractor's name.

2. Contract number and title.
3. Plot date.
4. Data date.
5. Symbol definitions.
6. List of all approved changes to the original approved schedule.

B. Plots shall contain a time line at the top.

## PART 3 - EXECUTION

### 3.1 PRELIMINARY SCHEDULE

- A. The Contractor shall prepare a preliminary schedule covering the first ninety (90) calendar days of the contract. This preliminary schedule shall be submitted at the Preconstruction Meeting and shall be accompanied by a narrative description of the work plan. Within fourteen (14) days, the City will respond with acceptance or direction to revise and resubmit within ten days.
- B. The preliminary schedule shall show all significant work tasks that occur in the first ninety (90) days, including planning, mobilization, shop submittals and approvals, procurement, fabrication and construction. It shall identify work items or milestones that affect or are affected by the City, other Contractor's work, utilities and other third parties, and it shall list major data submittals required by the contract.
- C. The preliminary schedule shall be accompanied by a narrative describing the Contractor's approach to mobilization, procurement and construction during the first 90 days. The narrative shall elaborate on the basis of duration, production rates, major equipment to be used, and shall identify all major assumptions used to develop the schedule.

### 3.2 CONSTRUCTION SCHEDULE

- A. The construction schedule shall include:
  1. Work items identified in a Work Breakdown Structure (WBS) format that corresponds with the technical specifications.
  2. The order, sequence and interdependence of all significant work items including construction, procurement, fabrication, testing, startup and inspection and delivery of critical or special materials and equipment, submittals and approvals of critical samples, shop drawings, procedures, or other documents that could have a schedule impact.
  3. Work items by the City, other Contractors, utilities and other third parties that may affect or be affected by Contractor's activities.
  4. Proper referencing of all work items to identify applicable subcontractors or other performing parties.
  5. Work items shall be resource loaded to show the direct man-hours estimated to perform the work including work by subcontractors.
  6. Include estimated quantities and production rates, hours per shift, work days per week, and types, number and capacities of major construction equipment to be used and whether the Contractor plans to work weekends or holidays.
- B. The construction schedule shall be prepared to include the data for the total contract duration, and the critical path shall be identified, including critical paths for interim completion dates. Scheduled start or completion dates imposed on the schedule by the Contractor shall be

consistent with contract milestone dates. Milestone events shall be the schedule dates specified in the Special Conditions and shall be prominently identified and connected to the appropriate work item, denoting its start or completion. Work items related to any interim milestones shall be coded for that milestone.

- C. The Contractor shall submit the following documents to the City upon completion of preparation of the construction schedule:
  - 1. A time phased plot of the CPM schedule in PDM format showing all logic ties and an electronic copy in dynamic format.
  - 2. Various computer generated construction schedule reports that contain the following data for each work item: Identification, description, responsibility, duration, early start and early finish, late start and late finish, total float, and resources. The work items shall be sorted by float, early start, subcontractor or other sorts mutually agreed to. The reports shall also show the logic ties of successor and predecessor work items.
  - 3. A physical progress curve showing either manpower or other appropriate key contract items derived from the construction schedule and against which physical progress performance will be measured for schedule and payment purposes.
  - 4. The narrative described in paragraph 3.2.A.7, above.

### 3.3 PROGRESS REPORTING

- A. The Contractor shall submit a monthly progress report at the end of each month following the Notice to Proceed. At the end of each month, the Contractor and Project Manager shall agree on the progress of the work and the Contractor shall update the construction schedule accordingly. The updated construction schedule is a prerequisite to the submittal of the Contractor's application for progress payment. The schedule shall be made in accordance with Article 3.2, above. This review does not constitute an approval of the construction schedule and shall not be used for the purposes of modifying the initially approved construction schedule.
- B. The Contractor shall submit the monthly progress report consisting of a written narrative and various construction schedule reports. This report will be reviewed in a meeting between the Contractor and Project Manager.
  - 1. The narrative report shall describe overall progress of the work, provide a critical path analysis, discuss significant problems with proposed corrective action, and show the status of major changes and any other changes in sequence of the Work.
  - 2. The construction schedule reports shall include tabular reports showing the status of resources for completed and in progress work items and for work items scheduled to start in the next thirty (30) days. The report shall include all the information outlined in paragraph 3.2.C.2, above.
  - 3. A bar chart format schedule shall be provided showing the Contractor's completion status (progress) on each work item along with plots described in paragraph 3.2.C.1, above.
  - 4. The physical progress curve shall be updated to show actual progress.
- C. The latest completion time for any work item does not fall within the time allowed by the construction schedule, the sequence of work and/or duration shall be revised by the Contractor through concurrent operations, additional manpower, additional shifts or overtime, additional equipment or alternative construction methods until the schedule produced indicates that all significant contract completion dates, occupancy dates and milestones will be met. No additional costs will be allowed if such expediting measures are necessary to meet the agreed completion date or dates except as provided elsewhere in the contract documents.

### 3.4 SCHEDULE CHANGES

- A. The Contractor's request for construction schedule changes shall be made on the latest approved construction schedule and shall be accompanied by a narrative description and justification for the change, and shall be submitted in accordance with the General Conditions Article 1105 "Time Extensions" on changes in time. Minor revisions submitted at monthly progress review meetings are not considered as changes in this context.
- B. The construction schedule may be changed when one or more of the following occur:
  - 1. When a change order significantly affects the contract completion date or sequence of work items.
  - 2. When the Contractor elects to change the sequence or duration of work items affecting the critical path.
  - 3. When the City directs a change that affects a milestone date(s) specified in the Special Conditions or alters the length of a critical path.
- C. If, after submitting a request for change to the construction schedule, the Project Manager does not agree with the request, the Project Manager will schedule a meeting with the Contractor to discuss the differences. If a settlement cannot be reached on the change in the construction schedule or if the Contractor has failed to submit revisions to the network, the Project Manager has the option of providing suggested logic and/or duration times in all subsequent updating reports. The suggested logic and/or duration times will remain in effect until the change in the construction schedule is settled or until the logic and duration are superseded.
  - 1. If the Contractor has any objections to the data furnished by the Project Manager, he shall advise the Project Manager within ten days in writing, fully supporting the objections with a counter plan. The revisions suggested by the Project Manager shall be used for updating reports until the Project Manager approves the counter plan.
  - 2. If the Contractor does not submit a counter plan and data within ten days after the date of the Project Manager's suggested logic, the Contractor is deemed to concur with the Project Manager's suggested logic/duration time changes. The Project Manager's plan will be the basis of negotiations for any adjustment of the time and cost for performance of the Work.

### 3.5 CONTRACT EXTENSIONS

- A. If the Contractor is granted an extension of time for completion of any milestone or contract completion date under the provisions of the contract, the determination of the total number of extended days will be based upon the current analysis of the schedule and upon all data relevant to the extension. Such data shall be incorporated in the next monthly update of the schedule.
- B. The Contractor acknowledges and agrees that delays in work items which, according to schedule analysis do not affect any milestone dates or contract completion date shown on the CPM network at the time of the delay will not be the basis for a contract extension.
- C. Weather Delays: Impacts to the project schedule related to abnormal weather conditions will be based on General Conditions Section 1105.3.

### 3.6 RECORD CONSTRUCTION SCHEDULE

- A. After all contract work items are complete, the Contractor shall submit an Record Construction Schedule showing actual start and finish dates for all work items and milestones.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 32 13**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section summarizes the requirements for the submittal of documents to the City that are defined in these Specifications. It also describes the procedures for “supplemental” submittals.
- B. Reference the General Conditions as listed:
  - 1. Article 309 “Contractor Submittals and other Written Communications to the City”.
  - 2. Article 405 “Shop Drawings, Product Data, and Samples”.

**PART 2 - PRODUCTS****2.1 SUBMITTAL SCHEDULE**

- A. The Contractor shall provide a submittal schedule within fourteen (14) days after Notice to Proceed. The Submittal Schedule shall be directly related to the CPM schedule, shall identify all the submittals, and shall include the following information for each submittal item:
  - 1. Specification section, contract article, or special condition.
  - 2. Specification Subparagraph.
  - 3. Item description.
  - 4. Date the submittal shall be submitted.
  - 5. Name of subcontractor or supplier.
- B. The submittal schedule shall be updated every two weeks by the Contractor and submitted with the progress payment request.
- C. One digital submittal submitted on a single CD, USB Drive or by Email.

**2.2 ELECTRONIC SUBMITTALS**

- A. All submittals shall be delivered to the Project Manger in digital format.
  - 1. Acceptable electronic formats:
    - a. Adobe Acrobat 8.0 or newer. All files shall be fully compatible with Adobe Acrobat 8.0. File shall have no security and bookmark every applicable submittal.
  - 2. Formats are acceptable only with written permission of the Project Manager or required by individual spec sections:
    - a. Microsoft Office 2003 (2007 preferred) or newer. All files shall be fully compatible with Microsoft Office 2003.
    - b. AutoDesk AutoCAD 2007 or newer. All files shall be fully compatible with AutoDesk AutoCAD 2007.



- 1) AutoCAD files shall include any related x-ref files, plot files and pen settings.
- c. Other files pre-approved by the Project Manager.
3. Electronic file names: Each electronic document shall have a unique file name. File name convention shall be as follows unless otherwise agreed to by Project Manager: AAA-BBBBBB-CCC-RZ:
  - a. AAA = sequential submittal number starting at 001.
  - b.BBBBBB = specification section containing submittal requirements.
  - c. CCC = sequential specification submittal number starting at 001.
  - d. RZ = sequential revision number. RZ not required on initial submittals.
  - e. Example A: 005-012973-002”, five submittals have been logged overall with two submittals made to Division 01 Section “Schedule of Values”.
  - f. Example B: 009-012973-002-R3, nine submittals made overall and three revisions to submittal 012973-002.

### 2.3 INITIAL SUBMITTAL

- A. Each submittal document shall include a title block showing the following information:
  1. Date of submittal and revision dates.
  2. Contract title and number.
  3. The names of Contractor, subcontractor, supplier, manufacturer and when applicable, the seal and signature of an engineer registered in the State of Colorado, for the involved discipline.
  4. Identification of product by either: description, model number, style number or lot number.
  5. Subject identification by contract drawing or specification reference.
- B. On each submitted drawing, include a blank space on each sheet, three inches by four inches, in the lower right corner, just above the title block, in which the Project Manager may indicate the action taken.
- C. Make submissions sufficiently in advance so that the Project Manager review may be completed before any material procurement or Work represented by those submittals is scheduled to be performed.
- D. Allow a minimum cycle of ten (10) working days for review of each submittal by the City.
- E. The Contractor shall at the time of submission describe variations from the contract documents in writing, separate from the submittal document. If the Project Manager approves any such variations, an appropriate contract change order shall be issued except that, if the variation is minor and does not involve a change in price or in time of performance, a modification need not be issued. If a submission contains variations and the variation column is not marked on the transmittal form, it will not be considered for review and acceptance. Along with marking the transmittal as a variation, a description must be included which outlines all the differences including maintenance and utility services along with any cost savings from an item not containing the variation.
- F. Changes in accepted submittal documents will not be permitted unless those changes have been accepted, in writing, by the City.

- G. The form and quality of submittal documents shall comply with Article 2.2, above.

## 2.4 SUPPLEMENTAL SUBMITTALS

- A. Supplemental submittal documents initiated by the Contractor for consideration of corrective procedures shall contain sufficient data for review. Make supplemental submittals in the same manner as initial submittals with the appropriate primary transmittal referenced.

## PART 3 - EXECUTION

### 3.1 CONTRACTOR'S REVIEW

- A. The Contractor shall review submittal documents, stamp and sign as reviewed and approved as complying with contract documents prior to submission to the City.

### 3.2 CITY REVIEW

- A. Submittal documents will be reviewed by the Project Manager for conformance to requirements of the contract drawings and specifications. Review of a separate item will not constitute review of an assembly in which the item functions. The Project Manager will withhold approval of submittals that depend on other submittals not yet submitted. Review and acceptance will not relieve the Contractor from his responsibility for accuracy of submittals, for conformity of submittal document to requirements of contract drawings and specifications, for compatibility of described product with contiguous products and the rest of the system, or for protection and completion of the contract in accordance with the contract drawings and specifications.
- B. The Project Manager will review the submittal documents for general conformance with the contract documents and mark the Action Code, sign and date the transmittal.
- C. The Action Codes have the following meanings:
  - 1. A - NO EXCEPTIONS TAKEN: no corrections or resubmissions required; fabrication may proceed.
  - 2. B - MAKE CORRECTIONS NOTED: If Contractor complies with noted corrections, fabrication may proceed and resubmission is not required. If for any reason the Contractor cannot comply with the noted corrections, fabrication shall not proceed and Contractor shall resubmit for additional review and comment.
  - 3. C - REVISE AND RESUBMIT means that the submittal is unacceptable and must be revised and resubmitted. Fabrication shall not proceed.
  - 4. E - NOT ACCEPTED Submittal is not in compliance with the Contract Documents, and is not acceptable. Resubmit Contract compliant material.

### 3.3 CONTRACTOR'S RESPONSIBILITIES

- A. Coordinate each submittal document with the requirements of the Work; place particular emphasis upon ensuring that each submittal of one trade is compatible with other submittals of that trade and submittals of other trades including producing as needed drawings showing the relationship of the work of different trades.

- B. Contractor's responsibility for errors and omissions in submittal documents and associated calculations is not relieved by the City's review, correction and acceptance of submittals.
- C. Contractor's liability to the City, in case of variations in the submittal document from the requirements of the contract documents, is not relieved by the City's review and acceptance of submittals containing variations unless the City expressly approves the deviation in writing, in which the City describes the variation.
- D. The Contractor shall maintain a file of all approved submittal documents at the worksite. The complete file of approved submittal documents shall be turned over to the City with the Record Documents at the end of the job.
- E. Schedule impact due to resubmittal requirements is the responsibility of the Contractor.

#### PART 4 - MEASUREMENT AND PAYMENT

##### 4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

##### 4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 32 19**

## **SECTION 01 33 23 SHOP AND WORKING DRAWINGS, PRODUCT DATA, AND SAMPLES**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### **1.2 SUMMARY**

- A. This Section includes requirements for preparing and submitting shop and working drawings, product data, samples, and record documents required by other specifications sections.
  - 1. The Contractor shall submit all shop and working drawings, product data and samples, as defined in the General Conditions, to the Project Manager in accordance with the requirements in the specifications. The Project Manager will return one copy of the shop and working drawings, and product data to the Contractor with a written transmittal within the time periods noted in the specifications.
- B. Reference the General Conditions as listed:
  - 1. Article 111 "Final Completion".
  - 2. Article 117 "Shop Drawings".
  - 3. Article 405 "Shop Drawings, Product Data, and Samples".

#### **1.3 SUBMITTALS**

- A. Refer to Division 01 Section "Submittals" for submittal procedures.
- B. All submittals shall be delivered to the Project Manager in digital format. All submittals must be of a consistent format (all Acrobat or all Word, etc). No combination of digital file types will be allowed unless required by a specific specification section.
  - 1. Acceptable digital formats:
    - a. Adobe Acrobat 8.0 or newer. All files shall be fully compatible with Adobe Acrobat 8.0.
    - b. Formats are acceptable only with written permission of the Project Manager or required by individual spec sections:
      - 1) Microsoft Office 2003 (2007 preferred) or newer. All files shall be fully compatible with Microsoft Office 2003.
      - 2) AutoDesk AutoCAD 2007 or newer. All files shall be fully compatible with AutoDesk AutoCAD 2007.
        - a) AutoCAD files shall include any related x-ref files, plot files and pen settings.
      - 3) Other files pre-approved by the Project Manager.
  - 2. Adobe Acrobat Requirements:
    - a. Drawings shall have security set to "No Security". Commenting, printing, adding photos, filling in form fields, and document signing must be allowed.
    - b. PDF submittals shall be one continuous file. No external links are allowed.
    - c. All individual components of submittals shall be bookmarked inside the PDF file.

- d. All original documents shall be directly converted from the original digital format to PDF. Scanning of files shall only be allowed by the Project Manager when the original digital information is not obtainable.
  - e. Failure to comply with these requirements will result in a return of file to the Contractor for immediate revision.
3. Digital file names: Each digital document shall have a unique file name. File name convention shall be as follows unless otherwise agreed to by Project Manager: AAA-BBBBBB-CCC-RZ.
- a. AAA = sequential submittal number starting at 001.
  - b. BBBBBB = specification section containing submittal requirements.
  - c. CCC = sequential specification submittal number starting at 001.
  - d. RZ = sequential revision number. RZ not required on initial submittals.
  - e. Example A: 005-012973-002”, five submittals have been logged overall with two submittals made to Division 01 Section “Schedule of Values”.
  - f. Example B: 009-012973-002-R3, nine submittals made overall and three revisions to submittal 012973-002.

C. Quantities:

- 1. Post digital submittals as PDF digital files directly to the Project Manager, Contractors FTP site, a site specifically established for the Project, or in a digital delivery method agreed to by the Project Manager.
  - a. The Contractor should send an email for each submittal posted to all parties notifying them the submittal is available for review.
  - b. The Project Manager will send an email to the Contractor when the submittal review is complete.
- 2. Contractor can submit digital submittals via email as PDF digital files if approved by the Project Manager.
- 3. Samples: Submit four (4) samples of each item specified in the various specification sections, unless otherwise specified.
- 4. Note: If manufacturer’s printed information is in color, all copies of submittals must be in color.
  - a. Printed information is only allowed when digital copies are not possible.

D. Review:

- 1. Submittal review comments by the Project Manager will be in digital form and incorporated into the digital submittal file.
- 2. Comments from Project Manager will be formatted as described in Division 1 Section “Submittals”.
- 3. Resubmittals of digital documents shall modify the original digital file with new information and include the Project Manager’s comments with appropriate responses and additional information.

1.4 CHANGES

- A. Changes in products for which shop or working drawings, product data or samples have been submitted will not be permitted unless those changes have been accepted and approved in writing by the City.

## PART 2 - PRODUCTS

### 2.1 SHOP AND WORKING DRAWINGS

- A. Include the following as they apply to the subject:
  - 1. Contract title, work order and number.
  - 2. Respective contract drawing numbers.
  - 3. Applicable specification section numbers.
  - 4. Relation to adjacent structure or materials.
  - 5. Field dimensions clearly identified as such.
  - 6. Applicable standards such as ASTM or Federal Specification number, and pertinent authority specifications or standards.
  - 7. Identification of deviations from the Contract drawings and specifications.
  - 8. Drawing name, number, and revision.
  - 9. Contractor's stamp, initialed or signed, certifying:
    - a. Verification of field measurements.
    - b. Review of submittals for compliance with contract requirements.
    - c. Compatibility of the Work shown thereon with that of affected trades.
  - 10. Blank space on each sheet per Division 01 Section "Submittals", paragraph 2.3.B.
- B. Drawings of equipment and other items that contain multiple parts shall include exploded views showing the relationship of parts and the description of the parts into the smallest units that may be purchased or serviced.

### 2.2 PRODUCT DATA

- A. Modify manufacturer's standard and/or schematic drawings to delete information which is not applicable to the contract. Supplement standard information with additional information applicable to this contract.
- B. Modify manufacturer's standard(s), diagrams, schedules, performance charts, illustrations, calculations and other descriptive data to delete information which is not applicable to the contract. Indicate dimensions, clearances, performance characteristics and capacities. Include with the submittal electrical, plumbing, HVAC and any other diagrams, as applicable.
- C. Modify erection, application and placing instructions to delete information that is not applicable to the contract or work order.
- D. Include the following:
  - 1. Contract title, work order and number.
  - 2. Respective contract drawing numbers.
  - 3. Applicable contract technical specification section numbers.
  - 4. Applicable standards such as ASTM or Federal Specification number, and pertinent authority specification or standards.
  - 5. Identification of deviations from the Contract drawings and specifications.
  - 6. Contractor's stamp, initialed or signed, certifying:
    - a. Dimensional compatibility of the product with the space in which it is intended to be used.
    - b. Review of submittals for compliance with contract requirements.

- c. Compatibility of the product with other products with which it is to perform or which will be next to it.
  - d. The products electrical, plumbing, control and HVAC requirements conform to contract documents and the necessary utilities are provided for in the contract documents.
- E. Certificates of compliance shall be submitted for all products. The certificates shall:
- 1. State that the product complies with the respective specification and contract drawing requirements.
  - 2. Be accompanied by a certified copy of test results pertaining to the product
  - 3. Show the submittals date, Contractor's name and address, contract title and number, product represented and its location in the contract, producer's name, product trade name and catalog number, place of product origin, test date, testing organization's name and address, quantity of the product to be furnished and related contract drawing and specification section numbers.
  - 4. Be signed by an officer or another authorized representative of the producer and notarized.
  - 5. Submit one digital copy.
  - 6. Be received by the City not later than thirty (30) days before the acceptance is needed of the products for ordering.

## 2.3 SAMPLES

- A. Submit samples of sizes and quantities to clearly illustrate full color range and functional characteristics of products and materials including attachment devices.
- B. Erect field samples and mock ups at the worksite as specified in the several technical specifications sections and at locations acceptable to the Project Manager. All field samples shall be erected in a location that will be readily visible throughout the life of the contract to allow comparison of the work as it progresses to the field sample.
- C. The Contractor shall verify, through appropriate inspections and tests, that the samples submitted meet the specifications and shall provide inspection and test data with the samples. The review and comments on the sample shall not relieve the Contractor of his responsibility for completion of the contract.
- D. Show the following information:
  - 1. Contract title and number.
  - 2. Respective contract drawing numbers.
  - 3. Applicable technical specification section numbers.
  - 4. Applicable standards such as ASTM or Federal Specification number.
  - 5. Identification of deviations from the Contract drawings and specifications.
  - 6. Contractor's stamp, initialed or signed, certifying:
    - a. Dimensional compatibility of the product with the space in which it is intended to be used.
    - b. Review of submittals for compliance with contract requirements.
    - c. Compatibility of the product with other products with which it is to perform or which will be next to it.
  - 7. If multiple samples are submitted and the Project Manager is requested to make a choice, each sample shall have a unique identification number attached to it so the returned

transmittal can state the identification number of the accepted sample and the Contractor will know which one it is.

### PART 3 - EXECUTION

#### 3.1 CONTRACTOR RESPONSIBILITIES

- A. Verify field measurements, catalog numbers and similar data.
- B. The Contractor shall not start work for which submittals are required until a transmittal has been received by the Contractor showing acceptance or acceptance as noted by the Project Manager.
- C. Before making submittals ensure that products will be available in the quantities and at the times required by the contract.
- D. Submit final, corrected, digital drawings of contract and shop and working drawings showing the Work as actually installed, placed, erected and applied. Refer to Division 01 Section "Contract Closeout".

#### 3.2 REVIEW BY THE CITY

- A. One digital copy of the marked-up shop and working drawing and one digital copy of the product data will be returned to the Contractor by the Project Manager. Only the transmittal form, appropriately marked, and two samples will be returned on sample submittals. Contractor shall maintain one approved sample on site for the duration of the project.
- B. Contractor's responsibility for errors and omissions in submittals for compatibility will not be reduced, waived or otherwise limited by the review and acceptance of submittals by the City.

### PART 4 - MEASUREMENT AND PAYMENT

#### 4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

#### 4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 33 23**



**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes requirements for construction safety precautions and programs by the Contractor and the basis for reviews by the Project Manager.
- B. Reference the General Conditions as listed:
  - 1. Article 801 "Safety of Persons".
  - 2. Article 802 "Protective Devices and Safety Precautions".
  - 3. Article 803 "Protection of Property and Work in Progress".

**1.3 RESPONSIBILITY**

- A. The General Conditions make it clear that all safety precautions during the construction process are the responsibility of the Contractor. The Contractor is responsible for the health and safety of his employees, agents, subcontractors and their employees, and other persons on the worksite; for the protection and preservation of the work and all materials and equipment to be incorporated therein; and for the worksite and the area surrounding the worksite. The Contractor shall take all necessary and reasonable precautions and actions to protect all such persons and property.
- B. This Section shall be interpreted in its broadest sense for the protection of persons and property by the Contractor and no action or omission by the Project Manager or his authorized representatives shall relieve the Contractor of any of its obligations and duties hereunder.

**1.4 SUBMITTAL**

- A. Refer to Division 01 Sections "Submittals" and "Shop and Working Drawings, Product Data, and Samples" for the process. A safety plan shall be submitted by the General Contractor prior to commencing any work.

**1.5 PROJECT MANAGER'S REVIEW**

- A. The Contractor shall provide two (2) copies of its safety program to the Project Manager for review at least ten days before on-site construction begins. The Contractor's program must meet as a minimum all applicable federal, state and local government requirements.
  - 1. The Contractor must, as part of the Contractor's safety program, submit one electronic file in the form of a security-free, fully bookmarked PDF file compatible with Adobe Acrobat 8.0 or newer and one body hard copy of the following information for acceptance by the Project Manager prior to construction:
    - a. Name of the Contractor's site safety representative.

- b. If the Contractor is running multiple shifts or working more than forty (40) hours per week, the name of an assistant Contractor's safety representative who can act in the absence of the site safety representative.
  - c. Twenty four (24) hours per day emergency phone numbers of Contractor site management to be used in case of injury or accident. Provide at least four contacts.
  - d. The Contractor's method of ditching and trenching excavation to be used, including how slopes will be stabilized with calculations showing the slope stability.
    - 1) The Contractor shall also show how material will be stored beside the excavation.
    - 2) Stored material will include the excavated and backfilled material.
  - e. How injuries or accidents will be handled including samples of the forms used to report injuries or accidents.
  - f. How employees will be handled who are unable to safely perform their duties, including how the Contractor will determine whether an employee is unable to safely perform his duties.
  - g. How and when equipment will be checked to see that it is safe, that all safety guards are in place and that the equipment is being used for its designed purpose and within its rated capacity.
  - h. How and when all electric devices will be checked for proper grounding and insulation. What system will be used to lock out electric systems that should not be energized.
  - i. How trash and human organic waste will be disposed.
  - j. How snow and ice will be removed within the project area by the Contractor.
  - k. How concrete forms will be anchored to ensure their stability, including calculations showing that the forms will safely hold the maximum construction loads.
  - l. How flammable materials will be stored and handled, and how any spills will be cleaned up and removed for disposal.
  - m. What system will be used to prevent fires, and if fires do occur who will be trained to fight them. Also what firefighting equipment the Contractor will have available and how this equipment's condition will be monitored.
  - n. How materials will be received, unloaded, stored, moved, and disposed of.
  - o. How personnel working above ground level will be protected from falling.
  - p. How people working underneath work will be protected.
  - q. What will be done to protect personnel in case of severe weather.
  - r. How adequate lighting will be provided and monitored.
  - s. How the safety of work platforms, man lifts, material lifts, ladders, shoring, scaffolding, etc. will be ensured relating to load capacity and the protection of personnel using or working around them.
- B. Prior to the start of any work by a contractor or subcontractor employee, the Contractor shall provide the Project Manager with a list of its employees, subcontractor's employees, and other personnel the Contractor has requested to work on site, who have signified in writing that they have been briefed on, or have read and understand, the Contractor's Safety Plan.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S SAFETY PLAN

- A. Provide a Contractor's Safety Program as described in Division 01 Section "Summary of Work".

PART 3 - EXECUTION

3.1 IMPLEMENT CONTRACTOR'S SAFETY PLAN

- A. Implement the approved Contractor's Operational Safety Plan as described in Part 1 of this section.

PART 4 - AND PAYMENT

4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 35 23**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section identifies primary compliance with the State, and City and County of Denver's regulatory requirements including:
  - 1. Colorado Department of Transportation (CDOT).
  - 2. Denver Department of Public Works
    - a. The Division of Wastewater Services
    - b. Right of Way Services
    - c. Construction Engineering
    - d. Traffic Engineering
- B. Construction shall be based on the latest edition of the referenced codes including additions and revisions thereto that are in effect at the time of project bidding.

**1.3 BUILDING CODE**

- A. All design and construction work shall be governed by the Building Code for the City and County of Denver, latest edition. This is based upon the International Building Code of the International Code Council with Denver Amendments to this code.

**1.4 DENVER BUILDING DEPARTMENT**

- A. For review and approval of all construction documents for compliance to the Denver Building Code:

City and County of Denver  
Community Planning and Development  
Building Inspection Division  
201 West Colfax Avenue, Dept 205  
Denver, Colorado 80202  
Telephone 720-865-2720  
Fax 720-865-2880

**1.5 DENVER FIRE DEPARTMENT**

- A. For review and approval of plans for compliance with the Denver Fire Department's requirements as they apply to projects for the Department of Public Works:

Denver Fire Department  
745 W. Colfax Ave.  
Denver, Colorado 80204

Telephone 720-865-2833

- B. The Contractor is advised that the Denver Fire Department – Fire Prevention Bureau requires permitting for the following activities as they apply to the scope of work. The Contractor is responsible for obtaining the appropriate permits necessary to complete the work. All costs associated with this permitting and policy compliance shall be the responsibility of the Contractor. The policies all reference the International Fire Code (IFC).
  - 1. Hot Work: “Hot work” shall be defined as the operation of any equipment or tool that creates sparks, hot slag, or radiant or convective heat as a result of the work. This includes, but is not limited to, welding, cutting, brazing, or soldering.
  - 2. Use and storage of compressed gas for both temporary storage and permanent facility installation. This includes, but is not limited to, flammable gas (excluding propane-LPG), oxidizer (including oxygen), and inert and/or simple asphyxiates.
  - 3. Tank installation, which includes above-ground storage tanks (AST) and underground storage tanks (UST) for both temporary tanks and permanent facility installations.
  
- C. In addition to the above permits, the Denver Fire Department may require other permits that are associated with the specific work in the Contract Documents. Policies provided by the Denver Fire Department are meant to provide basic information for the most common conditions and situations. In any given occupancy, many other International Fire Code (IFC) requirements may be enforced. These should be addressed with the Denver Fire Department before construction begins and during construction with premise inspection(s). Any questions can be addressed to the Fire Prevention Bureau between 6:30 A.M. and 9:00 A.M. Monday-Friday at 720-913-8242 or 720-913-8237.

#### 1.6 THE DENVER OFFICE OF DISABILITY (ADA) COMPLIANCE

- A. For review and approval of all construction documents for compliance with the Denver ADA standards\*:

City and County of Denver  
Human Rights and Community Partnerships  
Office of Disability Rights  
201 West Colfax Avenue, Dept 1102  
Denver, CO. 80202

\*Note: Currently the 2010 ADA standards for accessible design and the Transportation Standards and Details for the Engineering Division, Denver Public Works Department, 7.0-7.8 are being used as reference documents to review all plan approval requests.

#### PART 2 - PRODUCTS (Not Used)

#### PART 3 - EXECUTION

##### 3.1 PERMITS AND CERTIFICATIONS

- A. The Contractor shall maintain records on site of all permits acquired by federal, state, and local agencies. Posting of permits shall conform to requirements of the respective agencies.

- B. At the completion of any inspection by other agencies, the Contractor shall forward copies of the status of the inspection and copies of any approved or “signed-off” inspections by the respective agencies to the Project Manager.
- C. At the time of request for Substantial Completion, the Contractor shall forward to the Project Manager all permits approved by the respective agencies.

#### PART 4 - MEASUREMENT AND PAYMENT

##### 4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

##### 4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 42 10**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section contains a list of definitions of words or phrases and grammatical or contextual conventions commonly used in these contract documents.

**1.3 DEFINITIONS****A. Alphabetical Listing of Definitions**

1. As Indicated: Shown on the drawings by graphic indication, notes or schedules, or written in the specifications or elsewhere in the contract documents.
2. As directed, as approved, or as requested: Unless otherwise indicated, these terms imply “by the Project Manager” and require that an instruction be obtained by the Contractor from the Project Manager.
3. Concealed: Embedded in masonry, concrete or other construction; installed in furred spaces; within double partitions or hung ceilings; in trenches; in crawl spaces or in enclosures.
4. Ensure: To make certain in a way that eliminates the possibility of error.
5. Exposed: Not installed underground or “concealed” as defined above.
6. Furnish or Provide: To supply, install and connect complete and ready for safe and regular operation of particular work unless specifically otherwise noted.
7. As Indicated, As Shown, or As Noted: As depicted on drawings or specifications.
8. Install: To erect, mount and connect complete with related accessories.
9. Or equal, or Approved Equal: Refers to products which, in the opinion of the Project Manager, are similar in all respects to products specified by proprietary brand name.
  - a. Refer to Division 01 Section “Substitutions” for procedures for submittal of proposed substitutions.
10. Rework: To repair existing items or work required to be removed and replaced in order to accomplish the Work in accordance with the contract documents.
11. Related Work: Includes, but not necessarily limited to, mentioned work associated with, or affected by, the work specified.
12. Reviewed, Satisfactory, Accepted, or Directed: Assumes by or to the Project Manager.
13. Similar, or Equal: Same in materials, weight, size, design, construction, capacity, performance and efficiency of specified product.
14. Supply: To purchase, procure, acquire and deliver complete with related accessories.
15. Unless Otherwise Indicated and Unless Otherwise Noted: General note to perform work as indicated or shown on drawings or in specifications unless specifically directed otherwise elsewhere in the contract documents; may be abbreviated “U.O.N.”, “U.O.I.”, or “U.N.O.”

## 1.4 CONVENTIONS

- A. Specifications Format: In order to standardize the location of information in the Contract Documents, the specifications generally are organized in the following format:
  - 1. The 2014 edition of “MASTERFORMAT” published by the Construction Specifications Institute.
- B. Organization of Drawings and Specifications: Organization of the specifications into divisions and sections, and arrangement or numbering of drawings is intended solely for the convenience of the Contractor in his responsibilities to divide the Work among subcontractors or to establish the extent of work to be performed by any trade.
  - 1. Neither the City nor the Project Manager assume any liability arising out of jurisdictional issues or claims advanced by trade organizations or other interested parties based on the arrangement or organization of drawings or specifications.
- C. Gender and Number: For convenience and uniformity, parties to the Contract, including the City, Contractor, and Project Manager, and their subcontractors, suppliers, installers, consultants or other interested parties are referred to throughout the contract documents as if masculine in gender and singular in number. Such reference is not intended to limit the meaning of the contract documents to the masculine gender or singular number.
- D. Singular vs. Plural: Materials, products, equipment or other items of work referred to in the singular shall be construed as plural where applicable by the intent of the contract documents and shall not limit quantities to be provided by the Contractor.
- E. Imperative Mood: Specifications and notes on the Drawings or elsewhere in the contract documents are generally written in the imperative mood as instructions to the Contractor, whether the Contractor is specifically addressed or not.
- F. References to Subcontractors or Trades: References to subcontractors, trades, or other entities which are not parties to the contract shall be construed as meaning the Contractor whose responsibility it shall be to divide the Work among subcontractors or trades. Such references are used as a matter of convention, and are not intended to preclude or direct the Contractor’s responsibility to divide the Work.
- G. Abbreviations: Abbreviations are believed to be those in general use in the construction industry. Contact the Project Manager for clarification of abbreviations for which the meaning is not clear.
  - 1. Review the contract drawings for additional abbreviations.



PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. No separate measurement shall be made for work under this Section.

4.2 PAYMENT

A. No separate payment will be made for work under this Section.

**END OF SECTION 01 42 16**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes general administrative requirements and procedures, and related applicable codes.

**1.3 CODES**

- A. Obtain all permits and licenses in accordance with General Conditions Article 317 – “Permits and Licenses”.
- B. Publication Dates: Comply with General Conditions Article 401 – “Contract Documents-Review and Interpretation”.

**1.4 EXISTING UTILITIES**

- A. Locate and protect existing utilities in accordance with General Conditions Article 804 – “Protection of Municipal, Public Service, or Public Utility Systems”.
- B. Although existing utilities may be shown on the drawings, their location is not guaranteed. Contractor is required to call Utility Notification Center of Colorado (UNCC) at 811 three days (72 hours) prior to starting any work.

**1.5 CONTRACTOR’S CONSTRUCTION SCHEDULE**

- A. Furnish construction schedule, as required by General Conditions Article 306 – “Working Hours and Schedule”.
- B. **IMPORTANT:** Prior to beginning work on project site, the Contractor shall give minimum 48 hour notification to both the Project Manager and the District Superintendent.
- C. The schedule may be used as a tool in analyzing any requests for the extension of the contract completion date due to changes in the Work or abnormal weather conditions. Normal weather conditions are based on the ten-year historical weather information provided by the National Climatic Data Center for the Denver Metropolitan area. Normal weather conditions shall be incorporated into the bar chart schedule. Additional time will be added to the Contract time only if the activities involved will affect the project’s Completion Date because of the criticality of the activities changed or altered.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Properly carton, crate, cover, and protect materials, products and equipment for shipping, handling and storing. Use appropriate means for hoisting and loading which will prevent damage or overstress to items being handled or shipped. Store them under roof in controlled environment whenever feasible; otherwise store off the ground under suitable coverings properly secured against wind and weather. Protect all items from rain, snow, moisture, wind, cold, heat, frost, sun, staining, discoloration, deterioration and physical damage from any cause. Refer to individual sections for specific requirements.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

PART 4 - MEASUREMENT AND PAYMENT (Not Used)

**END OF SECTION 01 42 23**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. Quality Assurance is defined as measures, tests, and/or audits that may be performed by the City or City Representatives to ensure the Contractors work is installed per the construction documents and the contractors Quality Control plan.
- B. This Section identifies inspection activities to be performed by inspectors and testing agencies employed by the City and working under the direction of the Project Manager.
  - 1. Inspection and tests, conducted by persons or agencies other than the Contractor, shall not in any way relieve the Contractor of his responsibility and obligation to meet all specifications and the referenced standards.
  - 2. The inspection and approval of work by other agencies above does not constitute inspection or acceptance of work required by the City. Technical specifications may contain requirements more stringent than Building Inspection Division or other code agency requirements.
- C. Reference General Conditions as listed:
  - 1. Article 1701 "Construction Inspection by the City".
  - 2. Article 1702 "Authority of Inspectors".
  - 3. Article 1703 "Observable Defects".
  - 4. Article 1704 "Defects – Uncovering Work".
  - 5. Article 1705 "Latent Defects".
  - 6. Article 1706 "Removal of Defective Materials and Work".
- D. Related Sections:
  - 1. Division 01 Section "Contractor Quality Control".
  - 2. Division 01 Section "Submittals".
  - 3. Division 01 Section "Shop and Working Drawings, Product Data, and Samples".

**PART 2 - PRODUCTS (Not Used)****PART 3 - EXECUTION****3.1 CITY'S QUALITY ASSURANCE MEASURES**

- A. According to the judgment of the Project Manager, any portion of the work in this contract may be tested at any time for any reason.
- B. Contractor shall not rely upon these tests to assure compliance with the Contract Documents.

### 3.2 TESTING – GENERAL

- A. Tests: Made by testing laboratory approved by the Project Manager. Except as otherwise provided, sampling and testing of materials and laboratory methods and testing equipment shall be in accordance with latest standards and tentative methods of ASTM.
  - 1. Specific information concerning testing methods, sample sizes, etc., is included under applicable sections of Specifications.
  - 2. Any modification of, or elaboration on, these test procedures included for specific materials under their respective sections in Specifications shall take precedence over these procedures.

### 3.3 COST OF TESTING

- A. Unless indicated otherwise, additional testing required by the City's Agents shall be performed by the City's authorized agents, at the City's expense.
- B. Costs for testing shall be borne by the Contractor only if such tests indicate that work does not meet Contract Document requirements.
- C. Costs for re-testing of non-complying work shall be borne by the Contractor.

### 3.4 TEST REPORTS

- A. Test reports, whether performed for the City or the Contractor, shall be submitted to the Project Manager and Contractor as soon as results are available. Reports shall be clear, concise, comprehensive written forms containing required test results.
- B. Reports of tests made by testing laboratories shall be distributed by testing laboratory as follows:
  - 1. Two (2) Copies – Project Manager.
  - 2. One (1) Copy – Contractor.
  - 3. One (1) Copy – Applicable Supplier or Subcontractor.

### 3.5 MANUFACTURING AND FABRICATION INSPECTIONS

- A. The Project Manager may elect to perform additional inspections and/or tests at the place of the manufacturer, the shipping point, or at the destination to verify conformance to applicable specifications. Inspections and tests performed by the City shall not relieve the Contractor from the responsibility to meet the specifications, nor shall such inspections/tests be considered to be a guarantee for acceptance of materials that will be delivered at a later time.
- B. The Project Manager or his authorized representative may inspect at its source any material or assembly to be used in the Work. Manufacturing plants may be inspected from time to time for the purpose of determining compliance with specified manufacturing methods or materials to be used in the Work and to obtain samples for testing and further inspection.
- C. Should the Project Manager conduct plant inspections the following conditions shall exist:
  - 1. The Project Manager shall have the cooperation and assistance of the Contractor and the producer with whom the Contractor has contracted for materials.

2. The Project Manager shall have full access during scheduled production or warehousing working hours to parts of the plant that are concerned with the manufacture, production, storage or shipping of materials being furnished.
  3. The Contractor shall arrange for adequate office or working space that can reasonably be needed for conducting a plant inspection. Office or working space shall be conveniently located with respect to the plant and/or warehouse as required by the Project Manager.
- D. It is understood and agreed that the City shall have the right to re-test, at the City's expense, any materials that have been tested and accepted at the source of supply after it has been delivered to the site.

#### PART 4 - MEASUREMENT AND PAYMENT

##### 4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

##### 4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 43 00**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section identifies the Quality Control activities to be performed during all phases of the contract by the Contractor. Quality Control is defined as the process by which the Contractor ensures the project is constructed per the construction documents.
- B. The Contractor shall have in place his Quality Control Program as necessary to ensure that all materials and work are completed in compliance with contract documents. The Contractor is solely responsible for Quality Control. The City reserves the right to conduct additional tests or audits to verify compliance per Division 1 section "Quality Assurance".
- C. Test schedules and/or testing requirements for materials used on this project are included in the technical specifications. Laboratory and field testing identified in the technical specifications shall be conducted by an Independent Testing Agency (ITA) retained by the Contractor.

**1.3 LEVEL OF CONTROL**

- A. The intent of this section is to enable the Contractor to establish a necessary level of control that will:
  - 1. Adequately provide for the production of acceptable quality materials.
  - 2. Provide sufficient information to ensure both the Contractor and the Project Manager that the specification requirements are being met.
  - 3. Allow the Contractor as much latitude as possible to develop his or her own standards of control.

**1.4 SUBMITTALS**

- A. Refer to Division 01 Sections "Submittals" and "Shop and Working Drawings, Product Data, and Samples", for submittal requirements.
- B. Quality Control Plan: Within ten (10) days after Notice to Proceed, the Contractor shall submit a Quality Control Plan for review and acceptance. Acceptance by the Project Manager does not relieve the Contractor of compliance with the contract requirements. The Contractor Quality Control Plan shall address the following as a minimum:
  - 1. Provide a general description of Quality Control monitoring to be performed until final acceptance by the City. Include monitoring activities of Work and the worksite during times no construction activity is scheduled to take place.
  - 2. The Contractor shall designate an employee as the Quality Control Representative qualified to perform quality control monitoring of the Work. The designated individual shall have the authority to direct work changes required to bring the Work into

- conformance with contract requirements including stopping non-conforming work in progress.
3. The Quality Control Plan shall address each technical specification division's requirements for quality control. The Contractor shall identify each item requiring submittal and approval/acceptance prior to installation of work. Also, the Contractor shall identify each item of work requiring testing by the independent testing agency.
  4. The Quality Control Plan shall address and establish controls and documentation format to ensure that items or materials that have been accepted through receiving inspection are used or installed. Identification and traceability shall be provided throughout all inspections, test activities and records. For stored items, provisions shall be made for the control of item/material identification, consistent with the expected duration and type of storage.
  5. Provide methodology of monitoring, testing and exercising of all equipment, valves and/or assemblies to ensure the Work installed is in proper working order.
- C. List of Suppliers and Subcontractors: Submit a list of suppliers and subcontractors, including items to be supplied by each supplier and/or subcontractor. Identify work to be performed by each subcontractor. The list shall be updated and resubmitted as required.
- D. Emergency Contact List: Submit a list of emergency contact information including name, company, title, work phone number, home phone number, and other means of contact for at least four individuals.
1. Review the Emergency Contact list on a daily basis. In the event there is any change in any of the information, the Contractor shall forward the updated list to the Project Manager.
  2. The Emergency Contact list shall include the project number, project title, and date of issue.
- E. Quality Control Report:
1. The Quality Control Report shall be submitted weekly or per the discretion of the Project Manager in the format detailed in Division 01 Section "Standard Forms". The report shall address as a minimum the following: identify notifications and discussions with/by other agency inspectors, identify work placed that day and any deviations and/or corrections required to bring the Work into conformance with the contract. Reporting must be digital format and signed by the Contractors Quality Control Representative. Legible, hand written reports on the approved form shall be accepted. Scanned copies of daily reports are acceptable.
  2. Submit one electronic copy of the Quality Control Report to the Project Manager the week following the work or per the discretion of the Project Manager. The report shall be signed by the Contractor's Quality Control Representative and the Contractor's Superintendent.
- F. Corrective Action Report (CAR): Conditions adverse to quality will be reviewed by the Contractor and the City Representative to determine the cause and to recommend a corrective action that will preclude recurrence.
1. The condition, its cause, and the corrective action planned shall be reported to the Project Manager prior to implementation.
  2. Follow-up action shall be taken to verify implementation of the corrective action.
  3. The Contractor will document the corrective action and a copy of the Corrective Action Report (CAR) will be transmitted to the Project Manager.



## 1.5 DOCUMENTATION

- A. The Contractor shall not change or alter approved submittals, procedures, specifications, drawings, or other pertinent documentation without the Project Manager's written authorization.
- B. All records and documents that are quality related shall be prepared, identified, and maintained by the Contractor and shall be made available to the City upon request. Records shall be protected from damage, deterioration or loss. A copy of the records and documents shall be maintained at the Work site at all times unless the Project Manager has approved other locations in writing. .
- C. The Contractor shall maintain records at the actual worksite and at Contractor's office to show the inspection status of materials and items installed in order to ensure that the required inspections and tests have been performed in a timely and correct manner.

## 1.6 INSPECTIONS AND TESTS

- A. Inspections, tests, and system shut down requests, conducted by persons or agencies other than the Contractor, shall not in any way relieve the Contractor of his responsibility and obligation to meet all specifications and the referenced standards. The Contractor's designated Quality Control Representative shall inspect the work and shall ensure the work complies with the contract requirements prior to any requests for inspection or testing.
- B. When the specifications, laws, ordinances, rules, regulations or orders of any public agency having jurisdiction require the Project Manager's surveillance of inspections or tests, the Contractor shall notify the Project Manager of the place, date and time forty eight (48)-hours prior to the inspection and/or test. The Contractor shall be responsible for notifying and requesting inspection by other agencies including but not limited to the Denver Building Inspection Division, Denver Fire Department, Denver Wastewater Management Division and Denver Water. Prior to request for other agency inspections, the Contractor shall meet and plan inspection times with the Project Manager and or his designated representative.
- C. Special inspections or tests may be required by the technical specifications, City, State and/or Federal Agencies in addition to those tests already performed. The Contractor shall notify the Project Manager at least forty eight (48)- hours in advance of the additional inspections or tests.

