To access the Agenda and Backup Materials electronically, go to www.gjcity.org

CITY OF Grand Junction COLORADO

CITY COUNCIL AGENDA
WEDNESDAY, MAY 5, 2021
250 NORTH 5TH STREET
VIRTUAL MEETING - LIVE STREAMED
BROADCAST ON CABLE CHANNEL 191

5:20 PM – PRE-MEETING
5:30 PM – REGULAR MEETING

Call to Order, Pledge of Allegiance, Moment of Silence

Citizen Comments

Individuals may comment regarding items scheduled on the Consent Agenda and items not specifically scheduled on the agenda. This time may be used to address City Council about items that were discussed at a previous City Council Workshop.

Citizens have four options for providing Citizen Comments: 1) in person during the meeting, 2) Virtually during the meeting (registration required), 3) via phone by leaving a message at 970-244-1504 until noon on May 5, 2021, or 4) submitting comments online until noon on May 5, 2021 by completing this form. Please reference the agenda item and all comments will be forwarded to City Council.

Proclamations

Proclaiming May 2 - 8, 2021 as Drinking Water Week in the City of Grand Junction

Proclaiming May 9 - 15, 2021 as Police Week in the City of Grand Junction

Appointments

Election of Council President/Ex-Officio Mayor and Council President Pro Tem/Ex-Officio Mayor Pro Tem

To the Parks and Recreation Advisory Board

To the Zoning Board of Appeals/Planning Commission

To the Urban Trails Committee

City Manager Report

Council Reports

CONSENT AGENDA

The Consent Agenda includes items that are considered routine and will be approved by a single motion. Items on the Consent Agenda will not be discussed by City Council, unless an item is removed for individual consideration.

1. Approval of Minutes

a. Minutes of the April 19, 2021 Executive Session

b. Minutes of the April 21, 2021 Regular Meeting

2. Set Public Hearings

All ordinances require two readings. The first reading is the introduction of an ordinance and generally not discussed by City Council. Those are listed in Section 2 of the agenda. The second reading of the ordinance is a Public Hearing where public comment is taken. Those are listed below.

a. Legislative

i. Introduction of an Ordinance to Amend and Extend Ordinance 4967 Amending the Grand Junction Municipal Code Regarding Neighborhood Meetings and to Allow for Alternative Hearing Procedures for Land Use Applications and Setting a Public Hearing for May 19, 2021

b. Quasi-judicial

i. A Resolution Referring a Petition to the City Council for the Annexation of Lands to the City of Grand Junction, Colorado, Setting a Hearing on Such Annexation, Exercising Land Use Control, and Introducing Proposed Annexation Ordinance for the Blue Mesa Estates Annexation of 13.33 Acres, Located at 3085 D ½ Road, and Setting a Public Hearing for June 16, 2021

ii. A Resolution Referring a Petition to the City Council for the Annexation of Lands to the City of Grand Junction, Colorado, Setting a Hearing on Such Annexation, Exercising Land Use Control, and Introducing Proposed Annexation Ordinance for the Reed Annexation of 0.73 Acres, Located at 2733 B ¼ Road, and Setting a Public Hearing for June 16, 2021

3. Contracts

a. Contract Approval for Trucking for Chip Seal Road Oil

b. Contract Approval for Chip Seal Road Oil - 2021

4. Resolutions

a. A Resolution Authorizing the City Manager to Submit a Grant Application for the Revitalizing Main Streets Grant Program

b. A Resolution Authorizing the City Manager to Accept Airport Authority Grant Offer No. 67

c. A Resolution Authorizing the City Manager to Accept Airport Authority Grant Offer No. 68

REGULAR AGENDA

If any item is removed from the Consent Agenda by City Council, it will be considered here.

5. Public Hearings

a. Quasi-judicial

i. An Ordinance Rezoning the Northern 21.53 Acres of a 43.31 Acre Parcel from an I-1 (Light Industrial) to a R-5 (Residential - 5 du/ac) Zone District, Located at 853 21 ½ Road

6. Contracts

a. Award of Contract for Fire Station #3 Construction

7. Non-Scheduled Citizens & Visitors

This is the opportunity for individuals to speak to City Council about items on tonight's agenda and time may be used to address City Council about items that were discussed at a previous City Council Workshop.

8. Other Business

9. Adjournment



City of Grand Junction, State of Colorado

Proclamation

Whereas, water is our most valuable natural resource; and

Whereas, only tap water delivers public health protection, fire protection, support for our economy and the quality of life we enjoy; and

Whereas, any measure of a successful society – low mortality rates, economic growth and diversity, productivity, and public safety – are in some way related to access to safe water; and

Whereas, we are all stewards of the water infrastructure upon which future generations depend; and

Whereas, each citizen of our city is called upon to help protect our source waters from pollution, to practice water conservation, and to get involved in local water issues by getting to know their water.

NOW, THEREFORE, I, C. B. McDaniel, by the power vested in me as Mayor of the City of Grand Junction, do hereby proclaim May 2 - 8, 2021 as

"Drinking Water Week"

in the City of Grand Junction and encourage our community to practice water conservation.

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the official Seal of the City of Grand Junction this 5th day of May 2021.

C. B. McD

Mayor

City of Grand Junction, State of Colorado

Proclamation

Whereas, there are more than 900,000 law enforcement officers serving in communities across the United States, including the dedicated members of our local law enforcement agencies, to include the Mesa County Sheriff's Office, the Grand Junction Police Department, the Palisade Police Department, the Fruita Police Department, Collbran Marshal's Office, De Beque Marshal's Office, and the Colorado State Patrol; and

Whereas, approximately 58,000 assaults against law enforcement officers are reported on average each year, resulting in more than 18,000 injuries; and

Whereas, since the first recorded death in 1786, more than 22,000 law enforcement officers in the United States have made the ultimate sacrifice and been killed in the line of duty, including three from local law enforcement agencies. Deputy Edward Innes was killed on September 27, 1906, during an inmate jail escape. Fruita Police Department lost Acting Chief Dan Dalley in June 2001. Most recently, Deputy Derek Geer, of the Mesa County Sheriff's Office, died after being shot by an armed suspect in February of 2016; and

Whereas, the names of these dedicated public servants are engraved on the walls of the National Law Enforcement Officers Memorial in Washington, D.C.; and

Whereas, 360 officers were killed in the line of duty in 2020, three of whom were fallen Colorado heroes: Detective Curt M. Holland, of the Commerce City Police Department, Ranger Brendan P. Unitt of Larimer County Department of Natural Resources, and Deputy Sheriff Jeffrey C. Hopkins of El Paso County Sheriff's Office. Their names will be added to the National Law Enforcement Officers Memorial located in Washington, D.C., this year; and

Whereas, May 15 is designated as Peace Officers Memorial Day and the week of May 9 through May 15, 2021, is National Police Week.

NOW, THEREFORE, I, C.B. McDaniel, by the power vested in me as Mayor of the City of Grand Junction, do hereby proclaim May 9 - 15, 2021 as

"Police Week"

in the City of Grand Junction, and publicly salute the service of law enforcement officers in our community and in communities across the nation.

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the official Seal of the City of Grand Junction this 5th day of May 2021.

C.B. McDaniel

Mayor

Grand Junction City Council

Regular Session

Item #

Meeting Date: May 5, 2021

Presented By: City Council

Department: City Manager's Office

Submitted By: John Shaver, City Attorney, and Wanda Winkelmann, City Clerk

Information

SUBJECT:

Election of Council President/Ex-Officio Mayor and Council President Pro Tem/Ex-Officio Mayor Pro Tem

RECOMMENDATION:

Nominate and elect a Council President/Ex-Officio Mayor and a Council President Pro Tem/Ex-Officio Mayor Pro Tem.

EXECUTIVE SUMMARY:

The Charter sets forth the process for selecting a President of the Council and a President of the Council Pro Tem. Article V, Section 39 provides that during the first regular City Council Meeting in May of each year, a Council President/Ex-Officio Mayor and Council President Pro Tem/Ex-Officio Mayor Pro Tem are nominated and voted on to fulfill the obligations of those duties through April of the following year.

BACKGROUND OR DETAILED INFORMATION:

Article V (President of the Council), Section 39 (Term-Duties) of the Grand Junction Municipal Charter states that "each Council, at its first regular meeting and thereafter when a vacancy occurs, shall elect from its membership a president of the council. He shall serve for a term of one year and until his successor is elected and qualified. During such term he shall be a member of the council with the same right to speak and vote therein as any other member, but without the right of veto. He shall be recognized as the official head of the city for all ceremonial purposes, by the courts for the purpose of serving civil process, and by the governor for military purposes. In case of his absence or disability, his duties shall be performed by a president pro tempore,

chosen by the council from among its own members."

Paragraph 39 specifies that the Council "elects" a president; historically the Council has also elected a president *pro tempore* on the same date. The process for those elections has been the same for president and president *pro tempore* with the Council generally establishing the procedure with each election.

By law, secret ballots are not allowed, as such all of the election proceedings, other than the City Clerk's written tallies, are spoken. The City Clerk will report her tallies as part of the selection process and will keep those in her records. Of course you may during the process ask for assistance from the City Clerk and/or City Attorney; Nominations and seconds are required; self-nominations are allowed. Typically, a short statement is made by each member making a nomination and by the nominee when accepting a nomination. A nominee may decline a nomination and withdraw her/his name either at the time of nomination or later (but preferably before being elected). The president of the council is chosen first but Council may order the process as a majority determines. After discussion, the sitting Mayor begins the process by announcing that the nominations are open and will be entertained. At the conclusion of the nominations and seconds, a motion to close nominations should be made, seconded and voted on before the voting begins.

It may be that there are multiple nominations and multiple rounds of voting. If that happens the nominees with the highest number of votes (without achieving a majority of four) have been advanced to subsequent rounds of voting. Typically, the Council has required at least three votes to advance but in the event of two nominees receiving two votes a "run-off" is held between those nominees with the highest number of votes advancing to a ballot with the nominee previously receiving 3 votes.

Votes from round to round are non-binding.

The same process is used for president and president *pro tempore*.

With the exception of the law specifying no secret ballots, the Council may establish the selection process as a majority prefers.

FISCAL IMPACT:

N/A

SUGGESTED MOTION:

Nominations can be entertained by the President of the Council. Nominations that are seconded will be voted upon voice vote; no secret ballots are allowed. Detailed procedures are described above.

Attachments

None

Grand Junction City Council

Regular Session

Item #

Meeting Date: May 5, 2021

Presented By: Wanda Winkelmann, City Clerk

Department: City Clerk

Submitted By: Kerry Graves

Information

SUBJECT:

To the Parks and Recreation Advisory Board

RECOMMENDATION:

To reappoint and appoint the interview committee's recommendation to the Parks and Recreation Advisory Board.

EXECUTIVE SUMMARY:

There are two full-term and one partial-term vacancy on the Parks and Recreation Advisory Board.

BACKGROUND OR DETAILED INFORMATION:

Mark Litzen and Gary Schroen have terms expiring June 30, 2021. Nick Allen resigned effective July 1, 2020. Applications were received from Bennet Boeschenstein, Betsy DiSanza, Kyle Gardner, Kelsey Glatt, Kim Herek, Cindy Enos-Martinez, Gary Schroen and Michelle Vion.

Full term appointments are 3 years.

FISCAL IMPACT:

N/A

SUGGESTED MOTION:

I move to (reappoint/not reappoint) and to (appoint/not appoint) the interview committee's recommendation to the Parks and Recreation Advisory Board.

Attachments

None

Grand Junction City Council

Regular Session

Item #

Meeting Date: May 5, 2021

Presented By: Wanda Winkelmann, City Clerk

Department: City Clerk

Submitted By: Kerry Graves

Information

SUBJECT:

To the Zoning Board of Appeals/Planning Commission

RECOMMENDATION:

To appoint the interview committee's recommendation to the Zoning Board of Appeals/Planning Commission.

EXECUTIVE SUMMARY:

There is one vacancy on the Zoning Board of Appeals/Planning Commission.

BACKGROUND OR DETAILED INFORMATION:

Kim Kerk resigned effective March 4, 2021. Sam Susuras resigned effective April 29, 2021.

FISCAL IMPACT:

N/A

SUGGESTED MOTION:

I move to (appoint/not appoint) the interview committee's recommendation to the Zoning Board of Appeals/Planning Commission.

Attachments

None

Grand Junction City Council

Regular Session

Item #

Meeting Date: May 5, 2021

Presented By: Wanda Winkelmann, City Clerk

Department: City Clerk

Submitted By: Kerry Graves

Information

SUBJECT:

To the Urban Trails Committee

RECOMMENDATION:

To appoint the interview committee's recommended members.

EXECUTIVE SUMMARY:

There are two vacancies on the Urban Trails Committee.

BACKGROUND OR DETAILED INFORMATION:

David Lemann's term expires June 30, 2021 and is term limited. Incumbent Bob Doyle resigned effective January 27, 2021.

Applications were received from Ellynne Bannon, Valerie Dobbs, Athena Fouts, Tina Moore and Valencia Page.

Full term appointments are three years.

FISCAL IMPACT:

N/A

SUGGESTED MOTION:

I move to (appoint/not appoint) the interview committee's recommendation to the Urban Trails Committee.

Attachments

None

GRAND JUNCTION CITY COUNCIL

SPECIAL SESSION MINUTES

April 19, 2021

The City Council of the City of Grand Junction, Colorado met in Special Session on Monday, April 19, 2021 at 5:00 p.m. in the 1st Floor Breakroom, City Hall, 250 North 5th Street. Those present were Councilmembers Kraig Andrews, Chuck McDaniel, Phyllis Norris, Phil Pe'a, Anna Stout, Rick Taggart, and Mayor Duke Wortmann.

Staff present for the Executive Session were City Manager Greg Caton, City Attorney John Shaver, Parks and Recreation Director Ken Sherbenou, Finance Director Jodi Welch, General Services Director Jay Valentine, and

Executive Session

Councilmember Andrews moved to go into Executive Session:

EXECUTIVE SESSION TO DISCUSS MATTERS THAT MAY BE SUBJECT TO NEGOTIATIONS, DEVELOPING STRATEGY FOR NEGOTIATIONS, AND/OR INSTRUCTING NEGOTIATORS PURSUANT TO C.R.S. SECTIONS 24-6-402 (4)(e)(I) AND 24-6-402 (4)(a) OF COLORADO'S OPEN MEETINGS LAW RELATIVE TO A POSSIBLE PURCHASE OF REAL PROPERTY LOCATED AT 2515 RIVERSIDE PARKWAY, GRAND JUNCTION, COLORADO

Councilmember Taggart seconded the motion. Motion carried unanimously.

The City Council convened into Executive Session at 5:05 p.m.

Councilmember Andrews moved to adjourn. Councilmember Pe'a seconded. Motion carried unanimously.

The meeting adjourned at 6:05 p.m.

Wanda Winkelmann
City Clerk

GRAND JUNCTION CITY COUNCIL
MINUTES OF THE REGULAR MEETING

April 21, 2021

Call to Order, Pledge of Allegiance, Moment of Silence

The City Council of the City of Grand Junction convened into regular session on the 21st day of April 2021 at 5:30 p.m. Those present were Councilmembers Kraig Andrews, Chuck McDaniel, Phyllis Norris, Phillip Pe'a, Anna Stout, Rick Taggart and Council President Duke Wortmann.

Also present were City Manager Greg Caton, City Attorney John Shaver, City Clerk Wanda Winkelmann and Deputy City Clerk Janet Harrell.

Council President Wortmann called the meeting to order and Councilmember Norris led the Pledge of Allegiance which was followed by a moment of silence.

Citizen Comments

The following spoke in favor of the City purchasing Glacier Ice Arena: Debra Williams, Chris Birdsong, John Talbert, Tim Winegard, Blake Cloutier, and Walter Fox.

Robbie Koos thanked the City for its interest in the ice arena and for offering to provide a backup contract, but declined to pursue a backup contract at this time, preferring to concentrate efforts on the existing contract to purchase.

Councilmember Stout thanked Robbie and Alan Koos for their work with Glacier Ice Arena and said she appreciated the show of community support.

Presentations

Final Certification of Election Results

City Clerk Wanda Winkelmann presented final certification of election results.

Recognition of Outgoing Councilmembers

Councilmember McDaniel presented outgoing Council President Wortmann with a plaque of appreciation. Council President Wortmann spoke about accomplishments during his term and thanked the community and staff.

Parks and Recreation Director Ken Sherbenou recognized outgoing Councilmembers

Kraig Andrews, Phyllis Norris and Duke Wortmann. He then displayed the benches and markers to be placed at Las Colonias Park in appreciation of their service to the City of Grand Junction.

City Manager Caton thanked the outgoing councilmembers for their leadership and achievements.

Proclamations

Proclaiming April 24, 2021 as Arbor Day in City of Grand Junction

Councilmember Stout read the proclamation. Forestry Board President Susan Carter accepted the proclamation.

Proclaiming May 2021 and May 5, 2021 as Bike Month and Bike to Work and School Day in the City of Grand Junction

Councilmember Taggart read the proclamation. Urban Trails Committee Chair Shana Wade accepted the proclamation.

Appointments

To the Historic Preservation Board

Councilmember Pe'a moved to appoint Vida Jaber to the Historic Preservation Board for a four-year term ending December 2024. Councilmember Norris seconded the motion. Motion carried by unanimous voice vote.

City Manager Report

City Manager Caton thanked City staff and local contractors for their work on the Spring Cleanup project and noted it was completed in only nine days.

Council Reports

Councilmember Taggart thanked Colorado Attorney General Philip Weiser for hosting a tour and meeting for himself and Councilmember Stout. He also attended a One Riverfront meeting that covered updating their strategic plan and how they will continue the life jacket program.

Councilmember Stout noted AG Weiser said opioid specific funding will become available to the community and encouraged impactful allocations. She also attended the Colorado Municipal League (CML) Policy Committee meeting where CML policy

positions were discussed. Councilmember Stout then recognized students Ellie King and Giorgio Weissmuller.

Councilmember Andrews attended a Persigo Committee meeting with Councilmember McDaniel and was encouraged by the progress. He also went to a Colorado Mesa University Wayne Aspinall display.

Councilmember Pe'a attended a Visit Grand Junction meeting.

Councilmember McDaniel agreed with Councilmember Andrews regarding the Persigo Committee meeting and noted Commissioner Cody Davis is the County representative.

Councilmember Norris noted this was the last regular meeting during her term and thanked the citizens of Grand Junction for electing her and staff for their help.

CONSENT AGENDA

Councilmember Andrews moved to adopt Consent Agenda items 1 - 3. Councilmember Pe'a seconded the motion. Motion carried by unanimous voice vote.

1. **Approval of Minutes**

   a. Minutes of the April 7, 2021 Regular Meeting

2. **Set Public Hearings**

   a. Quasi-judicial

      i. Introduction of an Ordinance Rezoning the Northern 21.53 Acres Portion of a Property from an I-1 (Light Industrial) to an R-5 (Residential - 5 du/ac) Zone District, Located at 853 21½ Road and Setting a Public Hearing for May 5, 2021

3. **Withdrawn Public Hearings**

   a. Quasi-judicial

      i. An Ordinance to Amend Municipal Code Volume II: Development Regulations to Adopt Standards and Guidelines for Lincoln Park Residential Historic District as Title 30 and Amend Section 21.07.040 of the Zoning and Development Code pertaining to the Role of the Historic Preservation Board in Review of Alterations within the District **(ITEM WITHDRAWN)**

REGULAR AGENDA

An Ordinance Regarding the 2021 Compensation for the Municipal Judge, City Attorney and City Manager

The City Council has three employees that report to them, the Municipal Judge, City Attorney and City Manager. Pursuant to the City Charter, the salary of the City Manager is set by ordinance which serves to amend his employment agreement. The salary of the City Attorney and the compensation paid to the Municipal Judge are established annually by letter on terms established in the discretion of the City Council. In December 2020 the City Council approved a budget and appropriated funds to pay City employees a 2.5% wage increase for 2021. Because the City Council has determined that its employees are performing at or above expectations, with approval of this ordinance it will award a 2.5% increase to the Municipal Judge, City Attorney and City Manager.

Councilmembers Chuck McDaniel and Kraig Andrews presented this item.

Discussion included transitioning to a different evaluation system to include performance and professional development goals, using the Council Strategic Plan as a guide for employee goals, ensuring any changes are implemented at an appropriate time during the evaluation year and appreciation for their work.

The public hearing opened at 6:29 p.m.

There were no public comments.

The public hearing closed at 6:29 p.m.

Councilmember Pe'a moved to adopt Ordinance No. 4996, an ordinance concerning the salary of the Municipal Judge, City Attorney and City Manager on final passage and ordered final publication in pamphlet form. Councilmember Norris seconded the motion. Motion carried by unanimous roll call vote.

An Ordinance Amending Section 5.12.220 of the Grand Junction Municipal Code Reducing the Distance Brew Pub Liquor Licensed Premises must be from Any Parochial or Public School in the City of Grand Junction

The developer of the property at the northwest corner of 7th Street and North Avenue determined that a Brew Pub is the preferred use for the site. Earlier this year City Council reduced the distance for Hotel and Restaurant and Beer and Wine licenses from a school campus to 450 feet (from 500). The proposed ordinance will similarly reduce the distance for a Brew Pub license.

City Attorney John Shaver presented this item.

Discussion included State law requires a 500-foot distance from schools but also allows for local changes and anticipation was expressed to see a revitalization project in the area.

The public hearing opened at 6:39 p.m.

Applicant representative Sandra Weckerly spoke about the proposed project.

The public hearing closed at 6:43 p.m.

Councilmember Andrews moved to adopt Ordinance No. 4997, an ordinance amending Section 5.12.220 of the Grand Junction Municipal Code reducing the distance a Brew Pub liquor licensed premises must be (450') from any parochial or public school in the City of Grand Junction on final passage and ordered final publication in pamphlet form. Councilmember Pe'a seconded the motion. Motion carried by unanimous roll call vote.

An Ordinance Amending Title 21 of the Grand Junction Municipal Code to Modify and Clarify Various Provisions of the Zoning and Development Code

The Community Development Director proposed amendments to sections of the Grand Junction Municipal Code Title 21 to modify and clarify various provisions of the Zoning and Development Code. The amendments address a variety of items identified by staff and members of the development community as being unclear, conflicting or a desired modernization of the Code.

Principal Planner Kristen Ashbeck presented this item.

The public hearing opened at 6:56 p.m.

There were no public comments.

The public hearing closed at 6:56 p.m.

Councilmember Norris moved to adopt Ordinance No. 4998, an ordinance to amend Title 21 of the Grand Junction Municipal Code to modify and clarify various regulations of the Zoning and Development Code on final passage and ordered final publication in pamphlet form. Councilmember Pe'a seconded the motion. Motion carried by unanimous roll call vote.