## 1.7 INSPECTION PLAN

- A. The Contractor shall utilize the following six-point inspection plan to ensure the conformance of the Work performed by the Contractor meets the requirements of the contract drawings and specifications, the referenced codes and standards and the approved submittals:
  - 1. Pre-work Coordination: Prior to the start of construction work, work under each separate specification section, where a change in a construction operation is contemplated by the Contractor, and a new subcontractor starting work, a coordination meeting will be held with the Contractor's superintendent, Quality Control, and Safety representative(s), and the ITA representative. Supervisory, Safety, and Quality Control representatives of all applicable subcontractors shall also attend. The Contractor's Quality Control Representative shall chair the meeting, and prepare and distribute minutes of Quality Control meetings. Meeting minutes shall be electronically distributed within twenty four (24) - hours of the meeting.

2. The purpose of the meeting is to ensure that the Contractor's personnel have no misunderstandings regarding their safety and quality procedures as well as the technical requirements of the contract. The following items shall be presented and reviewed by the Contractor:
  - a. Contract requirements and specifications.
  - b. Shop drawings, certifications, submittals and Record Drawings.
  - c. Testing and inspection program and procedures.
  - d. Contractor's Quality Control program.
  - e. Familiarity and proficiency of the Contractor's and subcontractor's workforce to perform the operation to required workmanship standards including certifications of installers.
  - f. Safety, security, and environmental precautions to be observed.
  - g. Any other preparatory steps dependent upon the particular operation.
  - h. The Contractor's means and methods for performing the Work.
3. Initial Inspection: Upon completion of a representative sample of a given feature of the Work and no later than two weeks after the start of a new or changed operation, the Project Manager and/or his designated representative will meet with the Contractor's Quality Control representative and applicable subcontractor's supervisor and their Quality Control representatives to check the following items, as a minimum:
  - a. Workmanship to established quality standards.
  - b. Conformance to contract drawings, specifications and the accepted shop drawings.
  - c. Adequacy of materials and articles utilized.
  - d. Results of inspection and testing methods.
  - e. Adequacy of Record Drawings maintained daily.
4. Once accepted, the representative sample will become the physical baseline by which ongoing work is compared for quality and acceptability. To the maximum practical extent, approved representative samples of work elements shall remain visible until all work in the appropriate category is complete. Acceptance of a sample does not waive or alter any contract requirements or show acceptance of any deviation from the contract not approved in writing by the Project Manager.
5. Follow-up Inspection: The Contractor's Quality Control representative will monitor the work to review the continuing conformance of the work to the workmanship standards established during the preparatory and initial inspections.
6. Completion Inspection: This is not an acceptance inspection. Forty eight (48) - hours prior to the completion of an item or segment of work and prior to covering up any work, the Contractor will notify the Project Manager who will verify that the segment of work is substantially complete, all inspections and tests have been completed and the results are acceptable.
  - a. The purpose of this inspection is to allow further corrective work upon, or integral to, the completed segment of work.
  - b. If any items are determined to be deficient, need correction or are non-conforming, a Deficiency List will be prepared and issued to the respective Contractor for correction, repair or replacement of any deficient or non-conforming items.
  - c. The Project Manager and Contractor's Quality Control representative will verify the correction of the deficient and/or non-conforming items prior to the start of the next operation.

7. Substantial Completion Inspection: Prior to requesting a Substantial Completion Inspection by the City, all work and operational systems to be inspected shall be satisfactorily completed and tested by the Contractor.
  - a. The Contractor's written request for this inspection shall be made seventy two (72) - hours in advance.
  - b. With the request shall come a list of any known deficiencies and when they will be corrected.
  - c. If the list is too large or contains too many significant items, in the opinion of the Project Manager, no inspection will be held because of the incompleteness of the work.
8. The Contractor will schedule the Substantial Completion Inspection and will prepare a list of deficient items (punch list) discovered during the inspection.
  - a. If during the inspection the list becomes too large or too many significant items are on the list, the inspection will be canceled.
  - b. After the inspection is completed, the Deficiency List will be transmitted to the Project Manager identifying all deficient items.
9. Final Acceptance Inspection: After the Contractor has completed all items on the Deficiency List (generated from the Substantial Completion Inspection) he shall request a Final Acceptance Inspection. The request shall be made in writing at least seventy two (72) hours in advance of the inspection.
  - a. All areas must be cleaned and ready for turnover prior to this inspection. The Project Manager, the design consultant, a representative of the funding agency (if applicable) and other interested parties will inspect the subject Work to ensure that all deficiencies have been satisfactorily attended to and that no new deficiencies have appeared and that all systems are completely functional.
  - b. Any outstanding or additional deficient items will be noted and handled per the requirements of the Substantial Completion Inspection noted above until the Work is acceptable to the Project Manager.

## 1.8 SAMPLES

- A. The Contractor shall maintain at the worksite a copy of all samples submitted and accepted by the City. Samples shall be made available to the designer or the Project Manager's designated representatives for review and comparison in the field. The Project Manager prior to use on the project must accept all items and materials.
- B. The installed work will be compared to the samples and if any of the work is not of the same quality, material, finish, color, texture or appearance as the sample, that portion that is not the same will be considered defective and in nonconformance.
- C. Contractor selection of samples will only be considered if taken at random. The Contractor shall permit representatives of the City to witness the selection of samples. Inspection or tests of items or materials that fail shall be sufficient cause to terminate further inspections/tests of the same brand, make or source of that product.
- D. The Contractor is obligated to correct any item deemed deficient.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

### 3.1 REQUIREMENTS

- A. The Contractor is responsible for Quality Control of the Construction. All acquisition of materials, sequence of construction (except as otherwise indicated), and means and methods of construction shall be the responsibility of the Contractor. Establish system to perform sufficient inspection and tests of all items of work, including that of subcontractors, to ensure conformance to Contract Documents for materials, workmanship, construction, finish, functional performance and identification.
1. Control System: Establish for all construction except where Contract Documents provide for specific compliance tests by testing laboratories and engineers employed by the City.
  2. Control System: Specifically include all testing required by various sections of Specifications.
  3. Quality Control System: Means by which Contractor assures himself that construction complies with requirements of Contract Documents.
    - a. Controls: Adequate to cover all construction operations and keyed to proposed construction schedule.
- B. All materials required for the contract shall be new except where specified otherwise. The Project Manager may elect to perform additional inspections and/or tests at the place of the manufacture, the shipping point or at the destination to verify conformance to applicable specifications. Inspections and tests performed by the City shall not relieve the Contractor from the responsibility to meet the specifications, nor shall such inspections/tests be considered a guarantee for acceptance of materials that will be delivered at a later time.
- C. The Contractor is obligated to correct or remove non-conforming materials, whether in place or not. If necessary, the Project Manager will send written notification to the Contractor to correct or remove the defective materials from the project. If the Contractor fails to respond, the Project Manager may order correction, removal and/or replacement of defective materials by others, in which case the Contractor shall bear all costs incurred by such actions.
- D. Materials accepted on the basis of a Certificate of Compliance may be sampled and inspected/tested by the Project Manager or it's Designer at any time. The fact that the materials were accepted on the basis of such certification shall not relieve the Contractor of his responsibility to use materials that conform to the specifications.
- E. The Contractor shall impose upon his suppliers the same quality control requirements, including inspection and test procedures, as imposed upon him by the specifications and referenced standards. The Contractor shall apply appropriate controls, designed to ensure that all materials supplied meet the requirements and specifications.

### 3.2 CONTRACTOR'S QUALITY CONTROL SYSTEM

- A. The Contractor is responsible for Quality Control of the Construction. All acquisition of materials, sequence of construction (except as otherwise indicated), and means and methods of construction shall be the responsibility of the Contractor. Establish system to perform sufficient inspection and tests of all items of work, including that of subcontractors, to ensure

conformance to Contract Documents for materials, workmanship, construction, finish, functional performance and identification.

1. Control System: Establish for all construction except where Contract Documents provide for specific compliance tests by testing laboratories and engineers employed by the City.
2. Control System: Specifically include all testing required by various sections of Specifications.
3. Quality Control System: Means by which Contractor assures himself that construction complies with requirements of Contract Documents.
  - a. Controls: Adequate to cover all construction operations and keyed to proposed construction schedule.

- B. The Contractor shall be responsible for assuring compliance with the quality standards as indicated in the Contract Documents. In addition, the Contractor shall be responsible for:
1. Review of submittals prior to their being forwarded to the Project Manager for review. The Contractor shall mark submittals with comments and shall indicate the date and party conducting the Contractor's review of each submittal.
  2. Final inspection of the project prior to calling for the Project Manager to conduct a final inspection. The Contractor shall provide his inspection comments to the Project Manager prior to the scheduled final inspection.
  3. Verification of completion of punch-list items prior to calling for verification inspection by the Project Manager.

- C. Records: Maintain correct records on appropriate forms for all inspections and tests performed, instructions received from the Project Manager and actions taken as result of those instructions.
1. Records: Include evidence that required inspections or tests have been performed (including type and number of inspections or tests, nature of defects, causes for rejection, etc.) proposed or directed remedial action, and corrective action taken.
  2. Document inspections and tests as required by each section of Specifications.

### 3.3 MATERIAL AND WORKMANSHIP

- A. Unless otherwise specified, or indicated on the Drawings, material shall be new, of best quality, and without flaws, and delivered upon completion in an undamaged condition.
- B. Workmanship shall be the best of its respective kind. Labor shall be performed in a thorough workmanlike manner by qualified, efficient, and skilled mechanics, acceptable to the Project Manager, and other trades involved on the job requiring acceptable substrate for the performance of their work.

### 3.4 TESTING – GENERAL

- A. Testing Laboratory and/or Engineering services are required for quality control in portions of the work identified in other sections of these specifications.
- B. Tests required by these Specifications shall be performed in strict accordance with referenced testing methods, procedures, and conditions. Pertinent data shall be included in clear, comprehensive written forms according to the requirements of these Contract Documents.

- C. Contractor: Provide equipment and facilities as required for testing at no additional cost, subject to Project Manager's review, for conducting field tests and for collecting and forwarding samples.
  - 1. Do not use materials or equipment represented by samples until tests, if required, have been made and materials or equipment found to be acceptable.
  - 2. Do not incorporate any product into work which becomes unfit for use after acceptance thereof.
- D. Testing: Materials or equipment proposed to be used may be tested at any time during their preparation or use. Furnish required samples without charge and give sufficient notice of placing of orders to permit testing. Products may be sampled either prior to shipment or after being received at site of work.
- E. Tests: Made by testing laboratory approved by the Project Manager. Except as otherwise provided, sampling and testing of materials and laboratory methods and testing equipment shall be in accordance with latest standards and tentative methods of ASTM.
  - 1. Specific information concerning testing methods, sample sizes, etc., is included under applicable sections of Specifications.
  - 2. Any modification of, or elaboration on, these test procedures included for specific materials under their respective sections in Specifications shall take precedence over these procedures.

### 3.5 OTHER TESTING

- A. Following Testing: Performed at expense of Contractor:
  - 1. Any additional tests required because of any tests that fail subject to following conditions:
    - a. Quantity and Nature of Tests: Determined by the Project Manager.
    - b. Tests: Taken in presence of the City and/or the Project Manager.
    - c. Proof of Noncompliance: Contractor liable for corrective action which the Project Manager feels is required including complete removal and replacement of defective material.
  - 2. Material Substitution: Any tests of material or equipment offered as substitute for specified item on which test may be required in order to prove its compliance with the Contract Documents.
- B. Contractor: May have tests performed on material and equipment for his own information and job control so long as the City does not assume responsibility for costs or for giving them consideration when appraising quality of materials.

### 3.6 EQUIPMENT TESTING

- A. Equipment testing shall be as determined appropriate by the Project Manager to assure proper performance according to the manufacturer's specifications for each equipment item.
- B. After all utility connections to equipment have been completed, the Contractor shall conduct final tests of equipment in presence of the City and Project Manager.
- C. Unless waived in writing by the Project Manager, the requirements of this section shall apply to all installed equipment items having utility connections.

### 3.7 NOTIFICATION

- A. The Contractor shall be responsible for notifying the Project Manager at least 3 working days prior to commencing work which is identified as requiring testing.
- B. The Contractor shall be responsible for scheduling and coordinating all required testing with the Project Manager and, when required by the City's Agents, the City's Independent Testing Agency.

### 3.8 TEST REPORTS

- A. Test reports, whether performed for the City or the Contractor, shall be submitted to the Project Manager and Contractor as soon as results are available. Reports shall be clear, concise, comprehensive written forms containing required test results.
- B. Reports of tests made by testing laboratories shall be distributed by testing laboratory as follows:
  - 1. Two (2) Copies – Project Manager.
  - 2. One (1) Copy – Contractor.
  - 3. One (1) Copy – Applicable Supplier or Subcontractor.

## PART 4 - MEASUREMENT AND PAYMENT

### 4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

### 4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price. If the City is required to re-inspect work or conduct a special test because a previous inspection, requested by the Contractor, showed that the work was defective or not in conformance, the Manager or authorized representative may deduct from the contract value the cost of re-inspection at the rate of seventy-five dollars (\$75.00) per man-hour.

**END OF SECTION 01 45 16**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes requirements for furnishing, installing, operating, maintaining, and removing temporary construction barriers, enclosures and field facilities including the Contractor's construction offices, staging areas, yards, storage areas, electrical power, telephone, water, fire protection, and sanitary service.
- B. Construction Office, Yards, and Storage Areas:
  - 1. Temporary facilities which the Contractor desires to locate in staging areas adjacent to the Work or within the project limits are subject to approval by the Project Manager.
  - 2. Contractor Field Office:
    - a. The Contractor shall provide a field office for this Project.
    - b. The Contractor shall acquire all necessary permits for installation and construction work related to the Contractor's field office and fencing.
    - c. The Contractor shall provide, as part of his on-site field office, a conference room for weekly meetings.
    - d. The Contractor shall furnish, install and maintain at least one computer with email in his main field office. This computer should be able to access all email and FTP as part of project submittal process. Provide wireless internet access, secured by password, for use by the Project Manager and Consultant during the work of the Contract.
    - e. Jack the mobile office unit off its wheels and provide support.
    - f. Install tie downs in compliance with code.
    - g. Provide access to the field office and easily accessible space for parking. Grade the field office site, access roadway and parking area for drainage, and surface with gravel paving or crushed stone.
    - h. Water and sewer lines to the field office, if installed, shall be installed per code.
- C. Electrical Service:
  - 1. Reference General Conditions Article 327 "Power, Lighting, Heating, Ventilating, Air Conditioning, and Water Services".
  - 2. Provide lighting and power for field offices, storage facilities and other construction facilities and areas.
  - 3. Provide power centers for electrically operated and controlled construction facilities including tools, equipment, testing equipment, interior construction lighting, heating, cooling and ventilation equipment.
  - 4. Provide night security lighting at secured areas within construction limits at offices, storage facilities, temporary facilities and excavated areas.
  - 5. Provide battery operated or equivalent emergency lighting facilities at construction areas where normal light failures would cause employees to be subjected to hazardous



conditions. Test such facilities monthly and maintain a record of these tests for the Project Manager's review.

6. Bear all costs of temporary electric and water service permits, fees and deposits required by the governing authorities, and connection charges and temporary easements including installation, maintenance and removal of equipment.

D. Water Service: The Contractor shall make all connections and extensions required and shall make use of water in direct support of the Work. The Contractor shall install an approved Water Department tap at the City's water source prior to obtaining any water. The Contractor shall arrange and pay for its supply/distribution system from the City's point of connection. The location and alignment of the Contractor's temporary supply/distribution system must be approved by the Project Manager prior to its installation. The Contractor shall leave in place all above ground and underground water distribution facilities unless otherwise directed by the Project Manager.

1. The Contractor shall not use in place fire hydrants or standpipes as sources for construction water or potable water.

E. Fire Protection: Furnish, install and maintain temporary portable fire protection equipment throughout the construction period at all buildings (including the project site), maintenance shops, and fuel storage on all large construction equipment and at the location of any flammable materials or construction materials.

F. Sanitary Service: Furnish, install and maintain temporary sanitary facilities and services throughout the construction period.

1. Ensure that separate or single user toilets shall be provided to ensure privacy between the sexes.
2. Provide general washing facilities adequate for the number of employees.
3. Provide special washing facilities adequate for the number of employees engaged in the application of paints, coating and other volatile or hazardous materials.

### 1.3 SUBMITTALS

A. Refer to Division 01 Sections "Submittals" and "Shop and Working Drawings, Product Data, and Samples" for submittal procedures.

B. Submit a shop drawing within five days of the Notice to Proceed that shows the following:

1. Temporary facilities equipment and materials (include manufacturer's literature).
2. Details and layout of temporary installations including fences, roads, utilities, parking, buildings, storage areas and drainage plans.
3. Lighting plan showing temporary lighting facilities, electrical service panel location, electrical circuit diagram and anticipated light level on the working roadway, pathway or construction surface.

## PART 2 - PRODUCTS

### 2.1 ELECTRICAL SERVICE

A. Provide temporary power and lighting equipment consisting of fixtures, transformers, panel boards, groundings, lamps, switches, poles, conduits and wiring sized and capable of continuous

service and having adequate capacity to ensure a complete operating system. Comply with NEMA.

- B. Provide temporary extension cords to supply tools not longer than two hundred feet (200'), except that additional length may be used if equipment will be grounded within two hundred feet (200') of tool or power.
- C. Portable power generators shall be grounded.

## 2.2 DRINKING WATER SERVICE

- A. Provide sanitary materials and equipment that satisfies the requirements of codes and regulations pertaining to temporary water systems. Bottled products may be used if those products comply with codes. Clearly label portable containers having a dispensing tap and used only for drinking water. Provide single service disposable cups and a sanitary container for dispensing cups. A trash receptacle shall be provided and maintained beside each portable water supply.

## 2.3 FIRE PROTECTION

- A. Fire extinguishers shall be UL rated and shall comply with the current City fire code.

## 2.4 SANITARY SERVICE

- A. Provide materials and equipment adequate for the intended purposes, which will neither create unsanitary conditions nor violate the codes applicable to temporary sanitary facilities. Enclosures for toilet and washing facilities shall be weatherproof, sight proof, ventilated and sturdy.
- B. Provide portable type toilet facilities that satisfy the requirements of OSHA.
- C. Provide washing facilities as needed. Furnish soap, single-service paper towels, towel dispenser and towel receptacle. If paints, coatings and other volatile or hazardous materials injurious to humans will be applied as part of the contract, provide washing facilities with warm water of approximately one hundred twenty degrees (120°) F.

## PART 3 - EXECUTION

### 3.1 ELECTRICAL SERVICE

- A. The approximate location of primary power lines is shown on the Construction Drawings. The Contractor shall locate electrical service where it will not interfere with equipment, storage spaces, traffic, and prosecution of the Work or the work of others. Installation shall present a neat and orderly appearance and shall be structurally sound. Maintain service in a manner that will ensure continuous electrical service and safe working conditions.

### 3.2 TELEPHONE SERVICE

- A. Install temporary telephone service in a neat and orderly manner and make structurally and electrically sound to ensure continuous service. Modify, relocate and extend as work progress

requires. Place conduit and cables where those products will not interfere with traffic, work areas, materials, handling equipment, storage areas and the work of other contractors. Service lines may be aerial.

### 3.3 INTERNET SERVICE

- A. Install temporary internet service and make structurally and electrically sound to ensure continuous service. Modify, relocate and extend as work progress requires. Place cables and equipment where those products will not interfere with traffic, work areas, materials, handling equipment, storage areas and the work of other contractors. Service lines may be aerial.
  - 1. Wireless Internet:
    - a. Provide wireless internet connection for the use by Project Manager and Consultants. Connection is to be Digital Subscriber Line (DSL) or faster to enable users to transmit images and/or drawings at an acceptable speed.
    - b. Wireless internet connection is to be secured by password. Password is to be made available to the Project Manager and Consultant for their use.

### 3.4 WATER SERVICE

- A. Install the systems in a neat and orderly manner. Make them structurally and mechanically sound. Provide continuous service. Modify, relocate and extend the systems as the work progresses.
- B. Locate systems where they will be convenient to work stations, sanitary facilities and first aid station but will not interfere with traffic, work areas, materials handling equipment, storage areas or the work of other contractors.
- C. Install vacuum breakers, backflow preventers and similar devices in a manner and location which will prevent temporary water from returning to the water mains.
- D. Do not incorporate any part of temporary water distribution system into the permanent water distribution system.

### 3.5 FIRE PROTECTION

- A. Install products in conformance with the requirements of the applicable Denver Fire Department and OSHA regulations.
  - 1. Provide functional fire extinguishers that are clearly identified for fire and an accessible supply of water during the period of construction. These fire extinguishers shall remain in place until permanent fire protection systems are functional.
  - 2. Furnish not less than one twenty (20) pound fire extinguisher, type 2A-20ABC within ten feet of cutting and welding operations.
  - 3. Provide twenty (20) pound fire extinguishers, type 2A-20ABC no further than one hundred feet (100') apart in buildings.
  - 4. Provide not less than one twenty (20) pound fire extinguisher, type 2A-20ABC on any equipment of seventy five (75) horsepower or more.
- B. Instruct construction personnel as to location and use of temporary fire protection equipment.
- C. Fire extinguishers shall be located for easy access. Their location shall be clearly marked so that they can be seen at least seventy five feet (75') away.

### 3.6 SANITARY SERVICE

- A. Place temporary sanitary (and washing) facilities within the limits of the work and convenient to the work stations. Make these facilities structurally and mechanically sound. Modify, relocate and extend the facilities as required by progress of the work.
- B. Service toilets at those time intervals which will minimize the accumulation of wastes and prevent creation of unsanitary conditions, but not less frequent than once per week.
- C. The waste from the sanitary and wash facilities shall be disposed of in accordance with all applicable rules, regulations and laws and with the least environmental impact.

### 3.7 FENCING

- A. Contact all utility service companies prior to planning fence location and post locations for certification of current utilities. Locate pothole posts planned within 5-feet of known utilities. Submit fencing plan and typical details to Project Manager at least seven days before planned execution for review and acceptance.

### 3.8 SIGNAGE

- A. Contractor shall not provide any signage for temporary facilities without prior approval from the Project Manager.

### 3.9 QUALITY CONTROL

- A. Provide products for, and the execution of, the Work of this Section that will satisfy the requirements of the NEC, OSHA, and local codes. Provide products that satisfy requirements of NEMA and are UL listed.

### 3.10 REMOVAL

- A. The Contractor shall locate all temporary facilities including the underground utilities so they can be completely removed without damaging permanent work or the worksite of other contractors.
- B. The Contractor shall remove all temporary facilities, including all underground utilities, and restore the site to the condition in which the City initially provided it to the Contractor or per the construction documents.

## PART 4 - MEASUREMENT AND PAYMENT

### 4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

### 4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 50 00**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section consists of retention and protection of trees during the construction of the project.

1.3 REFERENCE STANDARDS AND GUIDELINES

- A. Contractor shall comply with applicable requirements and recommendations of the most current versions of the following standards and guidelines. Where these conflict with other specified requirements, the more restrictive requirements shall govern.
  1. ANSI Z133.1-2006: American National Standard for Tree Care Operations.
  2. ANSI A300: Tree, Shrub, and Other Woody Plant Management – Standard Practices.
  3. Guide for Plant Appraisal – Current Edition: Authored by the Council of Tree and Landscape Appraisers; published by the International Society of Arboriculture.

1.4 GENERAL REQUIREMENTS

- A. Appropriate tree pruning and/or removal permits must be secured prior to beginning work.
- B. City Forestry Staff or Appointee will conduct daily observation of Contractor’s field crews during the critical phases of the project, for example: demolition of existing concrete, root pruning, construction of retaining walls, and construction of new curb or sidewalk in tree protection areas. **[City Forester may require a consulting arborist be hired to oversee the project. Contractor to notify Project Manager and City Forester at least two (2) weeks prior to when such observations will be needed.]**
- C. If it appears that the completion of the construction may cause damage to the branches of any tree, the Contractor shall contact the Project Manager and the City Forester’s Office. The Project Manager and City Forester will make a determination as to whether such damage is imminent.
- D. To prevent or minimize soil compaction, designated routes for equipment and foot traffic by work crews shall be determined prior to commencing construction activities, and shall be indicated in the tree protection plan to be submitted by Contractor to the Project Manager. These routes shall be marked at the site, prior to commencement of construction, with tree protection fencing and signage as specified in Articles 3.6 and 3.7 of this section. A Tree Protection Plan shall be submitted to the Project Manager for approval by the City Forester.
- E. Motorized equipment and trailers, including tractors, bobcats, bulldozers, rubber tired excavators, tracked excavators, trucks, cars, and carts shall not be allowed access within tree protection areas. Should access be necessary within designated tree protection areas, the existing grade shall be covered with twelve inches (12”) of wood mulch with overlapping three

quarter inch (3/4") thick plywood on top to help distribute the weight of equipment and to minimize soil compaction and rutting. Plywood and/or mulch are not acceptable bridging materials for driving over exposed tree roots. Exposed tree roots shall not be driven over. The City Forester or Project Consulting Arborist shall be notified and shall approve of the access and driving surface prior to its use.

- F. Materials and supplies shall not be stockpiled or stored within the tree protection area unless otherwise approved by the City Forester. Should temporary storage be necessary within designated tree protection areas, the existing grade shall be covered with twelve inches (12") of wood mulch with overlapping three quarter inch (3/4") thick plywood on top to help distribute the weight of equipment and to minimize soil compaction and rutting. Plywood and/or mulch are not acceptable bridging materials for driving over exposed tree roots.
- G. Under no circumstances shall any objects or materials be leaned against or supported by a tree's trunk, branches, or exposed roots. The attachment or installation to trees of any sign, cable, wire, nail, swing, or any other material that is not needed to help support the natural structure of the tree is prohibited. Standard arboricultural techniques such as bracing or cabling that are performed by professional arborists are acceptable upon approval by the City Forester or Project Consulting Arborist.

1.5 DEFINITIONS

- A. **Critical Root Zone (CRZ):** The CRZ shall be the area below ground and the space above ground, equal to one foot (1') radius from the base of the tree's trunk for each one (1") inch of the tree's diameter at four and one half feet (4.5') above grade (referred to as diameter at breast height)

- B. **Trunk Measurement:**

Trunk Size	Where Measured
< 4"	6" above grade
4" – 8"	12" above grade
> 8"	54" above grade

Note: All measurements should be rounded up to the nearest inch.

- C. **Drip Line:** The outermost edge of the tree's canopy or branch spread. The area within a tree's drip line is all the ground under the total branch spread.
- D. **High Value Shrub:** Any specimen shrub with an appraised value of one-hundred dollars (\$100.00) or more.
- E. **Project Consulting Arborist:** An independent consultant with a degree in a horticulture, arboriculture, and/or ISA Certified Arborist, and at least five years (5) field experience in tree preservation or on-site monitoring of public works or construction projects involving tree retention and protection. The Consultant should be an active member in the American Society of Consulting Arborists and/or International Society of Arboriculture.
- F. **Structural Root Zone (SRZ):** structural rooting area distance based upon biomechanical models of tree root strength and root plate resistance to wind loads; this is the minimum structural distance away from a tree for any type of encroachment under ideal conditions. Shall be defined as 0.9 \* one inch (1) of a tree's trunk diameter. For example, a ten inch (10") diameter

tree would have a structural rooting area, or root plate of nine feet (9) in diameter or four and one half feet (4.5') out from the stem on all sides (radius). The structural root plate shall be determined based on the following guidelines:

<b>Tree Diameter (in inches)</b>	<b>SRZ (radius in feet)</b>
< 8	3.5
10	4.5
12	10.8
15	13.50
18	16
20	18
25	11.25

- G. **Tree Protection Area:** The tree protection area should consist of the ground encompassing from one and one half (1.5) minimum to two times (2) the distance between the trunk and drip line, or one linear foot away from the trunk base for every inch diameter of the trunk, whichever is greater (see definition of drip line, below). Areas of ground covered by pavement, buildings, or other permanent structures where the presence of roots is minimal or negligible are excluded. The area under or within the tree's drip line is also referred to as the "Critical Root Zone" (see definition of critical root zone).
1. With groups of trees or where an array effect is present, there may be discontinuous (non-overlapping) perimeters of tree protection areas, which result in difficult to maintain or ineffective tree protection fencing. In these cases, even though tree protection areas do not overlap, they should be treated as though they do if the distance between the perimeters of such areas is less than thirty feet (30). In effect, this will artificially enlarge the area of tree protection, but will result in a more clearly defined, manageable area.

## 1.6 SUBMITTALS

- A. **Tree Protection Plan:** Submit tree protection plan for approval by the City Forester.
- B. Proposed methods and schedule for effectuating tree and other plant protection shall be submitted for approval. Contractor shall submit construction schedule which includes a time frame for work near existing plants. Approval of such shall be obtained from the City Forester prior to commencement of construction near tree protection areas.
- C. Proposed methods, materials, and schedule for root pruning, branch pruning, and other tree maintenance shall be submitted for approval.
  1. The City Forester or Forestry Appointee shall mark the location of root pruning lines in the field prior to the operation.
  2. If possible, root pruning should occur between autumnal leaf fall and spring foliation.
  3. Root pruning during the growing season shall require approval of the City Forester or Forestry Appointee.
- D. **Maintenance Schedule:** Submit maintenance schedule to City Forester for approval.



## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

### 3.1 CONSTRUCTION REQUIREMENTS

- A. This section provides standards and guidelines for the retention and protection of trees and high-value shrubs for any proposed construction project.

### 3.2 DEMOLITION OF EXISTING CONCRETE

- A. Caution should be used during removal of existing street, curb, gutter, sidewalk, drain inlets, and other concrete and asphalt demolition, to minimize injury to tree root systems. The following procedures should be used when removing existing concrete.
  1. Breaking of the existing concrete and asphalt for removal should be done in a manner that will minimize ground disturbance and vibration.
  2. Curbs and sidewalks within designated tree protection areas and critical root zones shall be removed in a manner approved by the City Forester. When removing existing sidewalks and curbs, care should be taken to avoid injury to roots located under, over, or adjacent to paved surfaces.
  3. Roots and root-trunk flares growing over curbs should not be injured during breaking of curbs and removal of debris. Wood and bark tissues shall not be injured by striking tissues with equipment.
  4. During the removal of concrete, all root systems and soil areas exposed shall not be disturbed.
  5. Motorized equipment and trailers, including but not limited to tractors, skid steers, bulldozers, rubber tired excavators, tracked excavators, trucks, cars, and carts are to be limited to access on the existing paved street only. Access is not allowed behind the curb within tree protection areas.
  6. Should access be necessary within designated tree protection areas, the existing grade shall be covered with twelve inches (12") of wood mulch and double overlapping sheets of three-quarter inch (3/4") thick plywood placed on top of the wood mulch to help distribute the weight of equipment and to minimize soil compaction and rutting.
    - a. Plywood and/or mulch are not acceptable bridging materials for driving over exposed tree roots. Exposed tree roots shall not be driven over.
    - b. The City Forester or Project Consulting Arborist shall be notified and shall approve of the access and driving surface prior to its use.

### 3.3 CONSTRUCTION OF SIDEWALKS, CURBS, CONCRETE, ASPHALT PAVING, AND DRAINAGE INLETS

- A. The following procedures shall be used when constructing sidewalks, curbs, concrete, asphalt paving, and drainage inlets.
  1. Keep all materials and equipment within the street bounded by existing curbs.
  2. Construct new sidewalks on, or above, the existing grade instead of excavating into root zones. The new grade shall not interfere with sheet-flow drainage.
  3. Protect exposed roots from contamination by stabilization materials and concrete.
  4. Locate concrete washouts away from tree protection areas. Washout runoff shall be strictly contained within the washout area and shall not flow into Tree Retention and Protection Areas or proposed new planting areas.

5. When excavating for the construction of inlets, excavated soil shall be deposited in trucks and hauled off or deposited temporarily on three quarter inch (3/4") thick plywood outside the critical root zone. Excavated and fill soil shall not be deposited, even temporarily, on unprotected natural grade.
  6. After proper pruning, as needed, cover exposed roots within thirty (30) minutes to minimize desiccation. Roots may be covered with soil, mulch, or moistened burlap (7 ounce or equivalent), and shall be kept moist during the period until the final grade is established.
- B. The following procedures shall be used when roots are encountered outside of tree protection area.
1. Where possible, construction should be relocated to prevent damage to existing roots. Where relocation of walks is not possible, walks should be constructed in a manner with the least amount of impact/damage to roots including but not limited to raised, narrowed, curbed, ramped, bridged, cantilevered, use of pylons, root break out zones, root channeling, structural cells to prevent cutting and removing major roots (e.g. roots greater than two inches in diameter).
  2. Grading within the critical root zone shall be performed by hand or a method approved by the City Forester. Any fill material that needs to be placed in the critical root zone shall be limited to a maximum of one inch (1") of fill material over the critical root zone area. Fill should consist of sandy loam topsoil. Clay soils shall not be used as fill. When using fill soil, the existing surface to receive fill should be scarified by hand to a maximum depth of one inch (1") from the finished grade prior to placing fill material, to ensure proper incorporation of fill material. Any filling operation should not occur during water saturated soil conditions.
  3. Existing soil may be used as a form for back of curb and gutter, with or without the use of a thin masonite-type form, although a Masonite form is preferred. This will minimize excavation in the critical root zone and prevent undue injury to the roots. This method is unnecessary in areas outside the critical root zone. Place a layer of "Typar BioBarrier" between the curb and tree roots to help inhibit root growth that may exploit small cracks in the curb. Where appropriate, use curbs with discontinuous footings to maintain natural grade near the base of trees adjacent to the curbing, and to minimize injury to roots and root flares.
  4. Provide for easy concrete removal and replacement where an obvious raised root may cause sidewalk cracking in the future. This can be accomplished by installing an expansion joint on either side of the root or by scoring (as shown on the Contract Documents) the concrete on either side of the root to allow that particular section to be broken out and replaced. Compaction rating for the replacement walkway should not exceed eighty percent (80%) Proctor density. Tree roots will continue to slowly add girth every year; therefore, the base material needs to be malleable (e.g. suitable subgrade aggregates, crushed granite, or compacted sand) to prevent a fulcrum or pressure point which can crack or heave the walkway.
  5. Where appropriate, and under the direction of the City Forester or Appointee, root restricting barriers can be installed with a minimal amount of disturbance away from sidewalks, curbs and streets. Materials include:
    - a. Eight (8) Mesh Copper (0.028-inch or greater) wire screen.
    - b. "Typar BioBarrier" as manufactured by Fiberweb, Inc. [www.biobarrier.com](http://www.biobarrier.com).
    - c. Or acceptable substitution.
  6. In areas where roots have to be removed for construction of drain inlets, roots shall be severed prior to excavation to eliminate unnecessary tearing of roots by equipment, refer to Article 3.5 - Root Pruning.

- a. Excavate soil by hand at the construction cut limit to a depth of thirty (30) inches or to the depth of the required root cut, whichever is less.
  - b. Prune roots as specified.
  - c. Protect exposed roots as specified.
7. Concrete or chemicals spilled within tree protection areas should be completely removed. Contaminated soil shall be completely removed at the time of the spill and removed by hand and/or air spade tool without disturbance to root systems. Appropriate soil should be added as necessary to restore the grade. Contact the City Forester immediately in the event of a spill within a tree protection area.

### 3.4 IRRIGATION OR UTILITY INSTALLATION

- A. Protection of Trees and High Value Shrubs: Contractor shall protect all trees and high-value shrubs from injury due to irrigation related work. All injuries to trees and high-value shrubs shall be mitigated to the satisfaction of the City Forester, and, if appropriate in accordance with guidelines established in the “Guide for Plant Appraisal”. All costs of such mitigating shall be charged to and paid by the Contractor. See Article 3.9 – Injuries to Existing Plants – Damage Penalties of this section for definition of high value trees and shrubs.
  - 1. All irrigation lines shall be indicated on construction plans and pre-approved by the City Forester or Project Manager. No irrigation lines shall be located within ten feet (10’) of any existing tree trunk, without prior approval of City Forester or Project Manager.
- B. Existing Trees: The City Forester or Project Consulting Arborist shall be notified prior to any trenching or excavation known or suspected to disturb more than ten percent (10%) of the critical root zone.
- C. Where it is necessary to excavate within the critical root zone of existing trees, the Contractor shall use all possible care to avoid injury to trees and tree roots. Where more than ten percent (10%) of the critical root zone area is to be disturbed the Contractor shall notify the City Forester or Project Consulting Arborist to review the conditions. Final approval must be provided by City Forester or Project Consulting Arborist prior to excavation work. In areas where tunneling or boring are to occur all exposed roots shall be covered with moistened burlap to prevent drying of roots.
- D. When excavation within a Structural Root Zone of a tree is required then a directional boring method shall be used or an alternative method approved by the City Forester.
- E. All trenching or other work within the drip line of any tree shall be done by hand or other methods approved by the City Forester or Project Manager, which will prevent breakage or other injury to branches and roots.
- F. Wherever a trenching machine exposes roots extending through the trench wall, those roots shall be hand pruned immediately, refer to Article 3.5 - Root Pruning. All trenches within critical root zones shall be closed within twelve (12)-hours; if this is not possible, the trench walls shall be covered with burlap and kept moistened. Prior to backfilling, the Contractor shall contact the City Forester, Project Consulting Arborist, or Project Manager to inspect the condition and treatment of roots injured by trenching.

### 3.5 ROOT PRUNING

- A. Tree roots shall not be pruned or cut unless their removal is unavoidable or absolutely necessary. The City Forester or Project Manager shall be notified prior to any operation known or suspected to involve cutting of more than:
  - 1. The City Forester or Project Consulting Arborist shall be notified immediately in the event that roots in excess of one-half the diameter of the tree, as measured per Definitions, are cut, torn, ripped, or otherwise injured.
- B. Upon approval by the City Forester, prior to any excavation, removal of sidewalk, or other activity that will result in removal of soil and tree roots, all tree roots within a designated area will be pruned to a depth of fourteen inches (14"). All root pruning shall be done by hand with approved tools.
- C. Removal of roots greater than one-half the diameter of the tree, as measured per Definitions, or parts of roots that are injured or diseased should be performed as follows:
  - 1. Preserve the root bark ridge (similar in structure and function to a branch bark ridge). Directional root pruning technique shall be used during hand excavation around tree roots. Roots are similar to branches in their response to pruning practices. With directional root pruning, objectionable and severely injured roots are properly cut to a lateral root one-third (1/3) the size of the root being cut, if possible, that is growing downward or in a favorable direction.
  - 2. All roots needing to be pruned or removed shall be cut cleanly with sharp hand tools, with oversight by the City Forester or Project Consulting Arborist. No wound dressings shall be used.
  - 3. Recommended root pruning tools:
    - a. Scissor-type lopper.
    - b. Scissor-type pruner.
    - c. Large and small hand saws.
    - d. Wound scriber.
- D. Root Pruning Near Sidewalks:
  - 1. Root pruning should be done carefully, by hand, to achieve the objective of reducing future sidewalk problems as well as preserving the trees. Removing anchoring roots or causing injuries in anchoring roots and root flares can cause future decay and potential hazards. Indiscriminate cutting of vigorous roots results in their regeneration so that several more new roots may grow from the cut end, back under the sidewalk, thereby reducing the time between sidewalk repairs. Roots can be managed in the ground without significant harm to trees, if care is taken to avoid injuries that lead to root and trunk decay.
  - 2. Directional root pruning is recommended because it considers the tree's response to root pruning and decay. With directional root pruning, roots are cut to a lateral one third (1/3) the size of the root being cut, if possible, that is growing downward or in a more favorable direction. The pruned root ends will be less likely to regenerate, since a large lateral can assume the new terminal role of the root.
  - 3. Proper removal of selected roots or parts of roots can direct roots away from sidewalks in the future. Procedures for root pruning directly next to sidewalks are as follows:
    - a. Hand-dig a trench six (6)- to eight (8)-inches in depth at the edge of the planting strip and sidewalk.
    - b. Remove all roots less than 2-inches in diameter in this trench back to a desirable lateral root, preserving the root bark ridge. If careful excavation does not reveal a

desirable lateral root within twelve inches (12") of the exposed root in question, then the exposed root shall be pruned properly so that a minimal amount of root is removed.

- c. Small root bundles, the source of future sidewalk problems, should also be removed at this time.
- E. All roots one-half the diameter of the tree caliper as measured per Paragraph 1.5.D shall be examined by the City Forester or Project Consulting Arborist in terms of their role in anchoring the tree.
  1. All roots that contribute significantly to anchorage should be preserved. Remove all other roots in this size range to sound, downward growing lateral roots that are at least one third (1/3) the size of the root being removed.
  2. All roots larger than one-half the diameter of the tree caliper as measured per Paragraph 1.5.D diameter are to be preserved unless their removal is absolutely necessary and approved by the City Forester. Preservation of large roots may require:
    - a. Reducing the sidewalk width near the root flare and/or
    - b. Curving or relocating walk around root/root flare.
    - c. Ramping or bridging the sidewalk over the roots to allow for root growth.
    - d. Use of cantilever/pylon technology.
    - e. Establish root break out zones.
    - f. Root channeling.
    - g. Structural cells.
- F. Tree Guying Subsequent to Root Pruning: Upon review of on-site root pruning and constructing grading limits, the City Forester shall determine if existing trees subject to root pruning should be guyed or otherwise stabilized. Contractor shall retain a qualified tree service company to complete tree guying and stabilization in accordance with Tree Care Industry Association standards. Tree service company shall be licensed by the City and County of Denver, through the City Forester's Office.

### 3.6 TREE PROTECTION FENCING

- A. Tree protection fencing should be installed 1-foot behind the existing curb in areas where the street surface will be removed and replaced. Tree protection areas shall be designated on construction documents, and fencing locations should be staked for approval by the Project Manager and City Forester or Project Consulting Arborist.
- B. Tree protection fences should be constructed of one of the following:
  1. Galvanized Chain-link – Six feet (6') in height. Posts should be installed no less than ten feet (10') on center, at a depth of thirty-six inches (36") minimum. Installation of post shall not result in injury to tree surface roots; root flares or branches.
  2. Colored (orange), molded plastic construction fencing forty-eight inches (48") in height.
- C. Fencing should be installed to completely surround the limits of tree protection areas, and should extend at least ten feet (10') beyond the designated construction limits.
- D. Tree protection fencing shall be installed prior to any site activity and shall remain until its removal is authorized by the City Forester or the Project Manager.

### 3.7 TREE PROTECTION SIGNAGE

- A. A standard Forestry Tree Protection sign shall be mounted on tree protection fencing at fifty foot (50') intervals warning construction personnel and the public to keep out of the tree protection areas.
  - 1. Signs may be picked up at the City Forestry office in the Webb Building at 201 W. Colfax Avenue.

### 3.8 PROJECT SITE MONITORING

- A. As determined by the City Forester for projects of sufficient size to warrant such, a Project Consulting Arborist shall be retained to enforce and monitor the Tree Retention and Protection objectives.
  - 1. The project site should be monitored a minimum of two (2) times weekly (more frequently at the start of the project) until all procedures and specifications are understood and properly executed by all parties.
  - 2. Specific monitoring schedules should be developed at preconstruction meetings and modified as deemed necessary by the appropriate parties.
  - 3. Schedules shall be relayed to the City Forester and the Project Manager along with reports of site visits.

### 3.9 INJURIES TO EXISTING PLANTS - DAMAGE PENALTIES

- A. Tree and High-Value Shrub Appraisal: All trees and high-value shrubs will be evaluated and appraised by the City Forester or Forestry Appointee, and a list of all tree values for the project will be on file in the Contractor's office.
  - 1. Any tree or other plant requiring retention or protection that is not on the list shall be appraised by the City Forester or Project Consulting Arborist as necessary to comply with this damage penalty.
- B. Documentation for appraisals will consist of:
  - 1. Measurement of plant size.
  - 2. Identification by common and botanical names.
  - 3. Current condition (overall health, injuries, overt hazard status, etc.).
  - 4. Location factors as described in the most current addition of "Guide for Plant Appraisal". Photographs may be taken of certain trees and shrubs to document debilitating condition factors.
- C. The threshold level for plants to be appraised shall be one-hundred dollars (\$100.00); only those trees and shrubs estimated to have a monetary value greater than one-hundred dollars (\$100.00) shall be appraised.
- D. Trees and other plants designated as requiring retention or protection shall be identified and located on construction plans. Loss of, or partial injury to, any of these plants due to Contractor neglect or improper construction activities will result in a penalty of up to three times the appraised value of the tree as determined by the City Forester or Forestry Appointee as described in Chapter 57 of the Denver Revised Municipal Code.
- E. Trees determined as requiring "general protection" or "special protection" in the construction areas and in other key locations should be clearly identified by the City Forester or Forestry Appointee. Loss or partial injury to any of these trees due to Contractor neglect or improper

construction activities will result in a penalty of up to three times the appraised value of the trees as determined by the City Forester or Project Consulting Arborist as described in Chapter 57 of Denver Revised Municipal Code. Injury to a portion of these trees will be assessed by the City Forester or Project Consulting Arborist and a corresponding portion of the damages will be assessed to the Contractor.

- F. A fine of one-thousand dollars (\$1,000.00) will be levied against the Contractor for each incident of construction damage (including construction traffic) within designated tree protection areas. Any fine shall be independent of any applicable damages for the appraised value of the tree or tree part.
- G. Trees or roots visibly and unnecessarily injured, in the opinion of the Project Manager, City Forester and/or Project Consulting Arborist will cause the City to withhold from the Contractor an assessed amount conforming to the requirements stipulated above, for a period of one full year. After that period the impact of the injury to any tree will be assessed by the City Forester or the Forestry Appointee.

### 3.10 TREE AND OTHER PLANT MAINTENANCE DURING AND AFTER COMPLETION OF CONSTRUCTION

- A. Tree Maintenance: Proper maintenance shall include, but be limited to: structural and remedial pruning, watering, mulching, remediating soil compaction, fertilization, insect and disease control, soil and tissue analysis, aeration, and wound treatment.
- B. The timing duration and frequency of necessary maintenance practices should be determined and approved by the City Forester or Forestry Appointee, based on factors associated with the site and affected plants.
- C. Submit maintenance schedule to the City Forester for approval prior to work beginning.

## PART 4 - MEASUREMENT AND PAYMENT

### 4.1 MEASUREMENT [**Consultant to select A or B**]

- A. Measurement will be based on the percentage complete for the lump sum contract amount for Tree Retention and Protection.
- B. Measurement will be made by the contract unit specified for Tree Retention and Protection. Measurement shall include the actual number of units of specified material(s) placed and accepted at the locations shown on the Contract Drawings, or as directed by the Project Manager, and in accordance with the Specifications.

### 4.2 PAYMENT

- A. Payment will be made at the [**contract unit**] [**lump sum contract**] price, and shall include required materials, transportation, equipment, and labor, <**Insert additional items**> required to establish tree protection, and remove the tree protection at the end of the project as required in accordance with the Contract Drawings and Specifications. Payment will also include the maintenance of the tree protection throughout the duration of the project as well as the labor,

materials and equipment required to restore the site to its original condition at the completion of the project.

**END OF SECTION 01 56 39**



PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section consists of requirements for the installation and maintenance of erosion and sedimentation prevention and protection measures during the construction of the project from just prior to the start of earth disturbance until final site stabilization. The cost of maintaining, repairing, and/or replacement of damaged BMP's will be at the Contractors expense.

Refer to "City and County of Denver Construction Activities Stormwater Manual" by City and County of Denver Wastewater Management Division, Department of Public Works, revised June 2010, or latest edition, at:

<https://www.denvergov.org/content/denvergov/en/wastewater-management/capital-projects-management/engineering-and-permits.html>

- B. Refer to applicable sections within the **Wastewater Capital Projects Management Standard Construction Specifications**, Wastewater Management Division, Department of Public Works, specifications updated September 2014, or latest edition.

PART 2 - PRODUCTS

- 2.1 Refer to "City and County of Denver Construction Activities Stormwater Manual".

PART 3 - EXECUTION

- 3.1 Refer to "City and County of Denver Construction Activities Stormwater Manual".

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. Measurement will be based on the percentage complete for the lump sum contract amount for Erosion and Sedimentation Control.

4.2 PAYMENT

Payment will be made at the **lump sum contract** price, and shall include required materials, transportation, equipment, labor, excavation, stockpiling, disposing, hauling off, watering, dust control, as required in accordance with the Contract Drawings and Specifications. The contract price shall include all material, labor and equipment required to establish and maintain specified

erosion and sedimentation controls prior to and during construction. The contract price shall include removal of erosion and sedimentation controls after final stabilization.

**END OF SECTION 01 57 13**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes administrative and procedural requirements governing the Contractor's selection of products for use in the project.

**1.3 DEFINITIONS**

- A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties", "systems", "structure", "finishes", "accessories", and similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.
  - 1. Products: Are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "Product" includes the terms "material", "equipment", "system" and terms of similar intent.
  - 2. Named Products: Are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature that is current as of the date of the Contract Documents.
  - 3. Materials: Are products that are substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
  - 4. Equipment: Is a product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.

**1.4 SUBMITTALS**

- A. Product List: A list of products is included in each appropriate specification division. Prepare a schedule in tabular form showing each product listed. Include the manufacturer's name and proprietary product names for each item listed.
  - 1. Coordinate product list with the Contractor's Construction Schedule and the Schedule of Submittals.
  - 2. Form: Prepare product list with information on each item tabulated under the following column headings:
    - a. Related Specification Section number.
    - b. Generic name used in Contract Documents.
    - c. Proprietary name, model number, and similar designations.
    - d. Manufacturer's name and address.
    - e. Supplier's name and address.
    - f. Installer's name and address.
    - g. Projected delivery date or time span of delivery period.

3. Initial Submittal: Within thirty (30) days after date of commencement of the Work, submit three (3) copies of an initial product list. Provide a written explanation for omissions of data and for known variations from Contract requirements.
4. Completed List: Within sixty (60) days after date of commencement of the Work, submit three (3) copies of the completed product list. Provide a written explanation for omissions of data and for known variation from Contract requirements.
5. Action: The Project Manager will respond in writing to Contractor within two (2) weeks or receipt of the completed product list. No response within this period constitutes no objection to listed manufacturers or products, but does not constitute a waiver of the requirement that products comply with Contract Documents. The Project Manager's response will include a list of unacceptable product selections, containing a brief explanation of reasons for this action.

## 1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft.
  1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
  2. Coordinate delivery with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
  3. Deliver products to the site in an undamaged condition in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
  4. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
  5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
  6. Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

## 1.6 GENERAL PRODUCT REQUIREMENTS

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation.
  1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.
  2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- B. It is the responsibility of the Contractor and his installers, as experts, to notify the Project Manager of any specified product that to his knowledge will not meet the requirements or is unsuited to the application indicated or specified.
- C. The use of manufacturer's and trade names is intended only to establish standards of quality and performance and not to limit competition.
- D. Substitution of Materials and Equipment: All bids are to be based on those materials and equipment specified in the Contract Documents. Substitutions after the bid will be made in

accordance with the provisions of General Contract Conditions Article 406 “Substitution of Materials and Equipment”, and Division 01 Section “Substitutions”.

## PART 2 - PRODUCTS

### 2.1 PRODUCT SELECTION PROCEDURES

- A. The Contract Documents and governing regulations govern product selection. Procedure governing product selection include the following:
1. Proprietary Specification Requirements: Where Specifications name only a single product or manufacturer, provide the product indicated. No substitutions will be permitted.
  2. Semi-proprietary Specification Requirements:
    - a. Where Specifications name two or more products or manufacturers, provide one (1) of the products indicated. No substitutions will be permitted.
    - b. Where Specifications specify products or manufacturers by name, accompanied by the term “or equal” or “or approved equal,” comply with the Contract Document provisions concerning “substitutions” to obtain approval for use of an unnamed product.
  3. Non-proprietary Specifications: When Specifications list products or manufacturers that are available and may be incorporated in the work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with Contract requirements. Comply with Contract Document provisions concerning “substitutions” to obtain approval for use of an unnamed product.
  4. Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.
  5. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements and are recommended by the manufacturer for the application indicated. Manufacturer’s recommendations may be contained in published product literature or by the manufacturer’s certification of performance.
  6. Compliance with Standards, Codes and Regulations: Where Specifications only require compliance with an imposed code, standard, or regulation, select a product that complies with the standards, codes, or regulations specified.
  7. Visual Matching:
    - a. Where Specifications require matching an established Sample, the Project Manager’s decision will be final on whether a proposed product matches satisfactorily.
    - b. Where no product available within the specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents concerning “substitutions” for selection of a matching product in another product category.
  8. Visual Selection: Where specified product requirements include the phrase “...as selected from manufacturer’s standard colors, patterns, textures...” or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Project Manager will select the color, pattern, and texture from the product line selected.

## PART 3 - EXECUTION

### 3.1 INSTALLATION OF PRODUCTS

- A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other work. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

### 3.2 QUALITY ASSURANCE

- A. Source Limitations:
  - 1. To the fullest extent possible, provide products of the same kind from a single source.
  - 2. Substitutions to the specified products will only be allowed in accordance with General Contract Conditions Article 406 "Substitution of Materials and Equipment", and Division 01 Section "Substitutions".
- B. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on surfaces of products that will be exposed to view in occupied spaces or on the exterior.
  - 1. Labels: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.
  - 2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
    - a. Name of product and manufacturer.
    - b. Model and serial number.
    - c. Capacity.
    - d. Speed.
    - e. Ratings.

## PART 4 - MEASUREMENT AND PAYMENT

### 4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

### 4.2 PAYMENT

- A. The cost of the Work described in this Section shall be included in the Contract price.

**END OF SECTION 01 60 00**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. The Work specified in this Section consists of providing storage and protection of the materials, products and supplies which are to be incorporated into the construction and indicating such storage areas on the Contract Drawings with the location and dates when such areas will be available for each purpose.
- B. Reference General Contract Conditions Article 803 "Protection of Property and Work in Progress".

**1.3 SUBMITTALS**

- A. Refer to Division 01 Sections "Submittals" and "Shop and Working Drawings, Product Data, and Samples" for submittal procedures. Submit concurrently with submittals required in Division 01 Section "Layout of Work and Surveys".
- B. Storage Site Plan: Submit working drawings showing locations of storage areas not indicated on the Contract Drawings.
- C. Storage and Protection Methods: Submit descriptions of proposed methods and locations for storing and protecting products.

**PART 2 - PRODUCTS****2.1 MATERIALS**

- A. Materials required for the storage and protection of the items specified shall be durable, weatherproof and either factory finished or painted to present an appearance acceptable to the Project Manager. Storage facilities shall be uniform in appearance with similar materials used to the maximum extent possible.

**PART 3 - EXECUTION****3.1 GENERAL REQUIREMENTS OF EXECUTION**

- A. Palletize materials, products and supplies which are to be incorporated into the construction and stored off the ground. Store these items in a manner which will prevent damage and which will facilitate inspection. Leave seals, tags and labels intact and legible. Maintain access to products to allow inspection. Protect products that would be affected by adverse environmental conditions.

- B. Periodically inspect stored products to ensure that products are being stored as stipulated and that they are free from damage and deterioration.
- C. Do not remove items from storage until they are to be incorporated into the Work.
- D. The Contractor shall ensure that all protective wrappings and coverings are secure and ballasted to prevent any items from deterioration and/or subsequent dislodgment. All items on the worksite that are subject to becoming windborne shall be ballasted or anchored.

### 3.2 HANDLING AND TRANSPORTATION

- A. Handling:
  1. Avoid bending, scraping or overstressing products. Protect projecting parts by blocking with wood, by providing bracing or by other approved methods.
  2. Protect products from soiling and moisture by wrapping or by other approved means.
  3. Package small parts in containers such as boxes, crates, or barrels to avoid dispersal and loss. Firmly secure an itemized list and description of contents to each container.
  4. Refer to Division 32 Sections related to landscape materials for proper handling and storage of plant material.
- B. Transportation: Conduct the loading, transporting, unloading, and storage of products so that they are kept clean and free from damage.
  1. Refer to Division 32 Sections related to landscape materials for proper transportation of plant material.

### 3.3 STORAGE

- A. Store items in a manner that shall prevent damage to the City's property. Do not store hydraulic fluids, gasoline, liquid petroleum, gases, explosives, diesel fuel, and other flammables in excavations, except one day's supply of diesel fuel may be stored in open excavations.
- B. Provide sheltered weather-tight or heated weather-tight storage as required for products subject to weather damage.
- C. Provide blocking, platforms or skids for products subject to damage by contact with the ground.
- D. All material shall be stored according to the manufacturer's recommendations. Any material that has to be stored within specified temperature or humidity ranges shall have a twenty four (24) hour continuously written recording made of the applicable condition. Should the recording show that the material was not stored within the recommended ranges the material shall be considered defective and in nonconformance. If a certification from the manufacturer's engineering design representative is provided stating that the actual variations are acceptable and will in no way harm the material or affect warranties, then the deficiency will be considered corrected.
- E. Store hazardous material separately, with all material marked with a label showing the hazard and how to treat exposure to the material.



### 3.4 LABELS

- A. Storage cabinets and sheds that will contain flammable substances and explosive substances shall be labeled **FLAMMABLE--KEEP FIRE AWAY** and **NO SMOKING** with conspicuous lettering and conforming to OSHA requirements.

## PART 4 - MEASUREMENT AND PAYMENT

### 4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

### 4.2 PAYMENT

- A. The cost of the Work described in this Section shall be included in the Contract price. See Division 01 Section "Schedule of Values" for additional requirements for the possible payment of stored material.

**END OF SECTION 01 66 00**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes the procedures and accuracy requirements for survey services for layout of work and field measurement of work quantities to be determined by surveys.
  - 1. The Work is to be verified and coordinated with Contract Drawings. Variations between Contract Drawings and actual field conditions are to be immediately brought to the attention of the Project Manager.
  - 2. Reference Construction General Contract Conditions Article 318 "Construction Surveys" and Article 319 "Preservation of Permanent Land Survey Control Markers".

**1.3 SUBMITTALS**

- A. Refer to Division 01 Sections "Submittals" and "Shop and Working Drawings, Product Data, and Samples" for the submittal process.
- B. Field Notes: Submit Copies of original pages of field notes.
- C. Closeout Submittals:
  - 1. Original field notebooks when filled and at end of contract.
  - 2. Measurements for Record Documents.

**PART 2 - PRODUCTS (Not Used)****PART 3 - EXECUTION****3.1 CONSTRUCTION LINES AND GRADES**

- A. The Contractor shall make surveys and layouts as necessary to delineate the work. The Contractor shall make the surveys for the proper performance of the Work. As a part of such surveys, the Contractor shall furnish, establish, and maintain in good order survey control points that may be required for the completion of the Work subject to the approval of the Project Manager as to their location, sufficiency, and adequacy. However, such approval by the Project Manager shall not relieve the Contractor of his responsibility for the accuracy of his survey work.
- B. The Contractor shall furnish skilled labor, instrument platforms, ladders, and such other temporary structures as may be necessary for making and maintaining points and lines in connection with the surveys required.

- C. The City may draw the Contractor's attention to errors or omissions in lines or grades, but the failure to point out such errors or omissions shall not give the Contractor any right or claim nor shall in any way relieve the Contractor of his obligations according to the terms of this contract.
- D. The Contractor's instruments and other survey equipment shall be accurate, suitable for the surveys required in accordance with recognized professional standards and in proper condition and adjustment at all times. Surveys shall be performed under the direct supervision of a Colorado licensed surveyor.

### 3.2 DIGITAL FILES

- A. If approved by the Project Manager, Contractor may elect to utilize design consultant's digital CADD files as guidance for layout and location of site elements.
- B. Layout and location of site elements, grades and features from digital CADD files does not relieve the Contractor of requirements, locations and grades shown on the Contract Drawings.
- C. Contractor is responsible to verify locations of elements staked with digital data to assure conformance with the Contract Drawings at a level of accuracy as stated in Section 3.3 below.

### 3.3 SURVEYING ACCURACY AND TOLERANCES IN SETTING SURVEY, LAYOUT, AND QUANTITY CALCULATION STAKES

- A. The tolerances generally applicable in setting survey stakes shall be as set forth in the CDOT Survey Manual, latest edition. Such tolerances shall not supersede stricter tolerances required by the drawings or specifications, and shall not otherwise relieve the Contractor of responsibility for measurements in compliance therewith.

### 3.4 RECORD MEASUREMENTS

- A. Provide record measurement for items that will be hidden or visible including all civil, mechanical and electrical, control work, and all utilities that are placed in concrete, earth, or behind walls shall be made.
- B. Items located within or five feet beyond a building shall be referenced to building column lines and finish floor elevations.
- C. Special attention shall be paid to items requiring service, sensors, items with moving parts, access points and locations of junctions, elevation changes, and directional changes.

## PART 4 - MEASUREMENT AND PAYMENT

### 4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section

### 4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 71 23**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes the requirements for maintaining a clean, orderly, hazard free worksite during construction, and final cleaning for the City's Final Acceptance. Failure to maintain the worksite will be grounds for withholding monthly payments until corrected to the satisfaction of the Project Manager.
- B. Reference General Contract Conditions as listed:
  - 1. Article 325 "Cleanup During Construction".
  - 2. Article 803 "Protection of Property and Work in Progress".
  - 3. Article 2001 "Cleanup Upon Completion".

**1.3 JOB CONDITIONS**

- A. Safety Requirements: Maintain the worksite in a neat, orderly and hazard-free manner in conformance with all federal, state and local rules, codes, regulations and orders, including all OSHA requirements, until Final Acceptance of the Work. Keep catwalks, underground structures, worksite walks, sidewalks, roadways and streets, along with public and private walkways adjacent to the worksite, free from hazards caused by construction activities.
  - 1. Inspect those facilities regularly for hazardous conditions caused by construction activities.
- B. Hazards Control:
  - 1. Store volatile wastes in covered metal containers and remove those wastes from worksite daily.
  - 2. Do not accumulate wastes which create hazardous conditions.
  - 3. If volatile and noxious substances are being used in spaces that are not naturally ventilated, provide artificial ventilation.
  - 4. Hazard controls shall conform to the applicable federal, state, and local rules and regulations.
  - 5. Provide appropriate waste receptacles in all areas in which employees are working. Waste receptacles shall be kept covered at all times. All materials on site shall be anchored and covered to prevent any objects from becoming wind-borne.
- C. Access: Maintain the worksite to permit access by other City contractors as required and to allow access by emergency personnel.

## PART 2 - PRODUCTS

### 2.1 CLEANING MATERIALS

- A. Utilize the type of cleaning materials recommended by the manufacturer for the surfaces to be cleaned.
- B. Maintain current Safety Data Sheets (SDS) on site for all chemicals. Refer to following link for associated OSHA requirements.  
[https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=10103](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10103)
- C. Ensure proper disposal of all wastes generated from the use of these materials. Must ensure compliance with all environmental regulations.

## PART 3 - EXECUTION

### 3.1 INTERIM CLEANING

- A. Clean the worksite every shift/workday for the duration of the construction contract. Maintain structures, grounds, storage areas, and other areas of worksite, including public and private properties immediately adjacent to worksite, free from accumulations of waste materials caused by construction operations. Place waste materials in covered metal containers. All hard concrete, steel, wood, and finished walking surfaces shall be swept clean daily.
- B. Remove or secure loose material on open decks and on other exposed surfaces at the end of each workday or more often in a manner that will maintain the worksite hazard free. Secure material in a manner that will prevent dislodgment by wind and other forces.
- C. Sprinkle waste materials with water or acceptable chemical palliative to prevent blowing of dust.
- D. Promptly empty waste containers when they become full and legally dispose of the contents at dumping areas off the City's property.
- E. Control the handling of waste materials. Do not permit materials to be dropped or thrown from structures.
- F. Immediately remove spillage of construction related materials from haul routes, work site, private property, or public rights of way.
- G. Clean only when dust and other contaminants will not precipitate upon newly painted surfaces.
- H. Cleaning shall be done in accordance with manufacturer's recommendation.
- I. Cleaning shall be done in a manner and using such materials as to not damage the Work.
- J. Clean areas prior to painting or applying adhesive.

- K. Clean all heating and cooling systems prior to operations. If the Contractor was allowed to use the heating and cooling system it shall be cleaned prior to testing.
- L. Clean all areas that will be concealed prior to concealment.

### 3.2 FINAL CLEANING

- A. Inspect interior and exterior surfaces, including concealed spaces, in preparation for completion and acceptance.
- B. Remove dirt, dust, litter, corrosion, solvents, paint, stains, and extraneous markings.
- C. Remove surplus materials, except those materials intended for maintenance.
- D. Remove all tools, appliances, equipment, and temporary facilities used in the construction.
- E. Remove detachable labels and tags. File them with the manufacturer's specifications for that specific material for the City's records.
- F. Repair damaged materials to the specified finish or remove and replace.
- G. Clean all catch basins, manholes, drains, strainers, and filters after all trades have completed their work and just before Final Acceptance
- H. Sweep roadway, driveways, floors, steps, and walks.
- I. Interior areas of buildings shall be vacuumed clean and mopped.
- J. Final cleanup applies to all areas within and adjacent to the site.

## PART 4 - MEASUREMENT AND PAYMENT

### 4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

### 4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 74 23**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes procedures required for Substantial Completion under Title 19 and Final Completion and Acceptance of the Work under Title 20 of the General Contract Conditions and Division 01 Section "Contract Record Documents".
- B. Reference General Contract Conditions as listed:
  - 1. Article 906 "Applications for Payment".
  - 2. Article 909 "Additional Withholding of Progress Payments".
  - 3. Article 2003 "Final Settlement".

**1.3 PREPARATION FOR FINAL INSPECTION**

- A. Before requesting inspection for Final Acceptance of the Work by the City, inspect, clean, and repair the Work as required.

**1.4 FINAL INSPECTION**

- A. When the Contractor considers that the Work is complete, he shall submit written certification that:
  - 1. All punch list items have been completed.
  - 2. All clean up at the project site has been accomplished.
  - 3. Work has been inspected by the Contractor for compliance with contract documents.
  - 4. Work has been completed in accordance with contract documents.
  - 5. Work is ready for final inspection by the City.
  - 6. All required Record Documents have been submitted and accepted.
  - 7. All damaged or destroyed real, personal, public or private property has been repaired or replaced.
  - 8. All operation and maintenance manuals have been submitted and accepted and all training has been completed.
- B. The Project Manager will inspect to verify the status of completion with reasonable promptness after receipt of such certifications. The inspection of the work will be done in accordance with the General Conditions.
- C. If the Project Manager finds incomplete or defective work:
  - 1. The Project Manager may, at his sole discretion, either terminate the inspection or prepare a punch list and notify the Contractor in writing, listing incomplete or defective work.
  - 2. The Contractor shall take immediate steps to remedy stated deficiencies and send a second written certification to the Project Manager that Work is complete.



3. The Project Manager will then re-inspect the Work.

#### 1.5 REINSPECTION FEES

- A. Should the Project Manager perform re-inspection due to failure of the Work to comply with the claims of status of completion made by the Contractor:
  1. The Contractor shall compensate the City for such additional services at the rate of seventy-five dollars (\$75.00) per man-hour.
  2. The City shall deduct the amount of such compensation from the final payment to the Contractor.

#### 1.6 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit a Final Statement of Accounting to the Project Manager.
- B. The Final Statement of Accounting shall reflect all adjustments to the contract amount and shall include the following:
  1. The original contract amount.
  2. Additions and deductions resulting from:
    - a. Previous change orders.
    - b. Allowances.
    - c. Final quantities for unit price items. Along with this statement shall be detailed backup for the quantities.
    - d. Deductions or corrected work.
    - e. Penalties.
    - f. Deductions for liquidated damages.
    - g. Deductions for re-inspection payments.
    - h. City resurveys required due to the Contractor.
    - i. Other adjustments.
  3. Total contract amount, as adjusted.
  4. Previous payments.
  5. Sum remaining due.
- C. If required, the Project Manager will prepare a final change order, reflecting approved adjustments to the Contract sum which were not previously made by change orders.

#### 1.7 FINAL APPLICATION FOR PAYMENT

- A. The Contractor shall submit the final application for payment in accordance with the procedures and requirements stated in the General Conditions Title 20 "Final Completion and Acceptance of the Work".

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

A. No separate measurement shall be made for work under this Section.

4.2 PAYMENT

A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 77 00**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section consists of requirements for preparing and submitting operation and maintenance data for mechanical, electrical, and other specified equipment.

**1.3 SUBMITTALS**

- A. Refer to Division 01 Sections "Submittals" and "Shop and Working Drawings, Product Data, and Samples" for submittal procedures.
- B. Submit one (1) digital copy and two (2) bound hard copy of the proposed Operation and Maintenance Data Manual format including a table of contents not less than ninety (90) days prior to acceptance tests and final inspection.
- C. Submit one (1) digital copy and two (2) bound hard copy of Operation and Maintenance Data Manual within ten days after system startup is complete. These copies shall incorporate any comments made on the previous submittals, along with final readings on all settings and gauges taken while the system is in fully satisfactory operation.

**1.4 CONTINUOUS UPDATING PROGRAM**

- A. Furnish one digital copy of the Contractor's letter indicating that suppliers have been notified to provide updated operation and maintenance data, service bulletins, and other information pertinent to the equipment, as it becomes available.

**PART 2 - PRODUCTS**

- A. The following are the requirements of hard copies:
  1. Paper Size: 8-1/2-inches x 11-inches.
  2. Paper: White bond, at least twenty (20) pound weight.
  3. Text: Typewritten.
  4. Printed Data: Manufacturer's catalog cuts, brochures, operation and maintenance data. Clear reproductions thereof will be acceptable. If this data is in color, all final manuals must contain color data.
  5. Drawings: 8-1/2-inches x 11-inches, bound with the text. Larger drawings are acceptable provided they are folded to fit into a pocket inside the rear cover of the manual. Reinforce edges of large drawings.
  6. Prints of Drawings: Black ink on white paper, sharp in detail, and suitable for making reproductions.

7. Flysheets: Separate each portion of the manual with colored, neatly prepared flysheets briefly describing the contents of the ensuing portion.
8. Covers: Provide forty (40) to fifty (50)-mil, clear plastic, front and plain back covers for each manual. The front covers shall contain the information required in Article 3.2 below.
9. Bindings: Conceal the binding mechanism inside the manual; lockable 3 ring binders shall be provided.

## PART 3 - EXECUTION

### 3.1 GENERAL

- A. Assemble each operation and maintenance manual using the manufacturer's latest standard commercial data.

### 3.2 COVER

- A. Include the following information on the front cover and on the inside cover sheet:
  1. Title: "Operation and Maintenance Instructions".
  2. Title of structure or facility.
  3. Title and number of contract.
  4. Contractor's name and address.
  5. General subject of the manual.
  6. Leave spaces for signatures of the City representatives and acceptance date.

### 3.3 CONTENTS OF THE MANUAL

- A. An index of all volumes in each volume of multiple volume systems.
- B. An index in front of each volume. List and combine the literature for each system in the sequence of operation.
- C. Names, addresses, and telephone numbers of Contractor, suppliers, and installers along with the manufacturer's order number and description of the order.
- D. Name, address, and telephone numbers of manufacturer's nearest service representatives.
- E. Name, address, and telephone number of nearest parts vendor and service agency.
- F. Copy of guaranties and warranties issued to, and executed in the name of, the City.
- G. Anticipated date City assumes responsibility for maintenance.
- H. Description of system and component parts including theory of operation.
- I. Pre-operation check or inspection list.
- J. Procedures for starting, operating and stopping equipment.
- K. Post operation check or shutdown list.

- L. Inspection and adjustment procedures.
- M. Troubleshooting and fault isolation procedures for on-site level of repair.
- N. Emergency operating instructions.
- O. Accepted test data.
- P. Maintenance schedules and procedures.
- Q. Test procedures to verify the adequacy of repairs.
- R. One copy of each wiring diagram.
- S. One (1) copy of each piping diagram.
- T. Location where all measurements are to be made.
- U. One (1) copy of each duct diagram.
- V. One (1) copy of control diagram.
- W. One (1) copy of each accepted shop drawing.
- X. One (1) copy of software programs imputable or changeable on site.
- Y. Manufacturer's parts list with catalog names, numbers and illustrations.
- Z. A list of components which are replaceable by the City.
- AA. An exploded view of each piece of the equipment with part designations.
- BB. List of manufacturer's recommended spare parts, current prices and recommended quantities for two (2) years of operation.
- CC. List of special tools and test equipment required for the operation, maintenance, adjustment, testing and repair of the equipment, instruments and components.
- DD. Scale and corrosion control procedures.
- EE. Disassembly and re-assembly instructions.
- FF. Troubleshooting and repair instructions.
- GG. Calibration procedures.
- HH. Ordering information.
- II. Training course material used to train City staff, including slides and other presentation material.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 78 23**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes the requirements for preparing and submitting warranties and bonds required by these specifications.
- A. Reference the General Contract Conditions as listed:
  1. Article 111 "Final Completion".
  2. Article 1501 "Surety Bonds".
  3. Article 1502 "Performance Bond".
  4. Article 1503 "Payment Bond".
  5. Article 1801 "Contractor's Warranties, Guarantees, and Correction of Work".
  6. Article 1802 "Performance During Warranty Period".

**1.3 SUBMITTALS**

- A. Refer to Division 01 Section "Submittals" for submittal procedures.
- B. Submit executed warranties and bonds.

**PART 2 - PRODUCTS (Not Used)****PART 3 - EXECUTION****3.1 WARRANTIES AND BONDS**

- A. Execute the warranties and bonds required by the Contract Documents. Prepare and submit a list of all warranties and bonds on the form provided by the City. Reference Division 01 Section "Standard Forms".
- B. Provide warranties or bonds for the materials, labor, and time period set forth in the sections of these specifications requiring such documents. All warranties shall be in accordance with the General Contract Conditions. Refer to the individual specifications sections for all specific items requiring longer warranty periods.
- C. Provide all warranties and bonds that the manufacturer or supplier furnishes at no additional cost in regular commercial trade. All warranties shall be in accordance with the General Contract Conditions. Refer to the individual specifications sections for all specific items requiring longer warranty periods.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 78 35**



**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes the requirements for maintaining, marking, recording, and submitting contract record documents, including shop drawings, warranties, contract documents, and Contractor records.
- B. Reference General Contract Conditions Article 324 “Documents and Samples at the Site” and Division 32 Sections “Irrigation Systems” and “Automatic Irrigation Controllers”.

**1.3 SUBMITTALS**

- A. Each submittal of record documents shall contain the following information:
  - 1. Date.
  - 2. Project title and numbers.
  - 3. Contractor’s name and address.
  - 4. Title and number of each record document.
  - 5. Certification that each document as submitted is complete and accurate.
  - 6. Signature of the Contractor or his authorized representative.
- B. At the completion of this contract, deliver all record documents including the following:
  - 1. Shop drawings, diagrams, illustrations, schedules, charts, brochures and other similar data, updated to record status.
  - 2. Warranties, guarantees, and bonds.
  - 3. Contract documents.
  - 4. Contractor records.

**PART 2 - PRODUCTS (Not Used)****PART 3 - EXECUTION****3.1 MAINTENANCE OF DOCUMENTS**

- A. The Contractor shall maintain at the worksite on a current basis one record copy of all drawings, specifications, addenda, change orders, approved shop drawings, working drawings, product data, and samples in good order and marked currently to record all changes made during construction.
- B. Maintain at the field office one copy of the following record documents:
  - 1. Contract Documents:

- a. Contract drawings with all clarifications, requests for information, directives, changes and field-modified conditions clearly posted.
  - b. Contract specifications with all clarifications, requests for information, changes, directives and record of manufacturer actually used along with product trade name.
  - c. Reference Standards in accordance with Division 01 Section "Definitions and Conventions".
  - d. One set of drawings to record the following:
    - 1) Horizontal and vertical location of underground utilities affected by the Work.
    - 2) Location of internal utilities; include valves, controls, conduit, duct work, switches, pressure reducers, size reducers, transitions, crosses, tees, filters, motors, heaters, dampers, regulators, safety devices, sensors, access doors, and appurtenances that are concealed in the construction shall be shown with dimensions given from a visible and recognizable reference to the item being located in all three dimensions. The drawing shall also reference the applicable submittal for the item being located.
    - 3) Field changes of dimensions and details including as-installed elevations and location (station and offset).
    - 4) Details not on original contract drawings but obtained through requests for information or by other communications with the City.
2. Contractor Records:
- a. Daily QC Reports.
  - b. Certificates of compliance for materials used in construction.
  - c. Nonconformance Reports (NCRs).
  - d. Remedial Action Requests (RARs).
  - e. Completed inspection list.
  - f. Inspection and test reports.
  - g. Test procedures.
  - h. Qualification of personnel.
  - i. Approved submittals.
  - j. Material and equipment storage records.
  - k. Safety Plan.
  - l. Erosion, sediment, hazardous and quality plans.
  - m. Hazardous material records.
  - n. First report of injuries.

### 3.2 RECORDING

- A. Keep record documents current daily.
- B. Legibly mark copies of the contract drawings to record actual construction.
- C. Legibly mark up each Section of the technical specifications and contract drawings to record:
  - 1. Changes made by change orders, requests for information, substitutions, and variations approved by submittals.

### 3.3 DOCUMENT MAINTENANCE

- A. Maintain Documents in a clean, dry and legible condition, which shall be turned over to the City prior to final acceptance.

- B. Do not use record documents for construction purposes.
- C. Make documents available for inspection by the Project Manager and any others having jurisdiction.

#### 3.4 REVIEW

- A. Project Manager or their designated representative will inspect the Record Drawings at each weekly progress meeting to ensure that they are being maintained and contain the most current data.
- B. Prior to any application for payment, the Project Manager or his designated representative will inspect the record documents to ensure that they are being maintained and contain the most current correct data with particular attention to Record Drawings.
- C. If, during the inspection, the Project Manager determines that the documents are not being maintained and kept current as to as-installed conditions, an amount may be withheld from the payment request and deducted from the contract value to cover the City's cost of collecting and recording the Record Contract data. This cost will be determined on the basis of seventy-five dollars (\$75.00) per man-hour of effort.

#### 3.5 QUALITY CONTROL

- A. Record documents shall be prepared by Contractor to a high standard of quality, such as that set forth in MIL STD 100, American National Standard Drafting Manual (ANSI Y14), or other relevant lower tier specification defining equal drafting quality for microfilming, except for daily reports.

#### 3.6 IRRIGATION RECORD DRAWINGS

- A. Refer to Division 32 Section "Irrigation Systems", Article 1.5.G

### PART 4 - MEASUREMENT AND PAYMENT

#### 4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

#### 4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 78 39**

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Contract Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This section includes forms to be used by the Contractor throughout the duration of the work.
  - 1. This is not a complete listing of all required forms.
  - 2. Required Forms
    - a.
  - 3. The Contractor may create their own forms listed under Sample Forms recreate some of the forms so that they are compatible with the Contractor's Project Management system. However, Contractor must receive prior approval from the Project Manager before using modified forms.
  - 4. The Contractor shall properly complete all forms required by the contract or the Project Manager.
  - 5. The Project Manager shall review and approve all submitted forms. If submitted forms are not acceptable the Contractor shall resubmit forms in an acceptable format.

**1.3 REQUIRED FORMS**

- A. The Contractor shall use the following required forms provided by the City
  - 1. Submittal Log.
  - 2. Request for Substitution.
  - 3. Quality Control Report.
  - 4. Request for Information Log.
  - 5. Non-Conformance Report.
  - 6. Corrective Action Report.
  - 7. Pay Application Forms.

**1.4 SAMPLE FORMS**

- A. The Contractor may create their own forms to be similar in style and content of the examples listed below.
  - 1. Schedule.
  - 2. Contractor/Subcontractor Warranty (reference the General Contract Conditions).
  - 3. Request for Substantial Completion Letter.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 COMPLETING FORMS

- A. All documents are to be filled in digitally by the Contractor using the format provided by the Project Manager or using Adobe Acrobat 8 or newer. It is at the discretion of the Project Manager if other forms or formats will be accepted.

3.2 SIGNING FORMS

- A. Original hand written signatures are acceptable for all documents. The Contractor is to fill out the document digitally as indicated above prior to signing the hard copy.
  - 1. If the form is to be submitted digitally to the Project Manager the document shall be scanned and saved as an Adobe Acrobat file.
- B. Digital signatures are acceptable for all documents. The Contractor is to fill out the document digitally in the format provided by the Project Manager or Adobe Acrobat 8 or newer. The file must be signed and submitted digitally to the Project Manager.
  - 1. All digital signatures must contain the name of signer in plain text and the time and date the signature is executed.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. No separate measurement shall be made for work under this Section.

4.2 PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this Section shall be included in the Contract price.

**END OF SECTION 01 99 90**



Department of Public Works

**Drawings**

Contract Number: 201840245

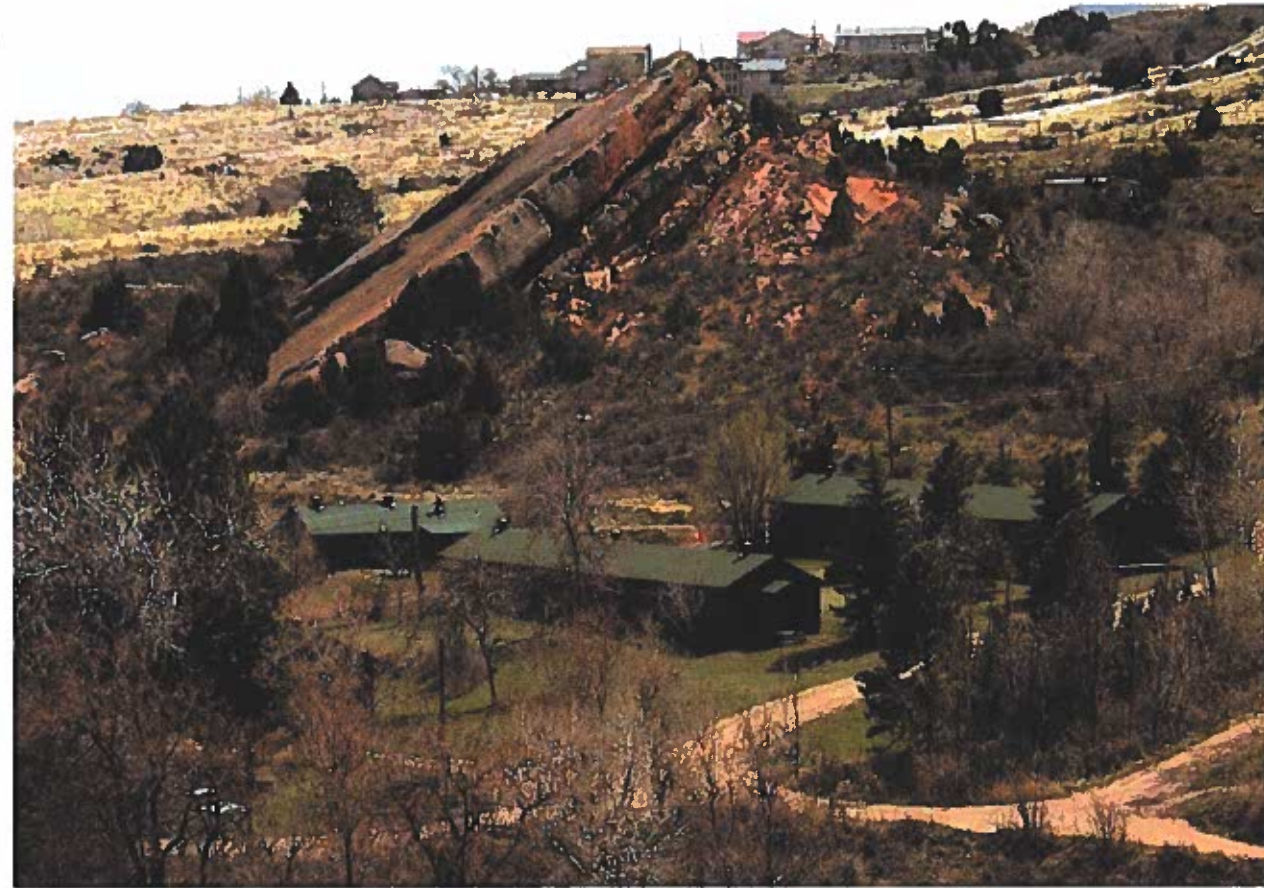


RED ROCKS CCC CAMP BARRACKS –  
BUILDING 1 REHABILITATION

February 12, 2018

CITY AND COUNTY OF DENVER  
STATE OF COLORADO

# CCC MORRISON CAMPUS FOR HISTORICORPS



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Google Maps



Imagery ©2017 Google, Map data ©2017 Google United States 300 ft

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## DIRECTORY

### CLIENT

City of Denver  
Parks and Recreation  
Brad Eckert - Mountain Parks Planner  
Phone: 720.913.0708  
Brad.Eckert@denvergov.org

Public Works  
Elizabeth Hamilton  
Scott McFarland  
Phone: 720.913.4501

HistoriCorps  
1420 Ogden Street Ste 103  
Tommy Anderson  
Phone: 720.287.0100 ext235  
tanderson@historiCorps.org

### ELECTRICAL

AE Design  
1900 Wazee Street No. 205  
Denver, CO 80202  
Bryan Jass, LEED AP BD+C  
Kit Davidson, PE  
Cole Lefever  
Phone: 303.286.3537  
bjass@aedesign-inc.com  
kdaavidson@aedesign-inc.com  
clefever@aedesign-inc.com

### ARCHITECT

Anderson Hallas Architects, PC  
715 Fourteenth Street  
Golden, CO 80401  
Nan Anderson, FAIA, LEED AP, Principal  
Andrew Duckett-Emke, AIA, Project Architect  
Phone: 303.278.4378  
nananderson@andarch.com  
andyduckett-emke@andarch.com

### MECHANICAL

360 Engineering  
1800 Jackson Street, Suite 360  
Golden, CO 80401  
Denis Dille, PE, LEED BD+C, CxA  
Taylor Reese, PE, LEED AP BD+C, CxA  
Phone: 303.940.2050  
ddille@360eng.com  
treese@360eng.com

### STRUCTURAL

JVA, Inc  
1319 Spruce Street  
Boulder, CO 80302  
Ian Glaser, P.E.  
Christine Britton  
Phone: 303.444.1951  
iglaser@jvajva.com  
cbritton@jvajva.com

### LANDSCAPE

DHM Design  
900 S. Broadway, Suite 300  
Denver, CO 80209  
Bill Neumann  
Phone: 303.892.5566  
bneumann@dhdmsdesign.com

### CIVIL

San Engineering LLC  
801 W. Mineral Avenue, Suite 200  
Littleton, CO 80120  
Eduardo San  
Paulus Limasalle  
Phone: 303.853.9014  
eduardo@sanengineeringllc.com  
paulus@sanengineeringllc.com

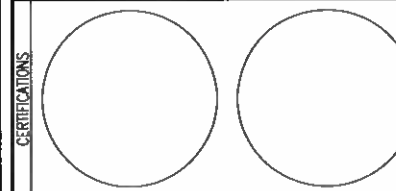
### COST ESTIMATOR

Parametric, Inc.  
7186 Highland Dr. No.200  
Salt Lake, UT 84121  
Phone: 801-733-5900  
J.R. Anzer  
JR@Parametric-Cost.com

**CITY AND COUNTY OF DENVER**  
DEPARTMENT OF PUBLIC WORKS  
Brad Eckert - Mountain Parks Planner  
201 W. Colfax Ave., 5th Floor, Denver, CO 80202  
Public Works - City and County of Denver  
720 913 0708 Phone - 1770 444 2700 Cell  
Brad.Eckert@denvergov.org

**DENVER**  
1863 BROADWAY CITY


**ANDERSON HALLAS ARCHITECTS, PC**  
715 FOURTEENTH STREET  
GOLDEN, COLORADO 80401  
(303) 278-4378  
FAX: (303) 278-4021  
Principal: Nan Anderson  
FAIA, LEED AP  
Nan.anderson@andarch.com





MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR
1	12.12.2017	ADDENDA 1
2	01.02.2018	ADDENDA 2


CONTRACTOR'S	
A/E CON. NO.	201520446
A/E TASK NO.	05
CONSTR. CONTR.	---
CONSTR. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	
CONSTR. CON.	
BUILDING	
NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO ZIP 804065
BUILDING NO.	1
OTHER BUILDING NOS.	
FACILITY CODE	
PROJECT	
PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJMSTR-0000473
CCD PM	BRAD ECKERT
SUBMISSION	100% CDs FOR PERMIT & CONSTRUCTION
SUB. DATE	09.05.2017
DRAWING	
DRAWING TITLE	COVER SHEET
FILE NAME	A0.0 Cover Sheet.dwg
FLOOR NO.	
DRAWN BY	ADE DATE DRAFTED: 12/12/2017
CHECKED BY	NAA SHEET SIZE: 22 X 34
DRAWING NO.	A 0 00
DISCIPLINE	SHEET 1 OF 32
SHEET	TYPE
SEQUENCE	

**CITY AND COUNTY OF DENVER**  
DEPARTMENT OF PUBLIC WORKS

APPROVED BY:  1/29/18  
EXECUTIVE DIRECTOR OF PUBLIC WORKS DATE

 1-26-18  
CITY ENGINEER DATE

 1/23/18  
DIRECTOR OF ENVIRONMENTAL CAPITAL PROJECTS DATE

 1/23/18  
CITY TREASURER DATE

# Building Code Analysis

2015 INTERNATIONAL BUILDING CODE  
 2015 INTERNATIONAL EXISTING BUILDING CODE  
 2015 INTERNATIONAL ENERGY CONSERVATION CODE

## CCC Morrison

- Occupancy: B
- Construction: Type V-B
- Table 602: Fire Resistance rating requirements for exterior walls based on Fire Separation Distance  
 a. Ratings (exterior walls)

Direction	Separation	Req'd Rating (hr)	Provided Rating (hrs)
East	30+ feet	0	0
North	30+ feet	0	0
West	30+ feet	0	0
South	30+ feet	0	0

### b. Wall Openings Table 705.8

Wall	Actual Separation	Unprotected	Protected
East	30 + feet	No Limit	No Limit
North	30 + feet	No Limit	No Limit
West	30 + feet	No Limit	No Limit
South	30 + feet	No Limit	No Limit

Per IEBC 2015  
 504.1 Scope: Level 3 Alteration apply where the work area exceeds 50 percent of the work area.

The proposed project will rehabilitate the existing abandoned CCC bunkhouse and provide new offices. The scope of work will add new partitions, finishes, insulation, mechanical, plumbing and electrical services, the project will also repair the existing foundation and supplement the lateral support system.

### 4. Building Areas (in S.F.) per table 506.2

Level	Actual		Allowed	
	B	Total	B	Total
First Floor	2,430	2,430	9,000	9,000
Total	2,430	2,430	9,000	9,000

### 5. a. Building Heights Table 504.3

Allowed	Actual
40'	+/- 15'6"

### b. Number of Stories Table 504.4

Allowed	Actual
2 stories	1 story

### 6. Occupancy Separations

508.3 Non-Separated occupancies. Buildings or portions of buildings that comply with the provision of this section shall be considered as non-separated occupancies.  
 508.1 Occupancy classification: Non-separated occupancies shall be individually classified in accordance with Section 302.1. The requirements of this code shall apply to each portion of the building based on the occupancy classification of that space. In addition, the most restrictive provision of Chapter 9 that apply to the non-separated occupancies shall apply to the total non-separated occupancy area. Where non-separated occupancies occur in a high-rise building, the most restrictive requirement of Section 403 that apply to the non-separated occupancies shall apply throughout the high-rise.  
 508.3.2 Allowable building area and height. The allowable building area and height of the building or portion thereof shall be based on the most restrictive allowances for the occupancy group under consideration for the type of construction of the building in accordance with Section 503.1.  
 508.3.3 Separation. No separation is required between non-separated occupancies.

### 7. Egress Requirements per Table 1004.1.2:

Use	Occupant Load
B	100sf/occ(net)

b. Exit capacity multiplier (w/o Sprinklers)  
 Doorway = 0.2/occ

c. Calculations  
 First Floor:  
 Business Use: 2,430 @ 1/100 = 25 occ.

Number of exits/widths (min. req'd width = 32" clr. @ doorway)

Floor	Required (Per IBC 2015)	Provided
First Floor	2 @ 32" clr	2 @ 32" clr.

Distance between Exits per 1007.1:

Floor	Allowed (Diagonal/2)	Provided
First Floor	60'-10" (121'-10")	120'-2"

Exit Access Distance Table 1017.2:

Floor	Max. Allowed	Provided
First Floor	200'	+/- 60'1"

### 8. Conclusions

This is an existing building with a change in occupancy.

Proposed work is new MEP equipment, new interior finishes and the historic restoration of windows on the north and south facade. (Work level as defined by Chapters 7, 8 & 9, Alteration Level 3, IEBC 2015)

THUS THE BUILDING COMPLIES PER IEBC 2015.