A Resolution Adopting the Grand Junction Destination Brand, which includes "Where Life Leads" as a Destination Platform, Logo, Fonts and Place DNA™ Direction

Visit Grand Junction partnered with Destination Think to assist in developing a destination brand for Grand Junction by providing various opportunities for community input. At the February 1, 2021 Council Workshop, Destination Think shared the creative brand strategy recommendation with City Council that included resident insights and opinions which were important components of the brand.

Visit Grand Junction Director Elizabeth Fogarty presented this item.

Discussion included appreciation and excitement about the new branding, and when it will be implemented locally and externally.

Public comment opened at 7:14 p.m.

There were no public comments.

Public comment closed at 7:14 p.m.

Councilmember Andrews moved to adopt Resolution No. 36-21, a resolution adopting "Where Life Leads" a destination brand and unique identification for Grand Junction, Colorado. Councilmember Stout seconded the motion. Motion carried by unanimous roll call vote.

A Resolution Authorizing a City Council Acting President Pro Tem

The term of office for both the current mayor and mayor pro tem will end May 3, 2021, therefore appointment of an acting mayor pro tem is necessary. The Charter provides the mayor pro tem shall perform the duties of mayor when the mayor is absent.

City Attorney John Shaver presented this item.

Public comment opened at 7:17 p.m.

There were no public comments.

Public comment closed at 7:17 p.m.

Councilmember Stout moved to adopt Resolution No. 37-21, a resolution appointing Chuck McDaniel as acting President Pro tempore of the City Council. Council President Wortmann seconded the motion. Motion carried by unanimous roll call vote with

Councilmember McDaniel abstaining.

Non-Scheduled Citizens & Visitors

There were none.

Other Business

Councilmember McDaniel spoke about the upcoming Strategic Plan which City Council updates every two years and suggested forming a committee to interview and recommend a consultant.

Councilmember McDaniel moved for City Council to appoint Councilmember Rick Taggart and Councilmember Elect Randall Reitz to serve as a review committee for a Strategic Plan Consultant and provide a recommendation to the full Council. Councilmember Stout seconded the motion. Motion carried by unanimous voice vote.

Adjournment

The meeting adjourned at 7:22 p.m.

_____
Wanda Winkelmann, MMC
City Clerk

Grand Junction City Council

Regular Session

Item #2.a.i.

Meeting Date: May 5, 2021

Presented By: John Shaver, City Attorney, Tamra Allen, Community Development Director

Department: City Attorney

Submitted By: Tamra Allen, Community Development Director

Information

SUBJECT:

Introduction of an Ordinance to Amend and Extend Ordinance 4967 Amending the Grand Junction Municipal Code Regarding Neighborhood Meetings and to Allow for Alternative Hearing Procedures for Land Use Applications and Setting a Public Hearing for May 19, 2021

RECOMMENDATION:

Staff recommends setting the public hearing to consider adoption of the ordinance.

EXECUTIVE SUMMARY:

The purpose of this item is to amend and extend Ordinance 4923 Amending the Grand Junction Municipal Code Regarding Neighborhood Meetings and to Allow for Alternative Hearing Procedures for Land Use Applications for 90 days from the effective date of the proposed ordinance. This allows for 1) neighborhood meetings to be conducted virtually and 2) alternative hearing procedures.

BACKGROUND OR DETAILED INFORMATION:

On June 5, 2020 the Grand Junction City Council adopted Ordinance 4923 finding the existence of a special emergency and that as an emergency matter the Ordinance was necessary to ensure the preservation of the peace, public health, safety and general welfare by effectuating the Council's public purposes and policies, which are consistent with and supportive of those of the State of Colorado.

On December 2, 2020 the City Council adopted Ordinance No 4967 which extended

Ordinance No. 4923. Ordinance No. 4967 included a 180-day sunset provision which provides that it will expire on May 29, 2021.

When Ordinance 4923 was adopted it was in response and due to the incidence of COVID-19 in the general public. Ordinance 4923 followed a declaration of a Local Emergency, the designation of pandemic by the World Health Organization, Emergency Declarations by Governor Polis and President Trump, together with the various Public Health Orders (PHO's) issued by the Colorado Department of Public Health and Environment and Executive Orders (EO's) issued by Governor Polis, all of which established guidelines, policies and restrictions necessary for the health and safety of the residents of Colorado. Because of COVID-19 and the fact that the virus continues to spread, those actions, together with others, continue to be relevant and necessary actions must be taken to continue to attempt to limit the transmission of the virus.

In response to COVID in general, and specifically as provided in Ordinance 4923, certain City regulations have been temporarily implemented, amended and adjusted in order to respond to the emergency. Those temporary regulations included but were not limited to prescribing procedures for the conduct of City business and controlling the occupancy of certain premises while providing important opportunities for citizen engagement, dissemination of information, public participation and transparency. Related modifications of City business processes and procedures, included the amendment of the City Code to conduct City business remotely, and the development and implementation of techniques for citizens to view meetings and otherwise comment on agenda topics and for alternative public participation processes.

Ordinance 4967, which created many of those procedures, includes a sunset provision, which provides in relevant part that without further action by the City Council, the Ordinance will expire 90 days after the effective date thereof.

In order to continue to respond to the challenges presented by COVID, especially the ability for applicants to reserve and secure rooms for the holding of neighborhood meetings, the City Council, by and with this ordinance extends Ordinance 4967, the amendments made to the Code and the City's Alternative Hearing Procedure enacted therewith, for an additional 90 days.

FISCAL IMPACT:

There is no direct fiscal impact from this action.

SUGGESTED MOTION:

I move to introduce an ordinance to amend and extend Ordinance 4967 that amends the Grand Junction Municipal Code regarding neighborhood meetings and to allow for

alternative hearing procedures for land use applications and set a public hearing for May 19, 2021.

Attachments

1. Alternative Hearing Procedures vFinal
2. Ordinance No. 4923 - 2020
3. Ordinance No. 4967 - 2020
4. Ordinance - Alt. Land Use Procedures Draft

ALTERNATIVE HEARING PROCEDURES

The Grand Junction Municipal Code ("GJMC") provides certain processes and procedures for consideration of and/or approval of the Application; however, due to the COVID-19 pandemic the City Council declared an emergency and with that some City processes and/or procedures have been suspended or modified, including the Planning Commission and/or the City Council hearing procedures. As a result of those changes, Alternative Hearing Procedures ("Procedures") are being offered to provide for the conducting of public hearings during the pandemic by providing for decision-makers, applicants and public the ability to meaningfully participate in public hearing without exposing those persons or others to risks of contagion.

Both the Colorado Constitution and the Fourteenth Amendment to the United States Constitution prohibit the government from depriving any person of life, liberty, or property without due process of law. In *Sundance Hills Homeowners Association v Board of County Commissioners*, 188 Colo. 321, 534 P.2d 1212 (1975), the Colorado Supreme Court held that for a land use hearing the governing body must provide notice that minimally specifies the time, place, and subject matter of the public hearing, as well as the nature of the proposal being considered. In addition, the hearing must afford affected parties the opportunity to appear before the decision-making body and be heard.

The City's Procedures are drafted, enacted and will be applied in a manner that the City reasonably considers to comport with principles of Due Process and fundamental fairness; however, the City does not assure the Applicant that the Procedures and any decision made under these Procedures, may not be challenged and/or be found to violate Due Process/Constitutional rights.

The Planning Commission and City Council have also approved emergency policies to allow for members to participate and vote by telephone or electronic means by City Council Resolution 14-20 and Planning Commission Resolution 20-01 and at a meeting if the member is unable to physically attend the meeting(s) due to quarantine, illness or has concern of risk of exposure to the COVID-19.

The Alternative Hearing Procedures are set forth, as follows:

Planning Commission Procedures

1) Members of the public are provided a means by which view the meetings conducted pursuant to this Procedure through broadcast on channel 191, streaming on gjcity.org, or streaming on gjspeaks.org unless technical difficulties prohibit broadcasting and/or streaming.

2) Member of the public may offer comment on public hearing items in the following ways:

a) submit written comment in advance of the hearing to either staff or through gjspeaks.org

b) submit written comment during the hearing but prior to the closure of the public comment portion of each hearing item through gjspeaks.org

c) leave a voicemail on a dedicated City phone number providing testimony on a specific agenda item prior to 4 p.m. on the day of the hearing.

3) Members of the public may view all project documents at gjcity.org or gjspeaks.org and view pre-recorded presentation(s) through gjspeaks.org

4) Members of the public can also participate and/or view the meeting through a computer, device or a phone through the available online platform such as GoToMeeting, Zoom or similar.

5) Members of the public may prior to scheduled hearings view all project documents at gjcity.org or gjspeaks.org and view pre-recorded presentation(s) through gjspeaks.org. Although instituted during and in response to COVID-19, the staff intends to evaluate and is expected to recommend the continued use of GJSpeaks.org following the conclusion of the pandemic.

City Council Procedures

1) Members of the public are provided a means by which view the meetings conducted pursuant to this Procedure through broadcast on channel 191 and streaming on gjcity.org, unless technical difficulties prohibit broadcasting and/or streaming.

2) Members of the public may offer comment on public hearing items in the following ways:

a) submit written comment in advance of the hearing to staff or City Council.

b) attend the public hearing in person and provide verbal comments.

3) Members of the public may, prior to scheduled hearings, view all project documents and view pre-recorded presentations at gjcity.org.

ORDINANCE NO. 4923

AN EMERGENCY ORDINANCE TO AMEND THE GRAND JUNCTION MUNICIPAL CODE REGARDING NEIGHBORHOOD MEETINGS AND TO ALLOW FOR ALTERNATIVE HEARING PROCEDURES FOR LAND USE APPLICATIONS IN THE CITY OF GRAND JUNCTION, COLORADO

RECITALS:

Due to the incidence of COVID-19 in the general public, the designation of pandemic by the World Health Organization, the Declaration of a Disaster Emergency by Governor Polis on March 10, 2020, and a National Emergency by President Trump on March 13, 2020, together with the Public Health Orders (PHO's) issued by the Colorado Department of Public Health and Environment and Executive Orders (EO's) issued by Governor Polis, all of which established guidelines, policies and restrictions necessary for the health and safety of the residents of Colorado, the City declared a Local Emergency (Declaration.) With that Declaration, certain City regulations have been temporarily implemented, amended and adjusted in order to respond to the emergency. Those temporary regulations included but were not limited to prescribing procedures for the conduct of City business and controlling the occupancy of certain premises. The City's Declaration expired May 6, 2020.

On April 26, 2020 Governor Polis issued Executive Order 2020-044 and the Colorado Department of Public Health and Environment issued Public Health Order 20-28 also known as the "Safer at Home Order" which among other things continues to limit social interactions (except as required to conduct *Necessary Activities)* and travel (except that deemed to be Essential *Travel)* all as defined by the EO's and PHO's. In addition, Executive Order 2020-44 prohibits public gatherings in both public spaces and private venues of ten (10) persons or more. Executive Order 2020-044 is effective to and through May 26, 2020.

The virus, and the various PHO's, EO's and other directives and recommendations issued in response to the virus have resulted in the need for the Declaration and attendant modification of City business processes and procedures, including the City Council and the Planning Commission adopting electronic participation policies that allow the City to conduct City business remotely, and the development and implementation of techniques for citizens to view meetings and otherwise comment on agenda topics; however, Council and Commission meetings are not the exclusive means of public participation in City processes. For purposes of land use applications, Neighborhood Meeting and public hearings provide important opportunities for citizen engagement, dissemination of information, public participation and transparency.

By and with this Emergency Ordinance the City Council amends the Grand Junction Municipal Code (GJMC or Code) to provide that Neighborhood Meetings may temporarily be conducted virtually.
Furthermore, the GJMC is amended to allow and provide that quasi-judicial hearings before the Planning Commission and City Council may be heard and decided in accordance with the *Alternative Hearing Procedure* adopted with this Ordinance. The *Alternative Procedure* provides a means for conducting electronic dissemination of information and for alternative means of participation in public meetings. The *Alternative Hearing Procedure* is attached and incorporated by this reference as if fully set forth.

Both the Colorado Constitution and the Fourteenth Amendment to the United States Constitution prohibit the government from depriving any person of life, liberty, or property without due process of law. In *Sundance Hills Homeowners Association v Board of County Commissioners*, the Colorado Supreme Court held that for a land use hearing the governing body must provide notice that minimally specifies the time, place, and subject matter of the public hearing, as well as the nature of the proposal being considered. In addition, the Court held that the hearing must afford affected parties the opportunity to appear before the decision-making body and be heard. The City's *Alternative Hearing Procedure* is enacted and will be applied in a manner that the City reasonably considers to comport with principles of Due Process and fundamental fairness; however, the City cannot not assure an applicant that the Alternative Procedure and any decision made under the Alternative Procedure, may not be challenged and/or be found to violate Due Process/Constitutional rights.

At the May 20, 2020 meeting the City Council considered this Ordinance and determined that amendment of the Code is necessary given the current emergency and the City Council deems it necessary to immediately modify the Code as follows.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION, COLORADO:

Titles 21.02.080(e) and (j) (in relevant part) of the Grand Junction Municipal Code are amended as follows (deletions ~~struck through~~; additions underlined):

21.02.080(e)(2) Meeting Time and Procedure ~~Location~~. The applicant must provide for a physical or virtual meeting ~~room~~ and must conduct the meeting. Meetings must be held on a weekday evening that is not a holiday beginning between 5:30 p.m. and 8:00 p.m. ~~in a location that is and be accessible to the affected neighborhood~~. ~~The Director may approve other times and locations.~~ The meeting date, time and format ~~location~~ must be approved by the Director no less than 14 days in advance of the meeting date. ~~To qualify~~, A required Neighborhood Meeting must be held not more than 180 days before the application is submitted.

(3) Meeting Content and Conduct. At the meeting The applicant shall present a concept plan, describe project impacts, describe ways to mitigate impacts, and facilitate a discussion and answer questions during the meeting. The concept plan shall, at a minimum, delineate access to the site; internal circulation, the range of density of the entire property or the maximum intensity (square footage and stories for all buildings). The meeting shall be conducted so that participants ~~attendees~~ have an opportunity to ask questions and provide comments. City staff should gather information and explain the rules and requirements. City staff shall provide information regarding the project's compliance with the Comprehensive Plan and any applicable adopted plan or ordinance. Included with the application submittal, the applicant must give the Director a written list of names and addresses of those given notice, how notice was provided, and those participating in the meeting attending, along with a written summary of the meeting including any public comment received.

(4) Notice. The applicant shall provide written notice of the date, time, place if an in person meeting is conducted or the web location/host, together with any and all information required to access the meeting if conducted virtually and subject of the meeting to every owner and group in the neighborhood, as well as the City ~~Public Works and~~ Community Development Department. The notice must be approved by the Director no less than 14 days in advance of the meeting date and

shall be, at a minimum delivered by U.S. mail. The notice must be made ~~hand-delivered or postmarked~~ no later than 10 calendar days prior to the meeting date.

(j)(5) Additional Rules. The body conducting the hearing may adopt ~~its~~ rules of procedure to limit the number of applications~~, for development approval~~ to be considered per meeting, ~~and to~~ limit the time for each presentation or speaker or as provided by this ordinance temporarily hear and decide quasi-judicial hearings in accordance with the Alternative Hearing Procedure, which are adopted by this reference and incorporated as if fully set forth.

City Council hereby declares that a special emergency exists and that this ordinance is necessary to ensure the preservation of the peace and the public health, safety and welfare by effectuating the Council's publicly purposes and policies, which are consistent with and supportive of those of the State of Colorado.

This Ordinance, immediately on its final passage, shall be recorded in the City book of ordinances kept for that purpose, authenticated by the signatures of the Mayor and the City Clerk. The full text of the amending ordinance, in accordance with the Charter of the City of Grand Junction, is to be published in full within three days.

This Ordinance shall apply to the City of Grand Junction. This Ordinance shall take effect immediately upon passage and with the unanimous approval of City Council.

Severability.

This Ordinance is necessary to protect the public health, safety and welfare of the residents of the City. If any provision of this Ordinance is found to be unconstitutional or illegal, such finding shall only invalidate that part or portion found to violate the law. All other provisions shall be deemed severed or severable and shall continue in full force and effect.

All other provisions of Title 3 of the Grand Junction Municipal Code shall remain in full force and effect.

Sunset.

Without further action by the City Council, the terms and provisions of this ordinance shall expire 180 days after the effective date hereof without subsequent action by the City Council.

C.E. Duke Wortmann
President of the Council

ATTEST:

Wanda Winkelmann
City Clerk

I HEREBY CERTIFY THAT the foregoing Emergency Ordinance, being Ordinance No. 4923 was introduced by the City Council of the City of Grand Junction, Colorado at a regular meeting of said body held on the 3rd day of June 2020.

I FURTHER CERTIFY THAT Ordinance No. 4923 was read, considered, adopted and ordered published in the Daily Sentinel by the Grand Junction City Council.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of said City this 5th day of June 2020.

Deputy City Clerk

Published: June 5, 2020 (full ordinance)
Effective: June 3, 2020 (date of adoption)

ORDINANCE NO. 4967

AN ORDINANCE TO AMEND AND EXTEND ORDINANCE 4923 AMENDING THE GRAND JUNCTION MUNICIPAL CODE REGARDING NEIGHBORHOOD MEETINGS AND TO ALLOW FOR ALTERNATIVE HEARING PROCEDURE FOR LAND USE APPLICATIONS IN THE CITY OF GRAND JUNCTION, COLORADO

RECITALS:

On June 5, 2020 the Grand Junction City Council adopted Ordinance 4923 finding the existence of a special emergency and that as an emergency matter the Ordinance was necessary to ensure the preservation of the peace, public health, safety and general welfare by effectuating the Council's public purposes and policies, which are consistent with and supportive of those of the State of Colorado.

When Ordinance 4923 was adopted it was in response and due to the incidence of COVID-19 in the general public. Ordinance 4923 followed a declaration of a Local Emergency, the designation of pandemic by the World Health Organization, Emergency Declarations by Governor Polis and President Trump, together with the various Public Health Orders (PHO's) issued by the Colorado Department of Public Health and Environment and Executive Orders (EO's) issued by Governor Polis, all of which established guidelines, policies and restrictions necessary for the health and safety of the residents of Colorado. Because of COVID-19 and the fact that the virus continues to spread, those actions, together with others, continue to be relevant and necessary actions must be taken to continue to attempt to limit the transmission of the virus.

In response to COVID in general, and specifically as provided in Ordinance 4923, certain City regulations have been temporarily implemented, amended and adjusted in order to respond to the emergency. Those temporary regulations included but were not limited to prescribing procedures for the conduct of City business and controlling the occupancy of certain premises while providing important opportunities for citizen engagement, dissemination of information, public participation and transparency. Related modifications of City business processes and procedures, included the amendment of the City Code to conduct City business remotely, and the development and implementation of techniques for citizens to view meetings and otherwise comment on agenda topics and for alternative public participation processes.

Ordinance 4923, which created many of those procedures, includes a sunset provision, which provides in relevant part that without further action by the City Council, the Ordinance will expire 180 days after the effective date thereof.

In order to continue to respond to the challenges presented by COVID, the City Council, by and with this ordinance extends Ordinance 4923, the amendments made to the Code and the City's *Alternative Hearing Procedure* enacted therewith, for an additional 180 days.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION, COLORADO:

The City Council having duly considered this Ordinance does find and determine that an amendment to and extension of the sunset of Ordinance 4923 is necessary given the current urgent situation presented by COVID.

Accordingly, Ordinance 4923, an ordinance amending the Grand Junction Municipal Code regarding neighborhood meetings and to allow for alternative hearing procedure for land use applications in the City of Grand Junction, Colorado shall be amended to provide an extended term of 180 days after the effective date hereof and shall expire, without subsequent action by the City Council, on the date immediately thereafter.

All other provisions of Ordinance 4923, as codified in the Grand Junction Municipal Code, shall remain in full force and effect. The extended term of the Ordinance will be applied in a manner that the City reasonably considers to comport with principles of Due Process and fundamental fairness as found and determined by the City Council with the enactment of Ordinance 4923.

C.E. Wortmann
President of the Council

ATTEST:

W Winkelmann

Wanda Winkelmann
City Clerk

I HEREBY CERTIFY THAT the foregoing Ordinance, being Ordinance No. 4967 was introduced by the City Council of the City of Grand Junction, Colorado at a regular meeting of said body held on the 18th day of November 2020 and the same was published in The Daily Sentinel, a newspaper published and in general circulation in said City, in pamphlet form, at least ten days before its final passage.

I FURTHER CERTIFY THAT a Public Hearing was held on the 2nd day of December 2020, at which Ordinance No. 4967 was read, considered, adopted and ordered published in pamphlet form by the Grand Junction City Council.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of said City this 4th day of December 2020.

Deputy City Clerk

Published: November 20, 2020
Published: December 4, 2020
Effective: January 3, 2021

ORDINANCE NO. ___

AN ORDINANCE TO EXTEND ORDINANCE 4967 AMENDING THE GRAND JUNCTION MUNICIPAL CODE REGARDING NEIGHBORHOOD MEETINGS AND TO ALLOW FOR ALTERNATIVE HEARING PROCEDURES FOR LAND USE APPLICATIONS IN THE CITY OF GRAND JUNCTION, COLORADO

RECITALS:

On June 5, 2020 the Grand Junction City Council adopted Ordinance 4923 finding the existence of a special emergency and that as an emergency matter the Ordinance was necessary to ensure the preservation of the peace, public health, safety and general welfare by effectuating the Council's public purposes and policies, which are consistent with and supportive of those of the City and State regarding COVID-19.

On December 2, 2020 the City Council adopted Ordinance 4967, which extended Ordinance 4923. Ordinance 4967 includes a 180-day sunset provision, which provides in relevant part that without further action by the City Council, the Ordinance will expire.

In response to COVID in general, and specifically as provided in Ordinance 4967, certain City regulations have been implemented, amended and adjusted in order to respond to the pandemic. Those regulations include but are not limited to prescribing procedures for the conduct of City business via virtual platforms while providing important opportunities for citizen engagement, dissemination of information, public participation and transparency. The City successfully modified its Code and implemented the necessary processes and procedures to conduct City business remotely, and developed and put into practice techniques for citizens to view meetings and otherwise comment on agenda topics and for alternative public participation processes and hearing procedures. Both applicants and interested parties have found the processes to be an important and essential option during this time. City staff recommends that Ordinance 4967 be extended for an additional 90 days from the effective date of this Ordinance.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION, COLORADO:

The City Council having duly considered this Ordinance does find and determine that an amendment to and extension of the sunset of Ordinance 4967 regarding neighborhood meetings and allowing for alternative hearing processes and procedures for land use applications in the City of Grand Junction, Colorado shall be amended to provide an extended term of 90 days after the effective date hereof and shall expire, without subsequent action by the City Council, on the date immediately thereafter.