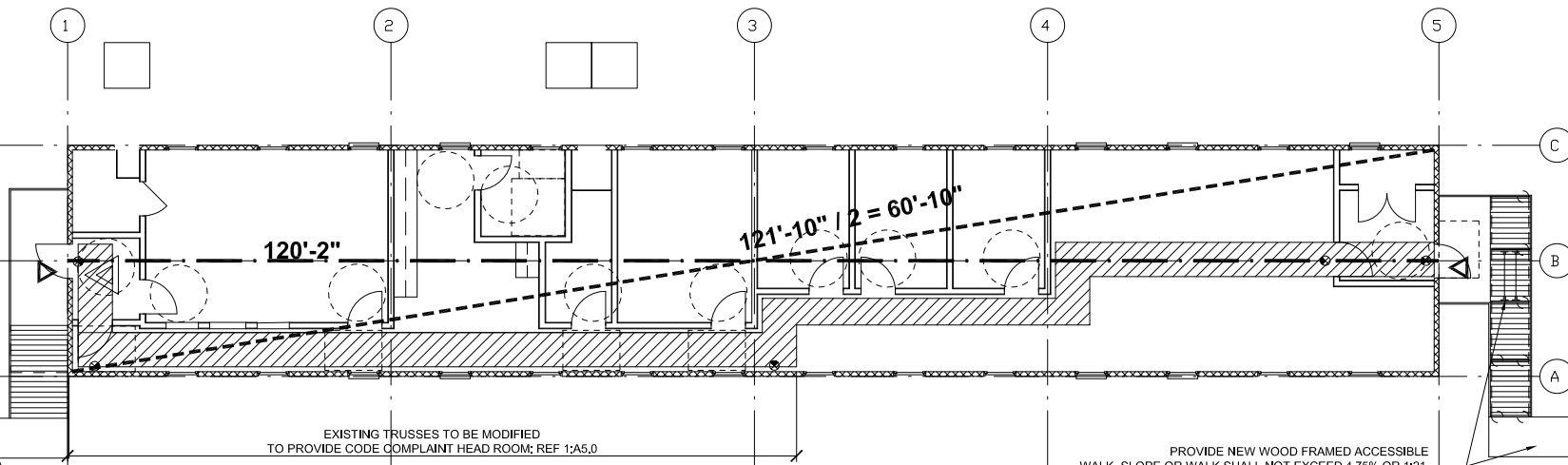
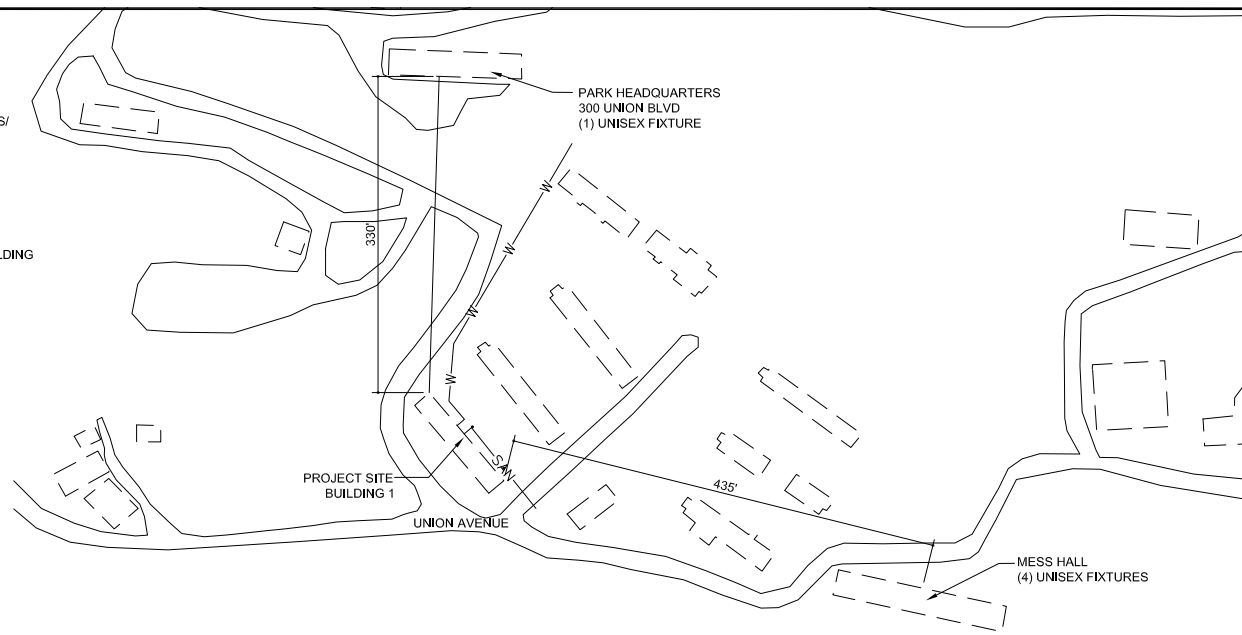
### 9. Code Issues (Per IBC 2015)

IEBC 2015, Section 101.4.2: The legal occupancy of any building existing on the date of adoption of this code shall be permitted to continue without change except as specifically covered by this code or as deemed necessary by code official for the general safety and welfare of the occupants and the public.

## Legend

- MANEUVERING CLEARANCES/ CLEAR FLOOR SPACE
- TURNING CIRCLE
- OVERALL DIAGONAL OF BUILDING
- EXIT ACCESS
- 36" WIDE PATH OF EGRESS
- NEW EXIT SIGNAGE
- (N) ACCESSIBLE ENTRY
- (E) EXIT
- (N) EXIT

1 SITE PLAN  
 1" = 100'



1 CODE PLAN  
 1/8" = 1'-0"

### 10. ENERGY CODE REQUIREMENTS PER 2015 IECC

TABLE C402.1.3 / ZONE 5		
	REQUIRED	PROVIDED
Walls	R20	R22
Roof	R38	R38

### 11. FIRE SUPPRESSION

903.2 Where required, Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2 through 903.2.12

Group B occupancy is not described in Section 903.2 through 903.2.12

### 12. 2015 IEBC CHAPTER 2

HISTORIC BUILDING. Any building or structure that is one or more of the following:  
 3. Certified as contributing resource within a National Register, state designated or locally designated historic district.

Red Rocks Park CCC Camp Building 1 is a contributing structure within the Red Rocks Park NHL

505.1 SCOPE. Level 3 alterations apply where the work area exceeds 50% of the Building Area.  
 508.1 HISTORIC BUILDINGS. Historic Building provisions shall apply to buildings classified as historic as defined in Chapter 2.  
 508.2 APPLICATION. Except as specifically provided for in Chapter 12, Historic Buildings shall comply with applicable provisions of the code for the type of work being performed.

Building meets means of egress and fire resistance requirements. New restroom will be accessible.

## SYMBOLS

**EXTERIOR ELEVATION**  
 A4.0

**INTERIOR ELEVATION**  
 A8.0

**ROOM TAG**  
 ROOM TAG

**ROOM**  
 ROOM  
 100  
 100 SF

**DETAIL REFERENCE**  
 1  
 A9.0

**BUILDING SECTION**  
 1  
 A5.0

**FIRST FLOOR**  
 1  
 100'-0"

**ELEVATION MARK**  
 5

**NORTH ARROW**  
 N

**COLUMN GRID**  
 1

**KEY NOTE**  
 5

**WALL TYPE**  
 1

**WINDOW TYPE/NUMBER**  
 6

**DOOR NUMBER**  
 75

**VIEW NAME**  
 X  
 =1'-0"

**VIEW TITLE**

**DENVER**  
THE MILE HIGH CITY

CITY AND COUNTY OF DENVER  
 DEPARTMENT OF PUBLIC WORKS

Brad Eckert: Mountain Parks Manager  
 201 W. Colfax Ave. 5th Floor, Denver, CO 80202  
 Public Works | City and County of Denver  
 720.913.0708 Phone | 970.406.0705 Cell  
 Brad.Eckert@denvergov.org

ANDERSON HALLAS ARCHITECTS, PC  
 715 FOURTEENTH STREET  
 GOLDEN, COLORADO 80401  
 (303) 278-4378  
 FAX (303) 278-0521  
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 FAIA, LEED AP  
 Nam.Anderson@andarch.com

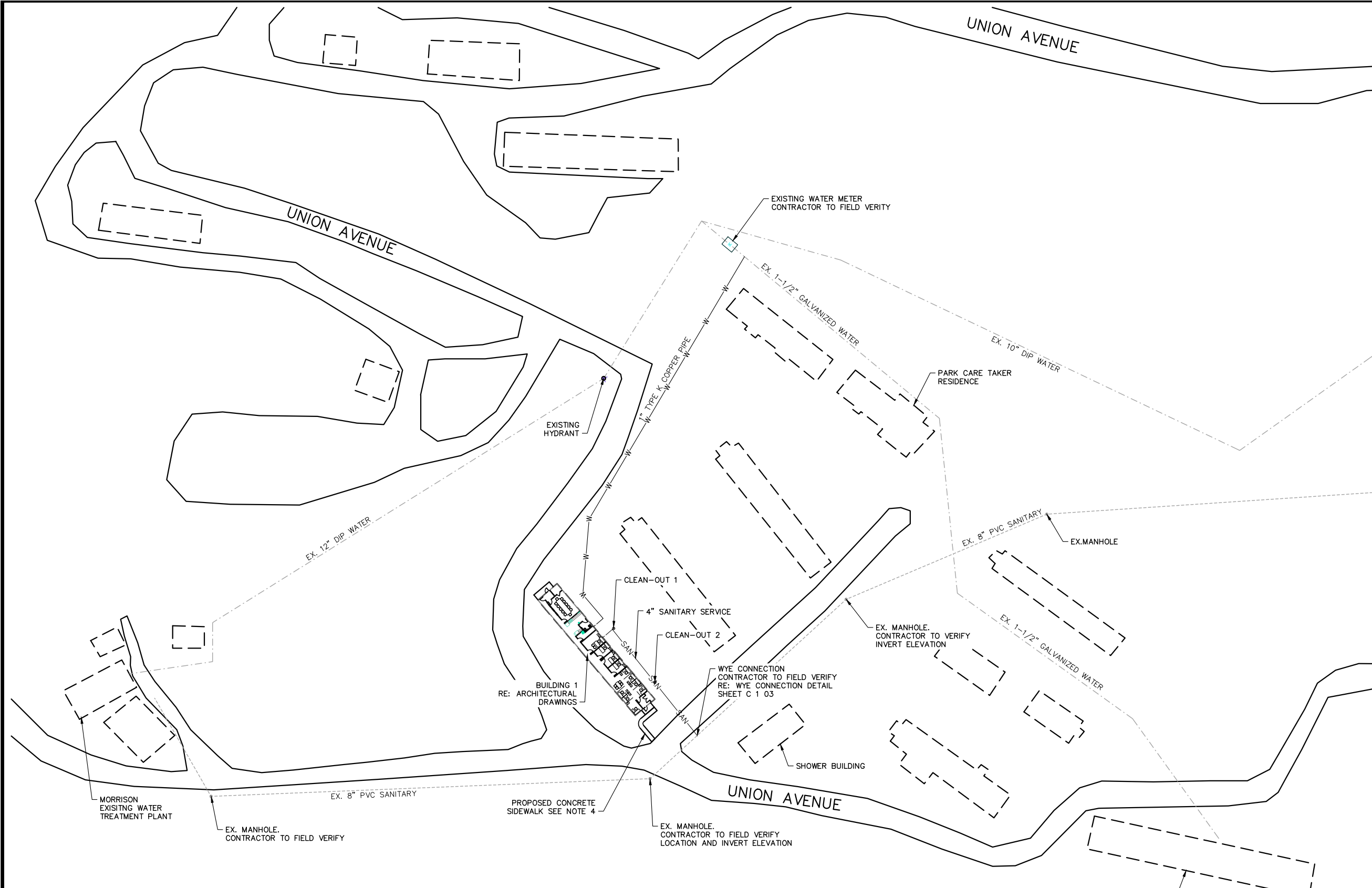
MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR.
1	12.12.2017	ADDENDA 1
2	01.02.2018	ADDENDA 2

A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	--
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	
CONSTR. CON.	
NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO ZIP 804065
BUILDING NO.	1
OTHER BUILDING NOS.	
FACILITY CODE	
PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJMSTR-0000473
CCD PM	BRAD ECKERT
SUBMISSION	100% CDs FOR PERMIT & CONSTRUCTION
SUB. DATE	09.05.2017
DRAWING TITLE	COVER SHEET
FILE NAME	A001 Code Sheet.dwg
FLOOR NO.	
DRAWN BY	ADE DATE DRAFTED: 08/14/2017
CHECKED BY	NAA SHEET SIZE: 22 X 34
DRAWING NO.	A 0 01
	DISCIPLINE SHEET TYPE SEQUENCE
	SHEET 2 OF 32

Automatic stamp



12/13/2017 11:04:52 AM - F:\Projects\CCC\_Morrison Campus\CADD\CIVIL\CDS (PHASE, DESC)\C-101 Overall Utilities.dwg



**LEGEND**

- SAN— PROPOSED SANITARY
- EXISTING SANITARY
- W— PROPOSED WATER
- EXISTING WATER
- (S) SANITARY MANHOLE
- (C) SANITARY CLEANOUT
- (M) EXISTING METER VAULT
- [ ] EXISTING STRUCTURE

**NOTES**

- REFER TO SHEET C 1 02 FOR WATER AND SANITARY SERVICES. REFER TO SHEET C 1 03 FOR WATER AND SANITARY DETAILS.
- GRADE AROUND THE BUILDING PERIMETER A 2' SWATH AT A SLOPE OF 4:1 TO MAINTAIN POSITIVE DRAINAGE. REFER TO ARCHITECTURAL SHEETS FOR BUILDING LAYOUT.
- GENERAL CONTRACTOR TO PROVIDE ADA COMPLIANT CONCRETE SIDEWALK (5% MAXIMUM SLOPE). CONCRETE SIDEWALK SHALL BE 6" THICK BY 42" WIDE. MAKE CONNECTION BETWEEN EXISTING RAMP AND UNION AVENUE. USE 4500 PSI AT 28 DAY, W/CM=(WATER TO CEMENTITOUS MATERIALS) AT LESS THAN 0.45 RATIO; WITH #67 OR LARGER ROCK, 5% TO 7% AIR ENTRAINED CONCRETE, FOR BEST DURABILITY TO FREEZE/THAW & DEICER CHEMICALS.

**LEGAL DESCRIPTION**

THE NORTH HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 2, TOWNSHIP 5 SOUTH, RANGE 70 WEST OF THE SIXTH PRINCIPAL MERIDIAN, JEFFERSON COUNTY, COLORADO.

**BENCH MARK**

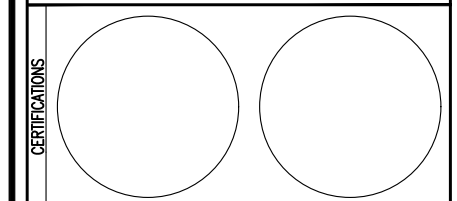
COMMENCING AT THE NORTHWEST CORNER OF SAID NORTH HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST OF SECTION 2, AS MONUMENTED BY A WHITE SANDSTONE ROCK WITH A CHISELLED CROSS WITH A 7 1/2 INCH BY 9 INCH TOP AND MARKED: "SEC.2, SEC.35, SEC.3" ON ITS SIDES.

**CITY AND COUNTY OF DENVER**  
DEPARTMENT OF PUBLIC WORKS

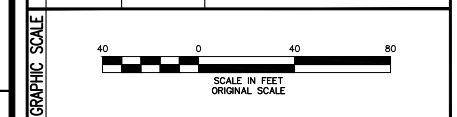
Brad Eckert: Mountain Parks Manager  
201 W. Colfax Ave. 5th Floor, Denver, CO 80202  
Public Works | City and County of Denver  
720.913.0708 | Phone | 970.466.0765 Cell  
Brad.Eckert@denvergov.org

**DENVER**  
THE MILE HIGH CITY

ANDERSON HALLAS ARCHITECTS, PC  
715 FOURTEENTH STREET  
GOLDEN, COLORADO 80401  
(303) 278-4378  
FAX (303) 278-0521  
Principal: Nannon Adair Anderson  
TALL, LEE & AP  
Nan.Anderson@andarch.com

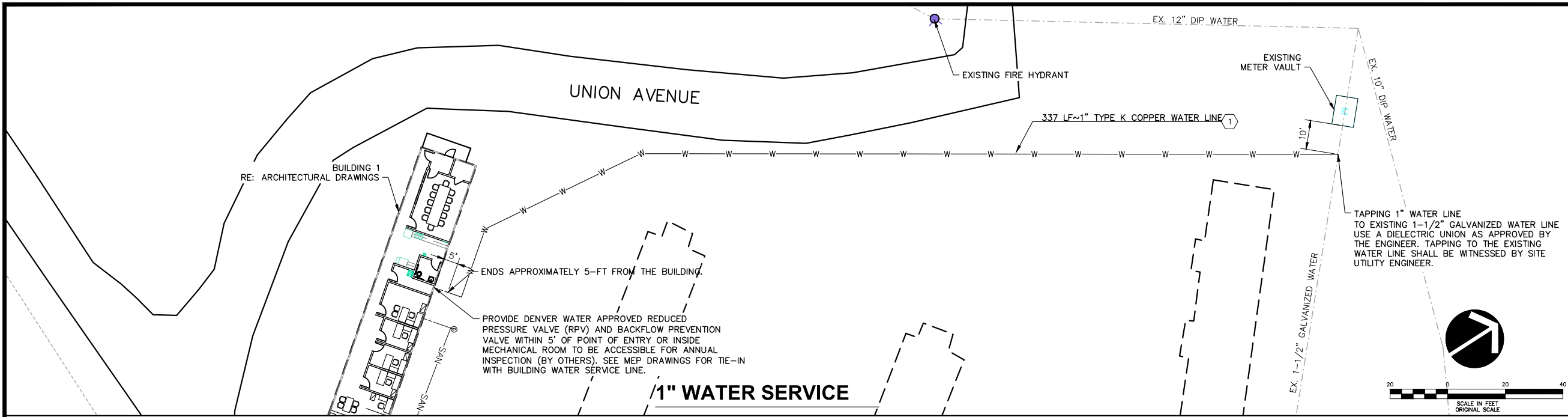


MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR
1	12.12.2017	ADDENDA 1



A/E CON. NO.	201520446	
A/E TASK NO.	05	
CONS. CONTR.	---	
CONS. WORK	---	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC	
SUB A/E	---	
CONSTR. CON.	---	
NAME	MOUNT MORRISON	
STREET	300 UNION AVENUE	
CITY/ST./ZIP	MORRISON, CO	ZIP 804065
BUILDING NO.	1	
OTHER	---	
BUILDING NOs.	---	
FACILITY CODE	---	
PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION	
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK	
PROJECT NO.	PROJMSTR-0000473	
CCD PM	BRAD ECKERT	
SUBMISSION	100% CDs FOR PERMIT & CONSTRUCTION	
SUB. DATE	09.05.2017	
DRAWING TITLE	OVERALL UTILITIES	
FILE NAME	C-101 Overall Utilities.dwg	
FLOOR NO.	---	
DRAWN BY	PL	DATE DRAFTED: 08/29/2017
CHECKED BY	ES	SHEET SIZE: 22 X 34
DRAWING NO.	C	1 01
	DISCIPLINE	SHEET TYPE
	SHEET	3 OF 32





**LEGEND**

- SAN — PROPOSED SANITARY
- EXISTING SANITARY
- W — PROPOSED WATER
- EXISTING WATER
- (S) SANITARY MANHOLE
- (C) SANITARY CLEANOUT
- (M) EXISTING METER VAULT
- [ ] EXISTING STRUCTURE

**DETAILS**

- (1) TYPICAL WATER TRENCH DETAIL/C-103
- (2) CLEAN-OUT DETAIL/C-103
- (3) WYE CONNECTION DETAIL/C-103
- (4) TYPICAL SANITARY TRENCH DETAIL/C-103
- (5) TRENCH PATCH DETAIL/C-103

QUANTITY OF MATERIAL - WATER LINE

DESCRIPTION	UNIT	QUANTITY	NOTE
TAPPING TO EX. WATER LINE	EA	1	
1 IN. TYPE "K" COPPER PIPE	LF	337	
1 IN. BACKFLOW PREVENTER	EA	1	
1 IN. PRESSURE REDUCING VALVE	EA	1	

QUANTITY OF MATERIAL - CONCRETE SIDEWALK

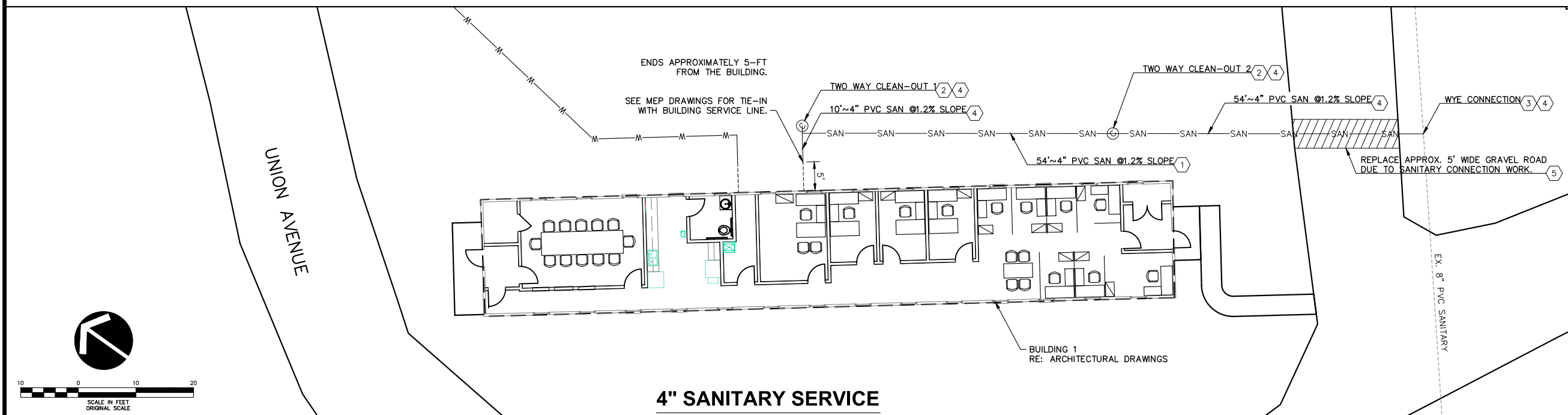
DESCRIPTION	UNIT	QUANTITY	NOTE
6"x42" CONCRETE SIDEWALK	CY	5	MATCH EX. THICKNESS AT THE LANDING.
APPROX. 5' WIDE GRAVEL ROAD REPLACEMENT	SY	12	MATCH EXISTING

QUANTITY OF MATERIAL - SANITARY LINE

DESCRIPTION	UNIT	QUANTITY	NOTE
4 IN. PVC PIPE	LF	118	
2 WAY CLEANOUT	EA	2	
WYE CONNECTION	EA	1	

**NOTES**

1. WATER SERVICE LINE TO BE AT A MINIMUM DEPTH OF 4.5'
2. REFER TO SHEET C 1 03 FOR WATER AND SANITARY DETAILS.
3. CONTRACTOR TO FIELD VERIFY UTILITY LOCATIONS AND ITS INVERT ELEVATIONS PRIOR TO CONSTRUCTION.
4. MAINTAIN A MINIMUM OF 10' SEPARATION BETWEEN WATER AND SANITARY.



**CITY AND COUNTY OF DENVER**  
DEPARTMENT OF PUBLIC WORKS

Brad Eckert Mountain Parks Manager  
201 W. Colfax Ave. 5th Floor, Denver, CO 80202  
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FAX (303) 278-0521  
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FAIA, LEED AP  
Nanon.Anderson@andarch.com

---

CERTIFICATIONS

---

KEY PLAN

---

REVISION NOTES

MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR
1	12.12.2017	ADDENDA 1

---

GRAPHIC SCALE

---

CONTRACTORS

A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	--
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	
CONSTR. CON.	

---

BUILDING

NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO ZIP 804065
BUILDING NO.	1
OTHER BUILDING NOS.	
FACILITY CODE	

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PROJECT

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PROJECT NO.	PROJMNSTR-0000473
CCD PM	BRAD ECKERT
SUBMISSION	100% CDS FOR PERMIT & CONSTRUCTION
SUB. DATE	09.05.2017

---

DRAWING

DRAWING TITLE	PRIVATE WATER AND SANITARY SERVICES
FILE NAME	C-101 Overall Utilities.dwg
FLOOR NO.	
DRAWN BY	PL DATE DRAFTED: 08/14/2017
CHECKED BY	ES SHEET SIZE: 22 X 34
DRAWING NO.	C 1 02
	DISCIPLINE SHEET TYPE SEQUENCE
	SHEET 4 OF 32

# WATER NOTES

- PRESSURE REGULATING VALVES SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH AWWA C530.
- WATER SERVICE LINE PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM B 88.
- BACKFILL AND COMPACTION:

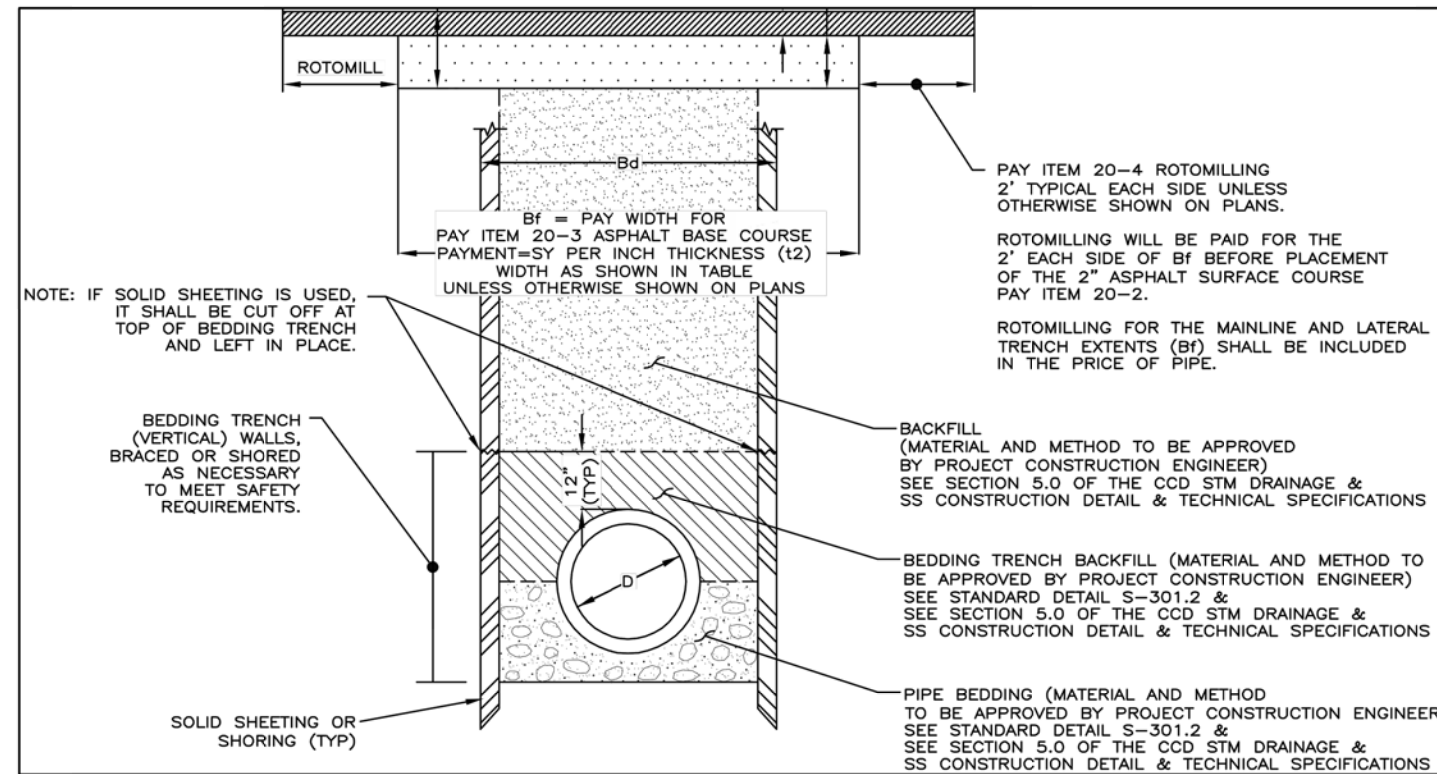
PIPES: THE PIPE ZONE SHALL BE BACKFILLED TO THE LIMITS SHOWN ON THE TRENCHING DETAIL, WELL GRADED SAND SHALL BE COMPACTED BY JETTING AND VIBRATING TO 70% RELATIVE DENSITY AS DETERMINED BY ASTM D 1556, ASTM D 4253, AND ASTM D 4254. SQUEEGEE SAND BACKFILL SHALL BE COMPACTED BY TAMPING AND RODDING TO 70% RELATIVE DENSITY AS DETERMINED BY ASTM D 1556, ASTM D 4253, AND ASTM D 4254. COHESIVE MATERIAL SHALL BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY FOR COHESIVE SOILS AS DETERMINED BY ASTM D 698 WITHIN 2% OF OPTIMUM MOISTURE CONTENT FOR MEETING ASTM D 698 REQUIREMENTS FOR COMPACTION. THE TRENCH EXCAVATION MAY PROVIDE SUITABLE BACKFILL MATERIAL ABOVE THE PIPE ZONE. WET, SOFT, OR FROZEN MATERIAL, ASPHALT CHUNKS, OR OTHER DELETERIOUS SUBSTANCES SHALL NOT BE USED FOR BACKFILL. IF THE EXCAVATED MATERIAL IS DEEMED UNSUITABLE FOR BACKFILL BY DENVER WATER, THEN A SUITABLE MATERIAL SHALL BE UTILIZED AND THE REJECTED MATERIAL DISPOSED OF PROPERLY. BACKFILLING SHALL BE CONDUCTED IN A CONTINUOUS MANNER TO PREVENT DAMAGE TO THE PIPE AND ITS COATING AND KEPT AS CLOSE TO THE PIPE LAYING OPERATION AS POSSIBLE. BACKFILLING PROCEDURES SHALL BE IN ACCORDANCE WITH THE ADDITIONAL REQUIREMENTS, IF ANY, OF APPROPRIATE AGENCIES OR PRIVATE ROW AGREEMENTS.

## 4. PIPE BEDDING:

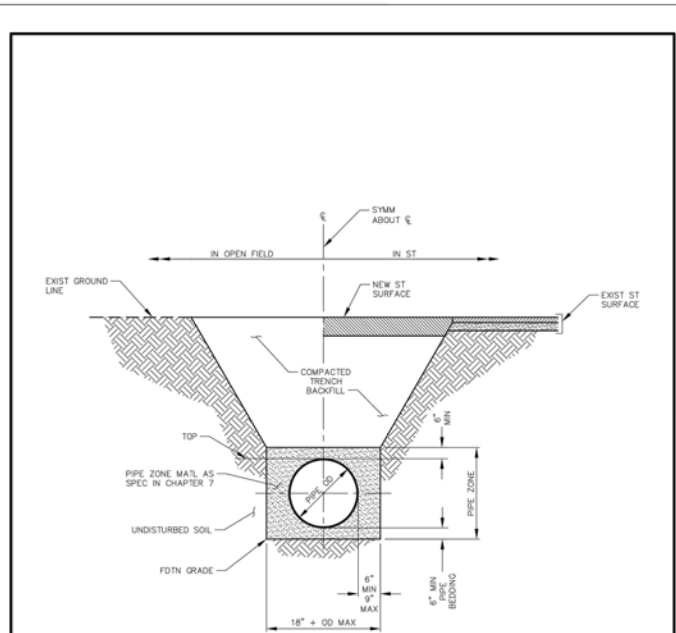
INSTALLATION OF BEDDING AND PIPE: AFTER COMPLETING THE TRENCH EXCAVATION AND PROPER PREPARATION OF THE FOUNDATION, 6 INCHES OF BEDDING MATERIAL SHALL BE PLACED ON THE TRENCH BOTTOM FOR SUPPORT UNDER THE PIPE. BELL HOLES SHALL BE DUG DEEP ENOUGH TO PROVIDE A MINIMUM OF 2 INCHES OF CLEARANCE BETWEEN THE BELL AND THE BEDDING MATERIAL. PIPE SHALL BE INSTALLED TO ENSURE FULL SUPPORT OF THE PIPE BARREL OVER ITS ENTIRE LENGTH. AFTER THE PIPE IS ADJUSTED FOR LINE AND GRADE AND THE JOINT IS MADE, THE PIPE ZONE MATERIAL SHALL BE CAREFULLY PLACED AND TAMPED UNDER THE HAUNCHES OF THE PIPE AND IN THE PREVIOUSLY DUG BELL HOLES. TAMPING IS HEREIN DEFINED AS THE ACT OF PLACING APPROVED PIPE ZONE MATERIAL UNDER THE HAUNCHES OF THE PIPE WHILE PAYING PARTICULAR ATTENTION TO VOIDS, BELL HOLES, AND SLING HOLES. THE PURPOSE OF TAMPING IS TO ENSURE UNIFORM SUPPORT FOR THE PIPE. THE LIMITS OF BEDDING AND PIPE ZONE MATERIAL SHALL BE FROM 6 INCHES BELOW THE BOTTOM OF THE PIPE TO 6 INCHES ABOVE THE TOP OF PIPE. APPROVED BACKFILL MAY THEN BE INSTALLED TO THE GROUND LINE. FOR BACKFILL AND THE COMPACTION OF BACKFILL, THE COMPACTION OF PIPE BEDDING IS NOT REQUIRED WHEN USING SQUEEGEE SAND. THE ONLY REQUIREMENT IS SUFFICIENT TAMPING TO ACHIEVE UNIFORM SUPPORT UNDER THE PIPE. FOR A TYPICAL TRENCH CROSS-SECTION.

# SANITARY NOTES

- SANITARY SEWER CONNECTIONS SHALL BE MADE WITH WYE'S OR TEE'S CONFORMING TO ASTM D3034 OF F679 WHICHEVER IS APPLICABLE. ONLY GASKETED FITTINGS WILL BE USED. SADDLE WYE'S AND TEE'S WITH GASKETS FOR THE SADDLE AND JOINTS ARE APPROVED FOR SANITARY SEWER SERVICE CONNECTION TO EXISTING PVC SANITARY SEWERS ONLY. STAINLESS STEEL STRAPS SHALL BE USED TO SECURE THE SADDLE FITTINGS TO THE MAIN PIPE.



4 SANITARY TRENCHING DETAIL



1 TYPICAL TRENCH DETAIL

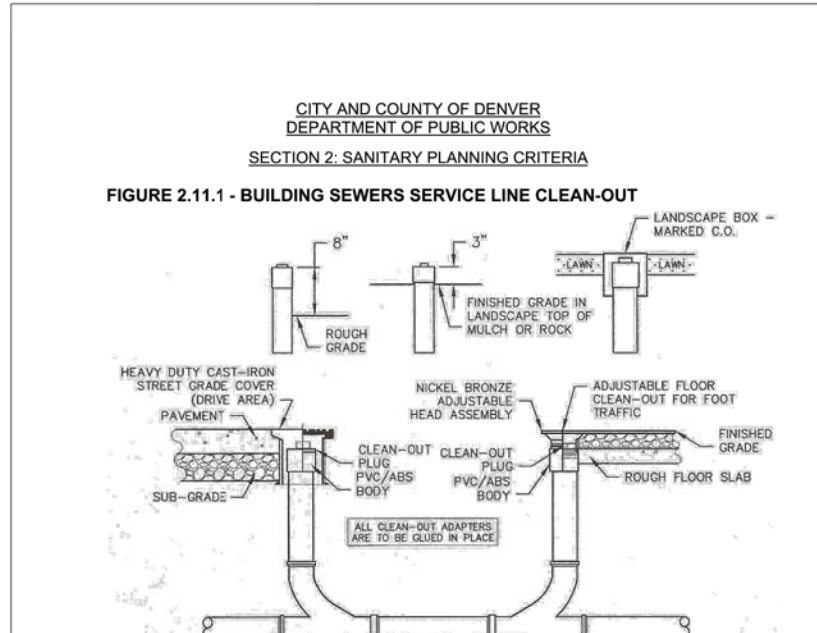
- NOTES:
- MINIMUM COVER SHALL BE 4'-6" BELOW THE OFFICIAL STREET GRADE.
  - TRENCH SHALL CONFORM TO APPLICABLE OSHA REQUIREMENTS.
  - COMPACTION SHALL BE IN ACCORDANCE WITH CHAPTER 7.

**DENVER WATER**  
1500 West 129th Avenue - Denver, Colorado 80204  
Phone: 303.629.8000 - TDD: 303.629.8851

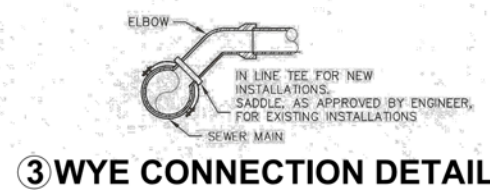
**TYPICAL TRENCH SECTION**

Scale: NONE Date: June 2014  
Drawn: C.B.B. Ck: K ROSS  
Approved: [Signature] Dr.: 127 No.: 35

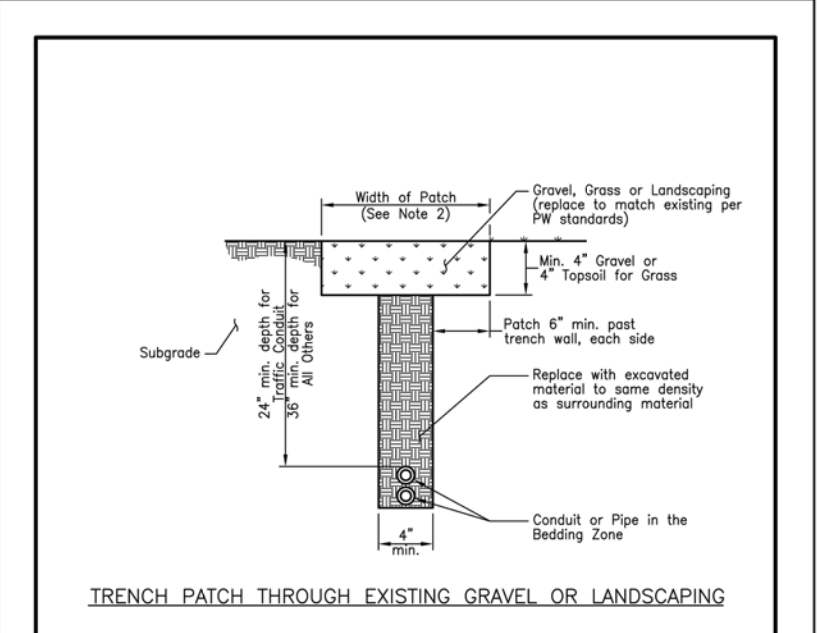
SHEET 12



2 SERVICE LINE CLEAN-OUT CLEAN-OUT DETAIL



3 WYE CONNECTION DETAIL



- Notes:
- Wherever possible, conduit or cable shall be installed by boring, driving, or any other acceptable means under concrete units. Open cutting shall be used only under special circumstances and only with approval of PW.
  - Minimum width and type of restoration to be determined by PW Inspector, based on contractor's pre-activity photos, to match pre-existing conditions.
  - Sod replacement shall be a minimum of 18" in width.
  - Any hardscape (concrete or pavers) should be replaced in full panels or pavers of the same type, color, and size as before.
  - Restoration in Denver Parks shall be per the Parks Operations Supervisor. Contact Denver Parks at (720)865-0368 for details and any permits required.
  - Any trenching within the drip line of existing R.O.W. trees must be approved by the Office of City Forester prior to commencement of construction activities. When necessary, utility installation under the canopy of existing trees must be directionally bored.

City and County of Denver  
Transportation Standards & Details  
Date: 04/17  
Trench Patch Through Existing Gravel or Landscape Materials  
Std. Dwg. 12.1

5 TRENCH PATCH DETAIL

CITY AND COUNTY OF DENVER DEPARTMENT OF PUBLIC WORKS  
Brad Eckert: Mountain Parks Manager  
201 W. Colfax Ave. 5th Floor, Denver, CO 80202  
Public Works | City and County of Denver  
720.913.0708 Phone | 970.406.0705 Cell  
Brad.Eckert@denvergov.org

**DENVER**  
THE MILE HIGH CITY

ANDERSON HALLAS ARCHITECTS, PC  
715 FOURTEENTH STREET GOLDEN, COLORADO 80401  
(303) 278-4378  
FAX (303) 278-0521  
Principal: Nannon Adair Anderson  
FAIA, LEED AP  
NanonAnderson@indarch.com

CERTIFICATIONS

KEY PLAN

MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR
1	12.12.2017	ADDENDA 1

REVISION NOTES

GRAPHIC SCALE

A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	---
CONS. WORK	---
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	---
CONSTR. CON.	---
NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO ZIP 804065
BUILDING NO.	1
OTHER BUILDING NOS.	---
FACILITY CODE	---
PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJ15TR-0000473
CCD PM	BRAD ECKERT
SUBMISSION DATE	100% CDs FOR PERMIT & CONSTRUCTION 09.05.2017
DRAWING TITLE	UTILITY DETAILS
FILE NAME	C-101 Overall Utilities.dwg
FLOOR NO.	---
DRAWN BY	PL DATE DRAFTED: 08/14/2017
CHECKED BY	ES SHEET SIZE: 22 X 34
DRAWING NO.	C 1 03
	DISCIPLINE SHEET TYPE SEQUENCE
	SHEET 5 OF 32



CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS

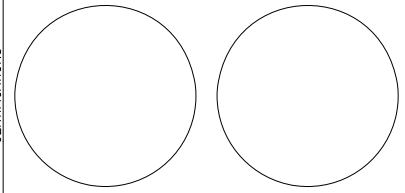
Brad Eckert: Mountain Parks Manager  
201 W. Colfax Ave., 5th Floor, Denver, CO 80202  
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ANDERSON HALLAS  
ARCHITECTS, PC  
715 FOURTEENTH STREET  
GOLDEN, COLORADO 80401  
(303) 278-4378  
FAX (303) 278-0521  
Principal: Naron Adair Anderson  
FAIA, LEED AP  
Naron.AAnderson@andarch.com

CERTIFICATIONS

KEY PLAN



MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR.
1	12.12.2017	ADDENDA 1
2	01.02.2018	ADDENDA 2

REVISION NOTES

GRAPHIC SCALE

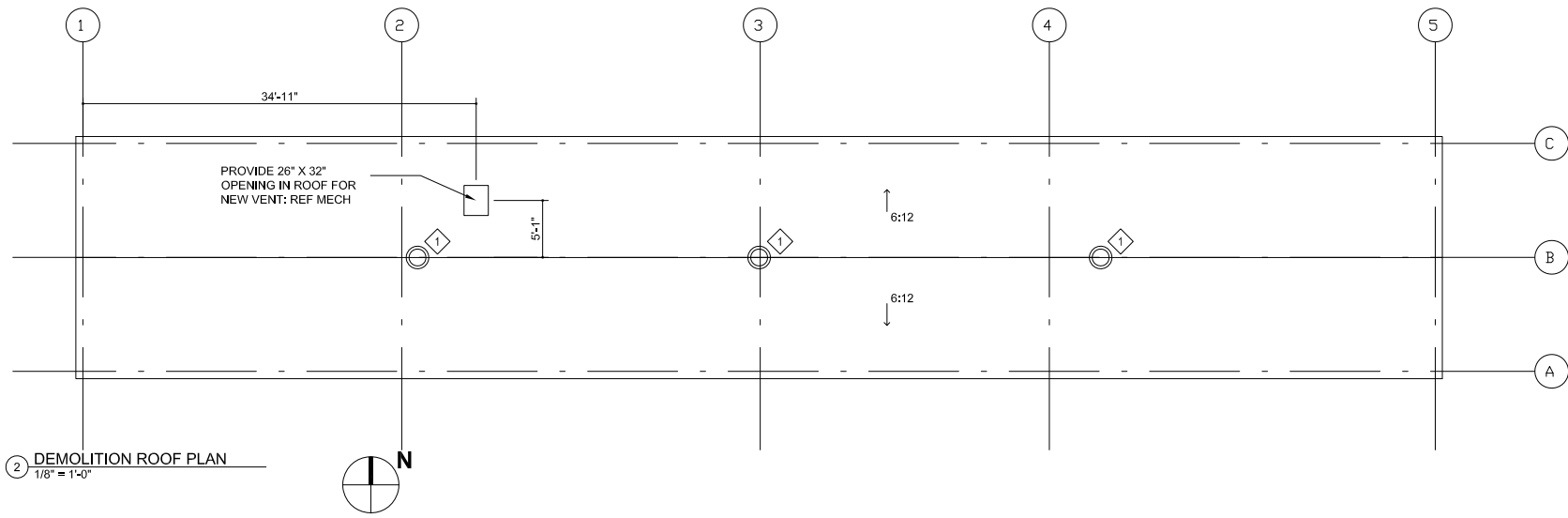
CONTRACTORS

BUILDING

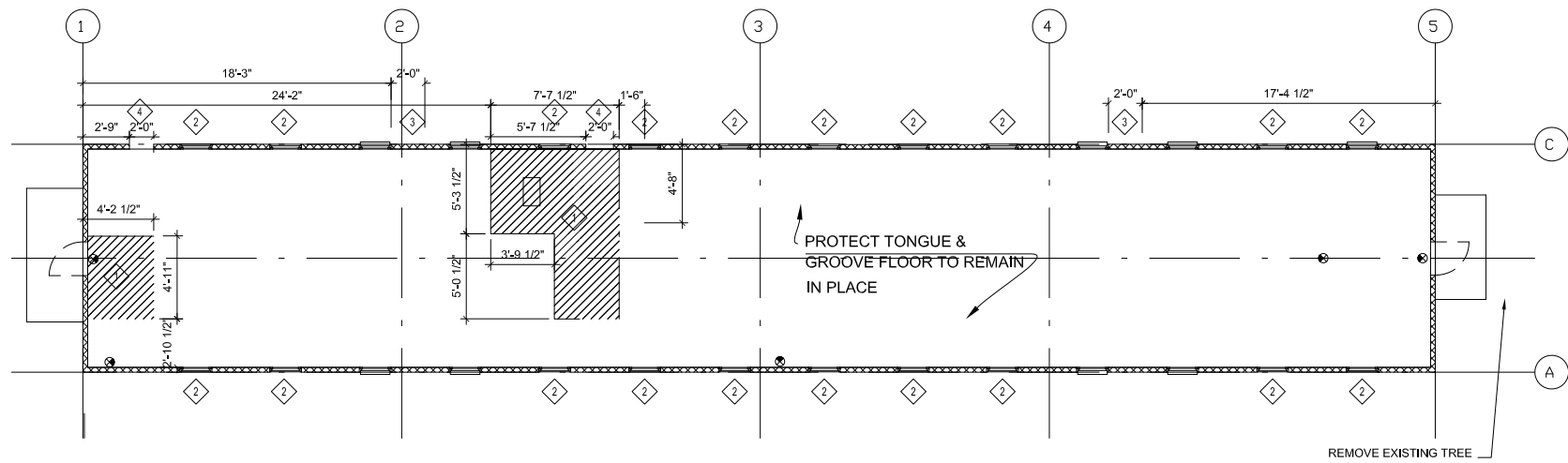
PROJECT

DRAWING

A/E CON. NO.	201520446	
A/E TASK NO.	05	
CONS. CONTR.	--	
CONS. WORK		
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC	
SUB A/E		
CONSTR. CON.		
NAME	MOUNT MORRISON	
STREET	300 UNION AVENUE	
CITY/ST./ZIP	MORRISON, CO	ZIP 804065
BUILDING NO.	1	
OTHER BUILDING NOS.		
FACILITY CODE		
PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION	
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK	
PROJECT NO.	PROJMSTR-0000473	
CCD PM	BRAD ECKERT	
SUBMISSION	100% CDs FOR PERMIT & CONSTRUCTION	
SUB. DATE	09.05.2017	
DRAWING TITLE	DEMO PLANS	
FILE NAME	D1.0 Demo Plans.dwg	
FLOOR NO.		
DRAWN BY	ADE	DATE DRAFTED: 08/14/2017
CHECKED BY	NAA	SHEET SIZE: 22 X 34
DRAWING NO.	D 1 00	
DISCIPLINE	SHEET TYPE	SEQUENCE
SHEET	6	OF 32



2 DEMOLITION ROOF PLAN  
1/8" = 1'-0"



1 DEMOLITION PLAN  
1/8" = 1'-0"

GENERAL DEMO ROOF NOTES

- REMOVE EXISTING ROLLED ROOFING DOWN TO SOLID SUBSTRATE.
- REMOVE ALL FLASHING AND ASSOCIATED ACCESSORIES.
- REMOVE AND REPLACE DETERIORATED 1X6 ROOF SUBSTRATE IN-KIND. PLYWOOD OF SIMILAR THICKNESS IS ACCEPTABLE. ANTICIPATE 20% REPLACEMENT

DEMO ROOF KEYNOTES

- REMOVE AND SALVAGE EXISTING ROOF VENTILATORS

GENERAL DEMO PLAN NOTES

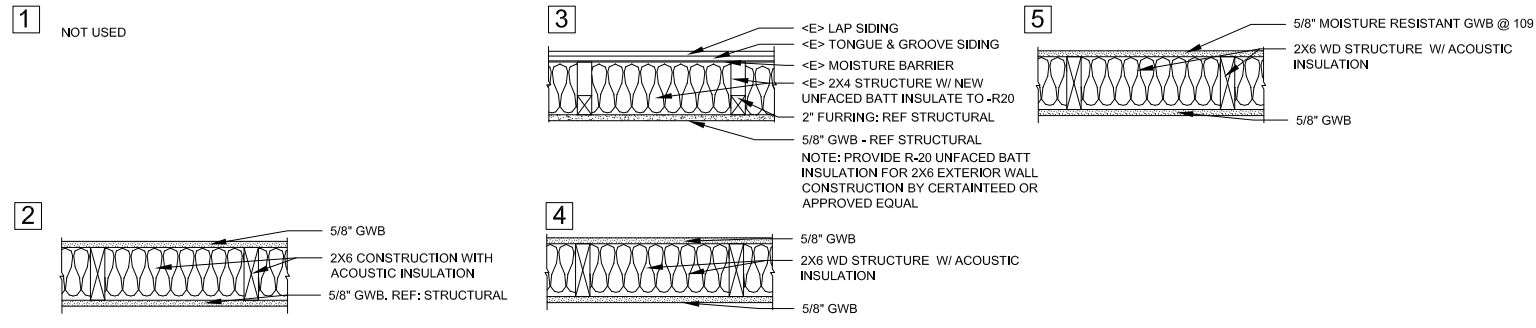
- ALL REMOVAL/DEMO ACTIVITIES SHALL BE EXECUTED IN A MANNER WHICH PROTECTS ANY/ALL UNDERLYING HISTORIC MATERIALS.
- ANY QUESTION AS TO SALVAGE/REUSE OF AN EXISTING ON-SITE OR STORED ITEM SHALL BE DIRECTED TO THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
- REMOVE ALL CONDUIT WIRING TO BE ABANDONED.
- REMOVE AND SALVAGE ALL WOOD TRIM, LABEL AND STORE.
- ALL HISTORIC WINDOWS SHALL BE REHABILITATED, THEY ARE NOT SHOWN AS DEMO SINCE THEY WILL BE REINSTALLED IN CURRENT LOCATION.
- COORDINATE DEMOLITION ACTIVITIES AMONG ALL TRADES: REF STRUCTURAL, MEP DRAWINGS.
- FOR UTILITY: MECHANICAL DEMOLITION SPECIFIC, REFER TO MEP DRAWINGS.
- PROTECT EXISTING EXPOSED "TRUSSES" IN PLACE.
- REMOVE ALL INTERIOR GYPSUM BOARD TO STRUCTURE.
- REMOVE AND SALVAGE EXTERIOR WOOD COMPOSITE SIDING AND TONGUE AND GROOVE SIDING. CONTRACTOR TO REMOVE AND SALVAGE UP TO THE LEVEL OF THE FLOOR STRUCTURE TO PROVIDE ACCESS FOR STRUCTURAL STABILIZATION @ NORTH & SOUTH ELEVATION.

DEMO PLAN KEYNOTES

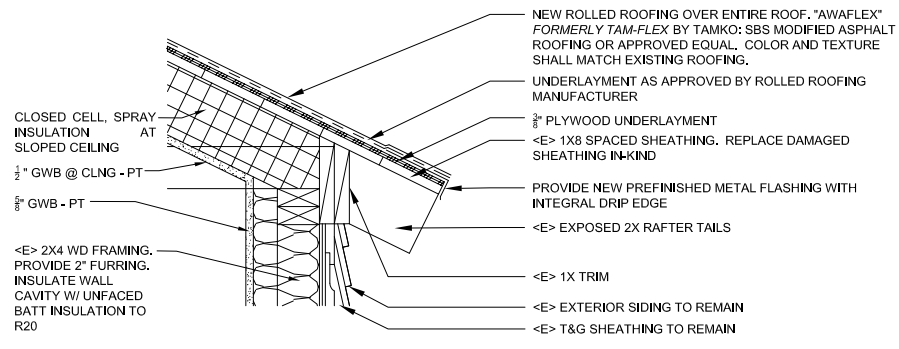
- REMOVE AND SALVAGE EXISTING HARDWOOD FLOORING. REF LEGEND FOR EXTENTS
- REMOVE WOOD SIDING AT WINDOW LOCATIONS - APP 2'-10" W X 3'-10" H @ 24 WINDOWS
- REMOVE EXISTING EXTERIOR SIDING AND FRAMING TO PROVIDE NEW CRAWLSPACE ACCESS. 24" W X 24" H
- PROVIDE NEW WALL PENETRATIONS FOR NEW MECH: REF MECH

LEGEND

- REMOVE AND SALVAGE <E> EXISTING TONGUE AND GROOVE FLOORING
- DEMO WOOD SIDING AT WINDOW LOCATIONS, APPROXIMATELY 2'-10" W X 3'-2" T = V.J.F.
- DEMO DOOR
- EXTERIOR MATERIAL REMOVAL AND SALVAGE



3 WALL TYPES  
 NTS



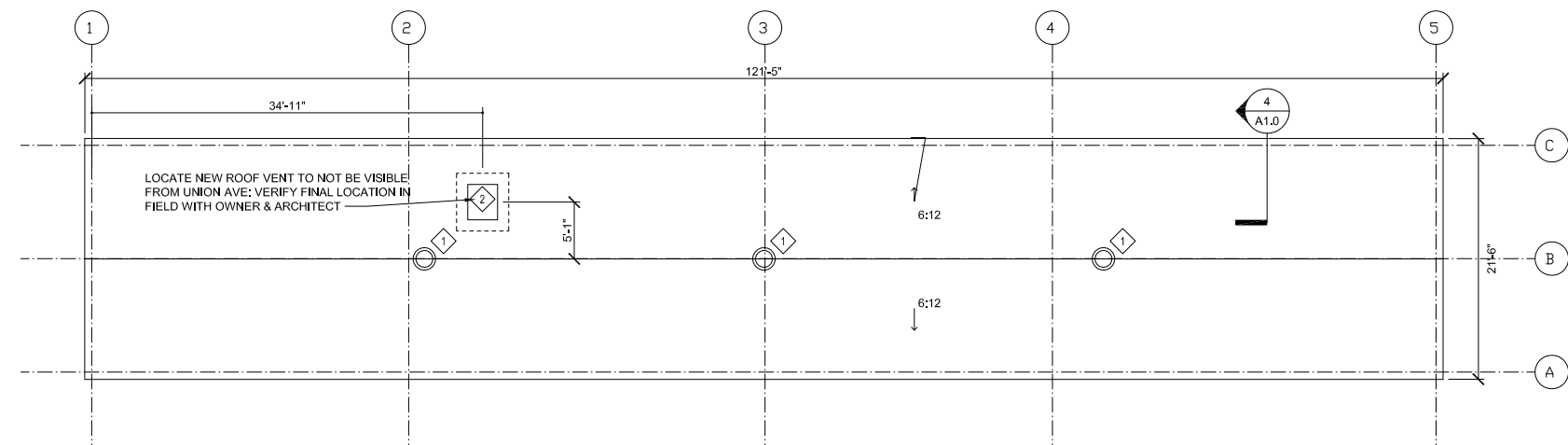
4 ROOF EAVE DTL  
 1 1/2" = 1'-0"

**GENERAL ROOF NOTES**

1. REMOVE AND REPLACE DAMAGED SHEATHING IN KIND, ANTICIPATE 25% REPLACEMENT.
2. PROVIDE NEW 3/8" PLYWOOD SHEATHING OVER ENTIRE ROOF.
3. PROVIDE NEW 1" FLASHING WITH INTEGRAL KYNAR FINISH TO MATCH EXISTING PROFILE. BASE METAL SHALL BE MIN .02 THICK BASE METAL.
4. PROVIDE NEW ROLLED ROOFING OVER ENTIRE ROOF, PROVIDE 3" OVERLAP AT EDGES AND SIDES. ROOFING SHALL BE "AWAFLEX" FORMERLY TAM-FLEX BY TAMKO; SBS MODIFIED ASPHALT ROOFING OR APPROVED EQUAL, COLOR AND TEXTURE SHALL MATCH EXISTING ROOFING.

**KEYNOTES**

- 1 INSTALL SALVAGED VENTILATORS IN ORIGINAL LOCATIONS.
- 2 PROVIDE NEW 32X38 ROOF VENT; REF MECH. PROVIDE NEW FLASHING & SEALANT AT VENT LOCATION.



2 ROOF PLAN  
 1/8" = 1'-0"

**GENERAL PLAN NOTES**

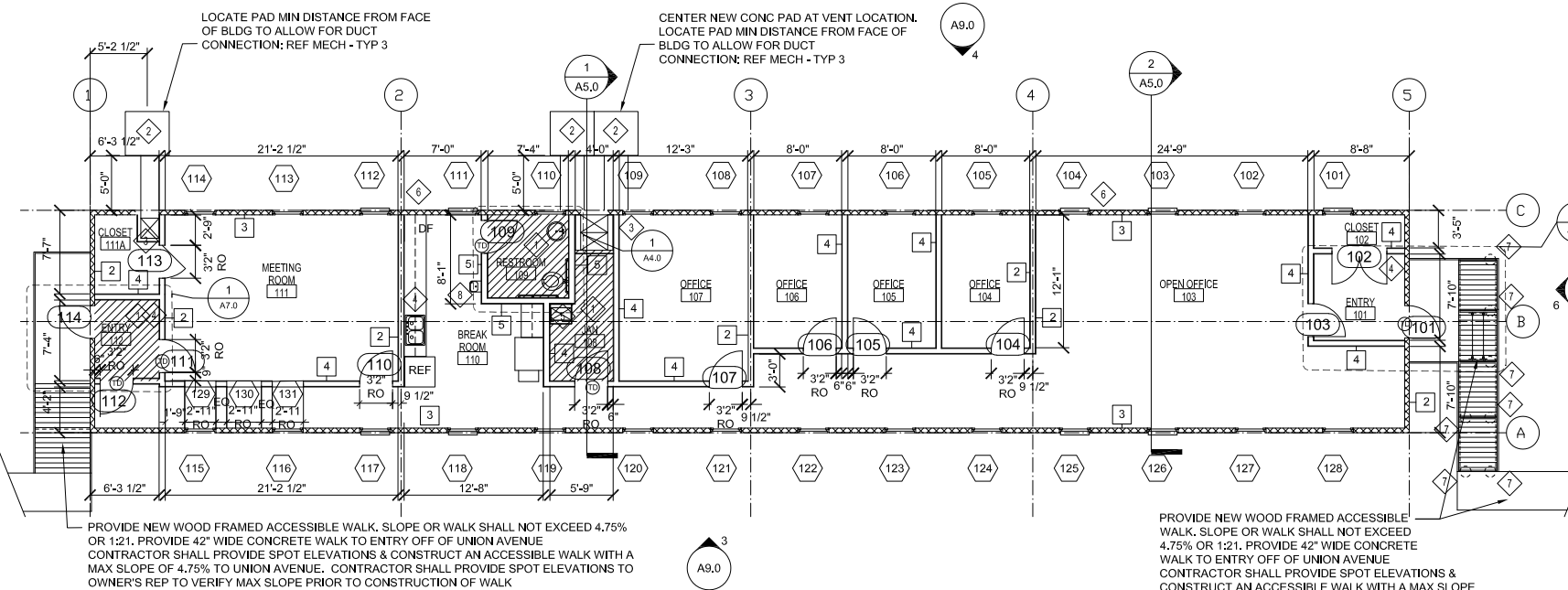
1. PROVIDE NEW 5/8" GYPSUM BOARD AT ALL WALL SURFACES U.O.N PRIME AND PAINT.
2. REINSTALL ALL WOOD TRIM.
3. REFINISH ALL TONGUE AND GROOVE WOOD FLOORS. FLOORS TO BE LIGHTLY SANDED TO REMOVE ALL EXISTING FINISH AND SURFACE STAINING. FILL ALL GAPS BETWEEN FLOORING. PROVIDE (2) COATS OF CLEAR WATER BASED POLYURETHANE FINISH.
4. RE: DOOR AND WINDOW SCHEDULE FOR REPAIR INFORMATION.
5. PROVIDE ACOUSTIC INSULATION AT ALL INTERIOR WALLS.
6. PROVIDE NEW 1x PAINT GRADE DOUGH FIR BASE BOARD AT ALL NEW INTERIOR WALLS TO MATCH THICKNESS & PROFILE OF EXISTING. PROVIDE (2) COATS OF SEMI-GLOSS LATEX PAINT.
7. REINSTALL SALVAGED EXTERIOR WOOD COMPOSITE SIDING AND TONGUE AND GROOVE SIDING.

**KEYNOTES**

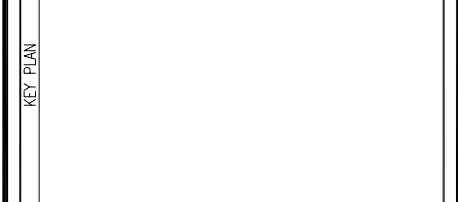
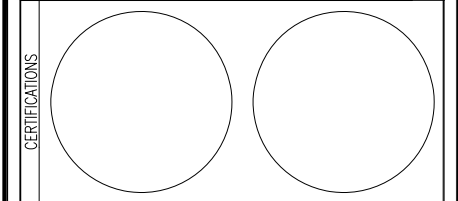
- 1 PROVIDE 3/4" APA RATED SUB FLOOR WITH MARMOLEUM FINISH FLOOR, CONTRACTOR TO VERIFY THICKNESS OF EXISTING TONGUE AND GROOVE FLOORING AND INSTALL NEW FLOORING TO MATCH T.O. EXISTING WOOD FLOORING OR PROVIDE WOOD THRESHOLD /TRANSITION
- 2 PROVIDE NEW 48" X 48" X 6" CONCRETE PAD, CONCRETE PAD TO BE 6" SLAB-ON-GRADE REINFORCED WITH #4 @ 16" EACH WAY 3" CLEAR FROM BOTTOM
- 3 NEW DUCT; REF MECH, PROVIDE 2x4 WOOD FRAMING AND BATT INSULATION AT DUCT LOCATION W/ 5/8" GWB BD-PT
- 4 PROVIDE NEW, WALL MOUNTED, 5LB DRY CHEMICAL FIRE EXTINGUISHER
- 5 MOP SINK; REF PLUMBING
- 6 FRAME & PROVIDE NEW CRAWLSPACE ACCESS 24"W X 24"H
- 7 CONC PIER, 12" DIA X 3' BELOW GRADE, SEE 4/A400 FOR DIMENSIONS, LAYOUT & SECTIONS FOR REINFORCING.
- 8 NEW DRINKING FOUNTAIN WITH ACCESSIBLE SKIRT

**LEGEND**

- NEW 3/4" APA RATED PLYWOOD SUBFLOOR WITH MARMOLEUM FINISH FLOORING
- EXISTING WALL
- NEW WALL



1 FLOOR PLAN  
 1/8" = 1'-0"



MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR
1	12.12.2017	ADDENDA 1
2	01.02.2018	ADDENDA 2

CONTRACTORS	
A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	--
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	
CONSTR. CON.	
BUILDING	
NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO ZIP 804065
BUILDING NO.	1
OTHER BUILDING NOS.	
FACILITY CODE	
PROJECT	
PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJMSTR-0000473
CCD PM	BRAD ECKERT
SUBMISSION	100% CDs FOR PERMIT & CONSTRUCTION
SUB. DATE	09.05.2017
DRAWING	
DRAWING TITLE	FLOOR PLANS
FILE NAME	A1.0 Floor Plans.dwg
FLOOR NO.	
DRAWN BY	ADE DATE DRAFTED: 12/12/2017
CHECKED BY	NAA SHEET SIZE: 22 X 34
DRAWING NO.	A 1 00
	DISCIPLINE SHEET TYPE SEQUENCE
	7 OF 32



CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS

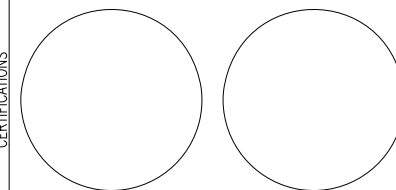
Brad Eckert: Mountain Parks Manager  
201 W. Colfax Ave., 5th Floor, Denver, CO 80202  
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720.913.0708 Phone | 970.406.0705 Cell  
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ANDERSON HALLAS  
ARCHITECTS, PC  
715 FOURTEENTH STREET  
GOLDEN, COLORADO 80401  
(303) 278-4378  
FAX (303) 278-8952  
Principal: Nannon Adair Anderson  
FAIA, LEED AP  
Nannon.Anderson@andarch.com

CERTIFICATIONS

KEY PLAN



MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR
1	12.12.2017	ADDENDA 1
2	01.02.2018	ADDENDA 2

REVISION NOTES

GRAPHIC SCALE

A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	--
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	
CONSTR. CON.	

NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO ZIP 804065
BUILDING NO.	1
OTHER BUILDING NOS.	
FACILITY CODE	

PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJMSTR-0000473
CCD PM	BRAD ECKERT
SUBMISSION	100% CDs FOR PERMIT & CONSTRUCTION
SUB. DATE	09.05.2017

DRAWING TITLE	REFLECTED CEILING PLAN
FILE NAME	A2.0 Reflected Ceiling Plan.dwg
FLOOR NO.	
DRAWN BY	ADE DATE DRAFTED: 08/14/2017
CHECKED BY	NAA SHEET SIZE: 22 X 34
DRAWING NO.	A 2 00
DISCIPLINE	SHEET TYPE SEQUENCE
	8 OF 32

### GENERAL RCP NOTES

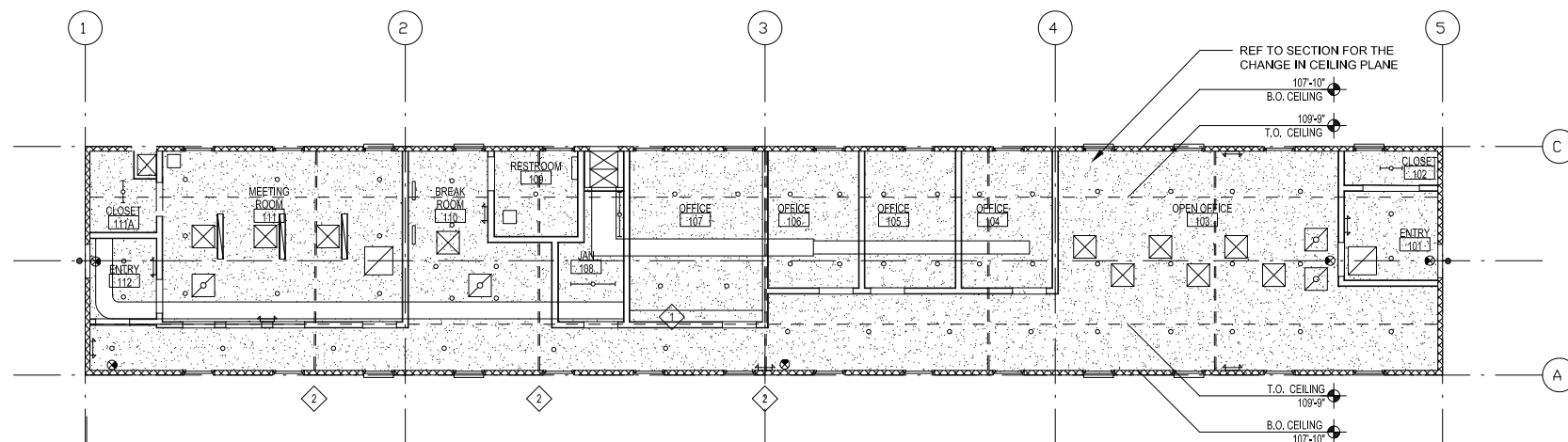
1. PROVIDE NEW 1/2" GWB CEILING THROUGHOUT
2. IN ALL WET AREAS, PROVIDE NEW MOISTURE RESISTANT GWB
3. PROVIDE BLOCKING AT ALL NEW CEILING LIGHT LOCATIONS
4. REFER TO ELECTRICAL AND MEP FOR ALL CEILING FIXTURE TYPES AND LOCATIONS
5. SEE SECTIONS FOR INSULATION STRATEGIES AND LOCATION

### KEYNOTES

- 1 PROVIDE FRAMED SOFFIT W/ CLEAR INSIDE DIMENSIONS OF 12" X 12" FOR TRANSFER AIR DUCT. REF MECH. PROVIDE 3/8" GWB WRAP - PT.
- 2 MODIFY TRUSS PER 1A500

### LEGEND

- EMERGENCY LIGHT
- WALL MOUNTED LIGHT
- EXISTING TRUSS TO REMAIN IN PLACE
- NEW 1/2" GWB - PT
- 2X2 DIFFUSER - REF: MECHANICAL
- 30X30 SALVAGED DIFFUSER
- 1x4 SURFACE MOUNTED LED
- 1x4 SURFACE MOUNT LED
- 1x2 SURFACE MOUNT LED
- LED DOWNLIGHT: FIXTURES SHALL BE ICT RATED: REF ELEC
- MECH FAN: REF MECH



1 REFLECTED CEILING PLAN  
1/8" = 1'-0"



Automatic stamp

# WINDOW SCHEDULE

WINDOW NUMBER	WINDOW REPAIR TYPE	WINDOW SIZE	PROVIDE NEW WD SASH	PROVIDE NEW 1X WD TRIM	REMOVE EXT. SIDING PROVIDE NEW EXT. TRIM & SILL	REMARKS
101	A	2'-10"X3'-2"	X		X	
102	A	2'-10"X3'-2"	X		X	
103	B	2'-10"X3'-2"		X		
104	B	2'-10"X3'-2"		X		
105	C	2'-10"X3'-2"			X	
106	C	2'-10"X3'-2"			X	
107	C	2'-10"X3'-2"			X	
108	C	2'-10"X3'-2"			X	
109	C	2'-10"X3'-2"			X	
110	A	2'-10"X3'-2"	X		X	
111	B	2'-10"X3'-2"		X		FILL CHECKS LOWER 6" OF FRAME AND RAIL/REPLACE SILL AND LOWER STOP
112	B	2'-10"X3'-2"		X		FILL CHECKS LOWER 6" OF FRAME AND RAIL/REPLACE SILL
113	A	2'-10"X3'-2"	X		X	
114	A	2'-10"X3'-2"	X		X	
115	C	2'-10"X3'-2"			X	
116	C	2'-10"X3'-2"			X	
117	B	2'-10"X3'-2"		X		FILL CHECKS LOWER 6" OF FRAME AND RAIL
118	B	2'-10"X3'-2"	X	X		FILL CHECKS LOWER 6" OF FRAME AND RAIL
119	A	2'-10"X3'-2"	X		X	
120	A	2'-10"X3'-2"	X		X	
121	C	2'-10"X3'-2"	X		X	
122	A	2'-10"X3'-2"			X	
123	C	2'-10"X3'-2"			X	
124	C	2'-10"X3'-2"			X	
125	D	2'-10"X3'-2"				FILL CHECKS LOWER 6" OF FRAME AND RAIL
126	D	2'-10"X3'-2"				FILL CHECKS LOWER 6" OF FRAME AND RAIL
127	C	2'-10"X3'-2"			X	
128	C	2'-10"X3'-2"			X	
129		2'-10"X3'-2"	X			NEW INTERIOR WINDOW. SILL HEIGHT TO MATCH <E> WINDOW SILL 4'-1" AFF. SEE 2:A900 FOR INT DTL AT HALL & CONF ROOM
130		2'-10"X3'-2"	X			NEW INTERIOR WINDOW. SILL HEIGHT TO MATCH <E> WINDOW SILL 4'-1" AFF. SEE 2:A900 FOR INT DTL AT HALL & CONF ROOM
131		2'-10"X3'-2"	X			NEW INTERIOR WINDOW. SILL HEIGHT TO MATCH <E> WINDOW SILL 4'-1" AFF. SEE 2:A900 FOR INT DTL AT HALL & CONF ROOM

### WINDOW REPAIR DESCRIPTION:

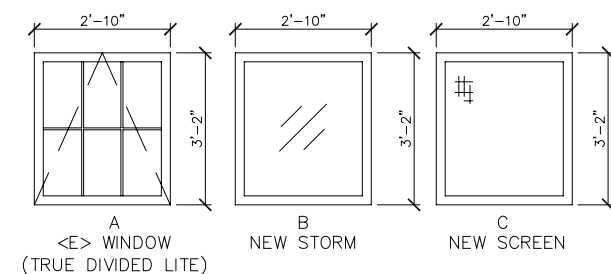
- A. PROVIDE NEW SASH TO MATCH EXISTING. REMOVE EXTERIOR SIDING TO EXPOSE WINDOW.
- B. PROVIDE NEW INTERIOR 1X4 WD TRIM TO MATCH EXISTING-PT.
- C. PROVIDE NEW SASH TO MATCH EXISTING.
- D. SASH & TRIM ARE PRESENT. WINDOW SASH IS EXTANT & NOT CONCEALED BY EXTERIOR SIDING. REFER TO GENERAL NOTES FOR MISC REPAIR.

**WINDOW HAZARDOUS MATERIALS**  
NOTE: EXISTING WINDOWS TESTED POSITIVE FOR LEAD & ASBESTOS. ABATEMENT & MITIGATION SHALL BE DONE BY A LICENSED CONTRACTOR WITH MINIMUM 5 YEARS ABATEMENT & MITIGATION EXPERIENCE.

### GENERAL WINDOW NOTES

- PROVIDE NEW REMOVABLE WOODEN EXTERIOR STORMS AT ALL OPENINGS.
- PROVIDE NEW REMOVABLE WOODEN SCREENS AT ALL OPENINGS.
- REPLACE ALL BROKEN GLAZING TO MATCH EXISTING - ASSUME 25%
- REPLACE MISSING GLAZING COMPOUND
- CLEAN ALL GLASS
- SCRAPE, SAND, PRIME AND PAINT EXTERIOR AND INTERIOR OF SASH, FRAME, SILL AND TRIM
- REPLACE ALL MISSING STOPS.
- CAULK ALL JOINTS.
- VERIFY ALL DIMENSIONS IN FIELD.
- REMOVE, DOCUMENT, AND SALVAGE ALL 1X WOOD TRIM. INSTALL SALVAGED WOOD TRIM. SCRAPE, PRIME AND PAINT.
- PROVIDE JAMB EXTENSIONS AT INTERIOR OF WINDOWS TO ACCOMMODATE NEW WALL FURRING.
- AT ALL RE-OPENED WINDOWS, PROVIDE EXTERIOR JAMB AND SILL EXTENSIONS AND NEW TRIM TO MATCH EXISTING.
- ALL WINDOWS SHALL BE MADE OPERATIONAL.
- ALL NEW MEMBERS SHALL MATCH <E> IN KIND.

### WINDOW TYPES



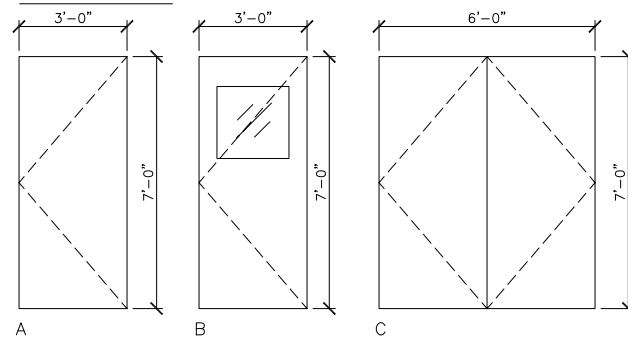
# ROOM FINISH SCHEDULE

No.	ROOM NAME	FLOOR	BASE	WALLS				CEILING	NOTES
				NORTH	SOUTH	EAST	WEST		
101	ENTRY	WD	WD	PT	PT	PT	PT	PT	
102	CLOSET	WD	WD	PT	PT	PT	PT	PT	
103	OFFICE	WD	WD	PT	PT	PT	PT	PT	
104	OFFICE	WD	WD	PT	PT	PT	PT	PT	
105	OFFICE	WD	WD	PT	PT	PT	PT	PT	
106	OFFICE	WD	WD	PT	PT	PT	PT	PT	
107	OFFICE	WD	WD	PT	PT	PT	PT	PT	
108	JAN.	MARMOLEUM	RUBBER	FRP 48"	FRP 48"	FRP 48"	FRP 48"	PT	FRP TO 48"-GWB AND PT ABOVE
109	RESTROOM	MARMOLEUM	WD	PT	PT	PT	PT	PT	EPOXY PT. SHERWIN WILLIAM 3479 UP TO 42" AFF
110	BREAK ROOM	WD	WD	PT	PT	PT	PT	PT	
111	MEETING ROOM	WD	WD	PT	PT	PT	PT	PT	
111A	CLOSET	WD	WD	PT	PT	PT	PT	PT	
112	ENTRY	MARMOLEUM	WD	PT	PT	PT	PT	PT	

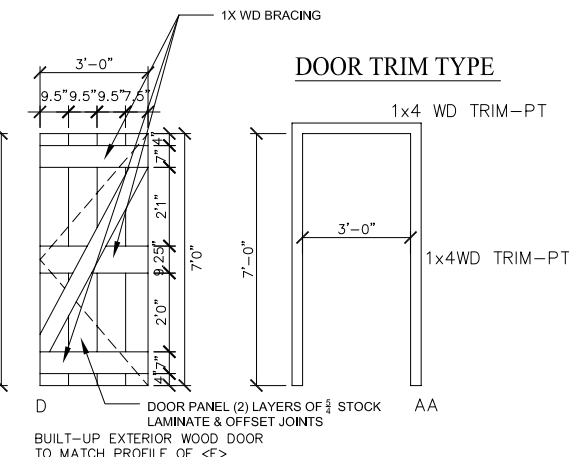
### GENERAL FINISH NOTES

- PROTECT ALL EXISTING FLOORING TO REMAIN. GENTLY SAND ALL WOOD FLOOR SURFACES. FILL ALL GAPS. COAT WITH 2 COATS CLEAR FINISH.
- REMOVE, LABEL AND SALVAGE ALL WOOD BASE BOARD AND WOOD "BUMPER BOARD." CLEAN ALL WOOD WORK AND REINSTALL. DO NOT PAINT.
- AT ALL NEW WALLS, PROVIDE 1X WOOD BASE BOARD TO MATCH EXISTING. CLEAR COAT WOOD BASE.
- PROVIDE EPOXY PAINT FINISH ON WET WALL WITHIN 36" OF PLUMBING FIXTURES. REF INTERIOR ELEVATIONS.
- PROVIDE APA RATED PLYWOOD AT FLOOR AREAS TO RECEIVE MARMOLEUM FINISH.
- ALL GYPSUM BOARD SHALL BE 5/8" @ WALLS U.O.N.
- ALL GYPSUM BOARD SHALL BE TYPE X 1/2" @ CEILINGS U.O.N.
- ALL NEW WOOD BASE BOARD TO MATCH EXISTING PROFILE & HEIGHT. NEW WOOD BASE TO BE PAINT GRADE - PRIME & PAINT.

### DOOR TYPES



### DOOR TRIM TYPE



# DOOR SCHEDULE

DOOR NUMBER	ROOM NAME	NEW EXISTING	DOOR					THK.	GLASS		FRAME				REMARKS			
			TYPE	MAT'L	FINISH	SIZE	GLASS W		GLASS H	TRIM TYPE	MAT'L	FINISH	DETAILS					
													JAMB	HEAD		THRSH.	MISC	HWDR.
101	ENTRY 101	X	D	WD	PT	3'-0"X7'-0"	1.75			AA	WD	PT						NEW THRESHOLDS SET IN SEALANT
102	ENTRY 101	X	C	WD	PT	6'-0"X7'-0"	1.75			AA	WD	PT						
103	ENTRY 101	X	B	WD	PT	3'-0"X7'-0"	1.75	24"	24"	AA	WD	PT						
104	OFFICE 104	X	B	WD	PT	3'-0"X7'-0"	1.75	24"	24"	AA	WD	PT						
105	OFFICE 105	X	B	WD	PT	3'-0"X7'-0"	1.75	24"	24"	AA	WD	PT						
106	OFFICE 106	X	B	WD	PT	3'-0"X7'-0"	1.75	24"	24"	AA	WD	PT						
107	OFFICE 107	X	B	WD	PT	3'-0"X7'-0"	1.75	24"	24"	AA	WD	PT						
108	JAN. 108	X	A	WD	PT	3'-0"X7'-0"	1.75			AA	WD	PT			PEMKO			NEW THRESHOLDS SET IN SEALANT
109	RESTROOM 109	X	A	WD	PT	3'-0"X7'-0"	1.75			AA	WD	PT			PEMKO			NEW THRESHOLDS SET IN SEALANT
110	MEETING ROOM 111	X	B	WD	PT	3'-0"X7'-0"	1.75	24"	24"	AA	WD	PT						
111	MEETING ROOM 111	X	B	WD	PT	3'-0"X7'-0"	1.75			AA	WD	PT						
112	ENTRY 112	X	B	WD	PT	3'-0"X7'-0"	1.75	24"	24"	AA	WD	PT			PEMKO			NEW THRESHOLDS SET IN SEALANT
113	CLOSET 111 A	X	A	WD	PT	3'-0"X7'-0"	1.75			AA	WD	PT						PROVIDE TRANSFER GRILL: REF MECH
114	ENTRY 112	X	D	WD	PT	3'-0"X7'-0"	1.75				WD	PT			PEMKO			NEW THRESHOLDS SET IN SEALANT

### GENERAL DOOR NOTES

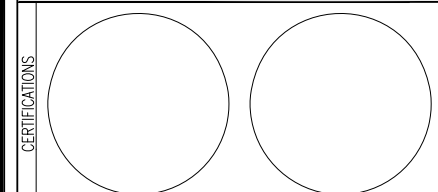
- ALL NEW DOORS SHALL BE SOLID CORE WOOD DOORS - PT.
- ALL GLAZING IN DOORS SHALL BE 24" X 24" AND SHALL BE SAFETY GLASS.
- CONTRACTOR SHALL VERIFY ALL OPENINGS PRIOR TO COMMENCING WORK.
- PROVIDE WEATHER STRIPPING AT ALL EXTERIOR DOORS
- ALLOW \$250 PER DOOR FOR NEW HARDWARE. COORDINATE FINISH & KEYING WITH OWNER
- PANIC HARDWARE NOTE REQUIRED 1010.1.10 PANIC & FIRE EXIT HARDWARE. DOORS SERVING A GROUP H OCCUPANCY & DOORS SERVING ROOMS OR SPACES WITH AN OCCUPANT LOAD OF 50 OR MORE IN GROUP A OR E OCCUPANCY SHALL NOT BE PROVIDED WITH LATCH OR LOCK OTHER THAN PANIC HARDWARE OR FIRE HARDWARE. B OCCUPANCY WITH 25 OCCUPANTS

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DEPARTMENT OF PUBLIC WORKS

Brad Eckert: Mountain Parks Manager  
201 W. Colfax Ave. 5th Floor, Denver, CO 80202  
Public Works | City and County of Denver  
720.913.0708 Phone | 970.406.0705 Cell  
Brad.Eckert@denvergov.org

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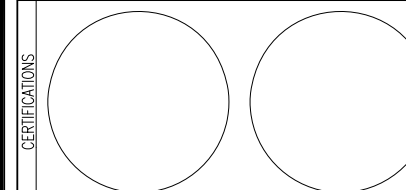
ANDERSON HALLAS ARCHITECTS, PC  
115 FOURTEENTH STREET  
GOLDEN, COLORADO 80401  
(303) 278-4378  
FAX (303) 278-0052  
Principal: Namon Adair Anderson  
FAIA, LEED AP  
Namon.Anderson@andarch.com



MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR
1	12.12.2017	ADDENDA 1
2	01.02.2018	ADDENDA 2

MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR
1	12.12.2017	ADDENDA 1
2	01.02.2018	ADDENDA 2

A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	--
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	
CONSTR. CON.	
NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO ZIP 804065
BUILDING NO.	1
OTHER BUILDING NOS.	
FACILITY CODE	
PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJMSTR-0000473
CCD PM	BRAD ECKERT
SUBMISSION	100% CDs FOR PERMIT & CONSTRUCTION
SUB. DATE	09.05.2017
DRAWING TITLE	SCHEDULES
FILE NAME	A3.0 Window and Door Schedules Annex.dwg
FLOOR NO.	
DRAWN BY	ADE DATE DRAFTED: 08/14/2017
CHECKED BY	NAA SHEET SIZE: 22 X 34
DRAWING NO.	A 3 00
	DISCIPLINE SHEET TYPE SEQUENCE
	SHEET 9 OF 32



**CERTIFICATIONS**

**KEY PLAN**

MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR.
1	12.12.2017	ADDENDA 1
2	01.02.2018	ADDENDA 2

**REVISION NOTES**

MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR.
1	12.12.2017	ADDENDA 1
2	01.02.2018	ADDENDA 2

**GRAPHIC SCALE**

**CONTRACTORS**

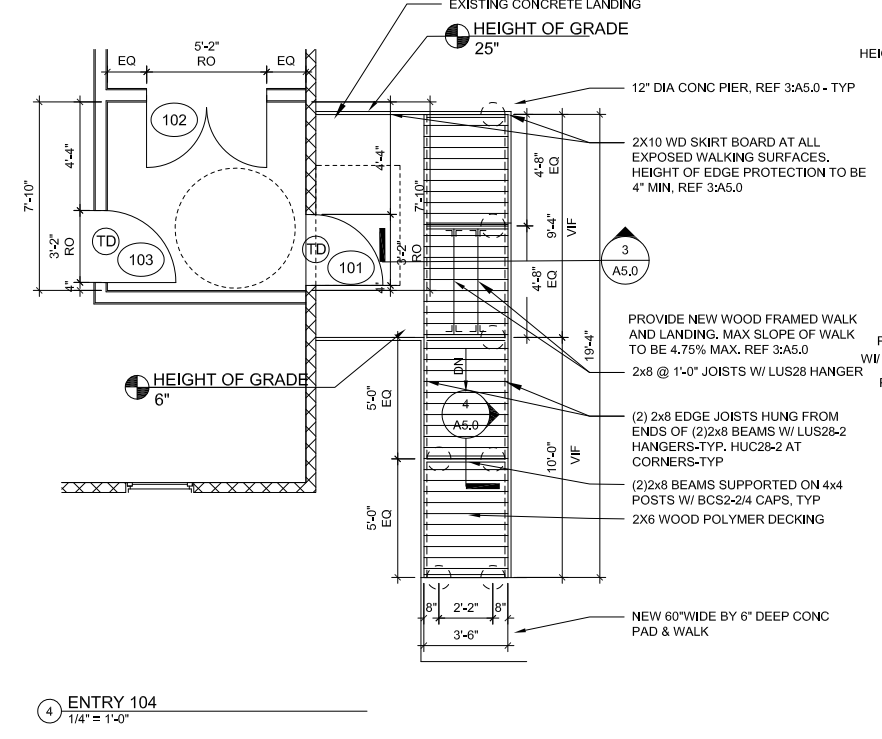
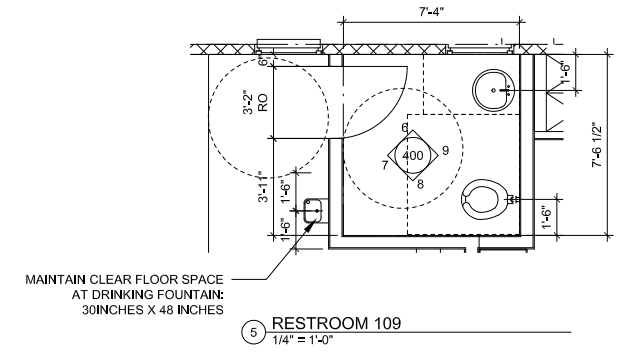
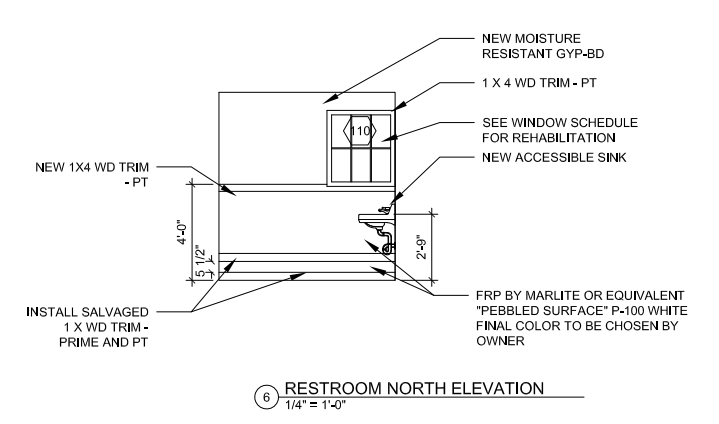
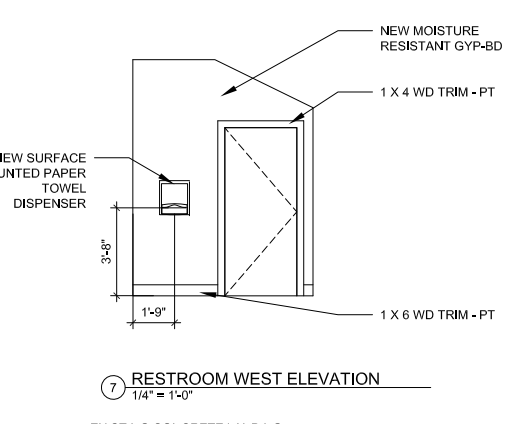
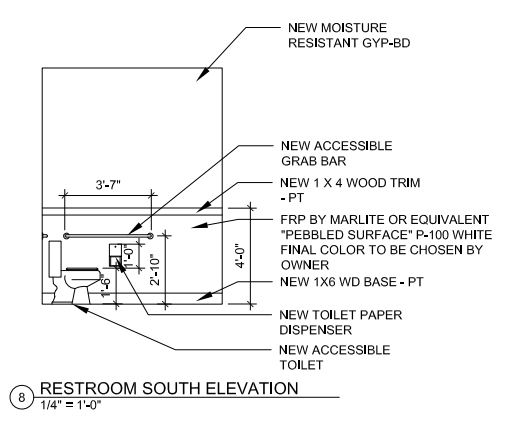
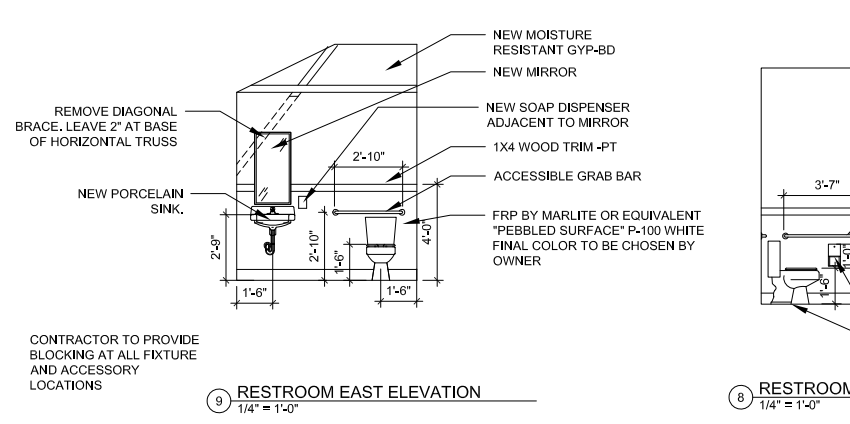
A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	--
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	
CONSTR. CON.	

**BUILDING**

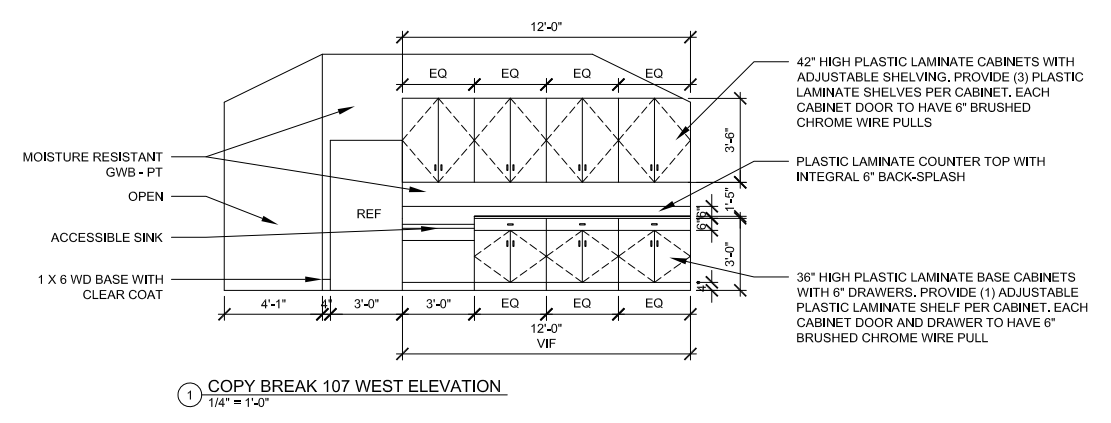
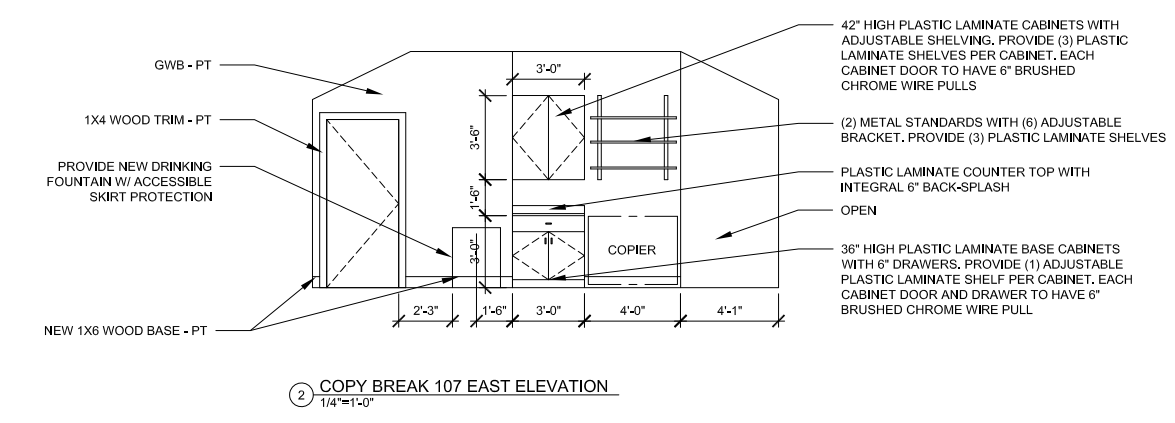
NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO ZIP 804065
BUILDING NO.	1
OTHER BUILDING NOS.	
FACILITY CODE	

**PROJECT**

PROJECT	RED ROCKS PARK CCC CAMP BUILDING 1
TITLE	REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJMSTR-0000473
CCD PM	BRAD ECKERT
SUBMISSION	100% CDs FOR PERMIT & CONSTRUCTION
SUB. DATE	09.05.2017
DRAWING TITLE	INTERIOR ELEVATIONS
FILE NAME	A4.0 Enlarged Plans.dwg
FLOOR NO.	
DRAWN BY	ADE DATE DRAFTED: 08/14/2017
CHECKED BY	NAA SHEET SIZE: 22 X 34
DRAWING NO.	<b>A 4 00</b>
DISCIPLINE	SHEET TYPE
SHEET	10 OF 32

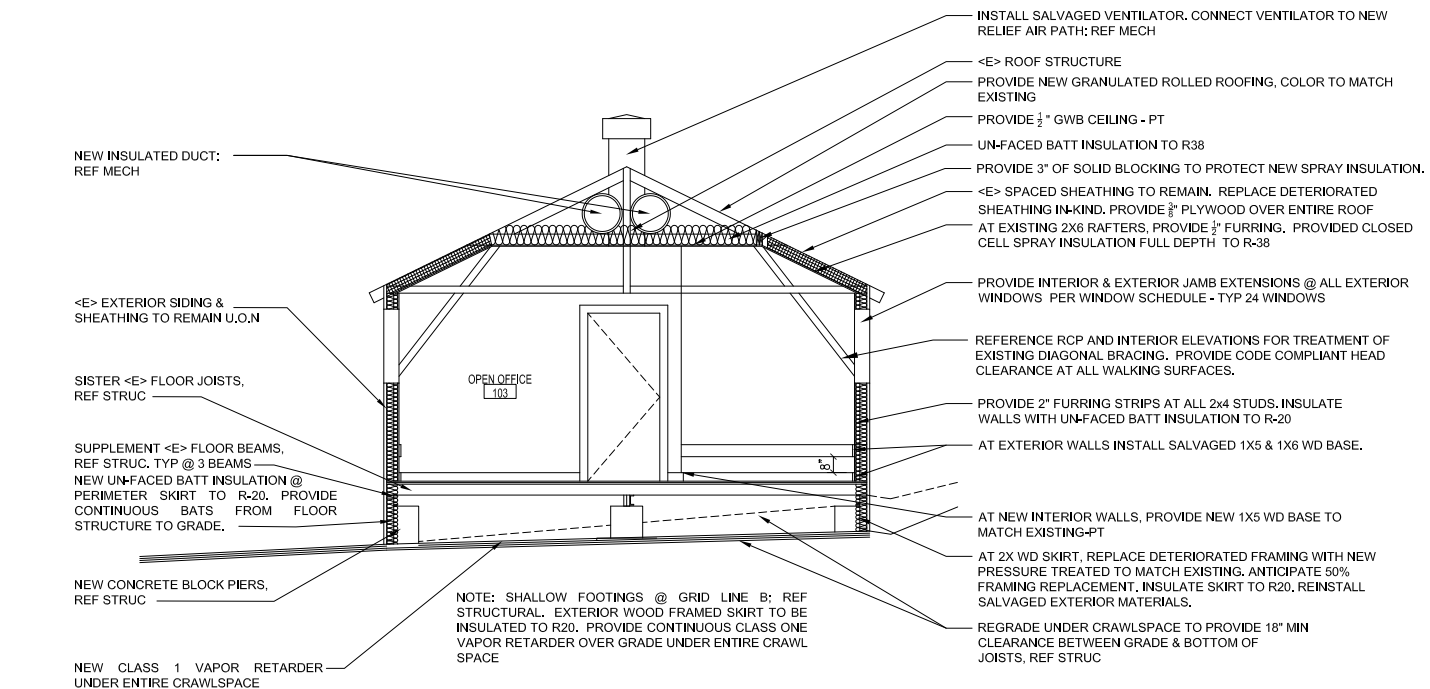


**ENTRY 104 & ENTRY 112**  
CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND VERIFY EXISTING SITE CONDITIONS AND GRADES TO VERIFY INTENT. ACCESSIBLE WALK SHALL BE ADA COMPLIANT WITH WALKS NO STEEPER THAN 4.75%. LANDINGS SHALL HAVE NO MORE THAN A 2% CROSS SLOPE AND BE A MINIMUM OF 5' X 5' FOR TURNING RADIUS.