All other provisions of Ordinances 4923 and 4967, as codified in the Grand Junction Municipal Code, shall remain in full force and effect. The extended term of the Ordinance will be applied in a manner that the City reasonably considers to comport with principles of Due Process and fundamental fairness as found and determined by the City Council with the enactment of Ordinance 4923, 4967 and this Ordinance.

DRAFT

_____
President of the City Council

ATTEST:

_____
Wanda Winkelmann
City Clerk

DRAFT

Grand Junction City Council

Regular Session

Item #2.b.i.

Meeting Date: May 5, 2021

Presented By: David Thornton, Principal Planner

Department: Community Development

Submitted By: David Thornton, Principal Planner

Information

SUBJECT:

A Resolution Referring a Petition to the City Council for the Annexation of Lands to the City of Grand Junction, Colorado, Setting a Hearing on Such Annexation, Exercising Land Use Control, and Introducing Proposed Annexation Ordinance for the Blue Mesa Estates Annexation of 13.33 Acres, Located at 3085 D ½ Road, and Setting a Public Hearing for June 16, 2021

RECOMMENDATION:

Staff recommends adoption of a resolution referring the petition for the Blue Mesa Estates Annexation, introducing the proposed Ordinance and setting a hearing for June 16, 2021.

EXECUTIVE SUMMARY:

The Applicant, Prodigy Homes & Development LLC, is requesting to annex 13.33 acres located at 3085 D ½ Road. There is a portion of the D ½ Road right-of-way included in this annexation request. The owner is requesting annexation in anticipation of new housing development, which constitutes "annexable development" and as such will be annexed in accordance with the Persigo Agreement. Consideration for zoning of this annexation will be heard in a future action.

BACKGROUND OR DETAILED INFORMATION:

The Blue Mesa Estates Annexation consists of one parcel of land totaling 13.03 acres; the parcel number is #2943-164-00-122. The southern half of the D ½ Road right-of-way adjacent to the property is included in the annexation. The right-of-way area consists of 0.30 acres of land, bring the total annexation area to 13.33 acres.

The land has an existing house on it and the property has previously been in agricultural production, but now is being planned for residential development. The Applicant wishes to annex the property into City limits for this purpose and will be requesting a zoning of R-8 (Residential with a maximum density of 8 dwelling units per acre) for the property. The R-8 Zone District implements the Comprehensive Plan's Land Use Category of Residential Medium for the property. Zoning will be considered in a future action by City Council and requires review and recommendation by the Planning Commission.

The property is currently adjacent to existing city limits. The property owner has signed a petition for annexation of the property.

Staff has found, based on review of the petition and knowledge of applicable state law, including the Municipal Annexation Act Pursuant to C.R.S. 31-12-104, that the Blue Mesa Estates Annexation is eligible to be annexed because of compliance with the following:

a) A proper petition has been signed by more than 50% of the owners and more than 50% of the property described. The petition has been signed by the one owner of the property or 100% of the owners and includes 100% of the property described excluding right-of-way.

b) Not less than one-sixth of the perimeter of the area to be annexed is contiguous with the existing City limits. Eighty percent of the perimeter of the annexation is contiguous with the existing City limits exceeding the 1/6 contiguity requirements for annexation.

c) A community of interest exists between the area to be annexed and the City. This is so in part because the Central Grand Valley is essentially a single demographic and economic unit and occupants of the area can be expected to, and regularly do, use City streets, parks and other urban facilities.

d) The area is or will be urbanized in the near future. The property owner is currently planning for the development of residential housing at urban densities.

e) The area is capable of being integrated with the City. The proposed annexation is surrounded by city limits on three sides and will be required at the time of development to interconnect with existing City streets that stub to the property. Utilities and City services are also available and currently serving the existing urban area surrounding the property.

f) No land held in identical ownership is being divided by the proposed annexation. The entire property owned by the applicant is being annexed.

g) No land held in identical ownership comprising 20 contiguous acres or more with an assessed valuation of $200,000 or more for tax purposes is included without the owner's consent. Contiguous property owned by the petitioner is less than 20 acres in size, so this requirement does not apply, however, the petitioner has granted consent to the City to annex the property.

Please note that the annexation petition was prepared by the City. The proposed annexation and zoning schedule with a summary is attached.

FISCAL IMPACT:

Fire

The provision of municipal services will be consistent with adjacent properties already in the City. Property tax levies and municipal sales/use tax will be collected, as applicable, upon annexation.

Currently the property is in the Clifton Fire Protection District. The Fire District collects a 11.552 mill levy that generates $259.80 per year in property taxes. If annexed, the property will be excluded from the Clifton Fire Protection District and the City's 8 mills will generate $179.92 per year based on the current assessed values of the annexation area. If the property develops at the estimated 70-100 dwelling units at an approximate average value of $300,000 per unit for an estimated total value of $21 million to $30 million, it would generate between $12,000 and $17,000 in annual property tax revenue at the current residential assessment rate. Sales and use tax revenues will be dependent on construction activity and consumer spending on City taxable items for residential and commercial uses. Revenues will need to pay for not only fire and emergency medical services but also other City services provided to the area.

Fire and emergency medical services response times to this area are longer than other areas due to the distance from existing fire stations. For the immediate future, the area will be served by Fire Station #4 at 2884 B ½ Road. However, the City has a Letter of Intent to purchase land just south of 3099 D ½ Road for Fire Station 8. This station is planned for construction and opening in 2022 to serve this area. At buildout, an annual incident demand 10-15 calls for service are predicted for this location.

Utilities

No impacts to Utilities, the property is currently served by sewer.

Public Works

This annexation takes in a 440 LF portion of D 1/2 Road encompassing approximately $8,000 SF of asphalt. The street does not have any curb, gutter, and sidewalk. Most of the street was reconstructed in the early 2010's by Mesa County and therefore an overlay would not be proposed for about 10 years and is estimated at $20,700 in 2029. Chip Seals are proposed at 6-10 year increments at approximately $2,800 each. There are no street lights that will be added to the system. Storm drain maintenance, striping,

and street sweeping are each estimated at less than $40/year.

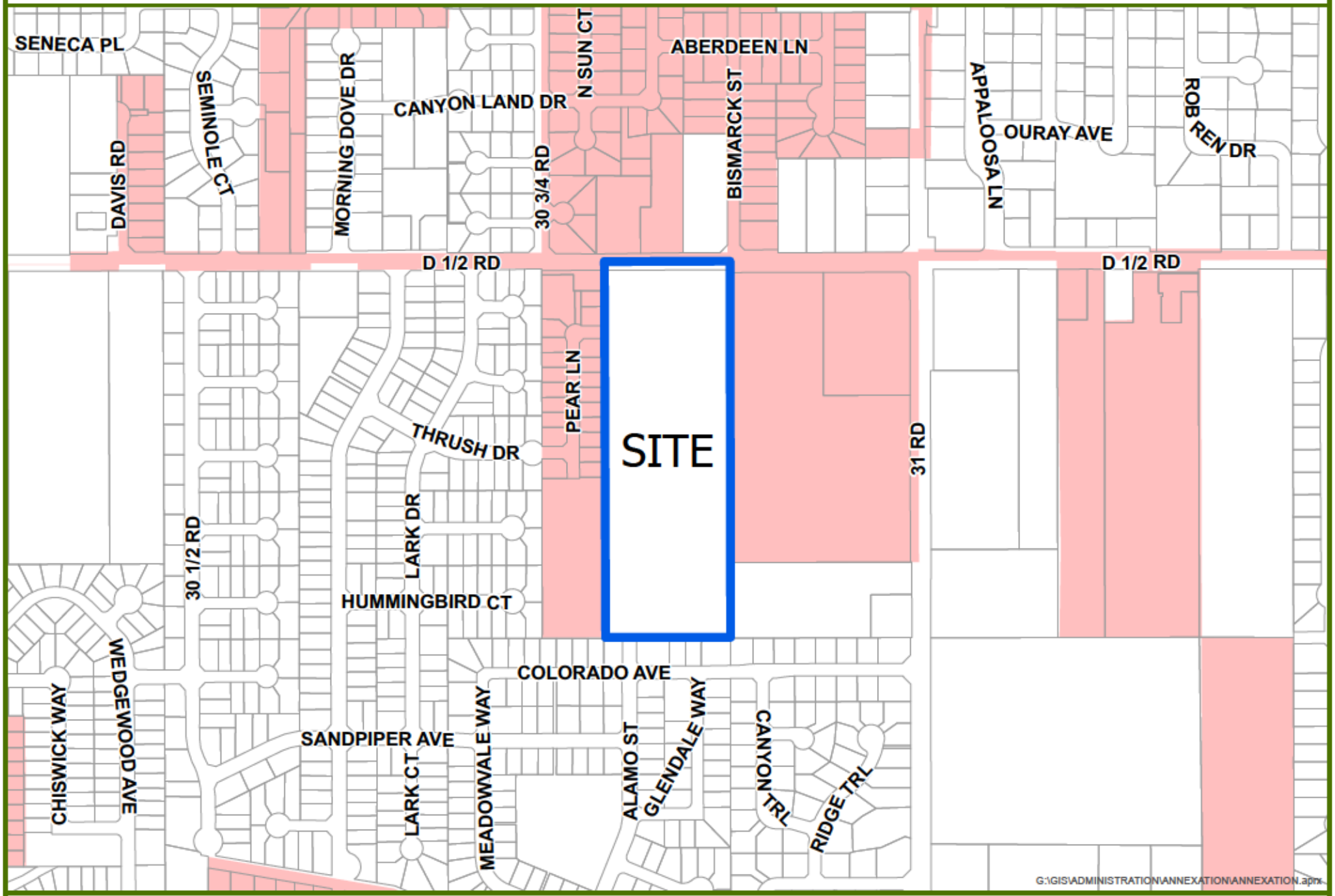
SUGGESTED MOTION:

I move to adopt Resolution No. 38-21, a resolution referring a petition to the City Council for the annexation of lands to the City of Grand Junction, Colorado, setting a hearing on such annexation and exercising land use control over the Blue Mesa Estates Annexation, approximately 13.33 acres, located at 3085 D ½ Road, as well as introduce a proposed ordinance annexing territory to the City of Grand Junction, Colorado, Blue Mesa Estates Annexation, approximately 13.33 acres, located at 3085 D ½ Road, and introduce an ordinance annexing territory to the City of Grand Junction, Colorado Blue Mesa Estates Annexation, approximately 13.33 acres, located at 3085 D ½ Road and set a public hearing for June 16, 2021.

Attachments

1. Site Maps
2. Annexation Schedule and Summary Table - Blue Mesa Estates Annexation
3. Resolution - Referral of Petition (Land Use Control)- Blue Mesa Estates Annexation
4. Blue Mesa Estates Annexation Ordinance

BLUE MESA ESTATES ANNEXATION



N

0 0.05 0.1 Miles

Annexation City Limits

Date Created: 4/9/2021

BLUE MESA ESTATES ANNEXATION



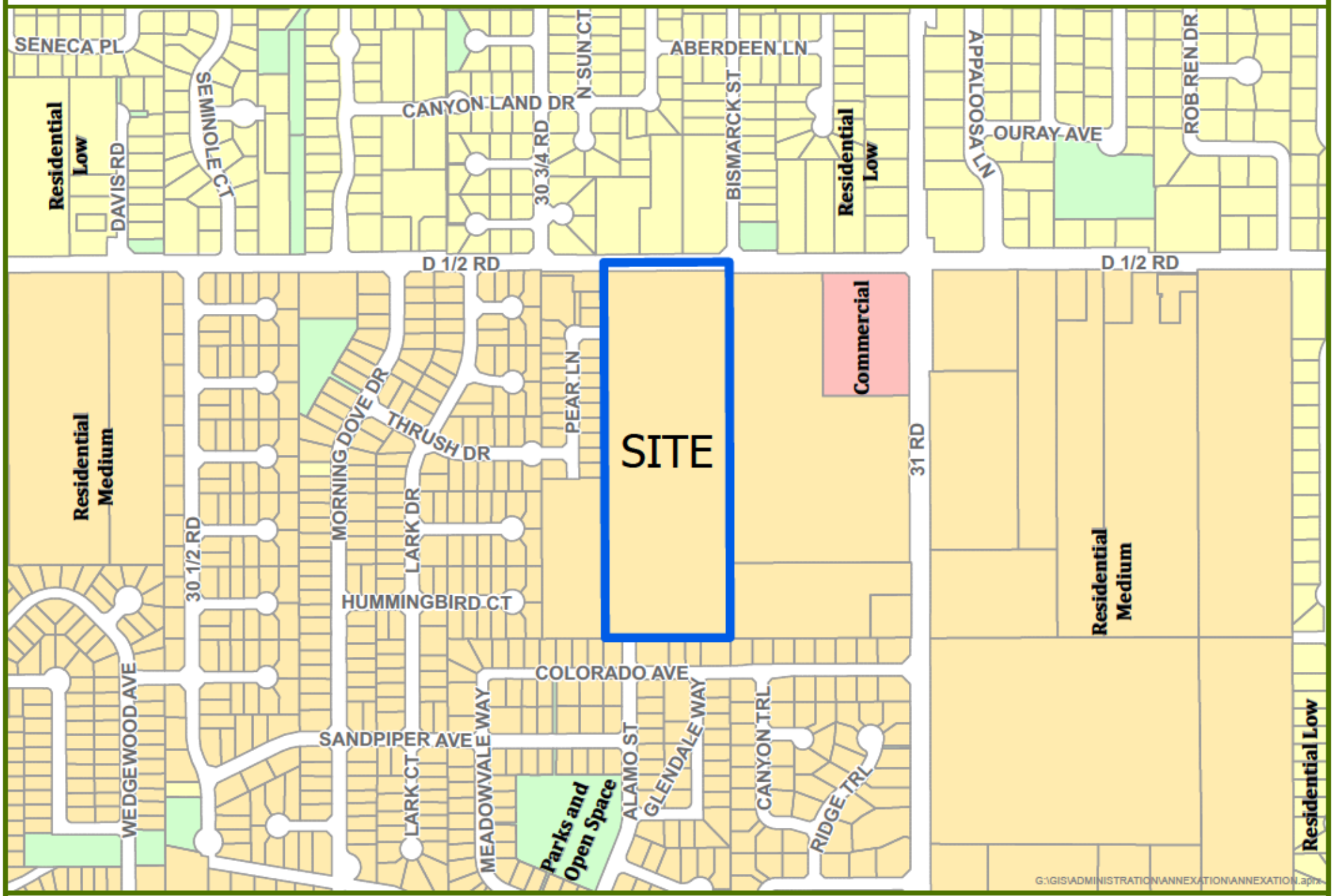
N

0 0.05 0.1 Miles

Annexation City Limits

Date Created: 4/9/2021

BLUE MESA ESTATES ANNEXATION - LAND USE



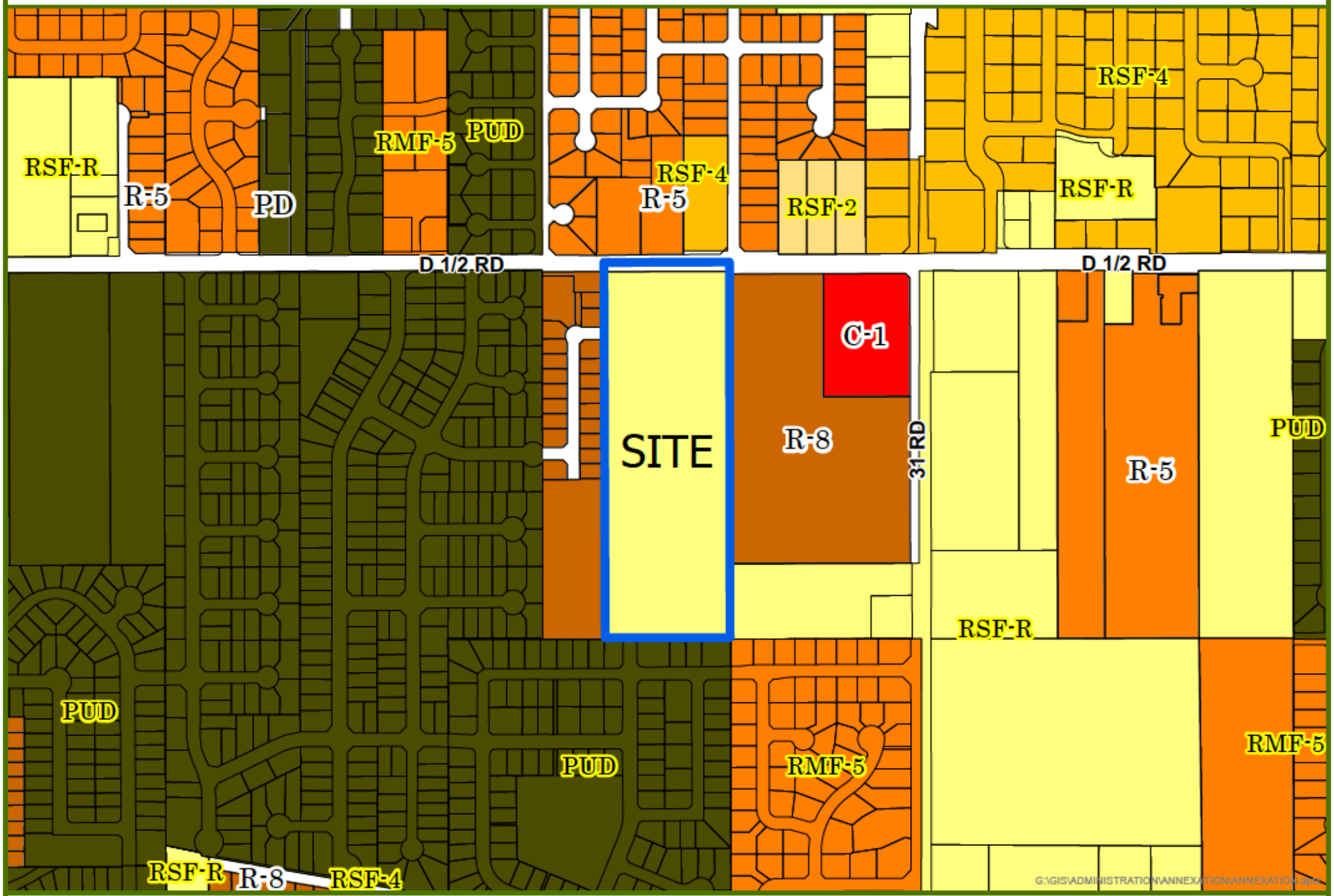
N

0 0.05 0.1 Miles

Annexation Boundary

Date Created: 4/9/2021

BLUE MESA ESTATES ANNEXATION - ZONING



BLUE MESA ESTATES ANNEXATION SCHEDULE	
May 5, 2017	Referral of Petition (30 Day Notice), Introduction of a Proposed Ordinance, Exercising Land Use
May 25, 2021	Planning Commission considers Zone of Annexation
June 2, 2021	Introduction of a Proposed Ordinance on Zoning by City Council
June 16, 2021	Acceptance of Petition and Public Hearing on Annexation and Zoning by City Council
July 18, 2021	Effective date of Annexation and Zoning

ANNEXATION SUMMARY		
File Number:		ANX-2021-157
Location:		3085 D ½ Road
Tax ID Numbers:		2943-164-00-122
# of Parcels:		1
Existing Population:		2
# of Parcels (owner occupied):		0
# of Dwelling Units:		1
Acres land annexed:		13.33
Developable Acres Remaining:		13.03
Right-of-way in Annexation:		0.30
Previous County Zoning:		RSF-R
Proposed City Zoning:		R-8
Current Land Use:		Ag/Vacant
Future Land Use:		Residential
Values:	**Assessed:**	$22,490
	Actual:	$314,520
Address Ranges:		3081 thru 3085 (odd only) D ½ Road
Special Districts:	**Water:**	Ute
	Sewer:	City
	Fire:	GJ Rural
	Irrigation/Drainage:	Grand Valley Drainage District
	School:	District 51
	Pest:	Grand River Mosquito District

NOTICE OF HEARING
ON PROPOSED ANNEXATION OF LANDS
TO THE CITY OF GRAND JUNCTION, COLORADO

NOTICE IS HEREBY GIVEN that at a regular meeting of the City Council of the City of Grand Junction, Colorado, held on the 5th day of May 2021, the following Resolution was adopted:

CITY OF GRAND JUNCTION, COLORADO

RESOLUTION NO. _____

A RESOLUTION
REFERRING A PETITION TO THE CITY COUNCIL
FOR THE ANNEXATION OF LANDS
TO THE CITY OF GRAND JUNCTION, COLORADO,
SETTING A HEARING ON SUCH ANNEXATION,
AND EXERCISING LAND USE CONTROL

BLUE MESA ESTATES ANNEXATION

APPROXIMATELY 13.33 ACRES LOCATED AT 3085 D ½ ROAD
PARCEL #2943-164-00-122

WHEREAS, on the 5th day of May, 2021, a petition was referred to the City Council of the City of Grand Junction, Colorado, for annexation to said City of the following property situate in Mesa County, Colorado, and described as follows:

BLUE MESA ESTATES ANNEXATION

A parcel of land lying in the Northeast Quarter of the Southeast Quarter (NE1/4SE1/4) of Section 16, Township 1 South, Range 1 East of the Ute Meridian, being those parcels of land described in deeds filed under Reception Numbers 2547291 and 2959304 and being more particularly described as follows:

COMMENCING at the Northwest corner of said NE1/4SE1/4 of Section 16 and assuming the North line of said NE1/4SE1/4 of Section 16 bears N89°55'12"E with all other bearings contained herein being relative thereto; thence from said Point of Commencement, N89°55'12"E, along said North line of the NE1/4SE1/4 of Section 16, a distance of 220.20 feet to the POINT OF BEGINNING; thence continuing N89°55'12"E along said North line a distance of 440.03 feet to a point on the West line of the East half of said NE1/4SE1/4; thence S0°01'48"W a distance of 1319.53 feet to a point on the South line of said NE1/4SE1/4 of Section 16; thence S89°56'54"W along said South line a distance of 439.85 feet to the Southeast corner of PEAR PARK PLACE SUBDIVISION, a subdivision filed for record under Reception Number 2407172; thence N0°01'19"E, a distance of 1319.31 feet, to the Point of Beginning.

Containing 580468 Square Feet, or 13.33 Acres, more or less, as described.

WHEREAS, the Council has found and determined that the petition complies substantially with the provisions of the Municipal Annexation Act and a hearing should be held to determine whether or not the lands should be annexed to the City by Ordinance;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION:

1. That a hearing will be held on the 16th day of June, 2021, in the City Hall auditorium, located at 250 North 5th Street, City of Grand Junction, Colorado, at 5:30 PM to determine whether one-sixth of the perimeter of the area proposed to be annexed is contiguous with the City; whether a community of interest exists between the territory and the city; whether the territory proposed to be annexed is urban or will be urbanized in the near future; whether the territory is integrated or is capable of being integrated with said City; whether any land in single ownership has been divided by the proposed annexation without the consent of the landowner; whether any land held in identical ownership comprising more than twenty acres which, together with the buildings and improvements thereon, has an assessed valuation in excess of two hundred thousand dollars is included without the landowner's consent; whether any of the land is now subject to other annexation proceedings; and whether an election is required under the Municipal Annexation Act of 1965.

2. Pursuant to the State's Annexation Act, the City Council determines that the City may now, and hereby does, exercise jurisdiction over land use issues in the said territory. Requests for building permits, subdivision approvals and zoning approvals shall, as of this date, be submitted to the Community Development Department of the City.

ADOPTED the 5th day of May, 2021.

_____
President of the Council

Attest:

_____
City Clerk

NOTICE IS FURTHER GIVEN that a hearing will be held in accordance with the Resolution on the date and at the time and place set forth in the Resolution.

_____

City Clerk

DATES PUBLISHED
May 7th, 2021
May 14th, 2021
May 21st, 2021
May 28th, 2021

CITY OF GRAND JUNCTION, COLORADO

ORDINANCE NO.

AN ORDINANCE ANNEXING TERRITORY TO THE CITY OF GRAND JUNCTION, COLORADO

BLUE MESA ESTATES ANNEXATION

APPROXIMATELY 13.33 ACRES
LOCATED AT 3085 D ½ ROAD
PARCEL 2943-164-00-122

WHEREAS, on the 5th day of May, 2020, the City Council of the City of Grand Junction considered a petition for the annexation of the following described territory to the City of Grand Junction; and

WHEREAS, a hearing on the petition was duly held after proper notice on the 16th day of June, 2021; and

WHEREAS, the City Council determined that said territory was eligible for annexation and that no election was necessary to determine whether such territory should be annexed;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION, COLORADO:

That the property situate in Mesa County, Colorado, and described to wit:

BLUE MESA ESTATES ANNEXATION

A parcel of land lying in the Northeast Quarter of the Southeast Quarter (NE1/4SE1/4) of Section 16, Township 1 South, Range 1 East of the Ute Meridian, being those parcels of land described in deeds filed under Reception Numbers 2547291 and 2959304 and being more particularly described as follows:

COMMENCING at the Northwest corner of said NE1/4SE1/4 of Section 16 and assuming the North line of said NE1/4SE1/4 of Section 16 bears N89°55'12"E with all other bearings contained herein being relative thereto; thence from said Point of Commencement, N89°55'12"E, along said North line of the NE1/4SE1/4 of Section 16, a distance of 220.20 feet to the POINT OF BEGINNING; thence continuing N89°55'12"E along said North line a distance of 440.03 feet to a point on the West line of the East half of said NE1/4SE1/4; thence S0°01'48"W a distance of 1319.53 feet to a point on the South line of said NE1/4SE1/4 of Section 16; thence S89°56'54"W along said South line a distance of 439.85 feet to the Southeast corner of PEAR PARK PLACE SUBDIVISION, a subdivision

filed for record under Reception Number 2407172; thence N0°01'19"E, a distance of 1319.31 feet, to the Point of Beginning.

Containing 580468 Square Feet, or 13.33 Acres, more or less, as described.

be and is hereby annexed to the City of Grand Junction, Colorado.

INTRODUCED on first reading on the 5th day of May 2021 and ordered published in pamphlet form.

ADOPTED on second reading the ____ day of June 2021 and ordered published in pamphlet form.

_____
President of the Council

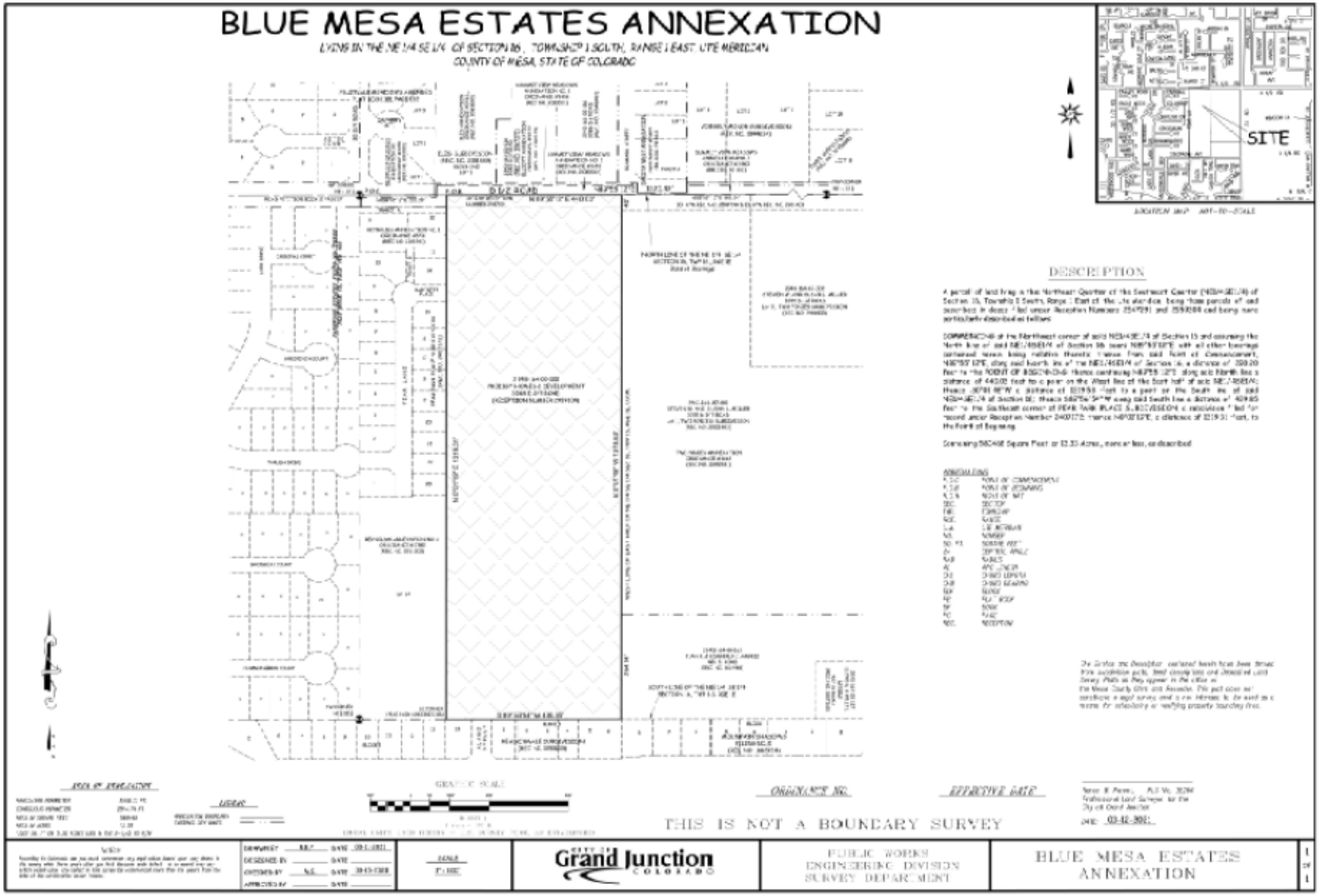
Attest:

_____
City Clerk

Exhibit A

BLUE MESA ESTATES ANNEXATION

LYING IN THE NE 1/4 SE 1/4 OF SECTION 16, TOWNSHIP 1 SOUTH, RANGE 1 EAST, UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO



Grand Junction City Council

Regular Session

Item #2.b.ii.

Meeting Date: May 5, 2021

Presented By: David Thornton, Principal Planner

Department: Community Development

Submitted By: David Thornton, Principal Planner

Information

SUBJECT:

A Resolution Referring a Petition to the City Council for the Annexation of Lands to the City of Grand Junction, Colorado, Setting a Hearing on Such Annexation, Exercising Land Use Control, and Introducing Proposed Annexation Ordinance for the Reed Annexation of 0.73 Acres, Located at 2733 B ¼ Road, and Setting a Public Hearing for June 16, 2021

RECOMMENDATION:

Staff recommends adoption of a resolution referring the petition for the Reed Annexation, introducing the proposed Ordinance and setting a hearing for June 16, 2021.

EXECUTIVE SUMMARY:

The Applicant, Jesse Reed, is requesting to annex 0.73 acres located at 2733 B ¼ Road. There is no road right-of-way included in this annexation request. The owner is requesting annexation in anticipation of combining his parcel with a property already within the City limits located adjacent to the south, which constitutes "annexable development" and as such will be annexed in accordance with the Persigo Agreement. Consideration for zoning of this annexation will be heard in a future action.

BACKGROUND OR DETAILED INFORMATION:

The Reed Annexation consists of one parcel of land totaling 0.73 acres; the parcel number is #2945-253-00-105. There is no road right-of-way included in this annexation.

The property has an existing house on it. The Applicant wishes to annex the property into City limits for purposes of combining the parcel with land that he plans to purchase from his neighbor to the south. The neighboring property is already within the city limits and to combine this property with land already within the city limits requires this property to be in the City limits. The Applicant will be requesting a zoning of R-8 (Residential with a maximum density of 8 dwelling units per acre) for the property. The R-8 Zone District implements the Comprehensive Plan's Land Use Category of Residential Medium for the property. Zoning will be considered in a future action by City Council and requires review and recommendation by the Planning Commission.

The property is currently adjacent to existing city limits. The property owner has signed a petition for annexation of the property.

Staff has found, based on review of the petition and knowledge of applicable state law, including the Municipal Annexation Act Pursuant to C.R.S. 31-12-104, that the Reed Annexation is eligible to be annexed because of compliance with the following:

a) A proper petition has been signed by more than 50% of the owners and more than 50% of the property described. The petition has been signed by the one owner of the property or 100% of the owners and includes 100% of the property described excluding right-of-way.

b) Not less than one-sixth of the perimeter of the area to be annexed is contiguous with the existing City limits. Seventy percent of the perimeter of the annexation is contiguous with the existing City limits exceeding the 1/6 contiguity requirements for annexation.

c) A community of interest exists between the area to be annexed and the City. This is so in part because the Central Grand Valley is essentially a single demographic and economic unit and occupants of the area can be expected to, and regularly do, use City streets, parks and other urban facilities.

d) The area is or will be urbanized in the near future. The property is currently urban with a residential use.

e) The area is capable of being integrated with the City. The proposed annexation is adjacent to the city limits on three sides. Utilities and City services are also available and currently serving the existing City limits.

f) No land held in identical ownership is being divided by the proposed annexation. The entire property owned by the applicant is being annexed.

g) No land held in identical ownership comprising 20 contiguous acres or more with an

assessed valuation of $200,000 or more for tax purposes is included without the owner's consent. Contiguous property owned by the petitioner is less than 20 acres in size, so this requirement does not apply, however, the petitioner has granted consent to the City to annex the property.

The annexation petition was prepared by the City. The proposed annexation and zoning schedule with a summary is attached.

FISCAL IMPACT:

Fire

Currently this property is in the Grand Junction Rural Fire Protection District (Rural District) which is served by the Grand Junction Fire Department through a contract with the Rural District. The Rural District collects a 7.6010 mill levy that generates $91.74 per year in property taxes that are passed on to the City of Grand Junction per the contract. If annexed, the Rural District mill levy will be removed and the City's 8 mills will generate property tax revenue of $96.56 per year. Property tax will need to pay for not only fire and emergency medical services, but also other City services provided to the area.

With the small size of this annexation and no additional proposed development, the fire department does not predict an increase in incident demand. Primary response to this property is from Fire Station 4 at 2884 B ½ Road, which is within National Fire Protection Association guidelines for response time.

Utilities

No impacts to Utilities, the property is currently served by sewer.

Public Works

There are no existing streets or other facilities being annexed and therefore there are no Public Works impacts associated with this annexation.

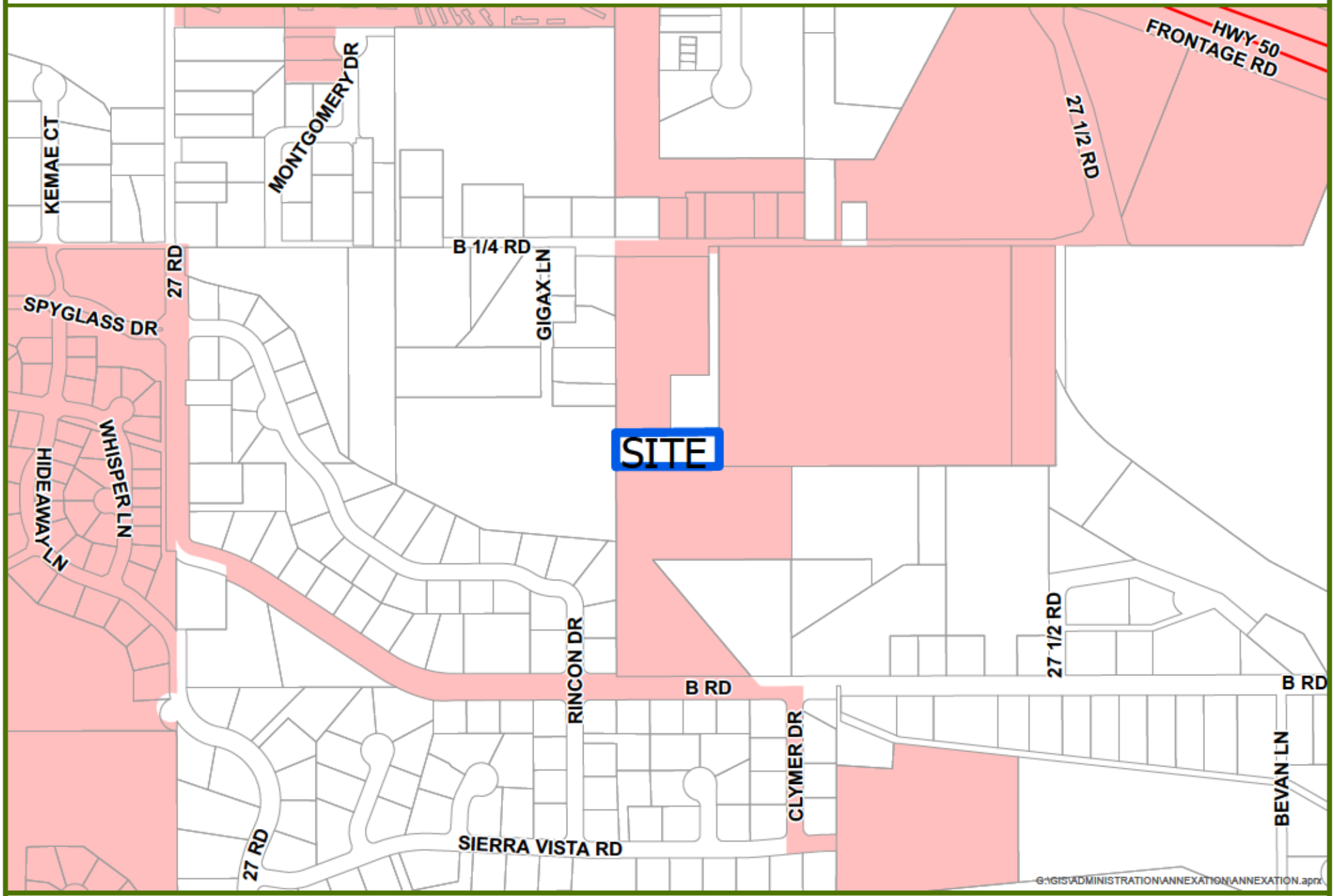
SUGGESTED MOTION:

I move to adopt Resolution No. 39-21, a resolution referring a petition to the City Council for the annexation of lands to the City of Grand Junction, Colorado, setting a hearing on such annexation and exercising land use control over the Reed Annexation, approximately 0.73 acres, located at 2733 B ¼ Road, and introduce a proposed ordinance annexing territory to the City of Grand Junction, Colorado, Reed Annexation, approximately 0.73 acres, located at 2733 B ¼ Road, and set a public hearing for June 16, 2021.

Attachments

1. Site Maps
2. Annexation Schedule and Summary Table - Reed Annexation
3. Resolution - Referral of Petition (Land Use Control)- Reed Annexation
4. Reed Annexation Ordinance

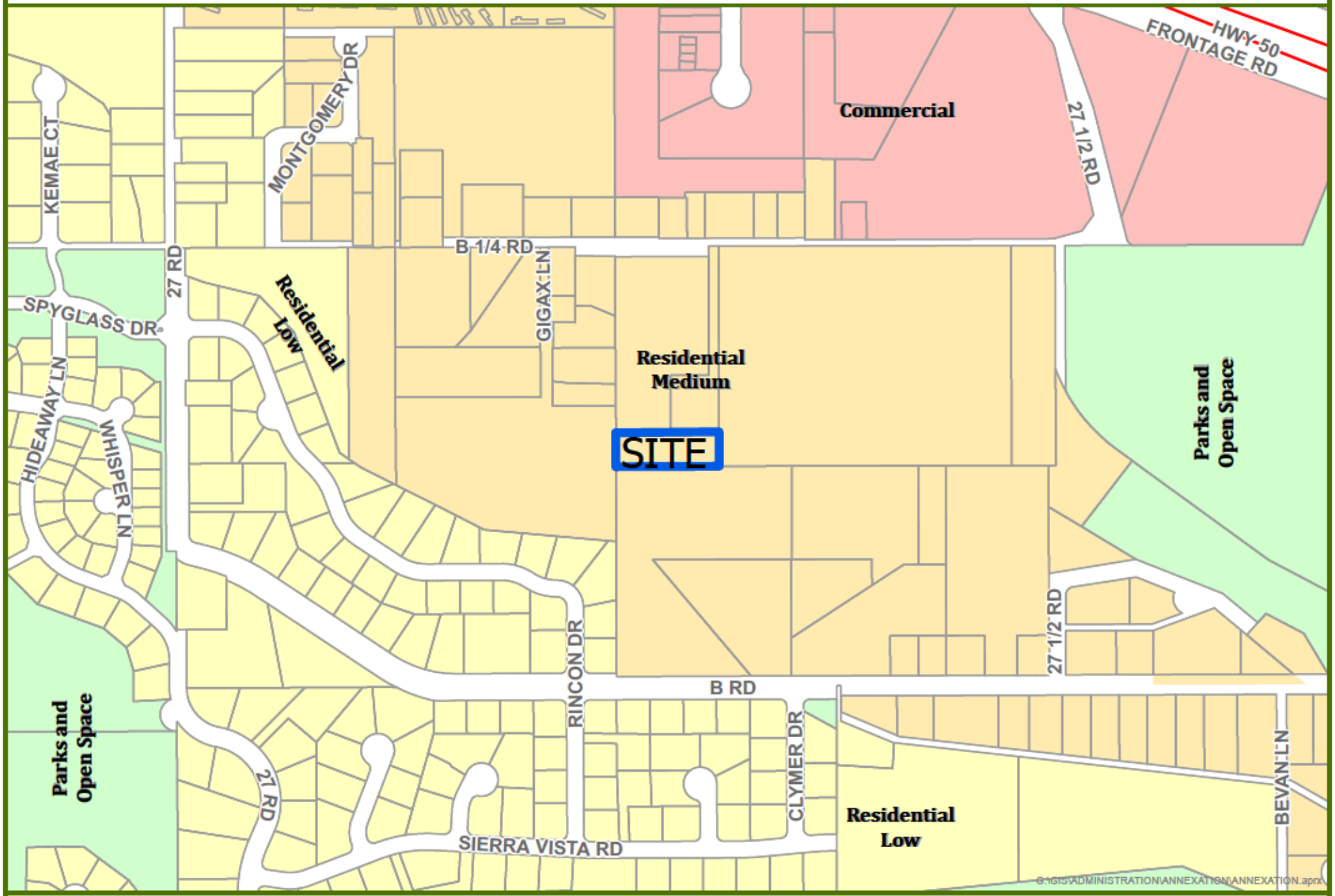
REED ANNEXATION



REED ANNEXATION



REED ANNEXATION - LAND USE



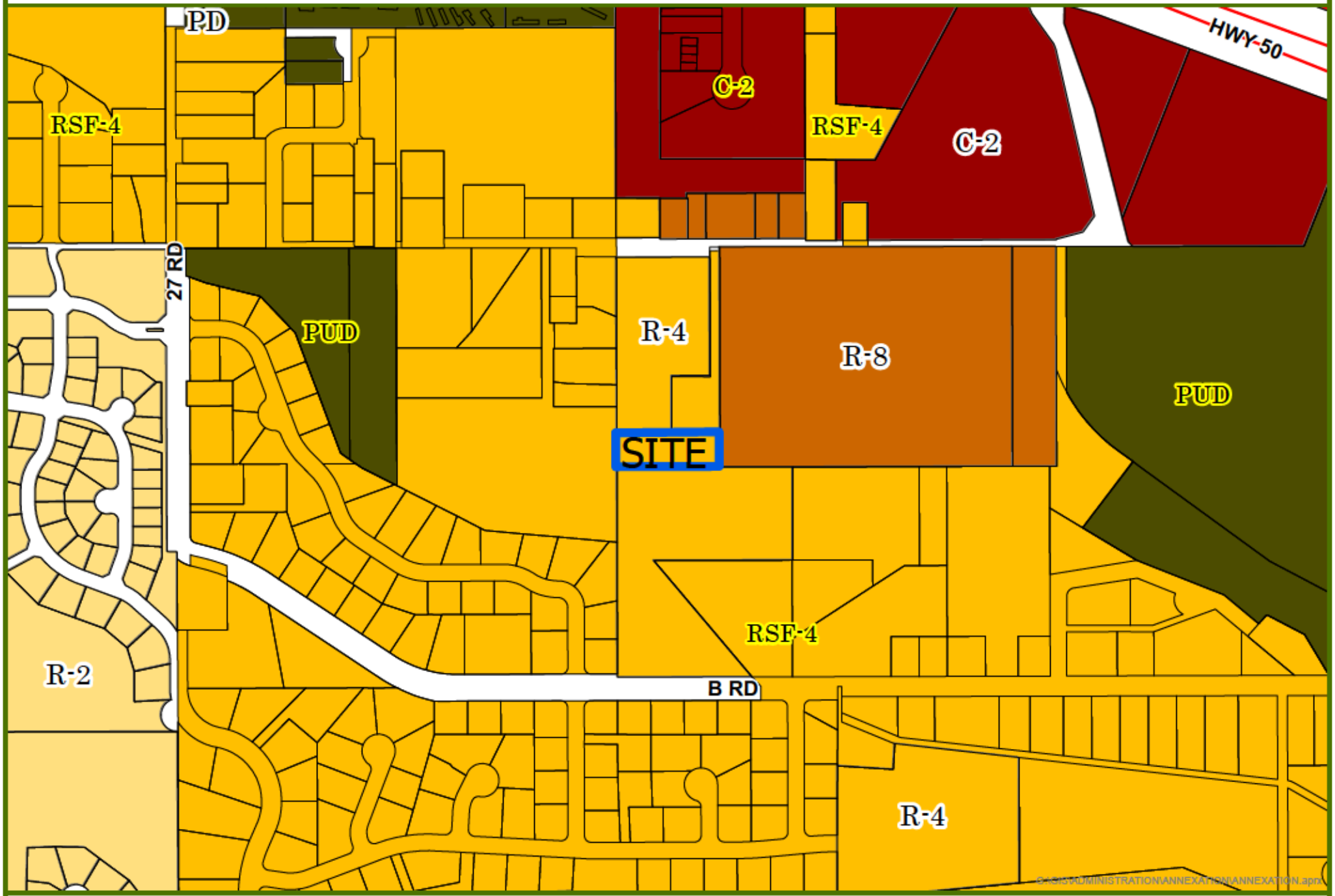
N

0 0.05 0.1 Miles

Annexation Boundary

Date Created: 4/9/2021

REED ANNEXATION - ZONING



N

0 0.05 0.1 Miles

Annexation City Zoning County Zoning

Date Created: 4/9/2021

REED ANNEXATION SCHEDULE	
May 5, 2021	Referral of Petition (30 Day Notice), Introduction of a Proposed Ordinance, Exercising Land Use
May 25, 2021	Planning Commission considers Zone of Annexation
June 2, 2021	Introduction of a Proposed Ordinance on Zoning by City Council
June 16, 2021	Acceptance of Petition and Public Hearing on Annexation and Zoning by City Council
July 18, 2021	Effective date of Annexation and Zoning