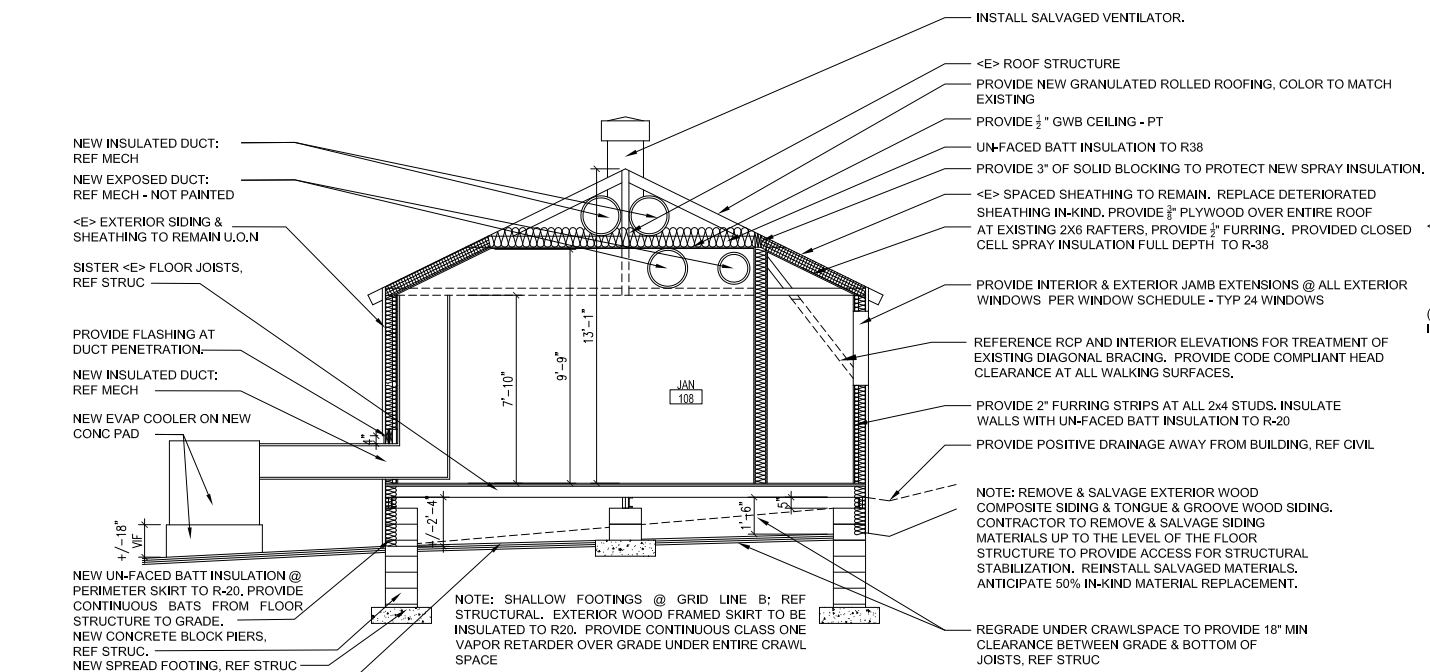




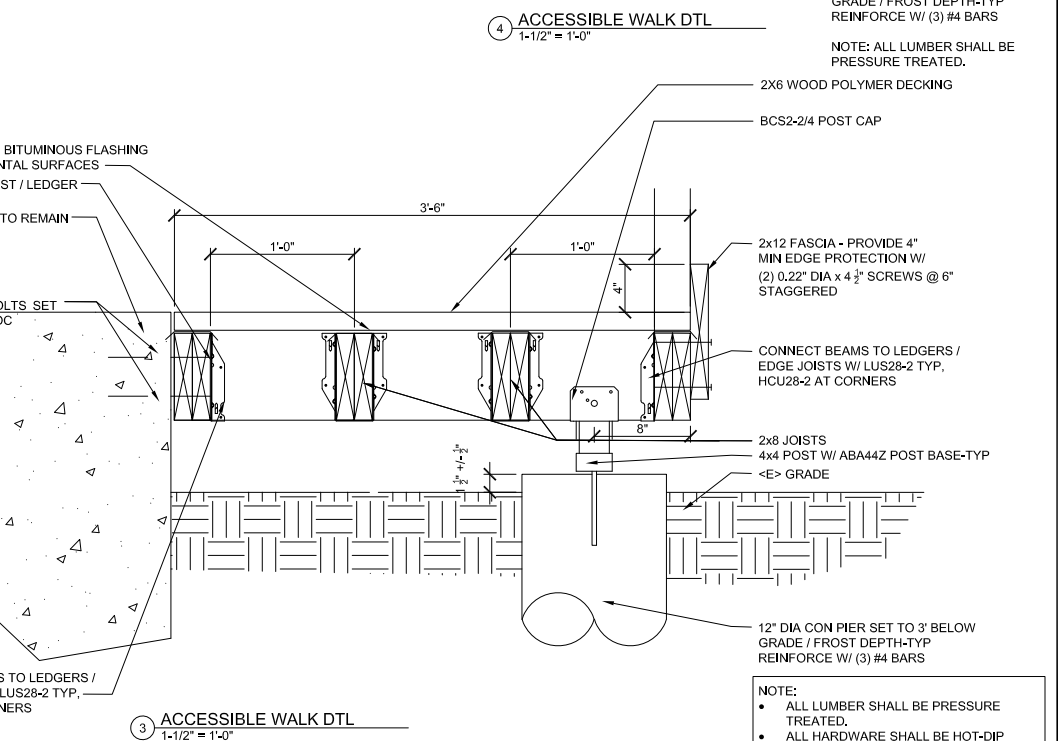
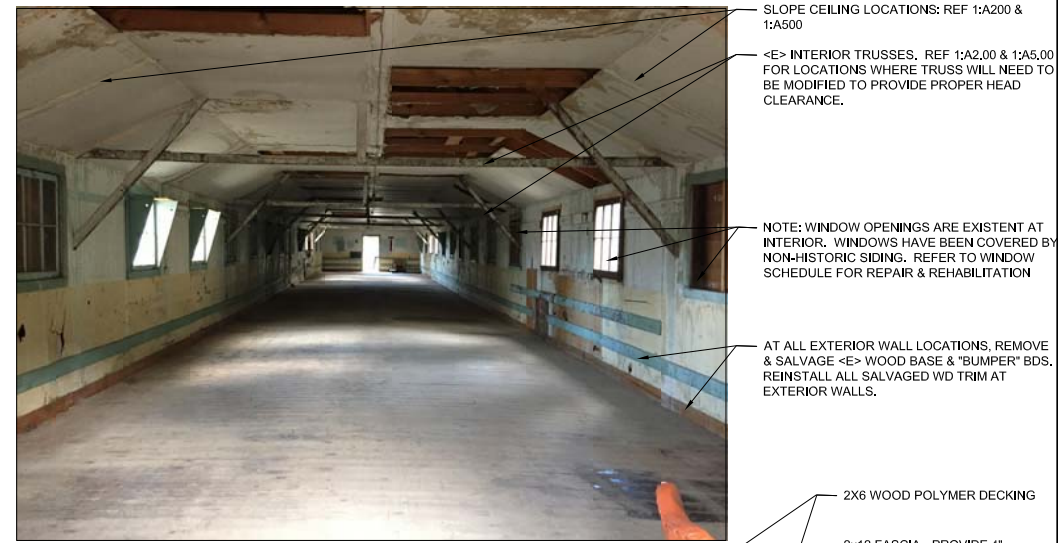
2 BUILDING SECTION  
1/4" = 1'-0"



1 BUILDING SECTION  
1/4" = 1'-0"



5 EXISTING INTERIOR  
NTS



3 ACCESSIBLE WALK DTL  
1-1/2" = 1'-0"

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Public Works | City and County of Denver  
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ANDERSON HALLAS  
ARCHITECTS, PC  
715 FOURTEENTH STREET  
GOLDEN, COLORADO 80401  
(303) 278-4378  
FAX (303) 278-0052  
Principal: Naman Adair Anderson  
FAIA, LEED AP  
NamanAnderson@andarch.com

MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR
1	12.12.2017	ADDENDA 1
2	01.02.2018	ADDENDA 2

CONTRACTORS	PROJECT	BUILDING
A/E CON. NO. 201520446	PROJECT TITLE RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION	BUILDING NO. 1
A/E TASK NO. 05	PROJECT DESCRIPTION DENVER MOUNTAIN PARKS RED ROCKS PARK	BUILDING NOS. OTHER
CONS. CONTR. --	PROJECT NO. PROJ.MSTR-0000473	FACILITY CODE
CONS. WORK	CCD PM BRAD ECKERT	
PRIME A/E ANDERSON HALLAS ARCHITECTS, PC	SUBMISSION 100% CDs FOR PERMIT & CONSTRUCTION	
SUB A/E	SUB. DATE 09.05.2017	
CONSTR. CON.	DRAWING TITLE BUILDING SECTIONS	
NAME MOUNT MORRISON	FILE NAME A5.0 Sections.dwg	
STREET 300 UNION AVENUE	FLOOR NO.	
CITY/ST./ZIP MORRISON, CO ZIP 804065	DRAWN BY ADE DATE DRAFTED: 08/14/2017	
BUILDING NO. 1	CHECKED BY NAA SHEET SIZE: 22 X 34	
OTHER		
BUILDING NOS.		
FACILITY CODE		

DRAWING	DISCIPLINE	SHEET TYPE	SEQUENCE
DRAWING NO. A 5 00			
	SHEET 11	OF 32	



6 EAST ELEVATION  
NTS

- <E> ROOF VENTILATOR-TYP (3)
- REUSE <E> ATTIC VENTILATION
- REMOVE <E> TREE
- <E> CONCRETE PAD TO REMAIN
- NEW ACCESSIBLE WALK; REF 4:A4.0



4 NORTH ELEVATION  
NTS

- <E> ROOF VENTILATOR - TYP (3)
- REMOVE <E> TREE
- REPLACE <E> ROOF, REF 2:A1.00
- <E> CONCRETE PAD
- NEW ACCESSIBLE WALK; REF 4:A4.0
- REMOVE SKIRT TO ALLOW FOR STRUCTURAL STABILIZATION, INSTALL SALVAGED WD SKIRT PER 1:A5.00

APPROXIMATE LOCATION OF NEW SWAMP COOLERS - TYP (2)



5 WEST ELEVATION  
NTS

CONTINUE EDGE PROTECTION @ EXPOSED CONCRETE EDGES

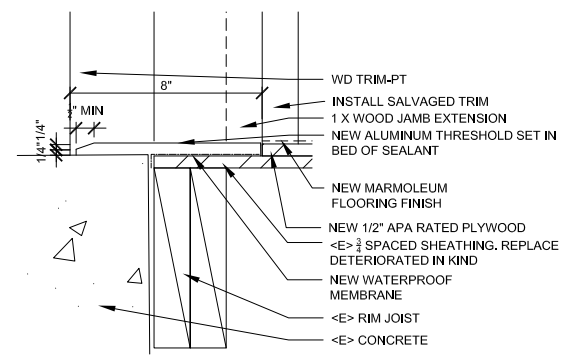
- <E> CONCRETE PAD TO REMAIN
- NEW ACCESSIBLE WALK; REF 3:A4.0



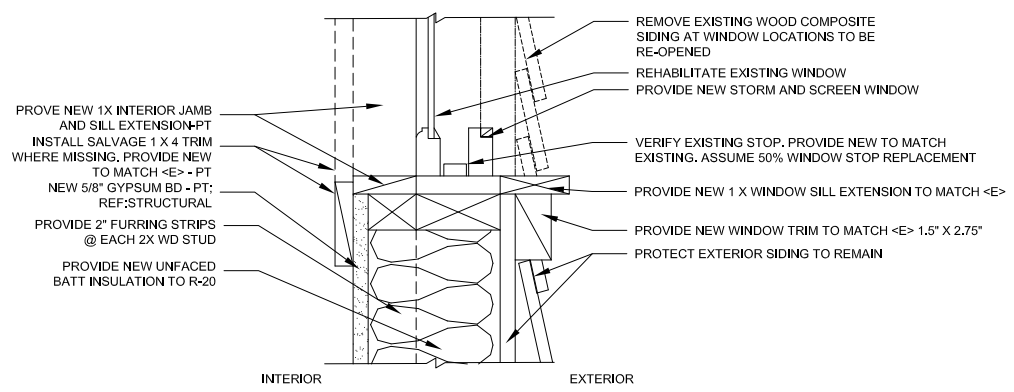
3 SOUTH ELEVATION  
NTS

PROTECT <E> TREES AT NW CORNER, PROVIDE CONSTRUCTION FENCING @ DRIP EDGE. NO CONSTRUCTION EQUIPMENT, STAGING OR ACTIVITIES SHALL BE ALLOWED WITHIN PROTECTED AREA.

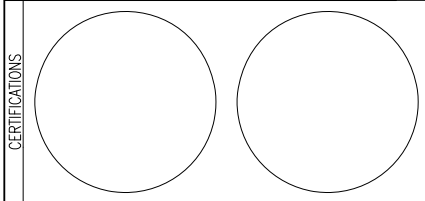
REPLACE <E> ROOF, REF 2:A1.00



1 DOOR THRESHOLD  
3" = 1'-0"



2 TYP WOOD WINDOW DETAIL  
3" = 1'-0"



MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR
1	12.12.2017	ADDENDA 1
2	01.02.2018	ADDENDA 2

CONTRACTORS	CONTRACTOR
A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	--
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	
CONSTR. CON.	

BUILDING	BUILDING
NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO ZIP 804065
BUILDING NO.	1
OTHER BUILDING NOS.	
FACILITY CODE	

PROJECT	PROJECT
PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJ:MSTR-0000473
CCD PM	BRAD ECKERT
SUBMISSION	100% CDs FOR PERMIT & CONSTRUCTION
SUB. DATE	09.05.2017
DRAWING TITLE	REFLECTED CEILING PLAN
FILE NAME	A9.0 Details.dwg
FLOOR NO.	
DRAWN BY	ADE DATE DRAFTED: 08/14/2017
CHECKED BY	NAA SHEET SIZE: 22 X 34
DRAWING NO.	A 9 00
	DISCIPLINE SHEET TYPE SEQUENCE
	SHEET 12 OF 32





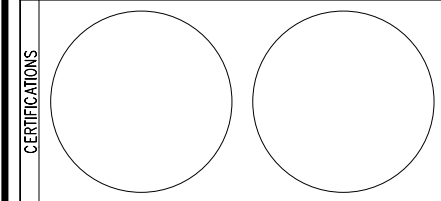
CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS  
Brad Eckert: Mountain Parks Manager  
201 W. Colfax Ave. 5th Floor, Denver, CO 80202  
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ANDERSON HALLAS  
ARCHITECTS, PC  
715 FOURTEENTH STREET  
GOLDEN, COLORADO 80401  
(303) 278-4378  
FAX (303) 278-4321  
Principal: Nannon Adair Anderson  
AIA, LEED AP TM BD+C  
NanAnderson@andarch.com

JVA, Inc.  
1319 SPRUCE STREET  
BOULDER, COLORADO 80302  
(303) 444-1951  
Project Manager: Ian Glaser, PE  
iglaser@jva.com

JVA #18783



**CERTIFICATIONS**

**KEY PLAN**

MARK	DATE	DESCRIPTION
	09.05.2017	100% CD FOR PERMIT & CONSTR
1	12.12.2017	ADDENDA 1

**REVISION NOTES**


**CONTRACTORS**

A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	--
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	JVA, INC.
CONSTR. CON.	

**BUILDING**

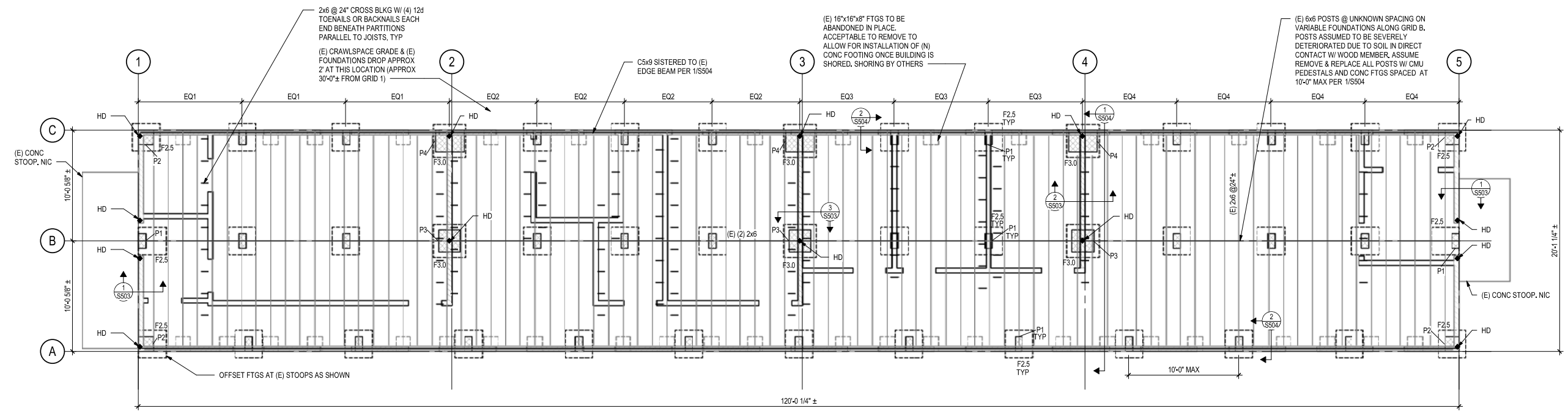
NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO 804065
BUILDING NO.	1
OTHER	
BUILDING NOs.	
FACILITY CODE	

**PROJECT**

PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJMSTR-0000473
CCD PM	BRAD ECKERT
SUBMISSION	100% CDs FOR PERMIT & CONSTRUCTION
SUB. DATE	09.05.2017

**DRAWING**

DRAWING TITLE	FOUNDATION & FIRST FLOOR FRAMING PLAN		
FILE NAME			
FLOOR NO.			
DRAWN BY	CBB	DATE DRAFTED:	09.05.2017
CHECKED BY	IRG	SHEET SIZE:	22X34
DRAWING NO.	S101		
DISCIPLINE	SHEET TYPE	SEQUENCE	
SHEET 15	OF	32	



## FOUNDATION & FIRST FLOOR FRAMING PLAN

3/16" = 1'-0"

TRUE NORTH

PLAN NORTH

AT AREAS WITH NEW SUBFLOOR:  
(RE: ARCH DWGS FOR LOCATIONS)  
3/4" STURD-FLOOR, APA RATED 24" O.C. TONGUE & GROOVE SHEATHING GLUED AND NAILED WITH 8d NAILS (0.113"Ø x 2 3/8") @ 8" ALONG PANEL EDGES AND @ 12" ALONG INTERMEDIATE FRAMING MEMBERS. LAY PANELS PERPENDICULAR TO FRAMING MEMBERS AND STAGGER PANEL JOINTS.

- ACCESS TO THE SPACE BELOW THE FLOOR FRAMING DURING THE DISCOVERY PHASE WAS EXTREMELY LIMITED. THE DESIGN DEPICTED IN THESE DRAWINGS ASSUMES THAT THE FOUNDATIONS ARE SIMILAR AROUND THE ENTIRE PERIMETER OF THE BUILDING. CARRY CONTINGENCY TO ADDRESS UNKNOWN FOUNDATION CONDITIONS THAT MAY BE DISCOVERED DURING CONSTRUCTION
- ALL DIMENSIONS TO BE VERIFIED PRIOR TO CONSTRUCTION
- WHERE VISIBLE, THE FIRST FLOOR WOOD FRAMING MEMBERS ARE IN VARIABLE CONDITIONS. IN THE CENTER OF THE BUILDING, THE MEMBERS APPEAR TO BE IN GOOD CONDITION WITH NO SIGNS OF DETERIORATION AND LITTLE WATER STAINING. IN THE NORTHWEST CORNER OF THE BUILDING, THERE IS EVIDENCE OF MOISTURE STAINING AND POSSIBLE DECAY. SINCE THE ENTIRETY OF THE FLOOR FRAMING ELEMENTS WERE NOT ACCESSIBLE, FOR COST ESTIMATING PURPOSES ASSUME THAT 20% OF THE FLOOR MEMBERS WILL NEED TO BE REPLACED IN KIND OR SISTERED PER 3/S501
- IF ANY WOOD MEMBERS HAVE EXISTING OR NEW HOLES OR NOTCHES THAT DO NOT MEET THE CRITERIA DESCRIBED IN 1/S501, CONTACT ENGR AND SISTER PER 1/S501 AND POSSIBLE DECAY. SINCE THE ENTIRETY OF THE FLOOR FRAMING ELEMENTS WERE NOT ACCESSIBLE, FOR COST ESTIMATING PURPOSES ASSUME THAT 20% OF THE FLOOR MEMBERS WILL NEED TO BE REPLACED IN KIND OR SISTERED PER 3/S501
- WHERE ELEMENTS INTERFERE WITH STRUCTURAL MEMBERS, CONTACT ENGR AND HEADER & SISTER ADJACENT MEMBERS PER 2/S501
- EXCAVATE CRAWLSPACE ACCESS BELOW FLOOR FRAMING TO PROVIDE 18" MINIMUM CLEARANCE BELOW FRAMING MEMBERS. SEE 1/S504 FOR ILLUSTRATION DETAILS
- PROVIDE VAPOR BARRIER IN CRAWLSPACE PER ARCH
- PROVIDE GRADING AND SITE DRAINAGE PER CIVIL
- 'HD' INDICATES HOLDDOWN, SIMPSON DTT2Z-SDS 2.5 OR EQUIVALENT W/ 1/2"Ø ANCH BOLTS DRILLED AND EPOXIED INTO PEDESTAL W/ 10" MIN EMBEDMENT
- REFER TO SHEET S501 FOR TYPICAL DETAILS RELATED TO FLOOR FRAMING
- REFER TO SHEET S502 FOR TYPICAL DETAILS RELATED TO WALL FRAMING

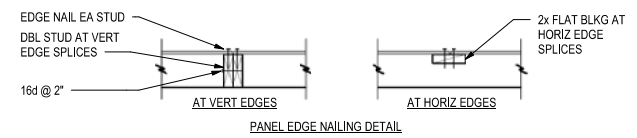
**FOOTING SCHEDULE**

MARK	WIDTH	LENGTH	THICKNESS	REINF-BOTT	COMMENTS
F2.5	2'-6"	2'-6"	1'-0"	(4) #5 EA WAY	TYP
F3.0	3'-0"	3'-0"	1'-0"	(4) #5 EA WAY	AT INT SW

**PEDESTAL SCHEDULE**

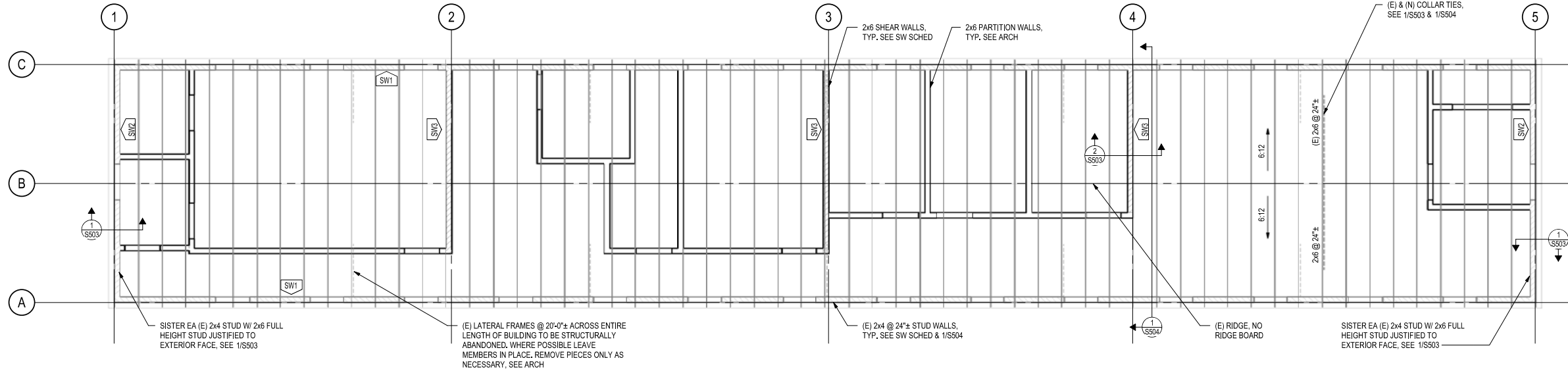
MARK	WIDTH	DEPTH	LOCATION	VERT REINF
P1	1'-4"	8"	TYP. LINO	(1) #5 EA CELL, (2) TOTAL
P2	1'-4"	1'-4"	CORNERS	(1) #5 EA CELL, (4) TOTAL
P3	2'-0"	2'-0"	SW ENDS ALONG GRID B	(1) #5 EA CORNER, (4) TOTAL
P4	2'-0"	2'-0"	SW ENDS ALONG GRID C	(1) EA CORNER & (1) CENTERED IN LONG FACE, (6) TOTAL

WOOD SHEAR WALL SCHEDULE					
MARK	STUDS	SHEATHING	SHEATHING NAILS	PANEL EDGE NAIL SPACING	CAPACITY
SW1	(E) 2x4 @ 24" + STRUCTURAL FURRING PER 1/S504	5/8" GYP BOARD INTERIOR	5d COOLER NAILS (0.086" x 1-5/8" LONG, 15/16" HEAD), NO. 6 TYPE S OR W DRYWALL SCREWS 1-1/4" LONG, OR NO. 16 GAGE GALV. STAPLE, 1 3/4" LONG	7"	70 plf
SW2	(E) 2x4 @ 24" + 2x6 SISTERS @ 24", BLOCKED	5/8" GYP BOARD INTERIOR	NO. 16 GAGE GALV. STAPLE, 1 1/2" LEGS, 1 5/8" LONG	4"	175 plf
SW3	2x6 @ 24", UNBLOCKED	5/8" GYP BOARD BOTH SIDES	NO. 16 GAGE GALV. STAPLE, 1 1/2" LEGS, 1 5/8" LONG	7"	115 plf



**TYPICAL FOR ALL SHEAR WALL NAILING:**  
 PER IBC / AWC SDPWS, SHEATHING STAPLES/NAILS SHALL BE DRIVEN FLUSH BUT SHALL NOT FRACTURE THE SURFACE OF THE SHEATHING. SHEATHING PANEL NAILING NOT CONFORMING TO THIS SECTION WILL NOT BE ACCEPTABLE AND WILL HAVE TO BE REINSTALLED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE NAIL GUNS USED FOR FASTENING ARE SET AT THE PROPER DEPTH AND/OR AIR PRESSURE TO ACHIEVE THE REQUIRED PENETRATION

- GENERAL NOTES:**
- SEE FOUNDATION PLAN FOR HOLDOWN TYPE AND LOCATION
  - NO PENETRATIONS GREATER THAN 12"x12" IN SHEAR WALLS OTHER THAN THOSE SHOWN ON PLAN, BLOCK AND NAIL ALL EDGES
  - NO MECHANICAL OR PLUMBING PENETRATIONS IN TOP AND BOTTOM PLATES
  - ALL EDGES SHALL BE BLOCKED WITH 2x MEMBERS AT SHEAR WALLS
  - ALL WALLS HAVE MINIMUM (2) 2x TOP PLATES AND (1) 2x BOTTOM PLATE EQUAL TO WIDTH OF STUD SIZE, TYP UNO
  - MINIMUM WIDTH OF SHEATHING PANELS AT ENDS OF SHEAR WALLS SHALL BE 4'-0" TO ENSURE END STUDS ARE ENGAGED
  - SEE DETAILS FOR ATTACHMENT OF DIAPHRAGMS TO SHEAR WALL PLATES, TYPICAL



- ALL DIMENSIONS TO BE VERIFIED PRIOR TO CONSTRUCTION
- AT ANY BROKEN OR DISTRESSED MEMBERS, REPLACE IN KIND OR SISTER W/ MEMBER OF MATCHING DIMENSIONS PER 3/S501
- IF ANY WOOD MEMBERS HAVE EXISTING OR NEW HOLES OR NOTCHES THAT DO NOT MEET THE CRITERIA DESCRIBED IN 1/S501 & 1/S502, CONTACT ENGR AND SISTER PER 1/S501 & 1/S502
- WHERE ELEMENTS INTERFERE WITH STRUCTURAL MEMBERS, CONTACT ENGR AND HEADER & SISTER ADJACENT MEMBERS PER 2/S501
- BUILD UP STUDS WHERE NECESSARY PER 2/S502
- AT EXTERIOR (E) WALLS, GYPSUM WALL BOARD TO BE CONTINUOUS ACROSS FACE OF ENTIRE WALL
- ALL SHEAR WALLS SHALL EXTEND UP TO THE ROOF FRAMING, SEE DETAILS

**TYPICAL ROOF SHEATHING:**  
 REMOVE ROOFING MATERIALS. REMOVE DETERIORATED BOARD SHEATHING AND REPLACE IN KIND. OVERLAY EXISTING BOARD SHTG WITH NEW PANEL SHEATHING ACROSS THE ENTIRE ROOF. NEW PANEL SHEATHING SHALL BE 3/8" PANEL SHEATHING, APA 2410 RATED SHEATHING. FASTEN WITH 12d GUN NAILS (0.131"Ø x 3 1/4") @ 6" AT PANEL EDGES AND @ 12" IN FIELD OF PANEL OVER INTERMEDIATE FRAMING MEMBERS. LAY LONG AXIS OF PANELS PERPENDICULAR TO FRAMING MEMBERS AND STAGGER PANEL END JOINTS. BLOCKING BENEATH LONG AXIS PANEL JOINTS IS NOT REQUIRED; INSTEAD, PROVIDE PANEL SHEATHING CLIPS PER THE GENERAL NOTES, PANEL EDGES SHALL BE POSITIONED SO THAT THEY ARE CENTERED OVER EXISTING RAFTERS AND NAILS PENETRATE THROUGH EXISTING BOARD SHEATHING AND INTO EXISTING RAFTERS.

**DENVER**  
THE Mile High City

CITY AND COUNTY OF DENVER  
 DEPARTMENT OF PUBLIC WORKS  
 Brad Eckert: Mountain Parks Manager  
 201 W. Colfax Ave. 5th Floor, Denver, CO 80202  
 Public Works | City and County of Denver  
 720.913.0708 Phone | 770.406.0705 Cell  
 Brad.Eckert@denvergov.org

---

**ANDERSON HALLAS ARCHITECTS, PC**  
 715 FOURTEENTH STREET  
 GOLDEN, COLORADO 80401  
 (303) 278-4378  
 FAX (303) 278-4321  
 Principal: Nannon Adair Anderson  
 AIA, LEED AP TM BD+C  
 NanAnderson@andarch.com

**JVA, Inc.**  
 1319 SPRUCE STREET  
 BOULDER, COLORADO 80302  
 (303) 444-1951  
 Project Manager: Ian Glaser, PE  
 iglaser@jva.com

JVA #18783

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CERTIFICATIONS

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KEY PLAN

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MARK	DATE	DESCRIPTION
	09.05.2017	100% CD FOR PERMIT & CONSTR
1	12.12.2017	ADDENDA 1

REVISION NOTES

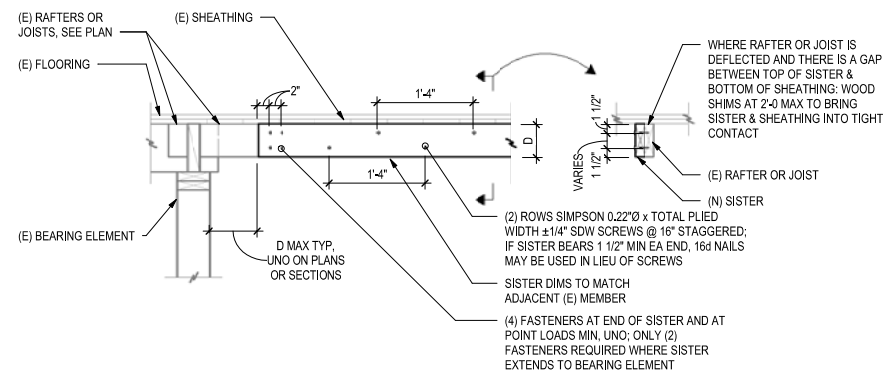
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CONTRACTORS	BUILDING	PROJECT
A/E CON. NO. 201520446	NAME MOUNT MORRISON	PROJECT RED ROCKS PARK CCC CAMP BUILDING 1
A/E TASK NO. 05	STREET 300 UNION AVENUE	TITLE RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
CONS. CONTR. --	CITY/ST./ZIP MORRISON, CO 804065	PROJECT DESCRIPTION DENVER MOUNTAIN PARKS RED ROCKS PARK
CONS. WORK	BUILDING NO. 1	PROJECT NO. PROJMSR-0000473
PRIME A/E ANDERSON HALLAS ARCHITECTS, PC	OTHER	CCD PM BRAD ECKERT
SUB A/E JVA, INC.	BUILDING NOS.	SUBMISSION 100% CDs FOR PERMIT & CONSTRUCTION
CONSTR. CON.	FACILITY CODE	SUB. DATE 09.05.2017
		DRAWING TITLE ROOF FRAMING PLAN
		FILE NAME
		FLOOR NO.
		DRAWN BY CBB DATE DRAFTED: 09.05.2017
		CHECKED BY IRG SHEET SIZE: 22X34
		DRAWING NO. <b>S102</b>
		DISCIPLINE SHEET TYPE SEQUENCE
		SHEET 16 OF 32

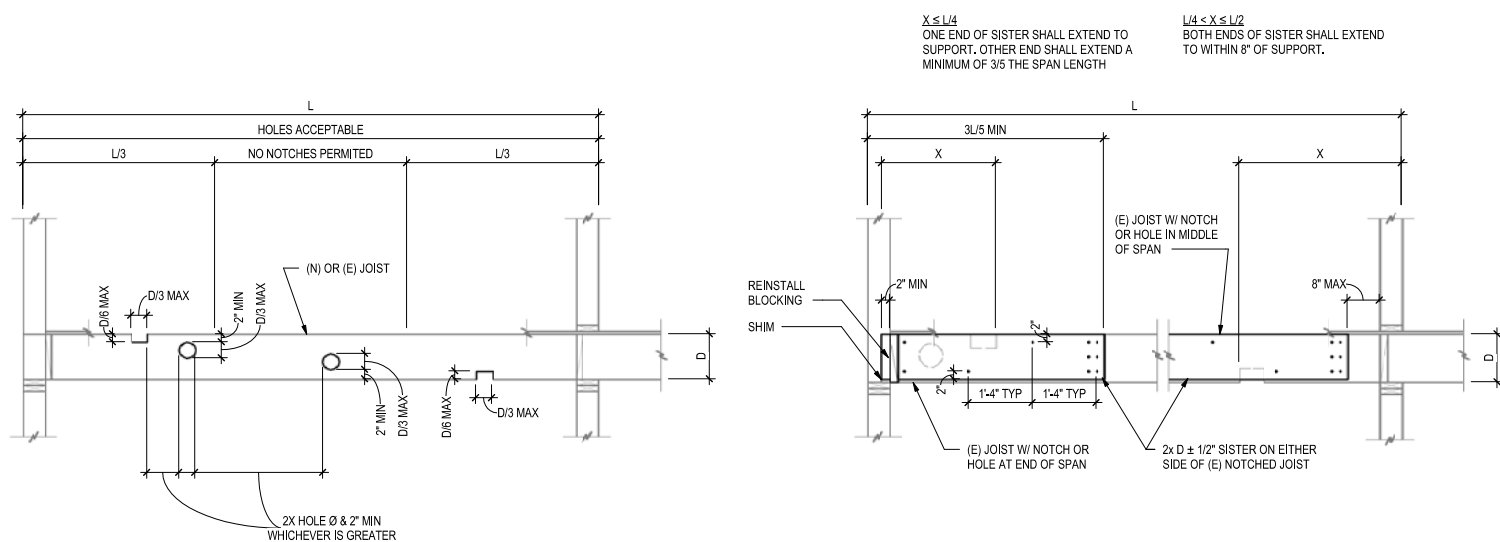
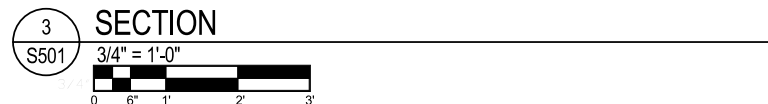
CONTRACTORS BUILDING PROJECT

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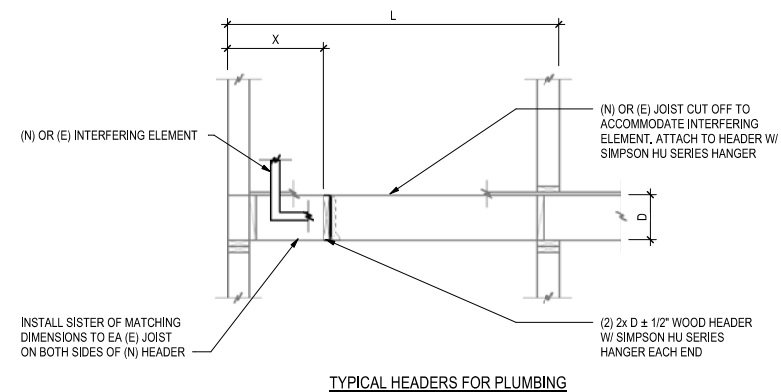
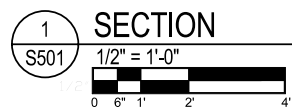


TYPICAL (E) RAFTER, TOP CHORD, FLOOR JOISTS, OR CEILING JOIST WITH SISTER



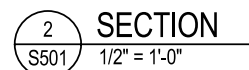
**TYPICAL ACCEPTABILITY CRITERIA FOR NOTCH IN (N) OR (E) FLOOR JOISTS**

- CRITERIA VALID ONLY FOR UNIFORMLY LOADED JOISTS. NOT VALID WHERE JOISTS SUPPORT BEARING WALLS OR CONCENTRATED LOADS
- CRITERIA NOT APPLICABLE TO BEAMS, GIRDERS, OR CANTILEVERED JOISTS
- NOTCHES AT ENDS OF JOISTS SHALL NOT EXCEED 1/4 JOIST DEPTH (D)
- JOISTS WITH NOTCHES OR HOLES EXCEEDING THOSE SHOWN ABOVE ARE UNACCEPTABLE
- JOISTS WITH SPLITS, CRACKS, DETERIORATION, OR OTHER SIGNS OF DISTRESS ARE UNACCEPTABLE. CHECKING AT JOIST ENDS IS ACCEPTABLE IF <1/4" WIDE AT WIDEST POINT
- NEW HOLES AND HOLES AND NOTCHES IN EXISTING OR NEW WOOD MEMBERS SHALL NOT EXCEED THOSE SHOWN ABOVE WITHOUT PRIOR CONSENT BY THE ENGR
- AT END SUPPORTS MINIMUM BEARING LENGTH SHALL BE 2". AT INTERMEDIATE SUPPORTS MINIMUM BEARING LENGTH SHALL BE 3 1/2". REPORT TO OWNER, ARCH, & ENGR IF BEARING CONDITIONS ARE OBSERVED THAT VIOLATE THESE MINIMUMS
- SQUARE "HOLES" ACCEPTABLE ONLY IF PERIMETER CAN BE CIRCUMSCRIBED BY ACCEPTABLE ROUND HOLE



**TYPICAL HEADERS FOR PLUMBING**

- ADJACENT JOISTS SUPPORTING (N) HEADER SHALL BE SISTERED PER 3/501
- SIMPSON HU HANGERS SHALL BE OF APPROPRIATE DEPTH TO ACCOMMODATE SUPPORTED MEMBER AND BE ATTACHED W/ MINIMUM FASTENERS SPECIFIED BY MANUFACTURER



CERTIFICATIONS

KEY PLAN

REVISION NOTES

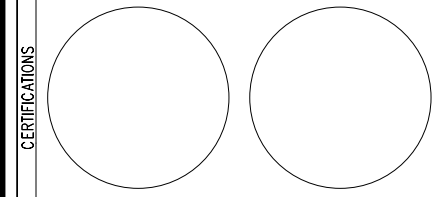
GRAPHIC SCALE

CONTRACTORS

BUILDING

PROJECT

DRAWING



MARK	DATE	DESCRIPTION
	09.05.2017	100% CD FOR PERMIT & CONSTR
1	12.12.2017	ADDENDA 1

A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	--
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	JVA, INC.
CONSTR. CON.	
NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO 804065
BUILDING NO.	1
OTHER	
BUILDING NOS.	
FACILITY CODE	

PROJECT TITLE	RED ROCKS PARK CCG CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJMSTR-0000473
CCD PM	BRAD ECKERT
SUBMISSION	100% CDS FOR PERMIT & CONSTRUCTION
SUB. DATE	09.05.2017

FILE NAME	
FLOOR NO.	
DRAWN BY	CBB DATE DRAFTED: 09.05.2017
CHECKED BY	IRG SHEET SIZE: 22X34
DRAWING NO.	S501
DISCIPLINE	SHEET TYPE SEQUENCE
SHEET	17 OF 32

CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS  
Brad Eckert: Mountain Parks Manager  
201 W. Colfax Ave. 5th Floor, Denver, CO 80202  
Public Works | City and County of Denver  
720.913.0708 Phone | 770.406.0705 Cell  
Brad.Eckert@denvergov.org



ANDERSON HALLAS ARCHITECTS, PC  
715 FOURTEENTH STREET  
GOLDEN, COLORADO 80401  
(303) 278-4378  
FAX (303) 278-4321  
Principal: Nannon Adair Anderson  
AIA, LEED AP TM BD+C  
NanAnderson@andarch.com



JVA, Inc.  
1319 SPRUCE STREET  
BOULDER, COLORADO 80302  
(303) 444-1951  
Project Manager: Ian Glaser, PE  
iglaser@jvava.com

JVA # 18783



CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS  
Brad Eckert: Mountain Parks Manager  
201 W. Colfax Ave. 5th Floor, Denver, CO 80202  
Public Works | City and County of Denver  
720.913.0708 Phone | 770.406.0703 Cell  
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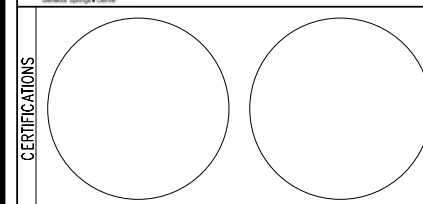


ANDERSON HALLAS  
ARCHITECTS, PC  
715 FOURTEENTH STREET  
GOLDEN, COLORADO 80401  
(303) 278-4378  
FAX (303) 278-4321  
Principal: Nannon Adair Anderson  
AIA, LEED AP TM BD+C  
NanAnderson@andarch.com



JVA, Inc.  
1319 SPRUCE STREET  
BOULDER, COLORADO 80302  
(303) 444-1951  
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iglaser@jva.com

JVA #18783



MARK	DATE	DESCRIPTION
	09.05.2017	100% CD FOR PERMIT & CONSTR
1	12.12.2017	ADDENDA 1

MARK	DATE	DESCRIPTION

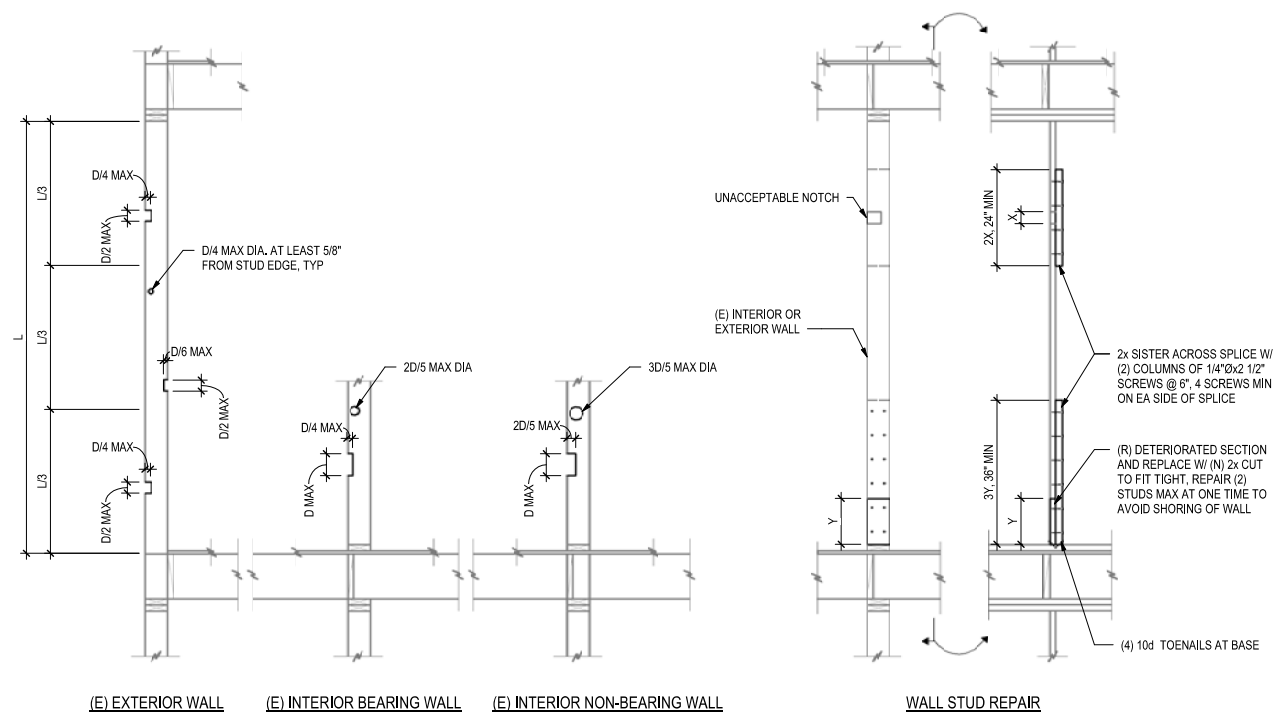
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A/E TASK NO.	05
CONS. CONTR.	--
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	JVA, INC.
CONSTR. CON.	

NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO 804065
BUILDING NO.	1
OTHER BUILDING NOS.	
FACILITY CODE	

PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJMSTR-0000473
CCD PM	BRAD ECKERT
SUBMISSION	100% CDs FOR PERMIT & CONSTRUCTION
SUB. DATE	09.05.2017

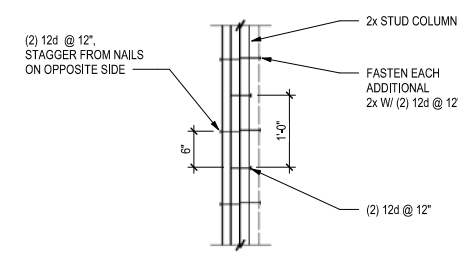
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DRAWN BY	CBB
DATE DRAFTED	09.05.2017
CHECKED BY	IRG
SHEET SIZE	22X34

DRAWING NO.	S502
DISCIPLINE	
SHEET TYPE	
SEQUENCE	
SHEET	18
OF	32

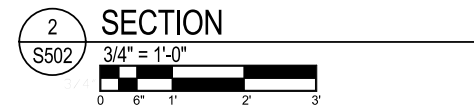
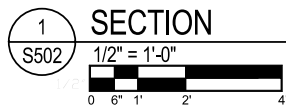


- TYPICAL ACCEPTABILITY CRITERIA FOR NOTCH IN (N) OR (E) STUD**
- CRITERIA VALID ONLY FOR UNIFORMLY LOADED STUDS. NOT VALID AT STUD PACKS, SW BOUNDARY STUDS, OR TIMBERS SUPPORTING CONCENTRATED LOADS
  - HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A NOTCH
  - HOLES ARE ALLOWABLE ALONG ENTIRE HEIGHT OF MEMBER
  - STUDS WITH NOTCHES OR HOLES EXCEEDING THOSE SHOWN ABOVE ARE UNACCEPTABLE
  - STUDS WITH SPLITS, CRACKS, DETERIORATION, OR OTHER SIGNS OF DISTRESS ARE UNACCEPTABLE. CHECKING AT STUD ENDS IS ACCEPTABLE IF < 1/4" WIDE AT WIDEST POINT
  - DETERIORATED MATERIAL IS NOT ACCEPTABLE AND SHALL BE REMOVED AND REPAIRED PER WALL STUD REPAIR SKETCH
  - NEW HOLES AND NOTCHES IN EXISTING OR NEW WOOD MEMBERS SHALL NOT EXCEED THOSE SHOWN ABOVE WITHOUT PRIOR CONSENT BY THE ENGR
  - SQUARE "HOLES" ACCEPTABLE ONLY IF PERIMETER CAN BE CIRCUMSCRIBED BY ACCEPTABLE ROUND HOLE

- TYPICAL WALL STUD REPAIR**
- VALID WHERE DEFICIENCY OCCURS IN UPPER OR LOWER THIRD OF (E) STUD HEIGHT, WHERE DEFICIENCY OCCURS IN MIDDLE THIRD, INSTALL FULL LENGTH SISTER.
  - IF DETERIORATED IN THE TOP OR BOTTOM THIRD OF THE MEMBER, REMOVE MATERIAL, REPLACE SECTION AND SISTER PER SKETCH ABOVE. IF DETERIORATION OCCURS IN MIDDLE THIRD OF THE MEMBER, COMPLETELY REMOVE DETERIORATED MATERIAL, INFILL SECTIONS, AND SISTER WITH FULL LENGTH STUD.
  - WHEN REMOVING DETERIORATED MATERIAL, OVER-CUT AT LEAST 4" INTO SECTION OF ACCEPTABLE MATERIAL
  - WHERE FRAMING IS WITHIN 18" OF SOIL, REPAIR W/ (N) 2x PT MEMBER MATCHING SIZE OF (E) MEMBER TO BE REPAIRED & USE GALVANIZED FASTENERS.

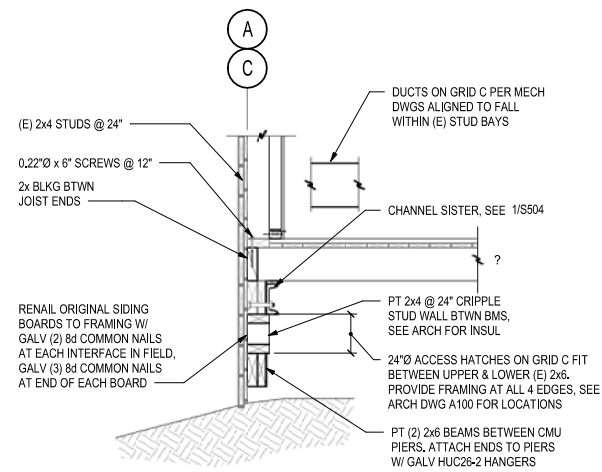


TYPICAL BUILT-UP STUD COLUMN

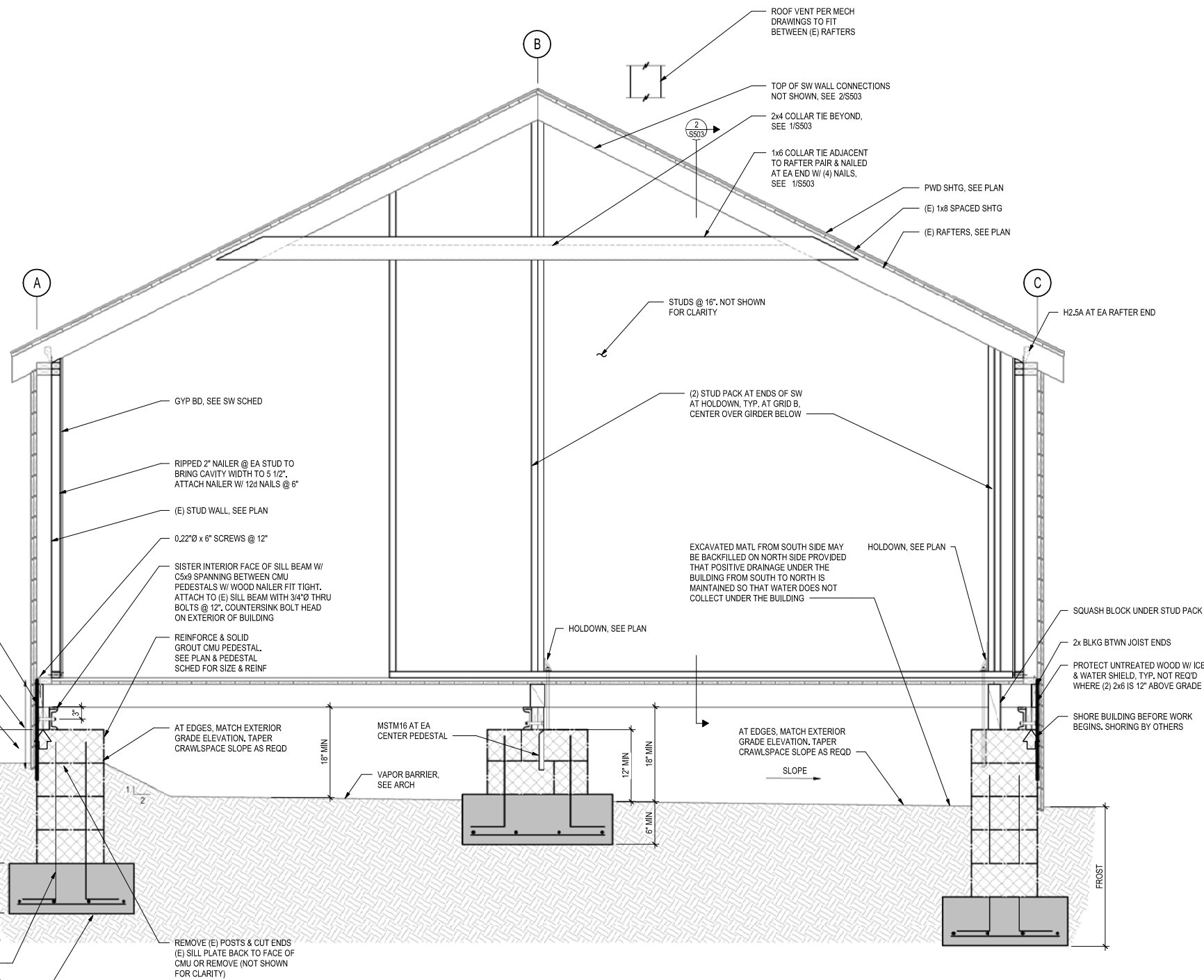




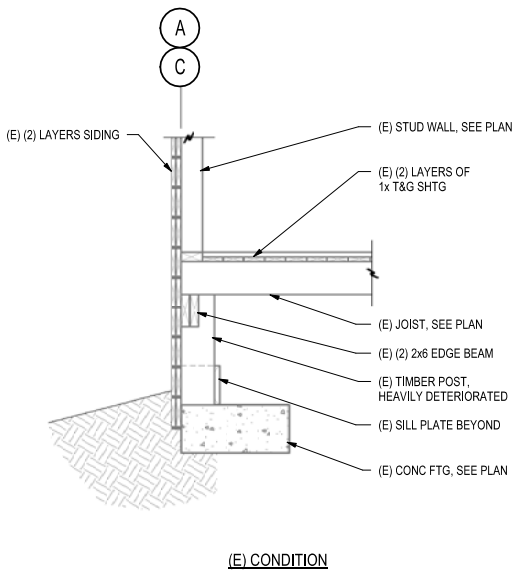




**2 SECTION**  
S504 3/4" = 1'-0"  
USE GALV FASTENERS & HARDWARE AT PT MATERIAL, TYP



**1 SECTION**  
S504 3/4" = 1'-0"  
0 6" 1' 2' 3'



**(E) CONDITION**

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Brad Eckert: Mountain Parks Manager  
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Public Works | City and County of Denver  
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**ANDERSON HALLAS ARCHITECTS, PC**  
715 FOURTEENTH STREET  
GOLDEN, COLORADO 80401  
(303) 278-4378  
FAX (303) 278-4321  
Principal: Nannon Adair Anderson  
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JVA, Inc.  
1319 SPRUCE STREET  
BOULDER, COLORADO 80302  
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Project Manager: Ian Glaser, PE  
iglaser@jva.com

---

JVA, Inc.  
1319 Spruce Street  
Boulder, CO 80302  
303.444.1951  
www.jva.com  
Division • First Colfax • Winter Park  
Winter Park Springs • Denver

Project: RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION  
Drawing No: S504  
Discipline: ARCHITECTURE  
Sheet No: 20 of 32

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MARK	DATE	DESCRIPTION
1	12.12.2017	100% CD FOR PERMIT & CONSTR ADDENDA 1

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CONTRACTORS	CONSTR. CON.
A/E CON. NO. 201520446 A/E TASK NO. 05 CONS. CONTR. -- CONS. WORK PRIME A/E ANDERSON HALLAS ARCHITECTS, PC SUB A/E JVA, INC.	

---

BUILDING	PROJECT
NAME MOUNT MORRISON STREET 300 UNION AVENUE CITY/ST./ZIP MORRISON, CO 804065 BUILDING NO. 1 OTHER BUILDING NOS. FACILITY CODE	PROJECT RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION TITLE DENVER MOUNTAIN PARKS DESCRIPTION RED ROCKS PARK PROJECT NO. PROJ MSTR-0000473 CCD PM BRAD ECKERT SUBMISSION 100% CDs FOR PERMIT & CONSTRUCTION SUB. DATE 09.05.2017

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DRAWING	DRAWING TITLE DETAILS
FILE NAME FLOOR NO. DRAWN BY CBB DATE DRAFTED: 09.05.2017 CHECKED BY IRG SHEET SIZE: 22X34	

**MECHANICAL NOTES**

- I. GENERAL**
- A. ALL WORK SHALL BE IN ACCORDANCE WITH SMACNA STANDARDS AND SPECIFICATIONS, AND LOCAL AUTHORITY HAVING JURISDICTION.
- B. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND NOT INTENDED TO SHOW ALL TRANSITIONS, OFFSETS, ETC. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND PROVIDE ALL NECESSARY FITTINGS TO COMPLETE THE INTENT OF THE DRAWINGS. ANY DISCREPANCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHALL BE REPORTED TO THE ENGINEER FOR RESOLUTION. CONTRACTOR MAY LOCATE MECHANICAL EQUIPMENT DIFFERENTLY THAN SHOWN ON DRAWINGS DUE TO CONFLICTS, AS LONG AS FUNCTION AND/OR APPEARANCE ARE NOT AFFECTED.
- C. COORDINATE SPACE REQUIREMENTS, SUPPORTS, AND INSTALLATION OF MECHANICAL WORK, WHICH ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS, FOLLOW ROUTING SHOWN FOR PIPES AND DUCTS AS CLOSELY AS PRACTICABLE; PLACE RUNS PARALLEL WITH LINES OF BUILDING. UTILIZE SPACES EFFICIENTLY TO MAXIMIZE ACCESSIBILITY FOR OTHER INSTALLATIONS, FOR MAINTENANCE, AND FOR REPAIRS.
- D. COMPLY WITH MANUFACTURER'S INSTRUCTIONS INCLUDING EACH STEP IN SEQUENCE. SHOULD MANUFACTURER'S INSTRUCTIONS CONFLICT WITH THE DRAWINGS, REQUEST CLARIFICATION FROM THE ENGINEER BEFORE PROCEEDING.
- E. DUCT SIZES ARE INSIDE DIMENSION.
- F. CONTRACTOR SHALL REVIEW THESE DOCUMENTS CAREFULLY. CONTRACTOR SHALL CONTACT THREE SIXTY (360) ENGINEERING, INC. (303-940-2050), FOR RESOLUTION OF ANY DISCREPANCIES, OMISSIONS, OR CLARIFICATIONS, BEFORE BID DATE. IN THE EVENT THAT AN INTERPRETATION OF BID DOCUMENTS IS NECESSARY AFTER THE BID DATE, THE DECISION OF 360 SHALL BE FINAL AND BINDING.
- G. PRODUCT DELIVERY, STORAGE, AND HANDLING: PROVIDE EQUIPMENT AND PERSONNEL TO HANDLE PRODUCTS BY METHODS TO PREVENT DAMAGE. PROMPTLY INSPECT SHIPMENTS TO ENSURE THAT PRODUCTS ARE UNDAMAGED. STORE AND PROTECT PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- H. ALL REMOVED EQUIPMENT SHALL REMAIN THE PROPERTY OF THE BUILDING MANAGER AND SHALL BE STORED PER THEIR DIRECTION.
- I. THE CONTRACTOR IS RESPONSIBLE FOR THE COSTS OF ALL CHANGE ORDERS, WHICH THE OWNER AND ENGINEER HAVE NOT APPROVED IN WRITING PRIOR TO THE EXECUTION OF THE ASSOCIATED WORK.
- II. EQUIPMENT**
- A. NEW DIFFUSERS:
- DESIGNATION: NECK SIZE  
CFM
- B. NEW RIGID ROUND DUCTWORK:
- EXPOSED: GALVANIZED STEEL SPIRAL WOUND DUCT.
  - CONCEALED: GALVANIZED STEEL SNAP LOCK DUCT.
- C. NEW RECTANGULAR DUCTWORK:
- ZINC COATED GALVANIZED STEEL
- D. CONCEALED RIGID ROUND DUCTWORK INSULATION: FLEX MASTER THERMO SLEEVE TYPE TSM - MINIMUM R-6
- E. OUTDOOR RIGID ROUND DUCTWORK INSULATION: FLEX MASTER THERMO SLEEVE TYPE TSM - MINIMUM R-12 WITH ALUMINUM JACKETING
- F. BAROMETRIC RELIEF DAMPERS: GREENHECK MODEL BR.
- G. NO INTERIOR LINING OR INSULATION ON ANY SUPPLY DUCTWORK
- III. EXECUTION**
- H. BALANCING:
- CONTRACTOR SHALL ADJUST AND BALANCE EVAPORATIVE COOLING UNITS AND DIFFUSERS TO THE QUANTITIES SHOWN ON THE DRAWING. BALANCING WORK SHALL BE PERFORMED IN ACCORDANCE WITH NEBB OR TABB STANDARDS BY A NEBB OR TABB CERTIFIED CONTRACTOR. SUBMIT BALANCING REPORT TO THE ENGINEER.
- I. CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES AND NOTIFY 360 ENGINEERING, INC. IF ANY CONFLICTS OCCUR.
- J. THERMOSTAT LOCATIONS AND HEIGHTS TO BE COORDINATED WITH ARCHITECT. VERIFIED BY THE ENGINEER. CONTRACTOR TO CALIBRATE ALL THERMOSTATS SHOWN ON THIS PLAN. IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL EXISTING THERMOSTATS REMAIN INTACT DURING DEMOLITION. HEATING THERMOSTATS MUST REMAIN OPERATIONAL AT ALL TIMES. IF REQUIRED FOR BETTER PROTECTION, THERMOSTATS MAY BE TEMPORARILY MOUNTED IN THE CEILING PLENUM DURING DEMOLITION.
- K. PROVIDE VOLUME DAMPERS AT ALL DIFFUSER TAKEOFFS.
- L. ALL TAKEOFFS AND RUNOUTS TO DIFFUSERS SHALL BE THE SAME SIZE AS DIFFUSER INLET UNLESS OTHERWISE NOTED.
- M. MECHANICAL CONTRACTOR TO CHECK OPERATION AND CONDITION OF ALL EXISTING MECHANICAL EQUIPMENT WITHIN THE CONFINES OF THIS SPACE AND PREPARE A WRITTEN LIST OF ANY DEFICIENCIES IN EQUIPMENT OPERATION OR CONDITION. LIST SHALL BE SUBMITTED TO PROPERTY MANAGER TWO WEEKS AFTER THE AWARD OF THE CONTRACT.
- N. THERMOSTAT CONTROL LINES SHALL BE SUPPORTED AT INTERVALS NOT TO EXCEED 6'.
- O. PROVIDE EXTERNAL INSULATION ON ALL DUCTWORK, UNLESS OTHERWISE NOTED.
- P. PROVIDE ACCESS DOORS IN DUCTWORK AS REQUIRED FOR ACCESS TO FIRE DAMPERS, FIRE/SMOKE DAMPERS, OR ANY OTHER MECHANICAL EQUIPMENT REQUIRING MAINTENANCE OF SERVICE.
- Q. ALL PIPE AND DUCT PENETRATIONS THROUGH RATED WALLS SHALL BE SEALED PER 2015 IBC.

**NATURAL VENTILATION CALCULATION (CALCULATIONS BASED ON IBC SECTION 1203.5)**

ROOM NAME	ROOM #	SQUARE FEET	OPERABLE OPENING AREA REQUIRED	# of windows (4.37 sq. ft each)	ACTUAL OPERABLE AREA	PERCENTAGE OF FLOOR AREA
MEETING ROOM	111	318	12.72	3	13.11	4.12%
BREAK ROOM	110	201	8.04	2	8.74	4.35%
RESTROOM	109	54	2.16	1	4.37	8.09%
JAN	108	98	0	0	0	0.00%
OFFICE	107	150	6	2	8.74	5.83%
OFFICE	106	98	3.92	1	4.37	4.46%
OFFICE	105	98	3.92	1	4.37	4.46%
OFFICE	104	98	3.92	1	4.37	4.46%
OPEN OFFICE	103	537	21.48	7	30.59	5.70%
HALLWAY		329	13.16	9	39.33	11.95%
CLOSET	111A	31	0	0	0	0.00%
ENTRY	101	65	0	0	0	0.00%
ENTRY	112	44	0	0	0	0.00%
CLOSET	102	25	0	1	4.37	17.48%
<b>TOTALS:</b>		<b>2146</b>	<b>75.32</b>	<b>28</b>	<b>122.36</b>	<b>5.70%</b>

**LOUVER RELIEF HOOD SCHEDULE**

GENERAL					PERFORMANCE			PHYSICAL			NOTES
TAG	MANUFACTURER	MODEL	LOCATION	SERVICE	AIRFLOW [CFM]	THROAT [IN. X IN.]	PRESSURE DROP [IN. W.C.]	HEIGHT [IN.]	WIDTH [IN.]	DEPTH [IN.]	
LRH-1	GREENHECK	WRH	BREAK	RELIEF	2090	18x24	0.088	12.25	32	38	1,2,3,4

NOTES:

- PROVIDE WITH STAINLESS STEEL BIRDSCREEN
- COORDINATE COLOR WITH ARCHITECT PRIOR TO ORDERING
- PROVIDE WITH BAROMETRIC RELIEF DAMPER PRIOR TO LOUVER MOUNTED IN DUCT, MATCH DUCT SIZE
- PROVIDE WITH ROOF CURB

**GRILLES, REGISTERS, AND DIFFUSERS SCHEDULE**

TAG	MANUFACTURER	MODEL	SERVICE	MATERIAL	FACE SIZE	NOTES
A	PRICE	SCD	SUPPLY	ALUMINUM	24X24	1,2,3
B	PRICE	620	SUPPLY	ALUMINUM	12X6	1,2,3,4
C	PRICE	620	SUPPLY	ALUMINUM	10X6	1,2,3,4
D	PRICE	510	RELIEF	STEEL	12X10	1,2,3,4
E	PRICE	PDDR	RELIEF	STEEL	48X24	2,4
F	PRICE	PDDR	RELIEF	STEEL	24X24	2,4
G	PRICE	PDDR	RELIEF	STEEL	16X16	2,4
H	PRICE	SMCD	SUPPLY	ALUMINUM	24X24	1,2,3,5
I	PRICE	510	RELIEF	STEEL	10X10	1,2,3,4
J	PRICE	510	RELIEF	STEEL	6X6	1,2,3,4
K	PRICE	510	SUPPLY	ALUMINUM	12X6	1,2,3,4

NOTES:

- PROVIDE WITH ALL REQUIRED ACCESSORIES FOR DIRECT DUCT MOUNTING.
- COORDINATE COLOR & FINISH WITH ARCHITECT PRIOR TO ORDERING.
- PROVIDE WITH OPTIONAL APERTURE DAMPER FOR BALANCING THROUGH FACE.
- PROVIDE WITH DAMPER
- ORIENT DIFFUSER TO PROVIDE AIRFLOW DIRECTION SHOWN ON DRAWING.

MECHANICAL LEGEND	
---	EXISTING DUCT
////	EXISTING TO BE REMOVED
---	NEW DUCT
⊗	SUPPLY DIFFUSER
⊠	RETURN AIR GRILLE
⌋	MANUAL BALANCING DAMPER
~	FLEXIBLE DUCTWORK
⊙	THERMOSTAT
(N)	NEW
(D)	DEMO
(R)	RELOCATED

**BASEBOARD HEAT SCHEDULE**

GENERAL							ELECTRICAL			PHYSICAL			
TAG	MANUFACTURER	MODEL	VOLTAGE [V]	PHASE	FREQUENCY [HZ]	POWER [W]	LENGTH [IN.]	WIDTH [IN.]	HEIGHT [IN.]	WEIGHT [LBS]	REMARKS		
BB-1	BERKO	BKOC25426W	240	1	60.0	500.0	30	2.9375	8.375	8	1,2		
BB-2	BERKO	BKOC2544W	240	1	60.0	1,000.0	48	2.9375	8.375	11.5	1,2		

NOTES:

- PROVIDE WITH 7 DAY PROGRAMMABLE WALL MOUNTED THERMOSTAT
- PROVIDE WITH ELECTRICAL DISCONNECT

**FAN SCHEDULE**

GENERAL					PERFORMANCE					ELECTRICAL			PHYSICAL				NOTES
TAG	MANUFACTURER	MODEL	LOCATION	SERVICE	AIRFLOW [CFM]	ESP [IN. W.C.]	SPEED [RPM]	SOUND [SONES]	MOTOR HP [HP]	VOLTAGE [V]	FREQ. [HZ]	MAX BHP [W]	DIAMETER [IN.]	ROOF OPENING [INxIN]	HEIGHT [IN.]	WEIGHT [LBS]	
TF-1	GREENHECK	S1-8-440-D	CONFERENCE	TRANSFER	150	0.25	1550	1.5	1/25	115	60	75	8,000	--	13	15	2,4,5,6
EF-1	GREENHECK	G-080-G	RESTROOM	EXHAUST	190	0.285	1300	5.8	1/30	115	60.0	--	21,750	12.5x12.5	14,625	25	1,2,3,4

NOTES:

- PROVIDE WITH TIMECLOCK.
- PROVIDE WITH BACKDRAFT DAMPER
- PROVIDE WITH BIRD SCREEN
- UNIT WEIGHT DOES NOT INCLUDE ACCESSORIES
- PROVIDE WITH OSHA MOTOR SIDE GUARD AND WALL HOUSING
- PROVIDE WITH FAN SIDE GUARD

**EVAPORATIVE COOLING UNIT SCHEDULE**


GENERAL			SUPPLY FAN (@ 5,300 FT)				COOLING (@ 5,300 FT)				ELECTRICAL			PHYSICAL				REMARKS
TAG	MANUFACTURER	MODEL	TOTAL AIRFLOW [CFM]	SIZE [HP]	OAT DB [°F]	EAT DB [°F]	EAT WB [°F]	LAT DB [°F]	NET CAPACITY [BTU/H]	VOLTAGE [V]	PHASE	FREQUENCY [HZ]	FLA [A]	LENGTH [IN]	WIDTH [IN]	HEIGHT [IN]	WEIGHT [LBS]	
ECU-1	ESSICK AIR	AS2C5112	2565	3/4	95.0	95.0	59.0	63.0	87,300	230	1	60.0	7.5	45	42	28	233	1,2,3
ECU-2	ESSICK AIR	AS2C5113	1910	3/4	95.0	95.0	59.0	63.0	87,300	230	1	60.0	7.5	45	42	28	233	1,2,3
ECU-3	ESSICK AIR	AS2C5114	1980	3/4	95.0	95.0	59.0	63.0	87,300	230	1	60.0	7.5	45	42	28	233	1,2,3

NOTES:

- PROVIDE WITH 7 DAY PROGRAMMABLE WALL MOUNTED THERMOSTAT.
- PROVIDE WITH DRAIN DOWN VALVE AT UNIT TO DRAIN SUMP AND CW SUPPLY LINE.
- PROVIDE WITH GREENHECK VCD-23 DAMPER. INTERLOCK ACTUATOR TO ECU STARTER CONTROLS.

**CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS**

Brad Eckert: Mountain Parks Manager  
201 W. Colfax Ave. 5th Floor, Denver, CO 80202  
Public Works | City and County of Denver  
720.913.0708 Phone | 570.406.0705 Cell  
Brad.Eckert@denvergov.org



**DENVER**  
THE MILE HIGH CITY

**ANDERSON HALLAS ARCHITECTS, PC**  
715 FOURTEENTH STREET  
GOLDEN, COLORADO 80401  
(303) 278-4378  
FAX (303) 278-6521  
Principal: Namon Adair Anderson  
FAIA, LEED AP  
NadAnderson@andarch.com

**360**  
Three Sixty Engineering, Inc.  
1001 Kipling St. #250    DENVER, CO    80202  
303.940.2050    303.940.3322 fax

CERTIFICATIONS

KEY PLAN

MARK	DATE	DESCRIPTION
1	09.05.2017	100%CD FOR PERMIT & CONSTR
	12/15/17	BUILDING DEPT. COMMENTS

REVISION NOTES

CONTRACTORS

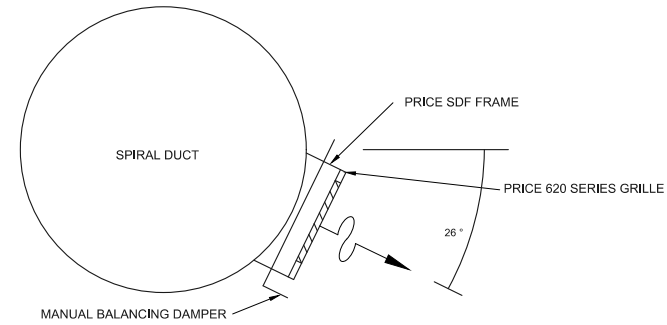
BUILDING

PROJECT

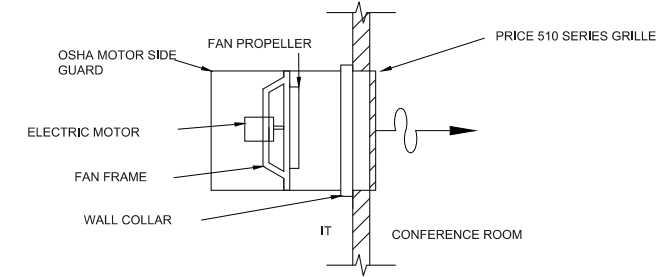
DRAWING

A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	--
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	
CONSTR. CON.	
NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO    ZIP    80465
BUILDING NO.	1
OTHER	
BUILDING No.s	
FACILITY CODE	
PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJMSR-0000473
CCD PM	BRAD ECKERT
SUBMISSION SUB. DATE	BUILDING DEPARTMENT COMMENTS REVISION 12.15.2017
DRAWING TITLE	MECHANICAL COVER SHEET
FILE NAME	
FLOOR NO.	1
DRAWN BY	RND    DATE DRAFTED:
CHECKED BY	TJR    SHEET SIZE: 22 X 34
DRAWING NO.	M    O    O
	DISCIPLINE    SHEET TYPE    SEQUENCE
	SHEET 21 OF 32

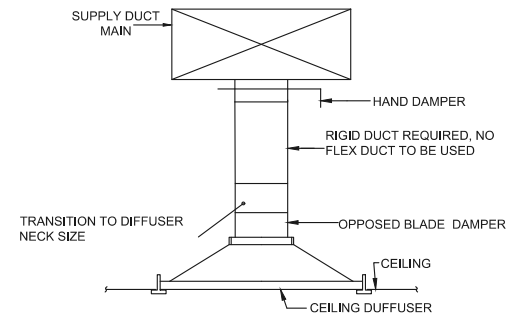




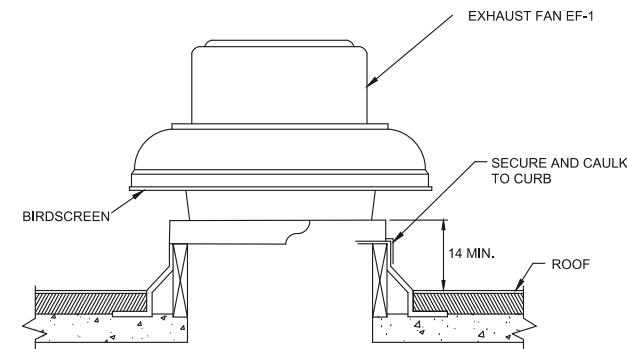
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MO2 **SPIRAL DUCT GRILLE CONNECTION DETAIL**  
SCALE: NOT TO SCALE



**2**  
MO2 **TRANSFER FAN DETAIL**  
SCALE: NOT TO SCALE



**3**  
MO2 **TYPICAL DIFFUSER CONNECTION (BOTTOM OF DUCT)**  
SCALE: NOT TO SCALE



**4**  
MO2 **EXHAUST FAN DETAIL**  
SCALE: NOT TO SCALE



CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS

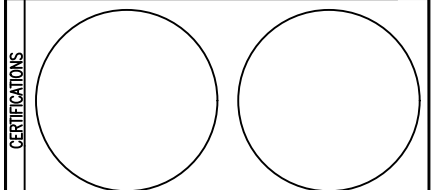
Brad Eckert: Mountain Parks Manager  
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FAIA, LEED AP  
NanAnderson@andarch.com

**360**

Three Sixty Engineering, Inc.  
1000 Jackson St. #500 Golden, CO 80401  
303.943.2000 303.943.3325 fax



CERTIFICATIONS  
KEY PLAN

MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR
1		

REVISION NOTES

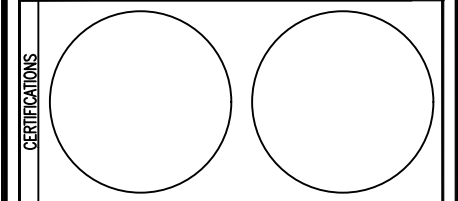
MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR

GRAPHIC SCALE

A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	--
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	
CONSTR. CON.	

NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO ZIP 80465
BUILDING NO.	1
OTHER BUILDING NOS.	
FACILITY CODE	

PROJECT	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJMSTR-0000473
CCD PM	BRAD ECKERT
SUBMISSION	BUILDING DEPARTMENT COMMENTS REVISION
SUB. DATE	12.15.2017
DRAWING TITLE	MECHANICAL COMCHECK
FILE NAME	
FLOOR NO.	1
DRAWN BY	RND DATE DRAFTED:
CHECKED BY	TJR SHEET SIZE: 22 X 34
DRAWING NO.	M 0 2
	DISCIPLINE SHEET TYPE SEQUENCE
	SHEET 23 OF 32



**CERTIFICATIONS**

**KEY PLAN**

MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR
1	12/15/17	BUILDING DEPT. COMMENTS
2	1/4/18	BUILDING DEPT. COMMENTS 2

**REVISION NOTES**

**CONTRACTORS**

A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	--
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	
CONSTR. CON.	

**BUILDING**

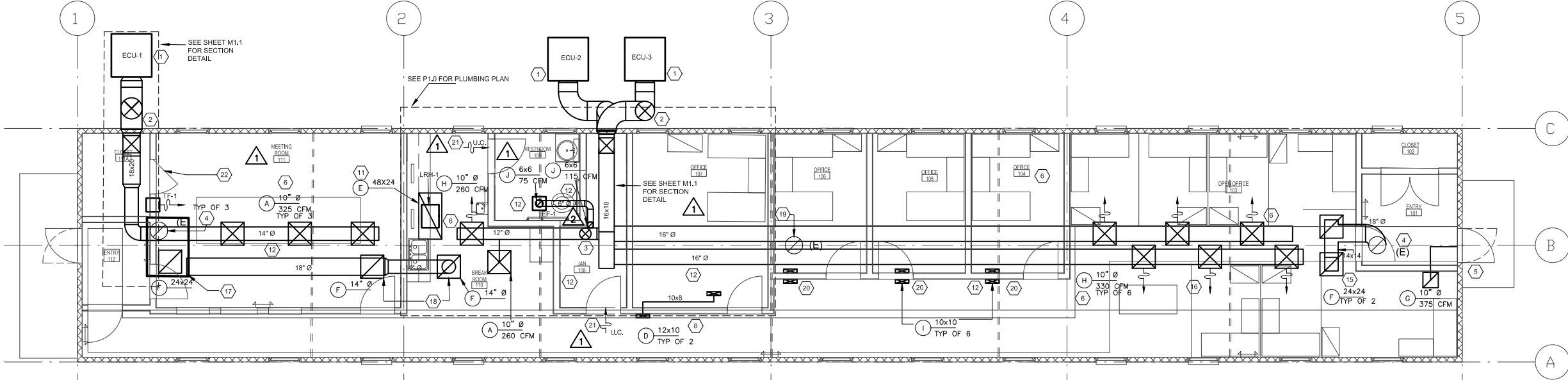
NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO ZIP 80465
BUILDING NO.	1
OTHER BUILDING NOS.	
FACILITY CODE	

**PROJECT**

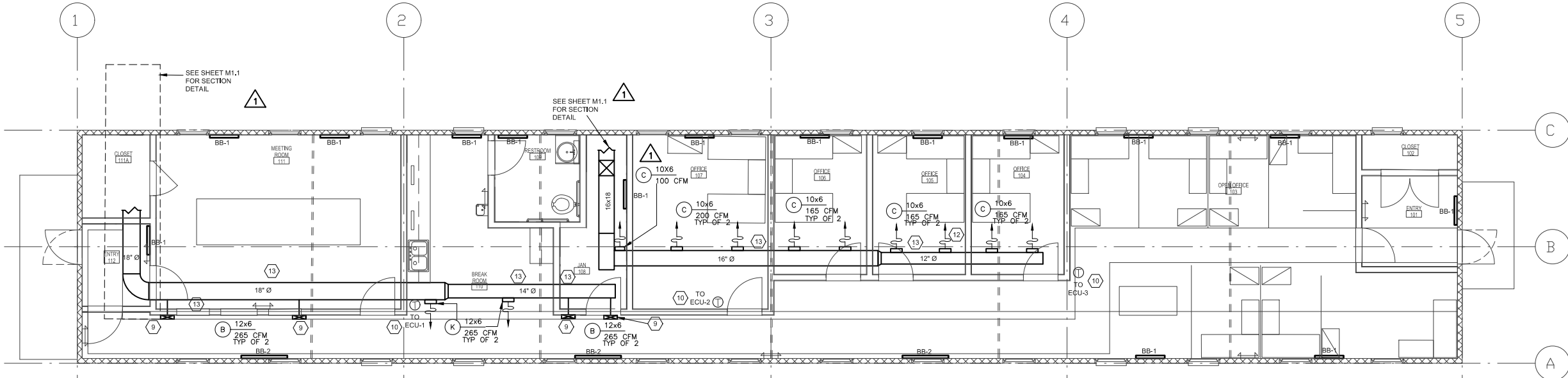
PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJMSTR-0000473
CCD PM	BRAD ECKERT
SUBMISSION	BUILDING DEPARTMENT COMMENTS REVISION
SUB. DATE	1.4.2018

**DRAWING**

DRAWING TITLE	MECHANICAL FLOOR PLAN
FILE NAME	
FLOOR NO.	1
DRAWN BY	RND DATE DRAFTED:
CHECKED BY	TJR SHEET SIZE: 22 X 34
DRAWING NO.	M 1 0
	DISCIPLINE SHEET TYPE SEQUENCE
	SHEET 24 OF 32



**1 MECHANICAL PLAN, ABOVE CEILING**  
 M10 SCALE: 3/16 = 1'-0"




**2 MECHANICAL PLAN, EXPOSED DUCT**  
 M10 SCALE: 3/16 = 1'-0"

**KEY NOTES:**

- 1 EVAPORATIVE COOLING UNITS WILL BE PLACED OUTSIDE ON CONCRETE PADS. UNITS TO BE LOCATED TO PROVIDE ADEQUATE ROOM TO ALLOW DUCT WORK TO ELBOW INTO BUILDING AND INTO PROVIDED MECHANICAL CHASE.
- 2 MAIN DUCTWORK FROM ECU TO BE ROUND OUTSIDE OF BUILDING AND TRANSITION TO RECTANGULAR AFTER ENTERING BUILDING.
- 3 12" Ø DUCT ELBOWS UP INTO ATTIC SPACE BEFORE RUN-OUT.
- 4 EXISTING 18" Ø VERTICAL RELIEF DUCTS, PROVIDE 18" Ø BAROMETRIC RELIEF DAMPER FOR EACH.
- 5 DUCTED RETURN FROM 16x16 GRILLE TO EXISTING ATTIC RELIEF VENT. SIZED FOR 375 CFM.
- 6 DUCT BRANCHES FOR DIFFUSERS TO COME OFF BOTTOM OF MAIN DUCT, SEE DETAIL.
- 7 TRANSFER FAN TO EXHAUST AIR FROM IT ROOM INTO CONFERENCE ROOM.
- 8 10x8 DUCT TO RUN INSIDE SOFFIT OF OFFICE WALL. PROVIDE 1" ACOUSTICAL LINER AND INTERIOR INSULATION.
- 9 SIDE WALL GRILLE. SUPPLIED BY EXPOSED DUCTWORK. PROVIDE MANUAL DAMPER.
- 10 COORDINATE ALL THERMOSTAT LOCATIONS WITH ARCHITECT.
- 11 48x24 RELIEF VENT DUCTED TO GRAVITY VENTILATOR ON ROOF. DUCT TRANSITION REQUIRED. PROVIDE BAROMETRIC RELIEF DAMPER.
- 12 PROVIDE EXHAUST FAN ON ROOF. ROUTE 10x10 DUCT DOWN TO EXHAUST GRILLES.
- 13 EXPOSED DUCT.
- 14 ENCLOSE INDICATED ATTIC SPACE IN SHEET METAL TO PROVIDE NON-COMBUSTIBLE RELIEF PLENUM. PLENUM TO BE AIR TIGHT.
- 15 (2) 24x24 RETURN GRILLES TO BE DUCTED TO EXISTING 18" Ø RELIEF DUCT.
- 16 ARROWS INDICATE SUPPLY AIRFLOW DIRECTION. ORIENT SUPPLY DIFFUSERS ACCORDINGLY.
- 17 18" DUCTWORK TO PENETRATE INTO SHEET METAL PLENUM AREA. CONTRACTOR TO SEAL PENETRATION TO PREVENT AIR LEAKAGE OUT OF PLENUM.
- 18 24x24 FACE RELIEF GRILLES DUCTED OFF BOTTOM OF MAIN, SEE DETAIL.
- 19 EXISTING 18" Ø RELIEF DUCT TO BE CAPPED BELOW ROOF AND ABANDONED IN PLACE.
- 20 PROVIDE RELIEF GRILLE ON BOTH SIDE OF OFFICE WALL. COORDINATE EXACT LOCATION WITH ARCHITECT.
- 21 UNDERCUT DOOR 3/4".
- 22 DOOR TO BE PROVIDED WITH 10x10" TRANSFER GRILLE. SEE ARCHITECTURAL DRAWINGS.


**GENERAL NOTES:**

- EXTERIOR INSULATION TO BE USED ON ALL DUCTWORK UNLESS OTHERWISE NOTED. DUCTWORK LOCATED OUTSIDE OF BUILDING TO BE ROUND AND PROVIDED WITH EXTERIOR INSULATION WITH ALUMINUM JACKETING. EXPOSED DUCTWORK TO BE PROVIDED WITHOUT INSULATION
- NO INTERIOR INSULATION TO BE USED ON ANY DUCTWORK, UNLESS OTHERWISE NOTED.



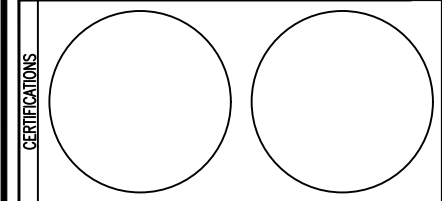
CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS

Brad Eckert: Mountain Parks Manager  
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ANDERSON HALLAS  
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715 FOURTEENTH STREET  
GOLDEN, COLORADO 80401  
(303) 278-4378  
FAX (303) 278-0521  
Principal: Nannon Adair Anderson  
FAIA, LEED AP  
Nan.Anderson@andarch.com

**360**  
Three Sixty Engineering, Inc.  
8001 Johnson Way, Suite 1000, Golden, CO 80401  
303.943.3200



**KEY PLAN**

MARK	DATE	DESCRIPTION
1	09.05.2017	100%CD FOR PERMIT & CONSTR
	12/15/17	BUILDING DEPT. COMMENTS

**REVISION NOTES**

**GRAPHIC SCALE**

**CONTRACTORS**

A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	---
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	
CONSTR. CON.	

**BUILDING**

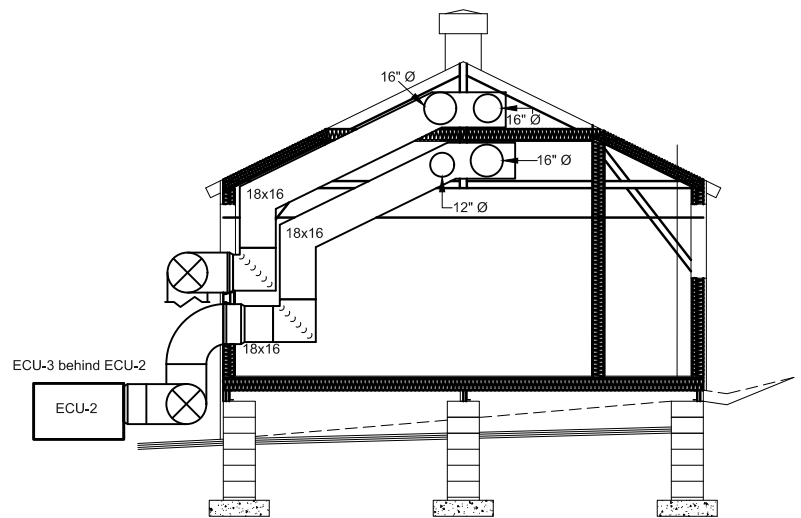
NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO ZIP 80465
BUILDING NO.	1
OTHER BUILDING NOS.	
FACILITY CODE	

**PROJECT**

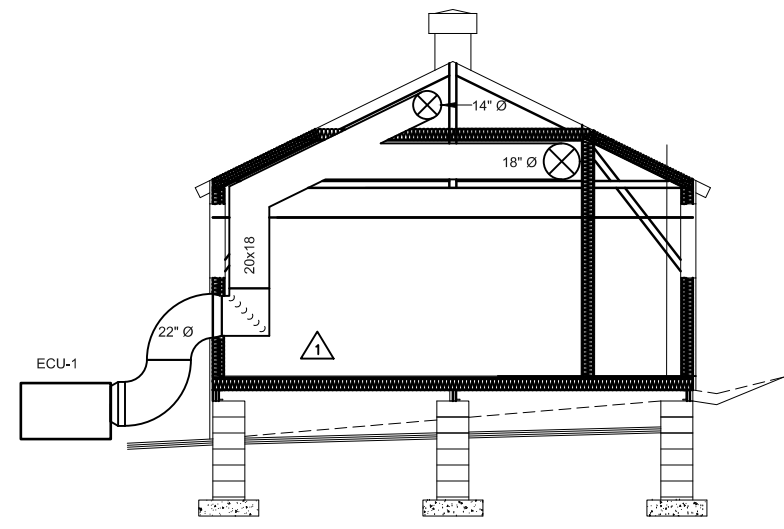
PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJMSTR-0000473
CCD PM	BRAD ECKERT
SUBMISSION	BUILDING DEPARTMENT COMMENTS REVISION
SUB. DATE	12.15.2017

**DRAWING**

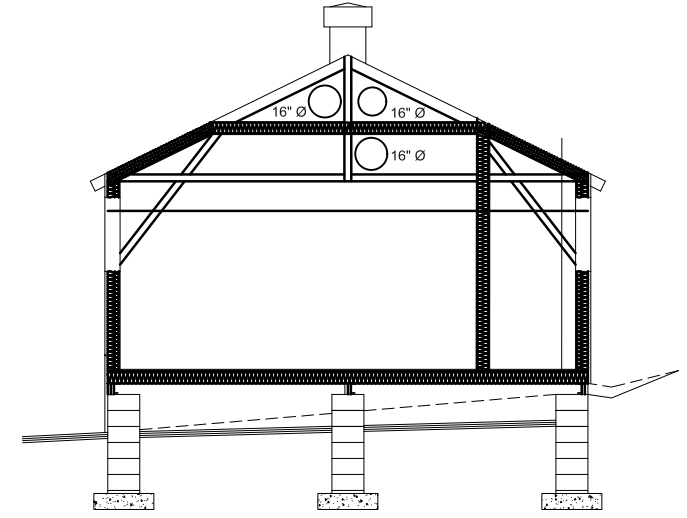
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FILE NAME	
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CHECKED BY	TJR SHEET SIZE: 22 X 34
DRAWING NO.	M 1 1
	DISCIPLINE SHEET TYPE SEQUENCE
	SHEET 25 OF 32



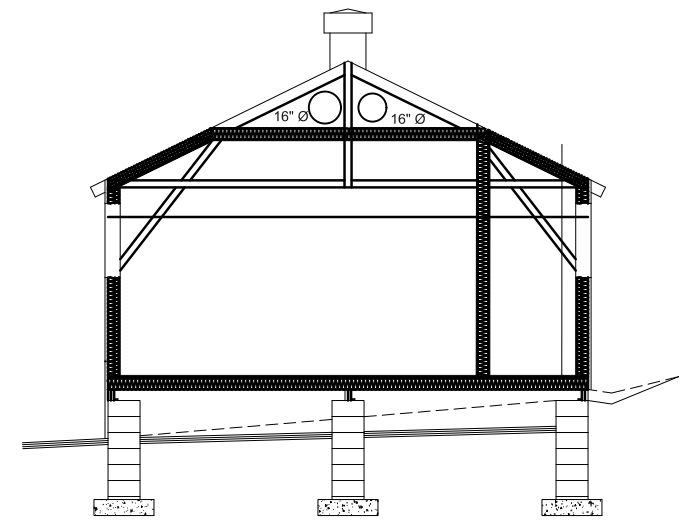
**1 SECTION • ECU-2 AND ECU-3 BUILDING ENTRY**  
SCALE: NOT TO SCALE



**2 SECTION • ECU-1 BUILDING ENTRY**  
SCALE: NOT TO SCALE



**3 SECTION • GRIDLINE 3**  
SCALE: NOT TO SCALE



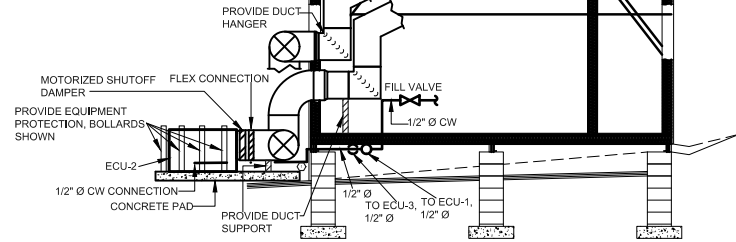
**4 SECTION • GRIDLINE 4**  
SCALE: NOT TO SCALE

**PLUMBING NOTES**

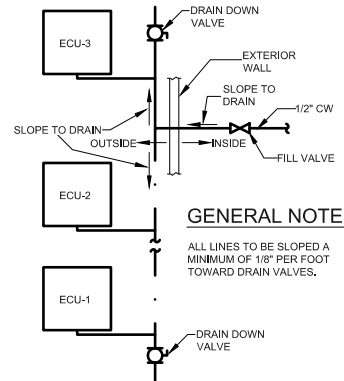
- I. GENERAL
  - A. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND NOT INTENDED TO SHOW ALL TRANSITIONS, OFFSETS, ETC. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND PROVIDE ALL NECESSARY FITTINGS TO COMPLETE THE INTENT OF THE DRAWINGS. ANY DISCREPANCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHALL BE REPORTED TO THE DESIGN ENGINEER FOR RESOLUTION.
  - B. CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES AND NOTIFY ENGINEER IF ANY CONFLICTS OCCUR.
  - C. CONTRACTOR SHALL REVIEW THESE DOCUMENTS CAREFULLY. CONTRACTOR SHALL CONTACT DENISE DITTE AT THREE SIXTY (360) ENGINEERING, INC. (303-940-2050) FOR RESOLUTION OF ANY DISCREPANCIES, OMISSIONS, OR CLARIFICATIONS, BEFORE BID DATE. IN THE EVENT THAT AN INTERPRETATION OF BID DOCUMENTS IS NECESSARY AFTER THE BID DATE, THE DECISION OF 360 SHALL BE FINAL AND BINDING.
  - D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS OF ALL CHANGE ORDERS, WHICH THE OWNER AND ENGINEER HAVE NOT APPROVED IN WRITING PRIOR TO THE EXECUTION OF THE ASSOCIATED WORK.
- II. PRODUCTS
  - A. INTERIOR SOIL AND WASTE PIPING: SERVICE WEIGHT CAST IRON SOIL PIPE AND NO HUB FITTINGS OR DWV COPPER PIPE AND FITTINGS WITH 95% TIN / 5% ANTIMONY SOLDER JOINTS.
  - B. DOMESTIC WATER LINES AND INDIRECT DRAIN LINES: TYPE "L" HARD DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS. SOLDER SHALL BE 95% TIN / 5% ANTIMONY.
  - C. VENT PIPING: SERVICE WEIGHT CAST IRON WITH STAINLESS STEEL NO HUB CONNECTORS OR DWV COPPER PIPE AND FITTINGS WITH 95% TIN / 5% ANTIMONY SOLDER JOINTS.
  - D. ABOVEGROUND, SOIL, WASTE, AND VENT PIPING NPS 4 AND SMALLER SHALL BE: HUBLESS, CAST-IRON SOIL PIPE WITH 4 BAND STAINLESS STEEL NO HUB COUPLINGS.
  - E. UNDERGROUND, SOIL, WASTE, AND VENT PIPING NPS 4 AND SMALLER SHALL BE: HUBLESS, CAST-IRON SOIL PIPE 4 BAND HEAVY DUTY STAINLESS STEEL NO HUB COUPLINGS, OR CELLULAR-CORE PVC PIPE, PVC SOCKET FITTINGS, AND SOLVENT-CEMENTED JOINTS.
  - F. DOMESTIC WATER LINES AND INDIRECT DRAIN LINES, NPS 4 AND SMALLER SHALL BE: HARD COPPER TUBE, ASTM B 88, TYPE L, WROUGHT SOLDER-JOINT FITTINGS, AND LEAD-FREE SOLDER.
  - G. VENT PIPING: SERVICE WEIGHT CAST IRON WITH 4 BAND STAINLESS STEEL NO HUB COUPLINGS OR DWV COPPER PIPE AND FITTINGS WITH 95% TIN / 5% ANTIMONY SOLDER JOINTS.
  - H. GAS PIPING: BLACK STEEL ASTM A 53/A 53 M, SCHEDULE 40, GRADE B, 2" AND SMALLER; MALLEABLE-IRON THREADED FITTINGS, 150 CLASS, ASME B16.3, 3" AND LARGER; WROUGHT-STEEL WELDED FITTING, ASTM A 234/A 234M.
  - I. BRONZE BALL VALVES: TWO-PIECE, FULL-PORT, LEAD-FREE BRONZE BALL VALVES WITH STAINLESS-STEEL TRIM.
- III. EXECUTION
  - A. ALL PLUMBING WORK SHALL COMPLY WITH LOCAL CODES AND ORDINANCES.
  - B. PITCH WASTE LINES NOT LESS THAN 1/4" PER FOOT, (UNLESS NOTED OTHERWISE).
  - C. INSULATE ALL COLD WATER, HOT WATER, AND INDIRECT WASTE PIPING WITH 1" PREFORMED FIBERGLASS PIPE INSULATION WITH A "K" FACTOR OF 0.23 MAXIMUM AT 75° F MEAN TEMPERATURE. INSULATION JACKET SHALL BE FACTORY APPLIED KRAFT PAPER WITH VAPOR BARRIER AND SELF-SEALING LAP.
  - D. RUN ALL PIPING ON WARM SIDE OF BUILDING INSULATION. PIPE INSULATION IS NOT CONSIDERED FREEZE PROTECTION.
  - E. PROVIDE DIELECTRIC UNIONS AT CONNECTIONS BETWEEN DISSIMILAR METALS, I.E., IRON VALVES AND COPPER TUBING.
  - F. PROVIDE PIPE HANGERS OF THE SAME MATERIAL AS THE PIPING SYSTEM OR USE COATED HANGERS.
  - G. SET FLOOR DRAINS SO THAT TOP WILL BE SLIGHTLY LOWER THAN SURROUNDING FLOOR.
  - H. PROVIDE BALL VALVES AND UNIONS ON ALL LINES TO EQUIPMENT FOR ISOLATION AND REMOVAL.
  - I. PLUMBING CONTRACTOR SHALL CHECK OPERATION AND CONDITION OF ALL EXISTING PLUMBING EQUIPMENT WITHIN THE CONFINES OF THIS SPACE, AND PREPARE A WRITTEN LIST OF DEFICIENCIES IN EQUIPMENT OPERATION OR CONDITION. LIST SHALL BE SUBMITTED TO GENERAL CONTRACTOR WITHIN 2 WEEKS OF CONTRACT AWARD DATE.
  - J. THE CONTRACTOR SHALL X-RAY THE FLOOR AND OBTAIN BUILDING OWNER APPROVAL BEFORE CUTTING ANY FLOOR PENETRATIONS.
  - K. WHERE REMOVAL OR RELOCATION OF EXISTING FIXTURES OCCURS, CONTRACTOR SHALL REMOVE ALL WASTE AND VENT BRANCH LINES NOT REQUIRED FOR NEW, OR REMAINING FIXTURE LOCATIONS.
  - L. WHERE PIPING HAS BEEN REMOVED FROM FLOOR PENETRATIONS, CONTRACTOR SHALL PATCH CONCRETE FLOOR TO MATCH EXISTING CONDITIONS.

**GENERAL NOTES:**

CW LINES DOWNSTREAM OF FILL VALVE SLOPED A MINIMUM OF 1/8" PER FOOT.  
REFER TO ARCHITECTURAL PLANS FOR CONCRETE PAD CONSTRUCTION.



**1 P00 EVAPORATIVE COOLING UNIT**  
SCALE: NTS



**2 P00 DRAIN DOWN DETAIL**  
SCALE: NTS

PLUMBING LEGEND	
	WASTE LINE
	VENT LINE
	COLD WATER LINE
	HOT WATER LINE
	RECIRCULATED HOT WATER LINE
	GATE VALVE
	BALL VALVE
	NEW TO EXISTING
	ELBOW UP
	ELBOW DOWN

NOTE: NEW PIPING SHOWN HEAVIER THAN EXISTING.

EVAPORATIVE COOLING UNIT WATER CONSUMPTION	
<b>ENTERING AIR</b>	
DRY BULB:	95°F
WET BULB:	62°F
HUMIDITY RATIO:	48 GRAINS OF MOISTURE/LB OF DRY AIR
<b>LEAVING AIR</b>	
DRY BULB:	66°F
WET BULB:	62°F
HUMIDITY RATIO:	94 GRAINS OF MOISTURE/LB OF DRY AIR
MAXIMUM DESIGN AIRFLOW:	2565 CFM
SPECIFIC VOLUME:	16.3 CUBIC FT/LB OF DRY AIR
<b>WATER CONSUMPTION</b>	
HUMIDITY RATIO INCREASE:	46 GRAINS OF MOISTURE/LB OF DRY AIR
MAXIMUM WATER CONSUMPTION PER UNIT:	0.125 GALLONS/MINUTE
MAXIMUM WATER CONSUMPTION FOR 3 UNITS:	0.375 GALLONS/MINUTE
MAKE-UP WATER LINE FOR 3 UNITS:	1/2" Ø

SANITARY DRAINAGE FIXTURE UNIT CALCULATION			
(CALCULATIONS BASED ON 2015 IPC TABLE 709.1)			
FIXTURE	NUMBER OF INSTANCES	DFU UNITS	TOTAL LOAD
WATER CLOSET	1	4	4.0
LAVATORY	1	1	1.0
BREAK ROOM SINK	1	2	2.0
MOP SERVICE BASIN	1	2	2.0
FLOOR DRAIN	2	2	4.0
DRINKING FOUNTAIN	1	0.5	0.5
<b>TOTAL:</b>			<b>13.5</b>

PUMP SCHEDULE								
TAG	MANUFACTURER & MODEL	GPM	FT. HD.	HP	VOLT/ PH.	AMPS	LBS.	REMARKS
CP-1	B&G PL-30B	0.5	25	1/12	115/1	1.4	11.6	1.2

REMARKS:  
1. PROVIDE WITH B&G AQS-3/4 AQUASTAT AND TC-1 TIMECLOCK.  
2. LEAD FREE BRONZE.

WATER SUPPLY FIXTURE UNIT CALCULATION (CALCULATIONS BASED ON IPC TABLE E103.3(2))					
FIXTURE	TYPE OF SUPPLY CONTROL	ROOM	COLD LOAD	HOT LOAD	TOTAL LOAD
WATER CLOSET	FLUSH TANK	RESTROOM	5.0	--	5.0
LAVATORY	FLUSH TANK	RESTROOM	1.5	1.5	2.0
SERVICE SINK	FLUSH TANK	BREAK ROOM	2.25	2.25	3.0
MOP SERVICE BASIN	FLUSH TANK	MECHANICAL	2.25	2.25	3.0
DRINKING FOUNTAIN	FLUSH TANK	HALLWAY	0.25	--	3.0
<b>TOTAL:</b>					<b>16.0</b>

ELECTRIC WATER HEATER SCHEDULE										
TAG	MANUFACTURER & MODEL	RECOVERY AT 90°F RISE	GALLON CAPACITY	HEIGHT	DIAMETER	OPER. LBS.	ELECTRICAL			REMARKS
							VOLTAGE	PHASE	KW	
EWH-1	A.O. Smith DEL-20	11 GPH	20	22 1/4	21.75	240	230	1	2.5	1.2

REMARKS:  
1. Provide with 2500W element  
2. Provide with thermal expansion tank

PLUMBING FIXTURE SCHEDULE										
TAG	DESCRIPTION	MANUFACTURER	MODEL NUMBER	FINISH	MANUFACTURER	MODEL NUMBER	FINISH	GPM/GPF	ELECTRICAL	REMARKS
WC-1	WATER CLOSET- FLOOR MOUNTED (ADA)	AMERICAN STANDARD	215AA.104.020	WHITE	CHURCH	9500CT	WHITE	1.28	-	1
L-1	LAVATORY- COUNTER MOUNTED (ADA)	AMERICAN STANDARD	0476.028	WHITE	DELTA	501LF-HDF	CHROME	0.5	-	3,5,6
MSB-1	MOP SERVICE BASIN	FIAT	MSB2424	WHITE	CHICAGO	445-897SRCXKCP	CHROME	2.2	-	4,8
S-1	SINK- DOUBLE COMPARTMENT (ADA)	JUST	DL-ADA-1933-A-GR	STAINLESS STEEL (18 GA)	DELTA	100LF-HDF	CHROME	1.5	-	3,5,6,7
EWC-1	ELECTRIC WATER COOLER (ADA) SURFACE MOUNTED HI/LOW	ELKAY	EZSTL8LC	-	-	-	-	-	120/60/1	2,3
BFP-1	REDUCED PRESSURE BACKFLOW PREVENTER DOMESTIC	APOLLO	RPLF4A 1"	-	-	-	-	-	-	9

- REMARKS:
1. LOOSE KEY ANGLE STOP, STAINLESS STEEL BRAIDED SUPPLIES (OR BATTERY OPERATED)
  2. PROVIDE WITH CONCEALED FLOOR MOUNTED CARRIER (COORDINATE WITH WALL THICKNESS)
  3. 17 GA. P-TRAP, LOOSE KEY ANGLE STOPS, STAINLESS STEEL BRAIDED SUPPLIES
  4. PAIL HOOK, WALL BRACKET, THREAD END, VACUUM BREAKER, INTEGRAL CHECKS & SHUTOFF STOPS
  5. PROVIDE LEONARD #270-LF MIXING VALVE UNDER FIXTURE. (ASSE 1070 RATED)
  6. PROVIDE WITH TRUEBRO #103 E-Z P-TRAP AND SUPPLIES INSULATION KIT
  7. 6" DEEP BOWL, REAR DRAIN LOCATION
  8. HOSE AND HOSE BRACKET, MOP HANGER, SS WALL GUARD.
  9. PROVIDE WITH STRAINER.

CITY AND COUNTY OF DENVER  
DEPARTMENT OF PUBLIC WORKS

Brad Eckert Mountain Parks Manager  
201 W. Colfax Ave. 5th Floor, Denver, CO 80202  
Public Works | City and County of Denver  
720.913.0708 Phone | 970.466.0705 Cell  
Brad.Eckert@denvergov.org

ANDERSON HALLAS ARCHITECTS, PC  
115 FOURTEENTH STREET  
GOLDEN, COLORADO 80401  
(303) 278-4378  
FAX (303) 278-0521  
Principal: Nanan Adair Anderson  
FAIA, LEED AP  
NanAnderson@andarch.com

**360**  
Three Sixty Engineering, Inc.  
1001 Jackson St. Suite 2000, Golden, CO 80401  
303.640.2000

**CERTIFICATIONS**

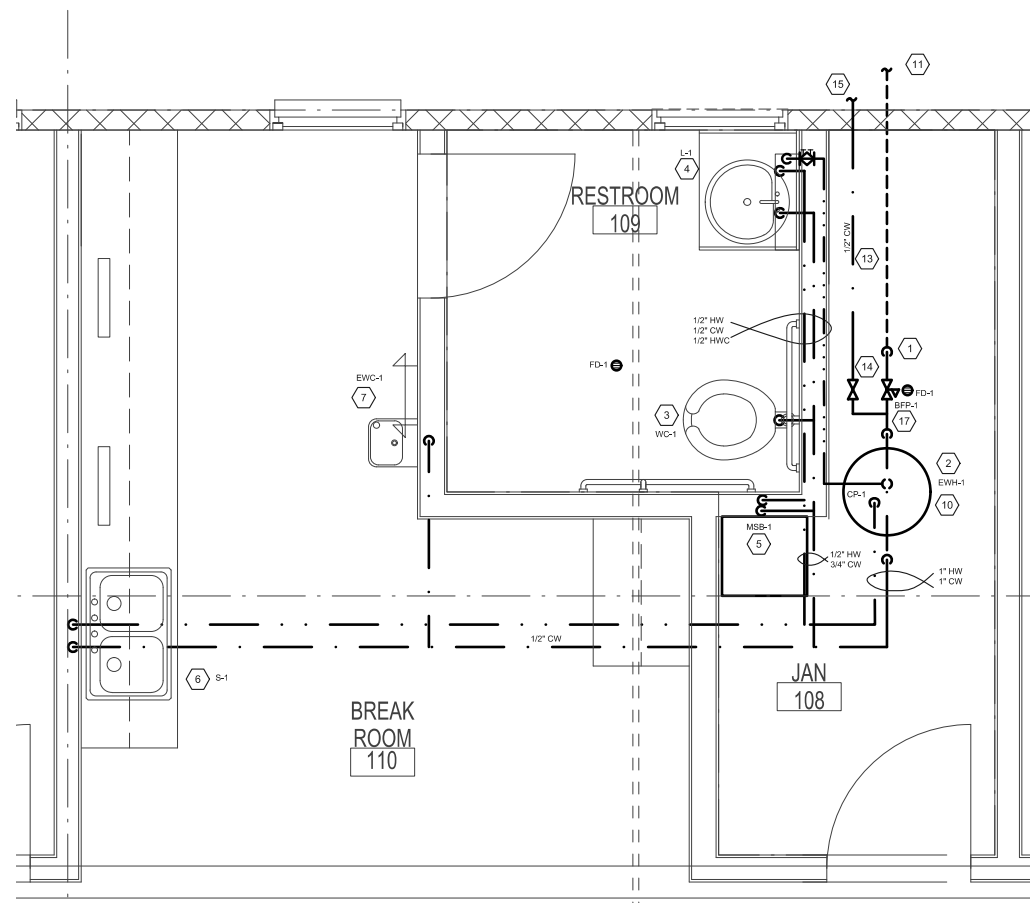
**KEY PLAN**

MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR
1	12/15/17	BUILDING DEPT. COMMENTS

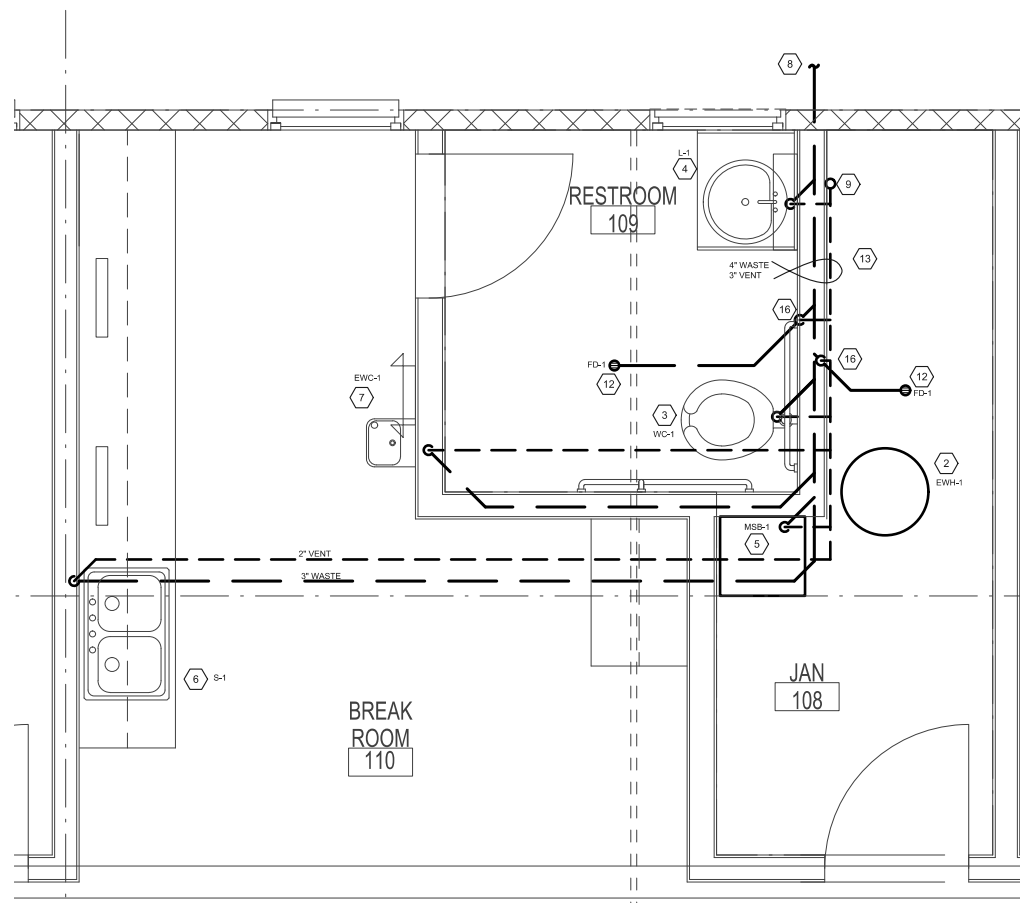
**REVISION NOTES**

CONTRACTOR'S	GRAPHIC SCALE
A/E CON. NO. 201520446	
A/E TASK NO. 05	
CONS. CONTR. --	
CONS. WORK	
PRIME A/E ANDERSON HALLAS ARCHITECTS, PC	
SUB A/E	
CONSTR. CON.	
NAME MOUNT MORRISON	
STREET 300 UNION AVENUE	
CITY/ST./ZIP MORRISON, CO ZIP 80465	
BUILDING NO. 1	
OTHER	
BUILDING NOS.	
FACILITY CODE	
PROJECT RED ROCKS PARK CCC CAMP BUILDING 1	
TITLE REHABILITATION	
PROJECT DENVER MOUNTAIN PARKS	
DESCRIPTION RED ROCKS PARK	
PROJECT NO. PROJ.MSTR-0000473	
CCD PM BRAD ECKERT	
SUBMISSION BUILDING DEPARTMENT COMMENTS REVISION	
SUB. DATE 12.15.2017	
DRAWING TITLE PLUMBING SCHEDULES & NOTES	
FILE NAME	
FLOOR NO. 1	
DRAWN BY RND DATE DRAFTED:	
CHECKED BY TJR SHEET SIZE: 22 X 34	
DRAWING NO. P O O	
DISCIPLINE SHEET TYPE SEQUENCE	
SHEET 26 OF 32	





**1**  
P10 **WATER PLAN**  
SCALE: 1/2" = 1'-0"



**2**  
P10 **WASTE AND VENT PLAN**  
SCALE: 1/2" = 1'-0"

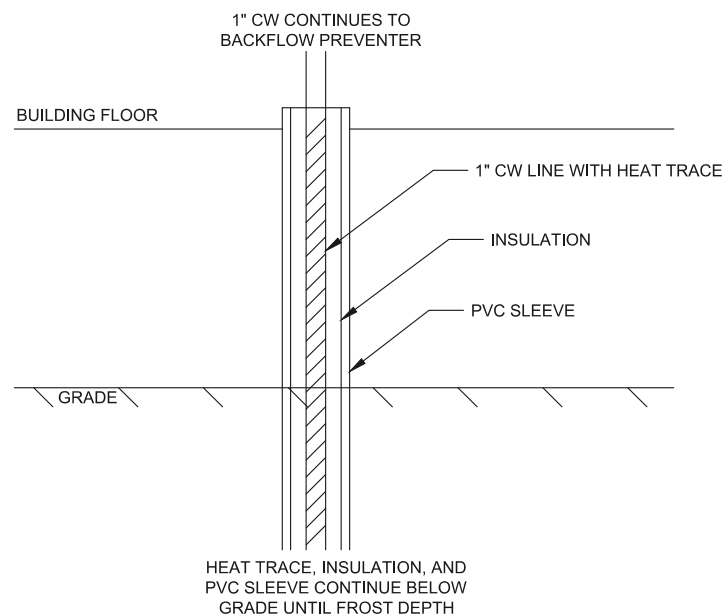


**GENERAL NOTES:**

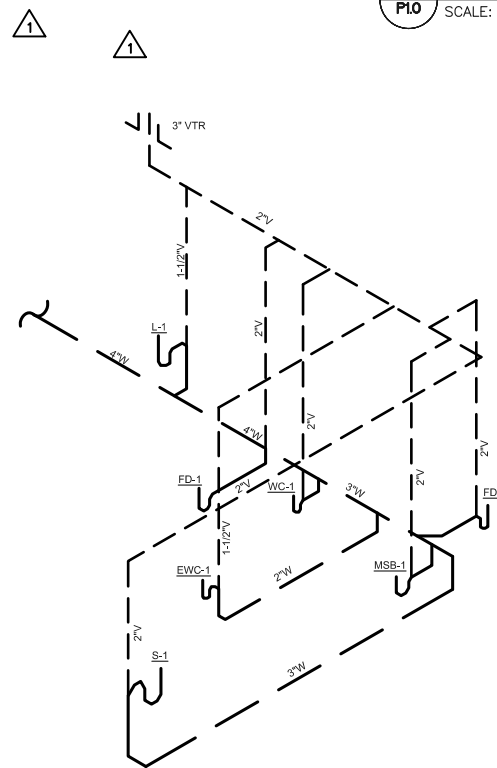
- RUN ALL WATER LINES ABOVE CEILING ON CONDITIONED SIDE OF INSULATION.
- HEAT TRACE AND INSULATE ALL WASTE PIPING BELOW FLOOR.

**KEY NOTES:**

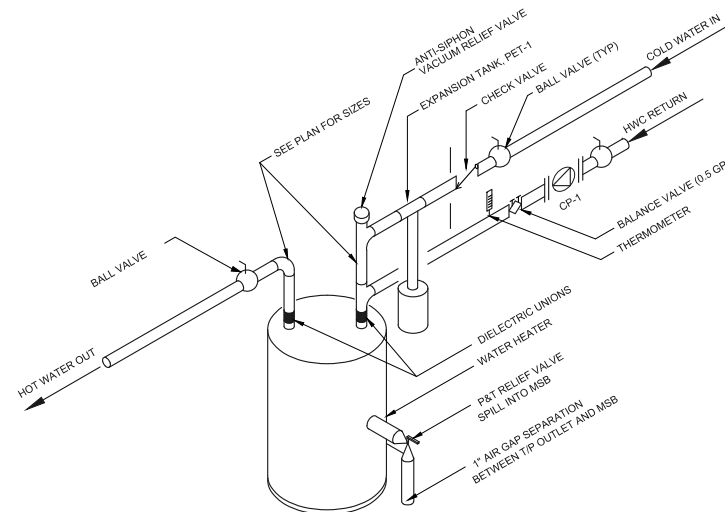
- 1" MAIN WATER LINE TO ENTER AT THIS APPROXIMATE LOCATION. REDUCED PRESSURE BACKFLOW PREVENTER LOCATION IS APPROXIMATE.
- PROVIDE NEW ELECTRIC WATER HEATER, WITH NEW EXPANSION TANK AND HW CIRCULATION PUMP. INSTALL AS CLOSE TO FIXTURES AS POSSIBLE.
- 4" WASTE, 2" VENT, 1" CW TO WATER CLOSET.
- 2" WASTE, 1-1/2" VENT, 1/2" CW, 1/2" HW, AND 1/2" HWC TO LAVATORY.
- 3" WASTE, 2" VENT, 1/2" CW, 1/2" HW TO MOP SERVICE BASIN.
- 3" WASTE, 2" VENT, 1/2" CW, 1/2" HW TO BREAK ROOM SINK.
- 2" WASTE, 1-1/2" VENT, 1/2" CW, TO ELECTRIC WATER COOLER.
- 4" WASTE LINE TO EXIT BUILDING HERE.
- 3" VTR AT THIS LOCATION FOR ALL FIXTURES.
- 3/4" CW TO ELECTRIC WATER HEATER.
- 1" MAIN WATER LINE RUN UNDER BUILDING AT REQUIRED FROST DEPTH.
- 3" WASTE, 2" VENT TO FLOOR DRAIN.
- HEAT TRACE AND INSULATION FOR UNDERGROUND AND UNDERFLOOR PIPE. SEE DETAIL.
- PROVIDE AND INSTALL FILL VALVE FOR EVAPORATIVE COOLING UNITS. 1/2" CW LINE SHALL BE SLOPED TOWARDS UNITS DOWNSTREAM OF VALVE. FILL VALVE TO BE CLOSED AND DRAIN VALVES AT UNITS OPEN DURING WINTER.
- 1/2" CW LINE CONTINUES TO EVAPORATIVE COOLING UNITS.
- VENT FOR FLOOR DRAIN TO BE WITHIN 8'-0" OF DRAIN AND RISE VERTICAL IN WALL.
- PROVIDE 2" DRAIN LINE, WITH PROPER AIR GAP, FROM BACKFLOW PREVENTER TO MOP SERVICE BASIN.



**3**  
P10 **WATER LINE BUILDING ENTRY DETAIL**  
SCALE: NTS



**4**  
P10 **WASTE AND VENT ISOMETRIC**  
SCALE: NTS



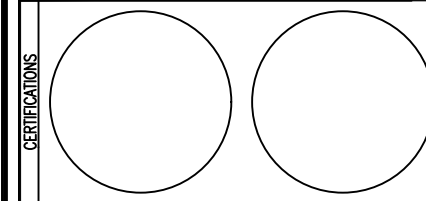
**5**  
P10 **WATER HEATER INSTALLATION DETAIL**  
SCALE: NTS

**CITY AND COUNTY OF DENVER**  
DEPARTMENT OF PUBLIC WORKS  
Brad Eckert Mountain Parks Manager  
201 W. Colfax Ave, 5th Floor, Denver, CO 80202  
Public Works | City and County of Denver  
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(303) 278-4378  
FAX (303) 278-0521  
Principal: Nannon Adair Anderson  
FAIA, LEED AP  
Nan.Anderson@andarch.com

**360**  
Three Sixty Engineering, Inc.  
1000 Jackson St. Suite 3000, Denver, CO 80202  
303.943.3030



MARK	DATE	DESCRIPTION
	09.05.2017	100%CD FOR PERMIT & CONSTR
1	12/15/17	BUILDING DEPT. COMMENTS

REVISION	SCALE

A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	--
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	
CONSTR. CON.	
NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO ZIP 80465
BUILDING NO.	1
OTHER BUILDING NOS.	
FACILITY CODE	

PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	PROJMSTR-0000473
CCD PM	BRAD ECKERT
SUBMISSION	BUILDING DEPARTMENT COMMENTS REVISION
SUB. DATE	12.15.2017
DRAWING TITLE	PLUMBING FLOOR PLAN
FILE NAME	
FLOOR NO.	1
DRAWN BY	RND DATE DRAFTED:
CHECKED BY	TJR SHEET SIZE: 22 X 34
DRAWING NO.	P 1 0
	DISCIPLINE SHEET TYPE SEQUENCE
	SHEET 27 OF 32



LIGHTING FIXTURE SCHEDULE													
TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	VOLTAGE	LAMP			LUMEN OUTPUT	DIMMING UTILIZED	MAX WATTS	MOUNTING LOCATION	INFORMATION BOF/RFD/OFH	NOTES
					QTY	WATT	TYPE						
DI	3.5" DIA. LED DOWNLIGHT	FOCAL POINT	FLC3D-RO-400L-120-L11-C	120	1	10	LED 900 LM 3500K	0-10V 1% DIM	10	RECESSED CEILING	2-3/8" RFD	2	
ENIEM	EXTERIOR WALL PACK, EMERGENCY BATTERY BACKUP	LITHONIA	LC3-RO-400L-435K-DNS-WFL-xx-xx	120	1	25	LED 3271 LM 3000K TO CRI	--	25	SURFACE WALL	8'-0" BOF	1,2	
S1	2' LED SURFACE MOUNT	LITHONIA	WL2-12L-EZ1-LP835-xx	120	1	12	LED 1244 LM 82 CRI	--	12	SURFACE CEILING	3-11/16" OFH	2	
S2	4' LED SURFACE MOUNT	LITHONIA	WL4-20L-EZ1-LP835-xx	120	1	14	LED 2152 LM 82 CRI	--	14	SURFACE CEILING	3-11/16" OFH	2	
S3	4' LED SURFACE MOUNT	LEDALITE	2411-L-B-5-G-N-04-I-1-E-xx	120	1	15	LED 1493 LM 82 CRI	0-10V 1% DIM	15	RECESSED CEILING	5" OFH	2	
UI	20" LED UNDER-CABINET INTEGRATED ON/OFF SWITCH	PHILIPS	523-000068-04-xx	120	1	4	LED 381 LM 3500K	--	4	SURFACE WALL	1.7" OFH	2	
WI	2' LED VANITY WALL MOUNT	LITHONIA	WL2-12L-EZ1-LP835-xx	120	1	12	LED 1244 LM 82 CRI	--	12	SURFACE CEILING	3-11/16" OFH	1,2	
X1	SINGLE SIDED EDGE LIT EXIT SIGN, GREEN	LITHONIA	EDG-x-1-6	120	1	3	LED --	--	3	SURFACE CEILING	12-1/8" OFH	1,2	
Y1	WALL-MOUNTED LED FROG EYE, EMERGENCY BATTERY BACKUP	LITHONIA	ELM6-LED-x-LP03V5	120	1	12	LED --	--	12	SURFACE WALL	3-3/4" WFD	1,2	

ABBREVIATIONS: BOF - BOTTOM OF FIXTURE, RFD - RECESSED FIXTURE DEPTH, OFH - OVERALL FIXTURE HEIGHT, AFF(AG) - ABOVE FINISHED FLOOR (GRADE), WFD - WALL FIXTURE DEPTH

GENERAL NOTES:

- ALL FLUORESCENT AND LED LAMPS TO BE 3500K COLOR TEMPERATURE AND A MINIMUM OF 82CRI, UNLESS NOTED OTHERWISE.
- ALL REFLECTOR LAMPS TO BE PROVIDED AS WIDE FLOOD DISTRIBUTION, UNLESS NOTED OTHERWISE.
- ALL FLUORESCENT LUMINAIRES THAT UTILIZE DOUBLE-ENDED LAMPS AND CONTAIN BALLASTS THAT CAN BE SERVICED IN PLACE SHALL HAVE A DISCONNECTING MEANS AS DESCRIBED IN NEC 410.130(G).
- PROVIDE LUMINAIRES SHOWN AS SHADED WITH EMERGENCY BATTERY BALLASTS, UNLESS OTHERWISE NOTED. EMERGENCY LUMINAIRES SHALL SENSE UN-SWITCHED POWER TO THE SPACE AND OPERATE AUTOMATICALLY UPON LOSS OF NORMAL POWER. ALL SHADED LUMINAIRES WITH 2FT AND 4FT LAMPS SHALL HAVE ONE (1) 90 MINUTE RATED, TWO LAMP, 1400 LUMEN EMERGENCY BALLAST. ALL SHADED LUMINAIRES WITH COMPACT FLUORESCENT LAMPS SHALL HAVE A FACTORY INSTALLED 90 MINUTE EMERGENCY BALLAST. ALL EMERGENCY LUMINAIRES SHALL HAVE REMOTE TEST SWITCHES AND VISIBLE INDICATING LIGHTS. CONNECT THE EMERGENCY BATTERY BALLAST TO THE UN-SWITCHED LEG OF THE LIGHTING CIRCUIT INDICATED.

SPECIFIC NOTES:

- CONFIRM MOUNTING HEIGHT WITH OWNER/ARCHITECT.
- CONFIRM FIXTURE FINISH/COLOR WITH OWNER/ARCHITECT.

KEYNOTE LEGEND	
KEY VALUE	DESCRIPTION
1.	EC TO REMOVE EXISTING PANEL 1LB5' ON BUILDING INTERIOR ALONG WITH ASSOCIATED FEEDERS BACK TO IN-GROUND PULL-BOX AS INDICATED ON PLAN AND RELINQUISH TO OWNER. EC SHALL INTERCEPT EXISTING UNDERGROUND 2" CONDUIT AT LOCATION INDICATED ON PLAN AND EXTEND TO NEW PANEL 'A1' IN ORDER TO PULL NEW 3/8"Ø, #149 ALUMINUM FEEDERS. EC SHALL PROVIDE AND INSTALL NEW 240/120V, 125A/2P, NEMA 3R, 60-CIRCUIT, 1-SECTION PANEL 'A1' ON EXTERIOR OF BUILDING AS INDICATED ON PLAN.
2.	EC SHALL MOUNT 3/4" PLYWOOD 'MTTB' BACKBOARD ON WALLS INDICATED ON PLAN FOR I.T. ROOM 106. COORDINATE FINAL FINISH COLOR WITH OWNER/ARCHITECT.
3.	FLOORBOX TO BE HUBBELL'S SYSTEM WOOD-FLOORBOX STYLE #MB2650 WITH (1) #26AFBCV/RXXX COVER (EC SHALL VERIFY FINISH COLOR AND FLOOR FINISH TYPE WITH ARCHITECT). EC SHALL ALSO VERIFY POWER AND LOW-VOLTAGE DEVICE COVER-PLATES FOR FLOORBOX INTERIOR WITH ARCHITECT. PROVIDE (1) 3/4" CONDUIT FOR POWER AND (1) 1-1/2" CONDUIT FOR LOW-VOLTAGE CABLING. COORDINATE AND CONFIRM SPECIFICATIONS WITH OWNER/ARCHITECT PRIOR TO PURCHASE AND INSTALLATION.
4.	WALL-MOUNTED TV LOCATION. EC SHALL COORDINATE FINAL DEVICE HEIGHT AND POWER/DATA REQUIREMENTS WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
5.	APPROXIMATE LOCATION OF EXISTING TELEPHONE POLE. PROVIDE CONDUIT FROM TELEPHONE POLE TO I.T. ROOM 106. SEE 2/E2.00 FOR MORE INFORMATION.

GENERAL NOTES

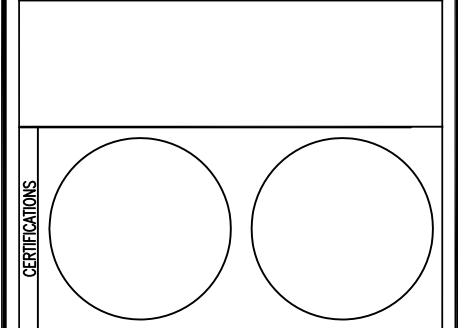
- ALL EXISTING LIGHTING FIXTURES AND RECEPTACLES SHALL BE REMOVED AND RELINQUISHED TO OWNER.
- ALL EXIT SIGNS AND EMERGENCY EGRESS LIGHTING UNITS SHALL BE CIRCUITED TO LOCAL AREA LIGHTING, AHEAD OF LOCAL SWITCHING.
- ITEMS SHOWN IN 'DARK' LINE-WEIGHT ARE NEW CONSTRUCTION.
- ITEMS SHOWN IN 'LIGHT' LINE-WEIGHT ARE EXISTING.
- EQUIPMENT DESIGNATIONS:
  - (N) NEW CONSTRUCTION
  - (E) EXISTING TO REMAIN
  - (R) EXISTING TO BE REMOVED
- ALL INTERIOR AND EXTERIOR LIGHTING FIXTURES SHALL BE CIRCUITED TO CIRCUIT 'A1-1' VIA LIGHTING CONTROL PANEL 'LCP'.

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Brad Eckert Mountain Parks Manager  
201 W. Colfax Ave. 5th Floor, Denver, CO 80202  
Public Works | City and County of Denver  
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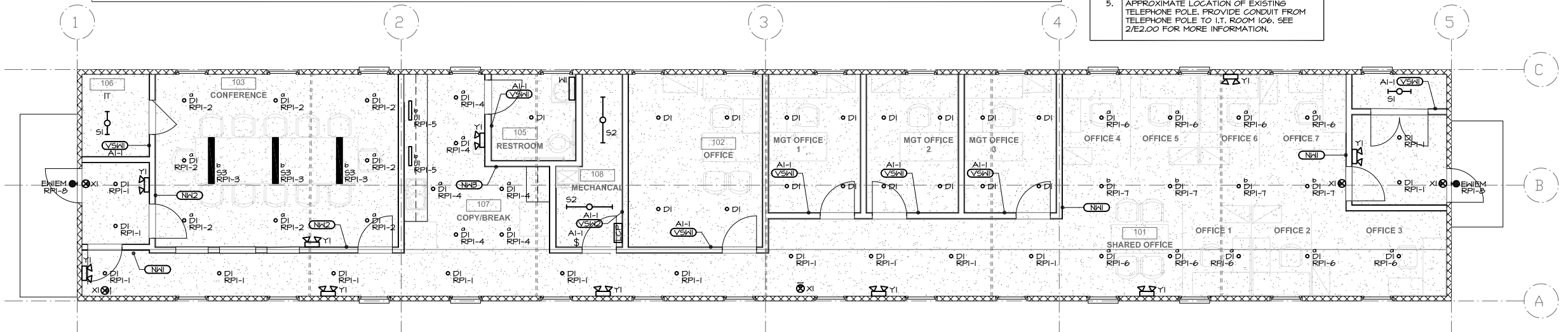


CERTIFICATIONS

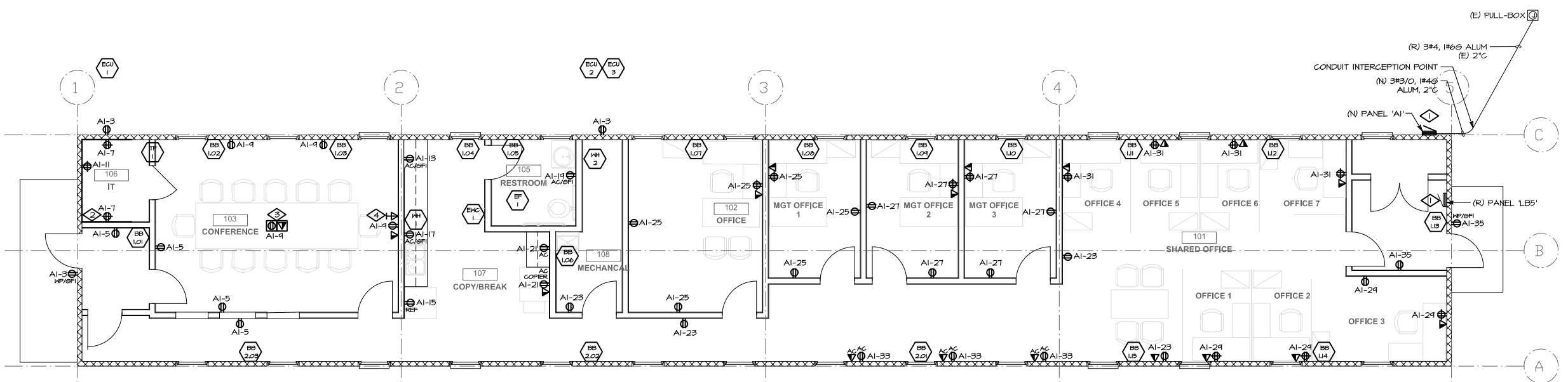
KEY PLAN

MARK	DATE	DESCRIPTION

A/E CON. NO.	201520446
A/E TASK NO.	05
CONS. CONTR.	--
CONS. WORK	
PRIME A/E	ANDERSON HALLAS ARCHITECTS, PC
SUB A/E	
CONSTR. CON.	
NAME	MOUNT MORRISON
STREET	300 UNION AVENUE
CITY/ST./ZIP	MORRISON, CO ZIP 804065
BUILDING NO.	1
OTHER BUILDING NOS.	
FACILITY CODE	
PROJECT TITLE	RED ROCKS PARK CCC CAMP BUILDING 1 REHABILITATION
PROJECT DESCRIPTION	DENVER MOUNTAIN PARKS RED ROCKS PARK
PROJECT NO.	--
CCD PM	BRAD ECKERT
SUBMISSION	100% CDs FOR PERMIT & CONSTRUCTION
SUB. DATE	09.05.2017
DRAWING TITLE	ELECTRICAL POWER & LIGHTING PLAN
FILE NAME	
FLOOR NO.	
DRAWN BY	CNL/KMD DATE DRAFTED: 09.01.2017
CHECKED BY	BJW SHEET SIZE: 22 X 34
DRAWING NO.	E 1 00
DISCIPLINE	SHEET TYPE SEQUENCE
SHEET	29 OF 32



2 | ELECTRICAL LIGHTING PLAN  
E1.00 SCALE: 3/16" = 1'-0"



1 | ELECTRICAL POWER PLAN  
E1.00 SCALE: 3/16" = 1'-0"