ANNEXATION SUMMARY		
File Number:		ANX-2021-153
Location:		2733 B ¼ Road
Tax ID Numbers:		2945-253-00-105
# of Parcels:		1
Existing Population:		2
# of Parcels (owner occupied):		1
# of Dwelling Units:		1
Acres land annexed:		0.73
Developable Acres Remaining:		0
Right-of-way in Annexation:		0
Previous County Zoning:		RSF-4
Proposed City Zoning:		R-8
Current Land Use:		Residential
Future Land Use:		Residential
Values:	**Assessed:**	$12,070
	Actual:	$168,870
Address Ranges:		2733 B ¼ Road
Special Districts:	**Water:**	Ute
	Sewer:	City
	Fire:	GJ Rural
	Irrigation/Drainage:	Orchard Mesa Irrigation and Drainage
	School:	District 51
	Pest:	Grand River Mosquito District

NOTICE OF HEARING
ON PROPOSED ANNEXATION OF LANDS
TO THE CITY OF GRAND JUNCTION, COLORADO

NOTICE IS HEREBY GIVEN that at a regular meeting of the City Council of the City of Grand Junction, Colorado, held on the 5th day of May 2021, the following Resolution was adopted:

CITY OF GRAND JUNCTION, COLORADO

RESOLUTION NO. _____

A RESOLUTION
REFERRING A PETITION TO THE CITY COUNCIL
FOR THE ANNEXATION OF LANDS
TO THE CITY OF GRAND JUNCTION, COLORADO,
SETTING A HEARING ON SUCH ANNEXATION,
AND EXERCISING LAND USE CONTROL

REED ANNEXATION

APPROXIMATELY 0.73 ACRES LOCATED AT 2733 B ¼ ROAD
PARCEL #2945-253-00-105

WHEREAS, on the 5th day of May, 2021, a petition was referred to the City Council of the City of Grand Junction, Colorado, for annexation to said City of the following property situate in Mesa County, Colorado, and described as follows:

REED ANNEXATION

A parcel of land located in the Southeast Quarter of the Southwest Quarter (SE1/4 SW1/4) of Section 25, Township 1 South, Range 1 West of the Ute Meridian, County of Mesa, State of Colorado and being a parcel of land described at Reception Number 2954603 and being more particularly described as follows:

Commencing at the Southwest corner of said Southeast Quarter of the Southwest Quarter, and assuming the West Line of said Southeast Quarter of the Southwest Quarter bears N0°06'39"W with all other bearings contained herein being relative thereto; thence N0°06'39"W along said West line a distance of 659.29 feet to the Southwest corner said parcel described at Reception Number 2954603 being the Point of Beginning; thence along the boundary said Reception Number 2954603 for the following four (4) courses: N0°06'39"W a distance of 102.00 feet to the Southwest corner of Anson Annexation Number 4; N89°56'36"E a distance of 310.00 feet to the West line of Adams Annexation; S0°06'39"E a distance of 102.00 feet to the North line of Harris Annexation Number 2; S89°56'36"W a distance of 310.00 feet to the Point of Beginning,

Containing 31620 square feet or 0.73 acres more or less as described.

WHEREAS, the Council has found and determined that the petition complies substantially with the provisions of the Municipal Annexation Act and a hearing should be held to determine whether or not the lands should be annexed to the City by Ordinance;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION:

1. That a hearing will be held on the 16th day of June, 2021, in the City Hall auditorium, located at 250 North 5th Street, City of Grand Junction, Colorado, at 5:30 PM to determine whether one-sixth of the perimeter of the area proposed to be annexed is contiguous with the City; whether a community of interest exists between the territory and the city; whether the territory proposed to be annexed is urban or will be urbanized in the near future; whether the territory is integrated or is capable of being integrated with said City; whether any land in single ownership has been divided by the proposed annexation without the consent of the landowner; whether any land held in identical ownership comprising more than twenty acres which, together with the buildings and improvements thereon, has an assessed valuation in excess of two hundred thousand dollars is included without the landowner's consent; whether any of the land is now subject to other annexation proceedings; and whether an election is required under the Municipal Annexation Act of 1965.

2. Pursuant to the State's Annexation Act, the City Council determines that the City may now, and hereby does, exercise jurisdiction over land use issues in the said territory. Requests for building permits, subdivision approvals and zoning approvals shall, as of this date, be submitted to the Community Development Department of the City.

ADOPTED the 5th day of May, 2021.

_____
President of the Council

Attest:

_____
City Clerk

NOTICE IS FURTHER GIVEN that a hearing will be held in accordance with the Resolution on the date and at the time and place set forth in the Resolution.

_____

City Clerk

DATES PUBLISHED
May 7th, 2021
May 14th, 2021
May 21st, 2021
May 28th, 2021

CITY OF GRAND JUNCTION, COLORADO

ORDINANCE NO.

AN ORDINANCE ANNEXING TERRITORY TO THE CITY OF GRAND JUNCTION, COLORADO

REED ANNEXATION

APPROXIMATELY 0.73 ACRES
LOCATED AT 2733 B1/4 ROAD
PARCEL 2945-253-00-105

WHEREAS, on the 5th day of May, 2020, the City Council of the City of Grand Junction considered a petition for the annexation of the following described territory to the City of Grand Junction; and

WHEREAS, a hearing on the petition was duly held after proper notice on the 16th day of June, 2021; and

WHEREAS, the City Council determined that said territory was eligible for annexation and that no election was necessary to determine whether such territory should be annexed;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION, COLORADO:

That the property situate in Mesa County, Colorado, and described to wit:

REED ANNEXATION

A parcel of land located in the Southeast Quarter of the Southwest Quarter (SE1/4 SW1/4) of Section 25, Township 1 South, Range 1 West of the Ute Meridian, County of Mesa, State of Colorado and being a parcel of land described at Reception Number 2954603 and being more particularly described as follows:

Commencing at the Southwest corner of said Southeast Quarter of the Southwest Quarter, and assuming the West Line of said Southeast Quarter of the Southwest Quarter bears N0°06'39"W with all other bearings contained herein being relative thereto; thence N0°06'39"W along said West line a distance of 659.29 feet to the Southwest corner said parcel described at Reception Number 2954603 being the Point of Beginning; thence along the boundary said Reception Number 2954603 for the following four (4) courses: N0°06'39"W a distance of 102.00 feet to the Southwest corner of Anson Annexation Number 4; N89°56'36"E a distance of 310.00 feet to the West line of Adams Annexation; S0°06'39"E a distance of 102.00 feet to the North line

of Harris Annexation Number 2; S89°56'36"W a distance of 310.00 feet to the Point of Beginning,

Containing 31620 square feet or 0.73 acres more or less as described.

be and is hereby annexed to the City of Grand Junction, Colorado.

INTRODUCED on first reading on the 5th day of May 2021 and ordered published in pamphlet form.

ADOPTED on second reading the _____ day of June 2021 and ordered published in pamphlet form.

_____
President of the Council

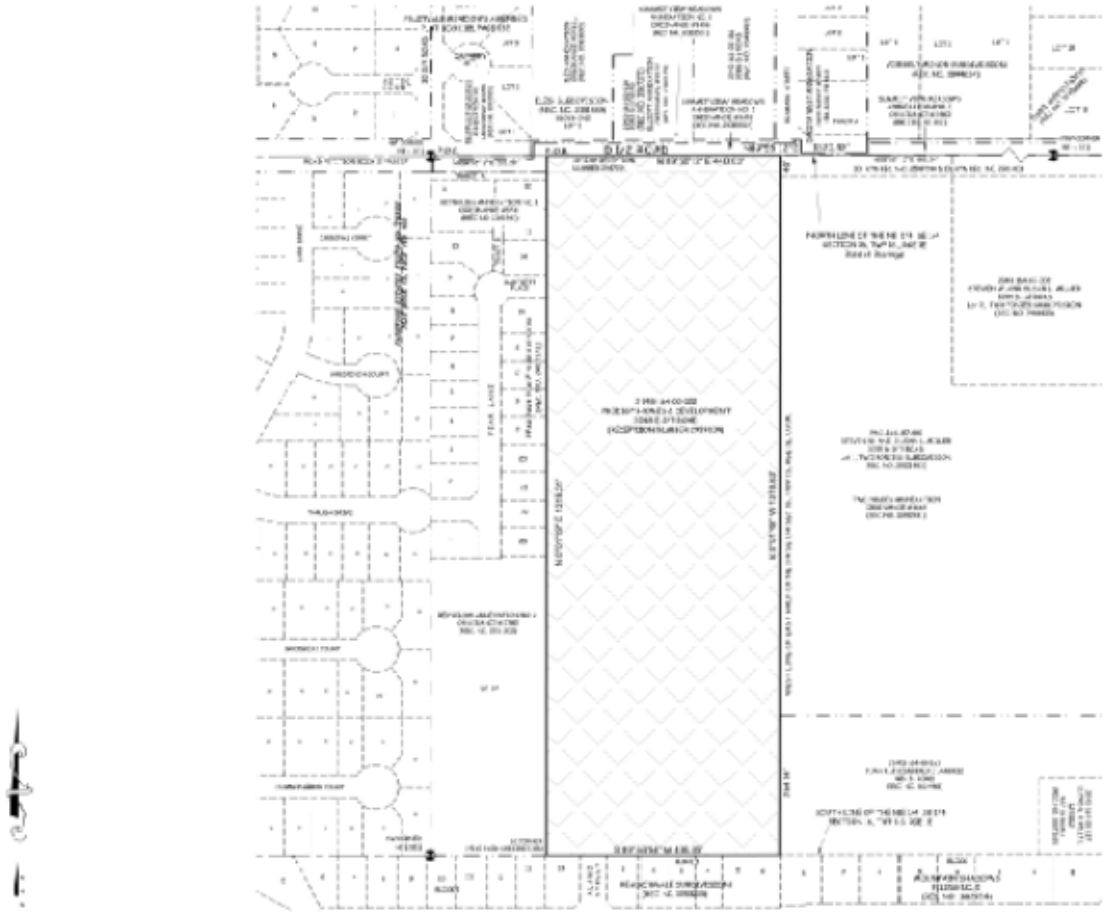
Attest:

_____
City Clerk

Exhibit A

BLUE MESA ESTATES ANNEXATION

LYING IN THE NE 1/4 SE 1/4 OF SECTION 16, TOWNSHIP 1 SOUTH, RANGE 1 EAST, UTE MERIDIAN
COUNTY OF MESA, STATE OF COLORADO





LOCATION MAP NOT TO SCALE

DESCRIPTION

A parcel of land lying in the Northeast Quarter of the Southeast Quarter (NE1/4 SE1/4) of Section 16, Township 1 South, Range 1 East of the Ute Meridian, being those parcels of land described in Book [illegible] and under Reception Numbers 2547291 and 2559088 and being more particularly described as follows:

COMMENCING at the Northeast corner of said NE1/4 SE1/4 of Section 16 and assuming the North line of said NE1/4 SE1/4 of Section 16 bears N89°51'53"E with all other bearings contained herein being relative thereto; thence from said Point of Commencement, N89°51'53"E, along said North line of the NE1/4 SE1/4 of Section 16, a distance of 330.00 feet to the POINT OF BEGINNING; thence continuing N89°51'53"E along said North line a distance of 440.02 feet to a point on the West line of the East half of said NE1/4 SE1/4; thence S00°01'46"W a distance of 331.50 feet to a point on the South line of said NE1/4 SE1/4 of Section 16; thence S89°51'53"W along said South line a distance of 439.85 feet to the Southeast corner of PEAR PARK PLACE S-R3C/SSE/014 a resubdivision of Lot [illegible] as recorded under Reception Number 2400725; thence N00°02'12"E, a distance of 331.31 feet, to the Point of Beginning.

Containing 58,448 Square Feet or 13.33 Acres, more or less, as described.

ABBREVIATIONS

N.D.C.	POINT OF COMMENCEMENT
N.O.B.	POINT OF BEGINNING
N.1/4	NORTH 1/4
SEC.	SECTION
TWP.	TOWNSHIP
RGE.	RANGE
U.M.	UTE MERIDIAN
NO.	NUMBER
NO. #'S	NUMBERS
Dr.	DRIVE
Cir.	CIRCLE
Ave.	AVENUE
APP.	APPROACH
CNTR.	CENTER
CNTRLN.	CENTERLINE
R.O.W.	RIGHT-OF-WAY
ROW	RIGHT-OF-WAY
INC.	INCORPORATED
REC.	RECORDED
RECEPT.	RECEPTION

The Surveyor who described hereon has been retained by the subdivision party, their consultants and attorneys and said Survey Plats as they appear in the office of the Mesa County Clerk and Recorder. This plat does not constitute a legal survey and is not intended to be used as a means for establishing or verifying property boundary lines.

AREA OF ANNEXATION

PARCELS WITHIN ROW	[illegible]
CONTIGUOUS PERIMETER	[illegible]
AREA OF WATER (ROW)	[illegible]
AREA OF LAND	[illegible]
TOTAL AREA	[illegible]

LEGEND

ANNEXATION BOUNDARY	
EXISTING CITY LIMITS	

GRAPHIC SCALE

ORDINANCE NO.

EFFECTIVE DATE

THIS IS NOT A BOUNDARY SURVEY

Trevor R. Reimer, PLS No. 38266
Professional Land Surveyor for the
City of Grand Junction

DATE: 03-12-2021

NOTES: Assembly to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.	DRAWN BY: BLF DATE: 09-1-2021 DESIGNED BY: DATE: CHECKED BY: S.C. DATE: 09-03-2021 APPROVED BY: DATE:	SCALE 1" = 100'	Grand Junction COLORADO	PUBLIC WORKS ENGINEERING DIVISION SURVEY DEPARTMENT	BLUE MESA ESTATES ANNEXATION	1 OF 1

Grand Junction City Council

Regular Session

Item #3.a.

Meeting Date: May 5, 2021

Presented By: Trent Prall, Public Works Director, Jay Valentine, General Services Director

Department: Public Works - Streets

Submitted By: Trent Prall, Public Works Director

Information

SUBJECT:

Contract Approval for Trucking for Chip Seal Road Oil

RECOMMENDATION:

Authorize the City Purchasing Division to purchase Trucking for Chip Seal Road Oil from AmeriGas Propane dba Propane Transport Int. for the unit per ton haul/delivery price of $74.36 for pump off into City storage tankers, and the unit per ton haul/delivery price of $79.91 for drop off of oil in contractor supplied tankers.

EXECUTIVE SUMMARY:

This request is to authorize the City Purchasing Division to purchase trucking services for delivery of Chip Seal Road Oil from AmeriGas Propane dba Propane Transport Int. to establish pricing for both pump off of oil into City storage tankers as well as for drop off of oil in contractor supplied tankers (referred to as drop and hook). The purchase is 100% funded by the City Street Maintenance allocation within the 0.75% sales tax for capital improvements. The total aggregate spend of the contract is estimated at $72,000. The service was competitively bid, however only one bid was received. Per the City's Purchasing Policy, the award must be approved by City Council.

BACKGROUND OR DETAILED INFORMATION:

The City's street infrastructure is the community's single largest asset with a value of over $266 million. One of the key tasks that protects the asset is the City's annual chip seal program. Each year approximately 800,000 square yards, or approximately 1/12th of the City's street network is chip sealed. This involves laying down a layer of oil followed by a

layer of 3/8" rock or "chips". The last step involves placement of another layer of oil referred to as a fog seal.

The City purchases oil from SunCor Energy (USA) Inc in Denver however the company did not have the trucking capacity to meet the anticipated 10,000-15,000 gallons per day required for the program. Over 226,000 gallons are required for the program.

The City has two, 5000 gallon tankers located at City Shops for a total of 10,000 gallons of storage. However, the program needs on average 15,000 gallons per day so the City needs additional capacity in order to keep the chip seal program on schedule.

This request is to authorize the City Purchasing Division to purchase trucking services for delivery of chip seal road oil from AmeriGas Propane dba Propane Transport Int. for

1. Pump off of oil into the City's two, 5000 gallon storage tankers located at City Shops for the unit per ton haul/delivery price of $74.36 (approximately $0.31/gal)

2. Drop off of oil in contractor supplied tankers (also known as "drop and hook") for the unit per ton haul/delivery price of $79.91 (approximately $0.34/gal).

The purchase is 100% funded by the City Street Maintenance allocation within the 0.75% sales tax for capital improvements. The service was competitively bid, however only one bid was received.

Contributing factors to only receiving a single bid for these services include:
1. Trucking for road oil requires a very specialized trucking tanker.
2. Road, bridge, and infrastructure construction is currently booming.
3. There are only a limited number of tankers available for the drop & hook option.

Per the City's Purchasing Policy, with only one bid received, the award must be approved by City Council. The estimated annual aggregate spend under this contract is estimated to be $72,000.

A formal Invitation for bid was issued via BidNet (an on-line site for government agencies to post solicitations), posted on the City's Purchasing website, sent to the Grand Junction Chamber of Commerce and the Western Colorado Contractors Association, sent to a secondary vendor list, and advertised in *The Daily Sentinel*. One company submitted a formal bid, which was found to be responsive and responsible in the following amounts.

Firm	Location	Price for Pump Off into City Storage Tanker (Per Ton)	Price for Drop of oil in Contractor Supplied Tanker (Per Ton)
AmeriGas Propane dba Propane Transport Int.	Houston, TX	$74.36	$79.91

FISCAL IMPACT:

The trucking service is estimated at $72,000. The expense is 100% funded by the City's 0.75% sales tax dedicated to capital improvements and is in the 2021 Budget for Street Maintenance.

SUGGESTED MOTION:

I move to authorize the City Purchasing Division to purchase trucking services for the delivery of Chip Seal Oil from AmeriGas Propane dba Propane Transport Int. for the unit per ton haul/delivery price of $74.36 for pump off into City storage tankers, and the unit per ton haul/delivery price of $79.91 for drop off of oil in contractor supplied tankers. The estimated annual aggregate spend is estimated to be $72,000.

Attachments

None

Grand Junction City Council

Regular Session

Item #3.b.

Meeting Date: May 5, 2021

Presented By: Trent Prall, Public Works Director, Jay Valentine, General Services Director

Department: Public Works - Streets

Submitted By: Trent Prall, Public Works Director

Information

SUBJECT:

Contract Approval for Chip Seal Road Oil - 2021

RECOMMENDATION:

Authorize the City Purchasing Division to purchase Chip Seal Road Oil from Suncor Energy (USA) Inc. for the unit per gallon price of $2.01. The total aggregate spend of the contract is estimated at $454,260.00.

EXECUTIVE SUMMARY:

This request is to authorize the City Purchasing Division to purchase Chip Seal Road Oil from Suncor Energy (USA) Inc at a cost of $2.01 per gallon. The purchase is 100% funded by the City Street Maintenance allocation within the 0.75% sales tax for capital improvements. The total aggregate spend of the contract is estimated at $454,260.00.

BACKGROUND OR DETAILED INFORMATION:

The City's street infrastructure is the community's single largest asset with a value of over $266 million. One of the key tasks that protects the asset is the City's annual chip seal program. Each year approximately 800,000 square yards, or approximately 1/12th of the City's street network is chip sealed. This involves laying down a layer of oil followed by a layer of 3/8" rock or "chips". The last step involves placement of another layer of oil referred to as a fog seal.

The contract calls for CRS-2P Cationic Rapid Setting Emulsified Asphalt Polymer Modified road oil for the City's 2021 Chip Seal Program.

Suncor Energy (USA) Inc has historically provided trucking as well, but this year they did not have the trucking capacity to meet the anticipated 10,000-15,000 gallons per day, with peaks up to 20,000 gallons per day, required for the program. Therefore the City is developing another contract with AmeriGas Propane dba Propane Transport Int. to deliver the product. An estimated 226,000 gallons are required for the program.

This request is to authorize the City Purchasing Division to purchase chip seal road oil from Suncor Energy (USA) Inc for the unit price per gallon of $2.01. The purchase is 100% funded by the City Street Maintenance allocation within the 0.75% sales tax. The contract award would allow for up to 3 additional, 1 year renewal options. This contract is being established for the purchase of the road oil only. As previously mentioned, the trucking of the oil will be established in a separate contract.

A formal Invitation for bid was issued via BidNet (an on-line site for government agencies to post solicitations), posted on the City's Purchasing website, sent to the Grand Junction Chamber of Commerce and the Western Colorado Contractors Association, and advertised in The Daily Sentinel. One company submitted a formal bid, which was found to be responsive and responsible in the following amounts.

Firm	Location	Price per gallon	Estimated Aggregate Price
Suncor Energy (USA) Inc	Denver, CO	$2.01	$454,260.00

FISCAL IMPACT:

The chip seal road oil contract is estimated at $454,260.00. The expense is planned and budgeted in the City's 0.75% sales tax fund in the 2021 budget for Street Maintenance.

SUGGESTED MOTION:

I move to authorize the City Purchasing Division to purchase Chip Seal Road Oil from Suncor Energy (USA) Inc for the unit price of $2.01 per gallon. The estimated annual aggregate spend is estimated to be $454,260.00.

Attachments

None

Grand Junction City Council

Regular Session

Item #4.a.

Meeting Date: May 5, 2021

Presented By: Trent Prall, Public Works Director

Department: Public Works - Engineering

Submitted By: Trent Prall, Public Works Director

Information

SUBJECT:

A Resolution Authorizing the City Manager to Submit a Grant Application for the Revitalizing Main Streets Grant Program

RECOMMENDATION:

Authorize the City Manager to submit an application in response to the Colorado Department of Transportation (CDOT) call for projects for the Revitalizing Main Streets program for the Crosby Ave Reconstruction.

EXECUTIVE SUMMARY:

The Colorado Department of Transportation has opened applications for funding under the Revitalizing Main Streets Grant Program. Two funding opportunities exist under this program: $22 million to be disbursed in amounts of up to $2 million ("large" grants or "Opportunity 1"); and, $8 million to be disbursed in amounts of up to $200,000 ("small" grants or "Opportunity 2"). This request pertains to the Opportunity 1: Larger Safety Infrastructure Grant, for which the call for projects has a request deadline of May 14, 2021.

City staff recommends that substantial roadway upgrades to Crosby Avenue be selected as the object of the City's grant request for this opportunity. The project will provide strong multi-modal connection between Main Street, the Rimrock shopping area, and the existing bicycle-pedestrian bridge over the Union Pacific Railroad tracks between Riverside neighborhood and the rest of Downtown.

BACKGROUND OR DETAILED INFORMATION:

Grant background:
The Revitalizing Main Streets grant fund was developed in 2020 as part of the State of Colorado's response to the COVID-19 pandemic. Early rounds of grant funding under this program were limited to amounts of $50,000 with a local match of at least 10%. The City of Grand Junction was awarded a grant of that amount to install bicycle and pedestrian wayfinding signage throughout the community, and this project was completed in early 2021.

The Revitalizing Main Streets grant was expanded in March of 2021 to include this Opportunity 1: Larger Safety Infrastructure Grant (up to $2 million) and an Opportunity 2 grant program (up to $200,000).

To be eligible for funding, a project should meet all or most of the Program Safety Goals and Economic Recovery Benefits:

- Reduce fatal and serious injury crashes on the transportation system, particularly among bicyclists and pedestrians;

- Support a transportation system that safely accommodates all modes of travel;

- Improve transit access and bike and pedestrian safety and mobility;

- Support the development of connected urban/employment centers and multimodal corridors;

- Provide safe access to opportunity and mobility for residents of all ages, incomes and abilities, including vulnerable users;

- Help communities adjust to the "new normal" travel patterns caused by COVID-19; and

- Deliver practical, simple projects that help stimulate the economy and provide immediate business and employment opportunities in the construction industry.

Project sponsors are not required to commit a match but matching of at least 20% will receive the highest mark for the funding criterion. City staff proposes a 25% match comprised of Transportation Capacity Payment (TCP) funds raised through fees charged to private development as well as Street Maintenance Fund.

Criteria of Award:

CDOT has established the following criteria for the grant award. The Crosby roadway upgrade is considered by staff to be a highly competitive proposal.

Safety (30%) – There is limited incident data for Crosby Avenue, and it is therefore challenging to quantify the safety improvements proposed. CDOT is encouraging, in the absence of hard data, a qualitative narrative describing the existing narrow footprint Crosby Ave, new residential development and proposed improvements to provide bike lanes, detached path, and street lighting for the "backdoor" connection between Downtown, Riverside and El Poso Neighborhoods, and the Rimrock Business District specifically mentioning the new high density residential under construction at the Railyard.

Promotes Active Transportation (10%) – City staff believe that this project will result in a score of 4 or 5 out of 5 possible points, as it provides more than moderate improvements to new and/or safer access to bike, walking, and transit.

Readiness of Implementation (10%) – Scoring is based on how soon the project will be completed with projects completed by end of 2021 scoring 5 while completion by end of 2024 would score 0. Staff believes construction should be complete by the end of 2023 which should a 2.

Funding Need (10%) – While the project is identified in the City's 10 year Capital Improvement Program (CIP) it is not presently in the balanced 5-year CIP. Staff anticipates full or near-full points on this criterion

Diversity of Funding (10%) – Points are awarded on this criterion to communities that have not received recently substantial CDOT funding in similar grant programs. The City received a $50,000 award for a previous round of Revitalizing Main Streets within the last 12 months, but was not eligible for the Safer Main Streets grant, which was open only to communities in the area of the Denver Regional Council of Governments (DRCOG). Grant match is proposed to come from Transportation Capacity Payments as well as Street Maintenance funds. Staff anticipates full points on this criterion.

Economic Revitalization Benefits (10%) – The City and County median income based on most recent census data places this application in the income bracket of $45k - $65k, resulting in an award of 4 out of 5 points for this criterion.

Public Support (10%) – Letters of support are anticipated to be received from the Urban Trails Committee (UTC), Regional Transportation Planning Office (RTPO), Downtown Development Authority (DDA), and potentially others.

Local Match (10%) – Project sponsors are not required to commit a match but matching of 20% will receive the highest mark for the funding criterion. City staff proposes a 25% match comprised of Transportation Capacity Payment (TCP) funds raised through fees charged to private development, with supplemental funding from the Street Maintenance Fund.

Selected project:
The City continues to invest in Complete Streets Improvements per the adopted Complete Streets Policy, focusing on upgrading streets that serve residential and commercial nodes, as well as on connections that provide a high return in terms of connectivity and safety.

Crosby Avenue extends directly from West Main Street as it leaves the downtown core, connecting to the Rimrock shopping area and the recently constructed Railyard at Rimrock Apartments, one of the largest multifamily residential developments in the City limits. It also serves two of the city's lowest-income neighborhoods, the El Poso and Riverside neighborhoods. Crosby is also the outlet of the bicycle-pedestrian bridge that traverses the Union Pacific Railroad tracks.

Union Pacific Railroad (UPRR) infrastructure bisects much of the Grand Valley creating a significant barrier from the north side to the south side. Maximizing bicycle and pedestrian infrastructure that serves connections that traverse the tracks is of high importance to the overall bicycle and pedestrian network. This is of particular relevance in the vicinity of the Colorado Riverfront Trail, which is accessed just to the west of Crosby Avenue. The Riverfront Trail serves as the spine of active transportation in the community, functioning like an arterial for non-motorized transportation; direct access to it from shopping and residential centers is vital to achieving the City's vision for active transportation.

The pursuit of connectivity in the trail and path network is highlighted in several adopted policy documents. Connectivity is one of five key goals in the Downtown Development Authority's Plan of Development. It is also a primary factor in active transportation investment identified in the 2020 One Grand Junction Comprehensive Plan. The Comprehensive Plan calls specifically for a network that provides opportunity for people "to commute, to run errands, and access leisure activities" (p. 30). The Comprehensive Plan also underscores the need to link transit to active transportation. Additionally, the project is specifically identified in both the 2045 Regional Transportation Plan as well as the Urban Trail Committee's top priority projects.

Conditions today do not meet the objectives identified by the Comprehensive Plan. Currently, Crosby Avenue provides only a baseline 24-foot-wide roadway connection with two 12-foot motor vehicle travel lanes with no provisions for bicycles and pedestrians. Landscaping and lighting is non-existent making the area less attractive to

cyclists and pedestrians at present, and a large berm with a raised irrigation facility negatively impact the line of sight for vehicles and pedestrians. Crosby Avenue is already an area of transit access, with a bus stop located at the north end of the facility where Crosby Avenue becomes Base Rock Street, as well as on the east end of the facility where Crosby becomes Main Street.

Proposed improvements would substantially raise the quality of the bicycle and pedestrian experience on Crosby. Upgrades to be developed with this funding include two 5-foot bicycle travel lanes, a 10-foot multimodal path (detached where possible), a lowered and pressurized irrigation conveyance, and substantially improved landscaping and lighting along the half-mile stretch of Crosby. The two motor vehicle travel lanes would be reduced from 12 feet to 11 feet in width with this reconstruction in order to help keep speeds closer to posted limits.

Awards are anticipated within 90 days. Projects must be completed and all billings submitted by June 1, 2024.

If selected, the project is proposed for design in 2022 with construction in 2023.

FISCAL IMPACT:

The Revitalizing Main Streets Opportunity 1: Larger Safety Infrastructure Grant 1, is requested to include a 20% local match. The project is estimated at $2.5 million. The grant request is for $2 million with a 25% match of $500,000. The project is not included in the City's proposed 2021 Capital Improvement Program (CIP), however is included in the City's 10 Year CIP. As the street is in need of heavy maintenance as well additional multi-modal capacity improvements, City staff proposes the 25% match be comprised of Transportation Capacity Payment (TCP) funds raised through fees charged to private development along with with funding from the Street Maintenance budget within the 3/4 cent sales tax for capital improvements. If approved the project would be included in the proposed 2022 budget.

SUGGESTED MOTION:

I move to adopt Resolution No. 40-21, a resolution supporting the grant application for Revitalizing Main Streets Opportunity 1 Grant Program to the Colorado Department of Transportation for reconstruction of Crosby Avenue.

Attachments

1. Resolution - Revitalizing Main Streets Grant

Resolution No. __-21

A RESOLUTION SUPPORTING THE GRANT APPLICATION FOR REVITALIZING MAIN STREETS OPPORTUNITY 1 GRANT PROGRAM FOR CROSBY AVENUE RECONSTRUCTION.

The City Council of the City of Grand Junction by with and through this Resolution expresses its supports for the *Revitalizing Main Streets Opportunity 1: Larger Safety Infrastructure Grant Program* application that the City of Grand Junction will make to the Colorado Department of Transportation for the Crosby Avenue Reconstruction project ("Project.") The Project will provide strong multi-modal connection between Main Street, the Rimrock shopping area, and the existing bicycle-pedestrian bridge over the Union Pacific Railroad tracks between Riverside neighborhood and the rest of Downtown.

The Colorado Department of Transportation has allocated $22 million to be disbursed in amounts of no greater than $2 million to Colorado jurisdictions. A call for projects has been issued.

The *Revitalizing Main Streets Opportunity 1: Larger Safety Infrastructure Grant Program* provides funding for projects such as street upgrades and reconstruction to improve safety for multimodal transportation, as well as other infrastructure projects aimed at achieving safety for multimodal transportation and supporting economic vitality in Colorado communities.

In accordance with the grant purposes, the City proposes to reconstruct approximately one half-mile of Crosby Avenue to install two 5-foot bicycle travel lanes, a 10-foot multimodal path, a lowered and pressurized irrigation conveyance, and substantially improved landscaping and lighting. Completion of the Project is scheduled for 2023.

The City is seeking Colorado Department of Transportation grant funding in the amount of $2 million ("Grant") for the Project. The City staff has recommended that the City Council support the Grant application and if awarded that the Grant be utilized.

Now, therefore be it Resolved by the City Council of the City of Grand Junction, Colorado that:

The City Council of the City of Grand Junction authorizes the expenditure of funds necessary to meet the terms and obligations, including established deadlines, of any Grant awarded.

If the Grant is awarded, the City Council hereby authorizes the City Manager to sign the grant agreement with the Colorado Department of Transportation for the Project.

PASSED and ADOPTED this 5th day of May 2021

_____
President of the Council

ATTEST:

_____
Wanda Winkelmann
City Clerk

DRAFT

Grand Junction City Council

Regular Session

Item #4.b.

Meeting Date: May 5, 2021

Presented By: Greg Caton, City Manager

Department: City Manager's Office

Submitted By: Greg LeBlanc, Sr. Asst. to the City Manager

Information

SUBJECT:

A Resolution Authorizing the City Manager to Accept Airport Authority Grant Offer No. 67

RECOMMENDATION:

Approve the Runway 11/29 and Taxiway A Rehabilitation grant offer No. 3-08-0027-067-2021 in the amount of $5,666,666 between the Federal Aviation Administration, Mesa County, the City of Grand Junction, and the Grand Junction Regional Airport Authority and the Co-Sponsorship Agreement between the City of Grand Junction and the Grand Junction Regional Airport Authority and authorize the City Manager and City Attorney to sign.

EXECUTIVE SUMMARY:

The Runway 11/29 and Taxiway A Rehabilitation Grant offer from the FAA is to fund a second phase of rehabilitation construction costs for Taxiway A and Runway 11/29 and will cover 100% of the project costs. The rehabilitation work was split into two phases in the Authority's Construction Improvement Program (CIP) and the first phase of rehabilitation was completed in 2018-2019. The design of the project was completed and funded by the FAA in 2020. As creators and co-sponsors of the Airport Authority, both the County Commissioners and the City Council must also approve grant awards from the FAA to the Airport Authority. The Airport Board of Commissioners approved the grant offer at the April 20, 2021 meeting and is scheduled to be reviewed by the County at the May 3, 2021 meeting and City Council at the May 5, 2021 meeting.

BACKGROUND OR DETAILED INFORMATION:

Pursuant to the Title 49, U.S.C., Subtitle VII, Part B, as amended, the Airport Authority has applied for monies from the Federal Aviation Administration ("FAA"), for the construction of certain improvements upon the Airport, pursuant to the terms, plans and specifications set forth in AIP Grant No. 3-08-0027-067-2021 ("Project").

The FAA is willing to provide $5,666,666 toward the estimated costs of the Projects, provided the City of Grand Junction and Mesa County execute the Grant Agreement as co-sponsors with the Airport Authority. The FAA is insisting that the City and County execute the Grant Agreement as co-sponsors for two primary reasons. First, the City and County have taxing authority, whereas the Airport Authority does not; accordingly, the FAA is insisting that the City and County execute the Grant Agreement so that public entities with taxing authority are liable for the financial commitments required of the Sponsor under the Grant Agreements, should the Airport Authority not be able to satisfy said financial commitments out of the net revenues generated by the operation of the Airport. In addition, the City and County have jurisdiction over the zoning and land use regulations of the real property surrounding the Airport, whereas the Airport Authority does not enjoy such zoning and land use regulatory authority. By their execution of the Grant Agreement, the City and County would be warranting to the FAA that the proposed improvements are consistent with their respective plans for the development of the area surrounding the Airport, and that they will take appropriate actions, including the adoption of zoning laws, to restrict the use of land surrounding the Airport to activities and purposes compatible with normal Airport operations.

The City is willing to execute the Grant Agreement, as a co-sponsor, pursuant to the FAA's request, subject to the terms and conditions of this Supplemental Co-Sponsorship Agreement between the City and Airport Authority.

FISCAL IMPACT:

No direct fiscal impact to the City.

SUGGESTED MOTION:

I move to adopt Resolution No. 41-21, a resolution authorizing the City Manager to sign and submit a grant agreement and supplemental co-sponsorship agreement in support of the Runway 11/29 and Taxiway Rehabilitation Grant at Grand Junction Regional Airport.

Attachments

1. Grant Offer Agreement
2. Co-Sponsorship Agreement
3. Resolution-AIP-067-2021

U.S. Department
of Transportation
**Federal Aviation
Administration**

Northwest Mountain Region
Colorado · Idaho · Montana · Oregon · Utah
Washington · Wyoming

Denver Airports District Office
26805 E. 68th Ave., Suite 224
Denver, CO 80249

April 20, 2021

Mr. Thomas Benton, Chair
Grand Junction Regional Airport Authority
800 Eagle Drive
Grand Junction, Colorado 81506

Mr. Greg Caton, Manager
City of Grand Junction
250 North Fifth Street
Grand Junction, Colorado 81501

Ms. Janet Rowland, Chair
Mesa County Board of Commissioners
544 Rood Avenue
Grand Junction, Colorado 81501

Dear Mr. Benton, Mr. Caton, and Commissioner Rowland:

We are transmitting to you for execution the Grant Offer for Airport Improvement Program (AIP) Project No. 3-08-0027-067-2021 at the Grand Junction Regional Airport. Please read this letter and the Grant Offer carefully.

To properly enter into this agreement, you must do the following:

- The governing body must provide authority to execute the grant to the individual signing the grant; i.e. the sponsor's authorized representative.
- The grant must be executed no later than May 20, 2021, in order for the grant to be valid.
- The sponsor's authorized representative must execute the grant by providing their electronic signature.
- Once the sponsor's authorized representative has electronically signed the grant, the sponsor's attorney will automatically be sent via email the grant to provide their electronic signature.
- You may not make any modification to the text, terms or conditions of the grant offer.
- Following the attorney's action, the executed grant will be automatically sent to all parties as an attachment to an email.

Subject to the requirements in 2 CFR § 200.305, each payment request for reimbursement under this grant must be made electronically via the Delphi eInvoicing System. Please see the attached Grant Agreement for more information regarding the use of this System.

The terms and conditions of this agreement require you to complete the project without undue delay. To ensure proper stewardship of Federal funds, **you are expected to submit payment requests for**

reimbursement of allowable incurred project expenses in accordance with project progress. Should you fail to make draws on a regular basis, your grant may be placed in "inactive" status, which will affect your ability to receive future grant offers.

Until the grant is completed and closed, you are responsible for submitting formal reports as follows:

- A signed/dated SF-270 (non-construction projects) or SF-271 or equivalent (construction projects) and SF-425 annually, due 90 days after the end of each federal fiscal year in which this grant is open (due December 31 of each year this grant is open); and
- Performance Reports, which are due within 30 days of the end of a reporting period as follows:
    1. Non-construction project: Due annually at the end of the Federal fiscal year.
    2. Construction project: Submit FAA form 5370-1, Construction Progress and Inspection Report at the end of each fiscal quarter.

Once the project is completed and all costs are determined, we ask that you close the project without undue delay and submit the final closeout report documentation as required by FAA's Denver Airports District Office.

As a condition of receiving Federal assistance under this award, you must comply with audit requirements as established under 2 CFR part 200. Subpart F requires non-Federal entities that expend $750,000 or more in Federal awards to conduct a single or program specific audit for that year. Note that this includes Federal expenditures made under other Federal-assistance programs. Please take appropriate and necessary action to assure your organization will comply with applicable audit requirements and standards. **A copy of a "Single Audit Certification Form" will be sent separately via email.** Please complete and return a copy to our office with the executed Grant Agreement. Please make a copy for your files.

Kristin Brownson is the assigned program manager for this grant and is readily available to assist you and your designated representative with the requirements stated herein. If you should have any questions, please contact Kristin at Kristin.Brownson@faa.gov.

We sincerely value your cooperation in these efforts and look forward to working with you to complete this important project.

Sincerely,

John P Bauer (Apr 20, 2021 20:15 MDT)

John P. Bauer
Manager, Denver Airports District Office

Enclosures

U.S. Department
of Transportation
Federal Aviation
Administration

FAA Airport Improvement Program (AIP)
GRANT AGREEMENT
Part I - Offer

Federal Award Offer Date	April 20, 2021
Airport/Planning Area	Grand Junction Regional Airport
FY2021 AIP Grant Number	3-08-0027-067-2021 [Contract No. DOT-FA21NM-1004]
Unique Entity Identifier	15-613-5394

TO: County of Mesa, Colorado; City of Grand Junction, Colorado;
and the Grand Junction Regional Airport Authority

(herein called the "Sponsor") (For Co-Sponsors, list all Co-Sponsor names. The word "Sponsor" in this Grant Agreement also applies to a Co-Sponsor.)

FROM: **The United States of America** (acting through the Federal Aviation Administration, herein called the "FAA")

WHEREAS, the Sponsor has submitted to the FAA a Project Application dated July 22, 2020, for a grant of Federal funds for a project at or associated with the Grand Junction Regional Airport, which is included as part of this Grant Agreement; and

WHEREAS, the FAA has approved a project for the Grand Junction Regional Airport (herein called the "Project") consisting of the following:

Rehabilitate Runway 11/29 (phase 2 - construction) and
Rehabilitate Taxiway A (Commercial Apron Section and
BLM to Twin Otter Section (phase 3 - construction))

which is more fully described in the Project Application.

NOW THEREFORE, Pursuant to and for the purpose of carrying out the FAA Reauthorization Act of 2018 (Public Law Number 115-254); Title 49, United States Code (U.S.C.), Chapters 471 and 475; 49 U.S.C. §§ 40101 et seq., and 48103; the Department of Transportation Appropriations Act, 2021 (Public Law 116-260, Division L), as further amended by the American Rescue Plan Act of 2021 (Public Law 117-2); and the representations contained in the Project Application; and in consideration of: (a) the Sponsor's adoption and ratification of the Grant Assurances attached hereto; (b) the Sponsor's acceptance of this

Offer; and (c) the benefits to accrue to the United States and the public from the accomplishment of the Project and compliance with the Grant Assurance and conditions as herein provided;

THE FEDERAL AVIATION ADMINISTRATION, FOR AND ON BEHALF OF THE UNITED STATES, HEREBY OFFERS AND AGREES to pay 100.00 percent of the allowable costs incurred accomplishing the Project as the United States share of the Project.

Assistance Listings Number (Formerly CFDA Number): 20.106

This Offer is made on and SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

CONDITIONS

1. **Maximum Obligation**. The maximum obligation of the United States payable under this Offer is $5,666,666.

   The following amounts represent a breakdown of the maximum obligation for the purpose of establishing allowable amounts for any future grant amendment, which may increase the foregoing maximum obligation of the United States under the provisions of 49 U.S.C. § 47108(b):
   $0 for planning;
   $5,666,666 airport development or noise program implementation; and,
   $0 for land acquisition.

   The source of this Grant includes funding from the Small Airport Fund, in accordance with 49 U.S.C. § 47116.

2. **Grant Performance**. This Grant Agreement is subject to the following Federal award requirements:

   a. Period of Performance:

      1. Shall start on the date the Sponsor formally accepts this Agreement and is the date signed by the last Sponsor signatory to the Agreement. The end date of the Period of Performance is 4 years (1,460 calendar days) from the date of acceptance. The Period of Performance end date shall not affect, relieve, or reduce Sponsor obligations and assurances that extend beyond the closeout of this Grant Agreement.

      2. Means the total estimated time interval between the start of an initial Federal award and the planned end date, which may include one or more funded portions or budget periods. (2 Code of Federal Regulations (CFR) § 200.1).

   b. Budget Period:

      1. For this Grant is 4 years (1,460 calendar days) and follows the same start and end date as the period of performance provided in Paragraph a.1. Pursuant to 2 CFR § 200.403(h), the Sponsor may charge to the Grant only allowable costs incurred during the Budget Period.

      2. Means the time interval from the start date of a funded portion of an award to the end date of that funded portion during which the Sponsor is authorized to expend the funds awarded, including any funds carried forward or other revisions pursuant to § 200.308.

   c. Close Out and Termination

      1. Unless the FAA authorizes a written extension, the Sponsor must submit all Grant closeout documentation and liquidate (pay-off) all obligations incurred under this award no later than 120 calendar days after the end date of the period of performance. If the Sponsor

does not submit all required closeout documentation within this time period, the FAA will proceed to close out the grant within one year of the period of performance end date with the information available at the end of 120 days. (2 CFR § 200.344).

2. The FAA may terminate this Grant, in whole or in part, in accordance with the conditions set forth in 2 CFR § 200.340, or other Federal regulatory or statutory authorities as applicable.

3. **Ineligible or Unallowable Costs.** The Sponsor must not include any costs in the project that the FAA has determined to be ineligible or unallowable.

4. **Indirect Costs - Sponsor.** The Sponsor may charge indirect costs under this award by applying the indirect cost rate identified in the project application as accepted by the FAA, to allowable costs for Sponsor direct salaries and wages.

5. **Determining the Final Federal Share of Costs.** The United States' share of allowable project costs will be made in accordance with 49 U.S.C. § 47109, the regulations, policies, and procedures of the Secretary, and any superseding legislation. Final determination of the United States' share will be based upon the final audit of the total amount of allowable project costs and settlement will be made for any upward or downward adjustments to the Federal share of costs.

6. **Completing the Project Without Delay and in Conformance with Requirements.** The Sponsor must carry out and complete the project without undue delays and in accordance with this Agreement, 49 U.S.C. Chapters 471 and 475, and the regulations, policies, and procedures of the Secretary of Transportation ("Secretary"). Per 2 CFR § 200.308, the Sponsor agrees to report to the FAA any disengagement from performing the project that exceeds three months or a 25 percent reduction in time devoted to the project, and request prior approval from FAA. The report must include a reason for the project stoppage. The Sponsor also agrees to comply with the grant assurances, which are part of this Agreement.

7. **Amendments or Withdrawals before Grant Acceptance.** The FAA reserves the right to amend or withdraw this offer at any time prior to its acceptance by the Sponsor.

8. **Offer Expiration Date.** This offer will expire and the United States will not be obligated to pay any part of the costs of the project unless this offer has been accepted by the Sponsor on or before May 20, 2021, or such subsequent date as may be prescribed in writing by the FAA.

9. **Improper Use of Federal Funds.** The Sponsor must take all steps, including litigation if necessary, to recover Federal funds spent fraudulently, wastefully, or in violation of Federal antitrust statutes, or misused in any other manner for any project upon which Federal funds have been expended. For the purposes of this Grant Agreement, the term "Federal funds" means funds however used or dispersed by the Sponsor, that were originally paid pursuant to this or any other Federal grant agreement. The Sponsor must obtain the approval of the Secretary as to any determination of the amount of the Federal share of such funds. The Sponsor must return the recovered Federal share, including funds recovered by settlement, order, or judgment, to the Secretary. The Sponsor must furnish to the Secretary, upon request, all documents and records pertaining to the determination of the amount of the Federal share or to any settlement, litigation, negotiation, or other efforts taken to recover such funds. All settlements or other final positions of the Sponsor, in court or otherwise, involving the recovery of such Federal share require advance approval by the Secretary.

10. **United States Not Liable for Damage or Injury.** The United States is not responsible or liable for damage to property or injury to persons which may arise from, or be incident to, compliance with this Grant Agreement.

11. **System for Award Management (SAM) Registration and Unique Entity Identifier (UEI).**

a. Requirement for System for Award Management (SAM): Unless the Sponsor is exempted from this requirement under 2 CFR 25.110, the Sponsor must maintain the currency of its information in the SAM until the Sponsor submits the final financial report required under this grant, or receives the final payment, whichever is later. This requires that the Sponsor review and update the information at least annually after the initial registration and more frequently if required by changes in information or another award term. Additional information about registration procedures may be found at the SAM website (currently at http://www.sam.gov).

b. Unique entity identifier (UEI) means a 12-character alpha-numeric value used to identify a specific commercial, nonprofit or governmental entity. A UEI may be obtained from SAM.gov at https://sam.gov/SAM/pages/public/index.jsf.

12. **Electronic Grant Payment(s)**. Unless otherwise directed by the FAA, the Sponsor must make each payment request under this Agreement electronically via the Delphi eInvoicing System for Department of Transportation (DOT) Financial Assistance Awardees.

13. **Informal Letter Amendment of AIP Projects**. If, during the life of the project, the FAA determines that the maximum grant obligation of the United States exceeds the expected needs of the Sponsor by $25,000 or five percent (5%), whichever is greater, the FAA can issue a letter amendment to the Sponsor unilaterally reducing the maximum obligation.

    The FAA can also issue a letter to the Sponsor increasing the maximum obligation if there is an overrun in the total actual eligible and allowable project costs to cover the amount of the overrun provided it will not exceed the statutory limitations for grant amendments. The FAA's authority to increase the maximum obligation does not apply to the "planning" component of Condition No. 1.

    The FAA can also issue an informal letter amendment that modifies the grant description to correct administrative errors or to delete work items if the FAA finds it advantageous and in the best interests of the United States.

    An informal letter amendment has the same force and effect as a formal grant amendment.

14. **Air and Water Quality**. The Sponsor is required to comply with all applicable air and water quality standards for all projects in this grant. If the Sponsor fails to comply with this requirement, the FAA may suspend, cancel, or terminate this Grant Agreement.

15. **Financial Reporting and Payment Requirements**. The Sponsor will comply with all Federal financial reporting requirements and payment requirements, including submittal of timely and accurate reports.

16. **Buy American**. Unless otherwise approved in advance by the FAA, in accordance with 49 U.S.C. § 50101, the Sponsor will not acquire or permit any contractor or subcontractor to acquire any steel or manufactured products produced outside the United States to be used for any project for which funds are provided under this grant. The Sponsor will include a provision implementing Buy American in every contract and subcontract awarded under this Grant.

17. **Maximum Obligation Increase**. In accordance with 49 U.S.C. § 47108(b)(3), as amended, the maximum obligation of the United States, as stated in Condition No. 1 of this Grant Offer:

    a. May not be increased for a planning project;

    b. May be increased by not more than 15 percent for development projects if funds are available;

    c. May be increased by not more than the greater of the following for a, land project, if funds are available:

        1. 15 percent; or

2. 25 percent of the total increase in allowable project costs attributable to acquiring an interest in the land.

If the sponsor requests an increase, any eligible increase in funding will be subject to the United States Government share as provided in 49 U.S.C. § 47110, or other superseding legislation if applicable, for the fiscal year appropriation with which the increase is funded. The FAA is not responsible for the same Federal share provided herein for any amount increased over the initial grant amount. The FAA may adjust the Federal share as applicable through an informal letter of amendment.

18. **Audits for Sponsors**.

PUBLIC SPONSORS. The Sponsor must provide for a Single Audit or program-specific audit in accordance with 2 CFR Part 200. The Sponsor must submit the audit reporting package to the Federal Audit Clearinghouse on the Federal Audit Clearinghouse's Internet Data Entry System at http://harvester.census.gov/facweb/. Upon request of the FAA, the Sponsor shall provide one copy of the completed audit to the FAA.

19. **Suspension or Debarment**. When entering into a "covered transaction" as defined by 2 CFR § 180.200, the Sponsor must:

a. Verify the non-Federal entity is eligible to participate in this Federal program by:

1. Checking the excluded parties list system (EPLS) as maintained within the System for Award Management (SAM) to determine if the non-Federal entity is excluded or disqualified; or
2. Collecting a certification statement from the non-Federal entity attesting they are not excluded or disqualified from participating; or
3. Adding a clause or condition to covered transactions attesting individual or firm are not excluded or disqualified from participating.

b. Require prime contractors to comply with 2 CFR § 180.330 when entering into lower-tier transactions (e.g. Sub-contracts).

c. Immediately disclose to the FAA whenever the Sponsor (1) learns they have entered into a covered transaction with an ineligible entity or (2) suspends or debars a contractor, person, or entity.

20. **Ban on Texting While Driving**.

a. In accordance with Executive Order 13513, Federal Leadership on Reducing Text Messaging While Driving, October 1, 2009, and DOT Order 3902.10, Text Messaging While Driving, December 30, 2009, the Sponsor is encouraged to:

1. Adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers including policies to ban text messaging while driving when performing any work for, or on behalf of, the Federal government, including work relating to a grant or subgrant.
2. Conduct workplace safety initiatives in a manner commensurate with the size of the business, such as:

a. Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and

b. Education, awareness, and other outreach to employees about the safety risks associated with texting while driving.

b. The Sponsor must insert the substance of this clause on banning texting while driving in all subgrants, contracts, and subcontracts funded with this Grant.

21. **Trafficking in Persons**.

a. You as the recipient, your employees, subrecipients under this Grant, and subrecipients' employees may not –

1. Engage in severe forms of trafficking in persons during the period of time that the Grant and applicable conditions are in effect;
2. Procure a commercial sex act during the period of time that the Grant and applicable conditions are in effect; or
3. Use forced labor in the performance of the Grant or any subgrants under this Grant.

b. We as the Federal awarding agency, may unilaterally terminate this Grant, without penalty, if you or a subrecipient that is a private entity –

1. Is determined to have violated a prohibition in paragraph a. of this condition; or
2. Has an employee who is determined by the agency official authorized to terminate the Grant to have violated a prohibition in paragraph a. of this condition through conduct that is either –
   a. Associated with performance under this Grant; or
   b. Imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR Part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement)," as implemented by our agency at 49 CFR Part 29.

c. You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph a. of this condition.

d. Our right to terminate unilaterally that is described in paragraph a. of this condition:

i. Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and

ii. Is in addition to all other remedies for noncompliance that are available to us under this Grant Agreement.

22. **Exhibit "A" Property Map**. The Exhibit "A" Property Map dated February 2019, is incorporated herein by reference or is submitted with the project application and made part of this Grant Agreement.

23. **Employee Protection from Reprisal**.

a. Prohibition of Reprisals —

1. In accordance with 41 U.S.C. § 4712, an employee of a Sponsor, grantee, subgrantee, contractor, or subcontractor may not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing to a person or body described in sub-paragraph a.2. below, information that the employee reasonably believes is evidence of:
   i. Gross mismanagement of a Federal grant;
   ii. Gross waste of Federal funds;
   iii. An abuse of authority relating to implementation or use of Federal funds;
   iv. A substantial and specific danger to public health or safety; or
   v. A violation of law, rule, or regulation related to a Federal grant.

2. Persons and bodies covered. The persons and bodies to which a disclosure by an employee is covered are as follows:
   i. A member of Congress or a representative of a committee of Congress;
   ii. An Inspector General;
   iii. The Government Accountability Office;
   iv. A Federal employee responsible for contract or grant oversight or management at the relevant agency;
   v. A court or grand jury;
   vi. A management official or other employee of the Sponsor, contractor, or subcontractor who has the responsibility to investigate, discover, or address misconduct; or
   vii. An authorized official of the Department of Justice or other law enforcement agency.
3. Submission of Complaint — A person who believes that they have been subjected to a reprisal prohibited by paragraph a. of this grant term may submit a complaint regarding the reprisal to the Office of Inspector General (OIG) for the U.S. Department of Transportation.
4. Time Limitation for Submittal of a Complaint — A complaint may not be brought under this condition more than three years after the date on which the alleged reprisal took place.
5. Required Actions of the Inspector General — Actions, limitations, and exceptions of the Inspector General's office are established under 41 U.S.C. § 4712(b).
6. Assumption of Rights to Civil Remedy — Upon receipt of an explanation of a decision not to conduct or continue an investigation by the Office of Inspector General, the person submitting a complaint assumes the right to a civil remedy under 41 U.S.C. § 4712(c).

24. **Co-Sponsor**. The Co-Sponsors understand and agree that they jointly and severally adopt and ratify the representations and assurances contained therein and that the word "Sponsor" as used in the application and other assurances is deemed to include all Co-Sponsors.

SPECIAL CONDITIONS

25. **Final Project Documentation.** The Sponsor understands and agrees that in accordance with 49 USC 47111, and with the Airport District Office's (ADO) concurrence, that no payments totaling more than 90.00 percent of United States Government's share of the project's estimated allowable cost may be made before the project is determined to be substantially complete. Substantially complete means the following: (1) The project results in a complete, usable unit of work as defined in the grant agreement; and (2) The sponsor submits necessary documents showing that the project is substantially complete per the contract requirements, or has a plan (that FAA agrees with) that addresses all elements contained on the punch list. Furthermore, no payments totaling more than 97.50 percent of the United States Government's share of the project's estimated allowable cost may be made until: (1) The sponsor submits all necessary closeout documentation and (2) The sponsor receives final payment notification from the ADO.

26. **AGIS Requirements.** Airports GIS requirements, as specified in Advisory Circular 150/5300-18, apply to the project included in this grant offer. Final construction as-built information or planning deliverables must be collected according to these specifications and submitted to the FAA. The submittal must be reviewed and accepted by the FAA before the grant can be administratively closed.

27. **Buy American Executive Orders.** The Sponsor agrees to abide by applicable Executive Orders in effect at the time this Grant Agreement is executed, including Executive Order 14005, Ensuring the Future Is Made in All of America by All of America's Workers.

28. **Pavement Maintenance Management Program**. The Sponsor agrees that it will implement an effective airport pavement maintenance management program as required by Airport Sponsor Grant Assurance 11, Pavement Preventive Management. The Sponsor agrees that it will use the program for the useful life of any pavement constructed, reconstructed, or repaired with Federal financial assistance at the airport. The Sponsor further agrees that the program will:

    a. Follow the current version of FAA Advisory Circular 150/5380-6, "Guidelines and Procedures for Maintenance of Airport Pavements," for specific guidelines and procedures for maintaining airport pavements, establishing an effective maintenance program, specific types of distress and its probable cause, inspection guidelines, and recommended methods of repair;

    b. Detail the procedures to be followed to assure that proper pavement maintenance, both preventive and repair, is performed;

    c. Include a Pavement Inventory, Inspection Schedule, Record Keeping, Information Retrieval, and Reference, meeting the following requirements:

        1. Pavement Inventory. The following must be depicted in an appropriate form and level of detail:

            a. Location of all runways, taxiways, and aprons;

            b. Dimensions;

            c. Type of pavement; and,

            d. Year of construction or most recent major rehabilitation.

        2. Inspection Schedule.

            a. Detailed Inspection. A detailed inspection must be performed at least once a year. If a history of recorded pavement deterioration is available, i.e., Pavement Condition Index (PCI) survey as set forth in the Advisory Circular 150/5380-6, the frequency of inspections may be extended to three years.

            b. Drive-By Inspection. A drive-by inspection must be performed a minimum of once per month to detect unexpected changes in the pavement condition. For drive-by inspections, the date of inspection and any maintenance performed must be recorded.

        3. Record Keeping. Complete information on the findings of all detailed inspections and on the maintenance performed must be recorded and kept on file for a minimum of five years. The type of distress, location, and remedial action, scheduled or performed, must be documented. The minimum information is:

            a. Inspection date;

            b. Location;

            c. Distress types; and

            d. Maintenance scheduled or performed.

        4. Information Retrieval System. The Sponsor must be able to retrieve the information and records produced by the pavement survey to provide a report to the FAA as may be required.

29. **Project Containing Paving Work in Excess of $500,000**. The Sponsor agrees to:

a. Furnish a construction management program to the FAA prior to the start of construction which details the measures and procedures to be used to comply with the quality control provisions of the construction contract, including, but not limited to, all quality control provisions and tests required by the Federal specifications. The program must include as a minimum:

   1. The name of the person representing the Sponsor who has overall responsibility for contract administration for the project and the authority to take necessary actions to comply with the contract;
   2. Names of testing laboratories and consulting engineer firms with quality control responsibilities on the project, together with a description of the services to be provided;
   3. Procedures for determining that the testing laboratories meet the requirements of the American Society of Testing and Materials standards on laboratory evaluation referenced in the contract specifications (D 3666, C 1077);
   4. Qualifications of engineering supervision and construction inspection personnel;
   5. A listing of all tests required by the contract specifications, including the type and frequency of tests to be taken, the method of sampling, the applicable test standard, and the acceptance criteria or tolerances permitted for each type of test; and
   6. Procedures for ensuring that the tests are taken in accordance with the program, that they are documented daily, and that the proper corrective actions, where necessary, are undertaken.

      a. Submit at completion of the project, a final test and quality assurance report documenting the summary results of all tests performed; highlighting those tests that indicated failure or that did not meet the applicable test standard. The report must include the pay reductions applied and the reasons for accepting any out-of-tolerance material. Submit interim test and quality assurance reports when requested by the FAA.

      b. Failure to provide a complete report as described in paragraph b., or failure to perform such tests, will, absent any compelling justification, result in a reduction in Federal participation for costs incurred in connection with construction of the applicable pavement. Such reduction will be at the discretion of the FAA and will be based on the type or types of required tests not performed or not documented and will be commensurate with the proportion of applicable pavement with respect to the total pavement constructed under the Grant Agreement.

      c. The FAA, at its discretion, reserves the right to conduct independent tests and to reduce grant payments accordingly if such independent tests determine that sponsor test results are inaccurate.

#

The Sponsor's acceptance of this Offer and ratification and adoption of the Project Application incorporated herein shall be evidenced by execution of this instrument by the Sponsor, as hereinafter provided, and this Offer and Acceptance shall comprise a Grant Agreement, constituting the contractual obligations and rights of the United States and the Sponsor with respect to the accomplishment of the Project and compliance with the Grant Assurances, terms, and conditions as provided herein. Such Grant Agreement shall become effective upon the Sponsor's acceptance of this Offer.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.[1]

UNITED STATES OF AMERICA
FEDERAL AVIATION ADMINISTRATION

John P Bauer (Apr 20, 2021 20:15 MDT)

(Signature)

John P. Bauer

(Typed Name)

Manager, Denver Airports District Office

(Title of FAA Official)

[1] Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. Section 1001 (False Statements) and could subject you to fines, imprisonment, or both.

Part II - Acceptance

The Sponsor does hereby ratify and adopt all assurances, statements, representations, warranties, covenants, and agreements contained in the Project Application and incorporated materials referred to in the foregoing Offer, and does hereby accept this Offer and by such acceptance agrees to comply with all of the Grant Assurances, terms, and conditions in this Offer and in the Project Application.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.[2]

Dated April 21, 2021

GRAND JUNCTION REGIONAL AIRPORT AUTHORITY

(Name of Sponsor)

Thomas R Benton (Apr 21, 2021 13:14 MDT)

(Signature of Sponsor's Authorized Official)

By: Thomas R Benton

(Typed Name of Sponsor's Authorized Official)

Title: Board Chairman

(Title of Sponsor's Authorized Official)

[2] Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. Section 1001 (False Statements) and could subject you to fines, imprisonment, or both.

CERTIFICATE OF SPONSOR'S ATTORNEY

I, , acting as Attorney for the Sponsor do hereby certify:

That in my opinion the Sponsor is empowered to enter into the foregoing Grant Agreement under the laws of the State of Colorado. Further, I have examined the foregoing Grant Agreement and the actions taken by said Sponsor and Sponsor's official representative, who has been duly authorized to execute this Grant Agreement, which is in all respects due and proper and in accordance with the laws of the said State, the FAA Reauthorization Act of 2018 (Public Law Number 115-254); Title 49 U.S.C., Chapters 471 and 475; 49 U.S.C. §§ 40101, et seq., and 48103; and the Department of Transportation Appropriations Act, 2021 (Public Law 116-260, Division L), as further amended by the American Rescue Plan Act of 2021 (Public Law 117-2). In addition, for grants involving projects to be carried out on property not owned by the Sponsor, there are no legal impediments that will prevent full performance by the Sponsor. Further, it is my opinion that the said Grant Agreement constitutes a legal and binding obligation of the Sponsor in accordance with the terms thereof.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.[3]

Dated at

By:

(Signature of Sponsor's Attorney)

[3] Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. Section 1001 (False Statements) and could subject you to fines, imprisonment, or both.

The Sponsor does hereby ratify and adopt all assurances, statements, representations, warranties, covenants, and agreements contained in the Project Application and incorporated materials referred to in the foregoing Offer, and does hereby accept this Offer and by such acceptance agrees to comply with all of the Grant Assurances, terms, and conditions in this Offer and in the Project Application.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.[4]

Dated

CITY OF GRAND JUNCTION, COLORADO

(Name of Sponsor)

(Signature of Sponsor's Authorized Official)

By: _____

(Typed Name of Sponsor's Authorized Official)

Title: _____

(Title of Sponsor's Authorized Official)

[4] Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. Section 1001 (False Statements) and could subject you to fines, imprisonment, or both.

CERTIFICATE OF SPONSOR'S ATTORNEY

I, , acting as Attorney for the Sponsor do hereby certify:

That in my opinion the Sponsor is empowered to enter into the foregoing Grant Agreement under the laws of the State of Colorado. Further, I have examined the foregoing Grant Agreement and the actions taken by said Sponsor and Sponsor's official representative, who has been duly authorized to execute this Grant Agreement, which is in all respects due and proper and in accordance with the laws of the said State, the FAA Reauthorization Act of 2018 (Public Law Number 115-254); Title 49 U.S.C., Chapters 471 and 475; 49 U.S.C. §§ 40101, et seq., and 48103; and the Department of Transportation Appropriations Act, 2021 (Public Law 116-260, Division L), as further amended by the American Rescue Plan Act of 2021 (Public Law 117-2). In addition, for grants involving projects to be carried out on property not owned by the Sponsor, there are no legal impediments that will prevent full performance by the Sponsor. Further, it is my opinion that the said Grant Agreement constitutes a legal and binding obligation of the Sponsor in accordance with the terms thereof.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.[5]

Dated at

By:

(Signature of Sponsor's Attorney)

[5] Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. Section 1001 (False Statements) and could subject you to fines, imprisonment, or both.

The Sponsor does hereby ratify and adopt all assurances, statements, representations, warranties, covenants, and agreements contained in the Project Application and incorporated materials referred to in the foregoing Offer, and does hereby accept this Offer and by such acceptance agrees to comply with all of the Grant Assurances, terms, and conditions in this Offer and in the Project Application.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.[6]

Dated

COUNTY OF MESA, COLORADO

(Name of Sponsor)

(Signature of Sponsor's Authorized Official)

By: _____

(Typed Name of Sponsor's Authorized Official)

Title: _____

(Title of Sponsor's Authorized Official)

[6] Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. Section 1001 (False Statements) and could subject you to fines, imprisonment, or both.

CERTIFICATE OF SPONSOR'S ATTORNEY

I, , acting as Attorney for the Sponsor do hereby certify:

That in my opinion the Sponsor is empowered to enter into the foregoing Grant Agreement under the laws of the State of Colorado. Further, I have examined the foregoing Grant Agreement and the actions taken by said Sponsor and Sponsor's official representative, who has been duly authorized to execute this Grant Agreement, which is in all respects due and proper and in accordance with the laws of the said State, the FAA Reauthorization Act of 2018 (Public Law Number 115-254); Title 49 U.S.C., Chapters 471 and 475; 49 U.S.C. §§ 40101, et seq., and 48103; and the Department of Transportation Appropriations Act, 2021 (Public Law 116-260, Division L), as further amended by the American Rescue Plan Act of 2021 (Public Law 117-2). In addition, for grants involving projects to be carried out on property not owned by the Sponsor, there are no legal impediments that will prevent full performance by the Sponsor. Further, it is my opinion that the said Grant Agreement constitutes a legal and binding obligation of the Sponsor in accordance with the terms thereof.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.[7]

Dated at

By:

(Signature of Sponsor's Attorney)

[7] Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. Section 1001 (False Statements) and could subject you to fines, imprisonment, or both.

ASSURANCES

AIRPORT SPONSORS

A. General.

a. These assurances shall be complied with in the performance of grant agreements for airport development, airport planning, and noise compatibility program grants for airport sponsors.

b. These assurances are required to be submitted as part of the project application by sponsors requesting funds under the provisions of Title 49, U.S.C., subtitle VII, as amended. As used herein, the term "public agency sponsor" means a public agency with control of a public-use airport; the term "private sponsor" means a private owner of a public-use airport; and the term "sponsor" includes both public agency sponsors and private sponsors.

c. Upon acceptance of this grant offer by the sponsor, these assurances are incorporated in and become part of this grant agreement.

B. Duration and Applicability.

1. **Airport development or Noise Compatibility Program Projects Undertaken by a Public Agency Sponsor.**

The terms, conditions and assurances of this grant agreement shall remain in full force and effect throughout the useful life of the facilities developed or equipment acquired for an airport development or noise compatibility program project, or throughout the useful life of the project items installed within a facility under a noise compatibility program project, but in any event not to exceed twenty (20) years from the date of acceptance of a grant offer of Federal funds for the project. However, there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport. There shall be no limit on the duration of the terms, conditions, and assurances with respect to real property acquired with federal funds. Furthermore, the duration of the Civil Rights assurance shall be specified in the assurances.

2. **Airport Development or Noise Compatibility Projects Undertaken by a Private Sponsor.**

The preceding paragraph 1 also applies to a private sponsor except that the useful life of project items installed within a facility or the useful life of the facilities developed or equipment acquired under an airport development or noise compatibility program project shall be no less than ten (10) years from the date of acceptance of Federal aid for the project.

3. **Airport Planning Undertaken by a Sponsor.**

Unless otherwise specified in this grant agreement, only Assurances 1, 2, 3, 5, 6, 13, 18, 25, 30, 32, 33, and 34 in Section C apply to planning projects. The terms, conditions, and assurances of this grant agreement shall remain in full force and effect during the life of the project; there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport.

C. Sponsor Certification.

The sponsor hereby assures and certifies, with respect to this grant that:

1. General Federal Requirements

It will comply with all applicable Federal laws, regulations, executive orders, policies, guidelines, and requirements as they relate to the application, acceptance and use of Federal funds for this project including but not limited to the following:

FEDERAL LEGISLATION

a. Title 49, U.S.C., subtitle VII, as amended.

b. Davis-Bacon Act — 40 U.S.C. 276(a), et seq.[1]

c. Federal Fair Labor Standards Act - 29 U.S.C. 201, et seq.

d. Hatch Act – 5 U.S.C. 1501, et seq.[2]

e. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 Title 42 U.S.C. 4601, et seq.[1 2]

f. National Historic Preservation Act of 1966 – Section 106 - 16 U.S.C. 470(f).[1]

g. Archeological and Historic Preservation Act of 1974 - 16 U.S.C. 469 through 469c.[1]

h. Native Americans Grave Repatriation Act - 25 U.S.C. Section 3001, et seq.

i. Clean Air Act, P.L. 90-148, as amended.

j. Coastal Zone Management Act, P.L. 93-205, as amended.

k. Flood Disaster Protection Act of 1973 – Section 102(a) - 42 U.S.C. 4012a.[1]

l. Title 49, U.S.C., Section 303, (formerly known as Section 4(f))

m. Rehabilitation Act of 1973 - 29 U.S.C. 794.

n. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);

o. Americans with Disabilities Act of 1990, as amended, (42 U.S.C. § 12101 et seq.), prohibits discrimination on the basis of disability).

p. Age Discrimination Act of 1975 - 42 U.S.C. 6101, et seq.

q. American Indian Religious Freedom Act, P.L. 95-341, as amended.

r. Architectural Barriers Act of 1968 -42 U.S.C. 4151, et seq.[1]

s. Power plant and Industrial Fuel Use Act of 1978 – Section 403- 2 U.S.C. 8373.[1]

t. Contract Work Hours and Safety Standards Act - 40 U.S.C. 327, et seq.[1]

u. Copeland Anti-kickback Act - 18 U.S.C. 874.[1]

v. National Environmental Policy Act of 1969 - 42 U.S.C. 4321, et seq.[1]

w. Wild and Scenic Rivers Act, P.L. 90-542, as amended.

x. Single Audit Act of 1984 - 31 U.S.C. 7501, et seq.[2]

y. Drug-Free Workplace Act of 1988 - 41 U.S.C. 702 through 706.

z. The Federal Funding Accountability and Transparency Act of 2006, as amended (Pub. L. 109-282, as amended by section 6202 of Pub. L. 110-252).

EXECUTIVE ORDERS

a. Executive Order 11246 – Equal Employment Opportunity[1]

b. Executive Order 11990 – Protection of Wetlands

c. Executive Order 11998 – Flood Plain Management

d. Executive Order 12372 – Intergovernmental Review of Federal Programs

e. Executive Order 12699 – Seismic Safety of Federal and Federally Assisted New Building Construction[1]

f. Executive Order 12898 – Environmental Justice

FEDERAL REGULATIONS

a. 2 CFR Part 180 – OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement).

b. 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards. [OMB Circular A-87 Cost Principles Applicable to Grants and Contracts with State and Local Governments, and OMB Circular A-133 - Audits of States, Local Governments, and Non-Profit Organizations].[4, 5, 6]

c. 2 CFR Part 1200 – Nonprocurement Suspension and Debarment.

d. 14 CFR Part 13 – Investigative and Enforcement Procedures14 CFR Part 16 - Rules of Practice For Federally Assisted Airport Enforcement Proceedings.

e. 14 CFR Part 150 – Airport noise compatibility planning.

f. 28 CFR Part 35 – Discrimination on the Basis of Disability in State and Local Government Services.

g. 28 CFR § 50.3 – U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964.

h. 29 CFR Part 1 – Procedures for predetermination of wage rates.[1]

i. 29 CFR Part 3 – Contractors and subcontractors on public building or public work financed in whole or part by loans or grants from the United States.[1]

j. 29 CFR Part 5 – Labor standards provisions applicable to contracts covering federally financed and assisted construction (also labor standards provisions applicable to non-construction contracts subject to the Contract Work Hours and Safety Standards Act).[1]

k. 41 CFR Part 60 – Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor (Federal and federally assisted contracting requirements).[1]

l. 49 CFR Part 18 – Uniform administrative requirements for grants and cooperative agreements to state and local governments.[3]

m. 49 CFR Part 20 – New restrictions on lobbying.

n. 49 CFR Part 21 – Nondiscrimination in federally-assisted programs of the Department of Transportation - effectuation of Title VI of the Civil Rights Act of 1964.

o. 49 CFR Part 23 – Participation by Disadvantage Business Enterprise in Airport Concessions.

p. 49 CFR Part 24 – Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs.[1] [2]

q. 49 CFR Part 26 – Participation by Disadvantaged Business Enterprises in Department of Transportation Programs.

r. 49 CFR Part 27 – Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance.[1]

s. 49 CFR Part 28 – Enforcement of Nondiscrimination on the Basis of Handicap in Programs or Activities conducted by the Department of Transportation.

t. 49 CFR Part 30 – Denial of public works contracts to suppliers of goods and services of countries that deny procurement market access to U.S. contractors.

u. 49 CFR Part 32 – Governmentwide Requirements for Drug-Free Workplace (Financial Assistance).

v. 49 CFR Part 37 – Transportation Services for Individuals with Disabilities (ADA).

w. 49 CFR Part 41 – Seismic safety of Federal and federally assisted or regulated new building construction.

SPECIFIC ASSURANCES

Specific assurances required to be included in grant agreements by any of the above laws, regulations or circulars are incorporated by reference in this grant agreement.

FOOTNOTES TO ASSURANCE C.1.

[1] These laws do not apply to airport planning sponsors.

[2] These laws do not apply to private sponsors.

[3] 49 CFR Part 18 and 2 CFR Part 200 contain requirements for State and Local Governments receiving Federal assistance. Any requirement levied upon State and Local Governments by this regulation and circular shall also be applicable to private sponsors receiving Federal assistance under Title 49, United States Code.

[4] On December 26, 2013 at 78 FR 78590, the Office of Management and Budget (OMB) issued the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards in 2 CFR Part 200. 2 CFR Part 200 replaces and combines the former Uniform Administrative Requirements for Grants (OMB Circular A-102 and Circular A-110 or 2 CFR Part 215 or Circular) as well as the Cost Principles (Circulars A-21 or 2 CFR part 220; Circular A-87 or 2 CFR part 225; and A-122, 2 CFR part 230). Additionally it replaces Circular A-133 guidance on the Single Annual Audit. In accordance with 2 CFR section 200.110, the standards set forth in Part 200 which affect administration of Federal awards issued by Federal agencies become effective once implemented by Federal agencies or when any future amendment to this Part becomes final. Federal agencies, including the Department of Transportation, must implement the policies and procedures applicable to Federal awards by promulgating a regulation to be effective by December 26, 2014 unless different provisions are required by statute or approved by OMB.

[5] Cost principles established in 2 CFR part 200 subpart E must be used as guidelines for determining the eligibility of specific types of expenses.

[6] Audit requirements established in 2 CFR part 200 subpart F are the guidelines for audits.

2. **Responsibility and Authority of the Sponsor.**

   a. Public Agency Sponsor:

   It has legal authority to apply for this grant, and to finance and carry out the proposed project; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.

   b. Private Sponsor:

   It has legal authority to apply for this grant and to finance and carry out the proposed project and comply with all terms, conditions, and assurances of this grant agreement. It shall designate an official representative and shall in writing direct and authorize that person to file this application, including all understandings and assurances contained therein; to act in connection with this application; and to provide such additional information as may be required.

3. **Sponsor Fund Availability.**

   It has sufficient funds available for that portion of the project costs which are not to be paid by the United States. It has sufficient funds available to assure operation and maintenance of items funded under this grant agreement which it will own or control.

4. **Good Title.**

   a. It, a public agency or the Federal government, holds good title, satisfactory to the Secretary, to the landing area of the airport or site thereof, or will give assurance satisfactory to the Secretary that good title will be acquired.

   b. For noise compatibility program projects to be carried out on the property of the sponsor, it holds good title satisfactory to the Secretary to that portion of the property upon which Federal funds will be expended or will give assurance to the Secretary that good title will be obtained.

5. **Preserving Rights and Powers.**

   a. It will not take or permit any action which would operate to deprive it of any of the rights and powers necessary to perform any or all of the terms, conditions, and assurances in this grant agreement without the written approval of the Secretary, and will act promptly to acquire, extinguish or modify any outstanding rights or claims of right of others which would interfere with such performance by the sponsor. This shall be done in a manner acceptable to the Secretary.

   b. It will not sell, lease, encumber, or otherwise transfer or dispose of any part of its title or other interests in the property shown on Exhibit A to this application or, for a noise compatibility program project, that portion of the property upon which Federal funds have been expended, for the duration of the terms, conditions, and assurances in this grant agreement without approval by the Secretary. If the transferee is found by the Secretary to be eligible under Title 49, United States Code, to assume the obligations of this grant agreement and to have the power, authority, and financial resources to carry out all such obligations, the sponsor shall insert in the contract or document transferring or disposing of the sponsor's interest, and make

binding upon the transferee all of the terms, conditions, and assurances contained in this grant agreement.

c. For all noise compatibility program projects which are to be carried out by another unit of local government or are on property owned by a unit of local government other than the sponsor, it will enter into an agreement with that government. Except as otherwise specified by the Secretary, that agreement shall obligate that government to the same terms, conditions, and assurances that would be applicable to it if it applied directly to the FAA for a grant to undertake the noise compatibility program project. That agreement and changes thereto must be satisfactory to the Secretary. It will take steps to enforce this agreement against the local government if there is substantial non-compliance with the terms of the agreement.

d. For noise compatibility program projects to be carried out on privately owned property, it will enter into an agreement with the owner of that property which includes provisions specified by the Secretary. It will take steps to enforce this agreement against the property owner whenever there is substantial non-compliance with the terms of the agreement.

e. If the sponsor is a private sponsor, it will take steps satisfactory to the Secretary to ensure that the airport will continue to function as a public-use airport in accordance with these assurances for the duration of these assurances.

f. If an arrangement is made for management and operation of the airport by any agency or person other than the sponsor or an employee of the sponsor, the sponsor will reserve sufficient rights and authority to insure that the airport will be operated and maintained in accordance Title 49, United States Code, the regulations and the terms, conditions and assurances in this grant agreement and shall insure that such arrangement also requires compliance therewith.

g. Sponsors of commercial service airports will not permit or enter into any arrangement that results in permission for the owner or tenant of a property used as a residence, or zoned for residential use, to taxi an aircraft between that property and any location on airport. Sponsors of general aviation airports entering into any arrangement that results in permission for the owner of residential real property adjacent to or near the airport must comply with the requirements of Sec. 136 of Public Law 112-95 and the sponsor assurances.

6. **Consistency with Local Plans.**

The project is reasonably consistent with plans (existing at the time of submission of this application) of public agencies that are authorized by the State in which the project is located to plan for the development of the area surrounding the airport.

7. **Consideration of Local Interest.**

It has given fair consideration to the interest of communities in or near where the project may be located.

8. **Consultation with Users.**

In making a decision to undertake any airport development project under Title 49, United States Code, it has undertaken reasonable consultations with affected parties using the airport at which project is proposed.

9. **Public Hearings.**

In projects involving the location of an airport, an airport runway, or a major runway extension, it has afforded the opportunity for public hearings for the purpose of considering the economic, social, and environmental effects of the airport or runway location and its consistency with goals and objectives of such planning as has been carried out by the community and it shall, when requested by the Secretary, submit a copy of the transcript of such hearings to the Secretary. Further, for such projects, it has on its management board either voting representation from the communities where the project is located or has advised the communities that they have the right to petition the Secretary concerning a proposed project.

10. **Metropolitan Planning Organization.**

In projects involving the location of an airport, an airport runway, or a major runway extension at a medium or large hub airport, the sponsor has made available to and has provided upon request to the metropolitan planning organization in the area in which the airport is located, if any, a copy of the proposed amendment to the airport layout plan to depict the project and a copy of any airport master plan in which the project is described or depicted.

11. **Pavement Preventive Maintenance.**

With respect to a project approved after January 1, 1995, for the replacement or reconstruction of pavement at the airport, it assures or certifies that it has implemented an effective airport pavement maintenance-management program and it assures that it will use such program for the useful life of any pavement constructed, reconstructed or repaired with Federal financial assistance at the airport. It will provide such reports on pavement condition and pavement management programs as the Secretary determines may be useful.

12. **Terminal Development Prerequisites.**

For projects which include terminal development at a public use airport, as defined in Title 49, it has, on the date of submittal of the project grant application, all the safety equipment required for certification of such airport under section 44706 of Title 49, United States Code, and all the security equipment required by rule or regulation, and has provided for access to the passenger enplaning and deplaning area of such airport to passengers enplaning and deplaning from aircraft other than air carrier aircraft.

13. **Accounting System, Audit, and Record Keeping Requirements.**

a. It shall keep all project accounts and records which fully disclose the amount and disposition by the recipient of the proceeds of this grant, the total cost of the project in connection with which this grant is given or used, and the amount or nature of that portion of the cost of the project supplied by other sources, and such other financial records pertinent to the project. The accounts and records shall be kept in accordance with an accounting system that will facilitate an effective audit in accordance with the Single Audit Act of 1984.

b. It shall make available to the Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, for the purpose of audit and examination, any books, documents, papers, and records of the recipient that are pertinent to this grant. The Secretary may require that an appropriate audit be conducted by a recipient. In any case in which an independent audit is made of the accounts of a sponsor relating to the disposition of the proceeds of a grant or relating to the project in connection with which this grant was given or used, it shall file a certified copy of such audit with the Comptroller General of the United

States not later than six (6) months following the close of the fiscal year for which the audit was made.

14. Minimum Wage Rates.

It shall include, in all contracts in excess of $2,000 for work on any projects funded under this grant agreement which involve labor, provisions establishing minimum rates of wages, to be predetermined by the Secretary of Labor, in accordance with the Davis-Bacon Act, as amended (40 U.S.C. 276a-276a-5), which contractors shall pay to skilled and unskilled labor, and such minimum rates shall be stated in the invitation for bids and shall be included in proposals or bids for the work.

15. Veteran's Preference.

It shall include in all contracts for work on any project funded under this grant agreement which involve labor, such provisions as are necessary to insure that, in the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Vietnam era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns owned and controlled by disabled veterans as defined in Section 47112 of Title 49, United States Code. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

16. Conformity to Plans and Specifications.

It will execute the project subject to plans, specifications, and schedules approved by the Secretary. Such plans, specifications, and schedules shall be submitted to the Secretary prior to commencement of site preparation, construction, or other performance under this grant agreement, and, upon approval of the Secretary, shall be incorporated into this grant agreement. Any modification to the approved plans, specifications, and schedules shall also be subject to approval of the Secretary, and incorporated into this grant agreement.

17. Construction Inspection and Approval.

It will provide and maintain competent technical supervision at the construction site throughout the project to assure that the work conforms to the plans, specifications, and schedules approved by the Secretary for the project. It shall subject the construction work on any project contained in an approved project application to inspection and approval by the Secretary and such work shall be in accordance with regulations and procedures prescribed by the Secretary. Such regulations and procedures shall require such cost and progress reporting by the sponsor or sponsors of such project as the Secretary shall deem necessary.

18. Planning Projects.

In carrying out planning projects:

a. It will execute the project in accordance with the approved program narrative contained in the project application or with the modifications similarly approved.

b. It will furnish the Secretary with such periodic reports as required pertaining to the planning project and planning work activities.

c. It will include in all published material prepared in connection with the planning project a notice that the material was prepared under a grant provided by the United States.

d. It will make such material available for examination by the public, and agrees that no material prepared with funds under this project shall be subject to copyright in the United States or any other country.

e. It will give the Secretary unrestricted authority to publish, disclose, distribute, and otherwise use any of the material prepared in connection with this grant.

f. It will grant the Secretary the right to disapprove the sponsor's employment of specific consultants and their subcontractors to do all or any part of this project as well as the right to disapprove the proposed scope and cost of professional services.

g. It will grant the Secretary the right to disapprove the use of the sponsor's employees to do all or any part of the project.

h. It understands and agrees that the Secretary's approval of this project grant or the Secretary's approval of any planning material developed as part of this grant does not constitute or imply any assurance or commitment on the part of the Secretary to approve any pending or future application for a Federal airport grant.

19. Operation and Maintenance.

a. The airport and all facilities which are necessary to serve the aeronautical users of the airport, other than facilities owned or controlled by the United States, shall be operated at all times in a safe and serviceable condition and in accordance with the minimum standards as may be required or prescribed by applicable Federal, state and local agencies for maintenance and operation. It will not cause or permit any activity or action thereon which would interfere with its use for airport purposes. It will suitably operate and maintain the airport and all facilities thereon or connected therewith, with due regard to climatic and flood conditions. Any proposal to temporarily close the airport for non-aeronautical purposes must first be approved by the Secretary. In furtherance of this assurance, the sponsor will have in effect arrangements for-

1. Operating the airport's aeronautical facilities whenever required;

2. Promptly marking and lighting hazards resulting from airport conditions, including temporary conditions; and

3. Promptly notifying airmen of any condition affecting aeronautical use of the airport. Nothing contained herein shall be construed to require that the airport be operated for aeronautical use during temporary periods when snow, flood or other climatic conditions interfere with such operation and maintenance. Further, nothing herein shall be construed as requiring the maintenance, repair, restoration, or replacement of any structure or facility which is substantially damaged or destroyed due to an act of God or other condition or circumstance beyond the control of the sponsor.

b. It will suitably operate and maintain noise compatibility program items that it owns or controls upon which Federal funds have been expended.

20. Hazard Removal and Mitigation.

It will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.

21. Compatible Land Use.

It will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and

purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended.

22. **Economic Nondiscrimination.**

    a. It will make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the airport.

    b. In any agreement, contract, lease, or other arrangement under which a right or privilege at the airport is granted to any person, firm, or corporation to conduct or to engage in any aeronautical activity for furnishing services to the public at the airport, the sponsor will insert and enforce provisions requiring the contractor to-

        1. furnish said services on a reasonable, and not unjustly discriminatory, basis to all users thereof, and

        2. charge reasonable, and not unjustly discriminatory, prices for each unit or service, provided that the contractor may be allowed to make reasonable and nondiscriminatory discounts, rebates, or other similar types of price reductions to volume purchasers.

            a. Each fixed-based operator at the airport shall be subject to the same rates, fees, rentals, and other charges as are uniformly applicable to all other fixed-based operators making the same or similar uses of such airport and utilizing the same or similar facilities

            b. Each air carrier using such airport shall have the right to service itself or to use any fixed-based operator that is authorized or permitted by the airport to serve any air carrier at such airport.

            c. Each air carrier using such airport (whether as a tenant, non-tenant, or subtenant of another air carrier tenant) shall be subject to such nondiscriminatory and substantially comparable rules, regulations, conditions, rates, fees, rentals, and other charges with respect to facilities directly and substantially related to providing air transportation as are applicable to all such air carriers which make similar use of such airport and utilize similar facilities, subject to reasonable classifications such as tenants or non-tenants and signatory carriers and non-signatory carriers. Classification or status as tenant or signatory shall not be unreasonably withheld by any airport provided an air carrier assumes obligations substantially similar to those already imposed on air carriers in such classification or status.

            d. It will not exercise or grant any right or privilege which operates to prevent any person, firm, or corporation operating aircraft on the airport from performing any services on its own aircraft with its own employees [including, but not limited to maintenance, repair, and fueling] that it may choose to perform.

            e. In the event the sponsor itself exercises any of the rights and privileges referred to in this assurance, the services involved will be provided on the same conditions as would apply to the furnishing of such services by commercial aeronautical service providers authorized by the sponsor under these provisions.

f. The sponsor may establish such reasonable, and not unjustly discriminatory, conditions to be met by all users of the airport as may be necessary for the safe and efficient operation of the airport.

g. The sponsor may prohibit or limit any given type, kind or class of aeronautical use of the airport if such action is necessary for the safe operation of the airport or necessary to serve the civil aviation needs of the public.

23. Exclusive Rights.

It will permit no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public. For purposes of this paragraph, the providing of the services at an airport by a single fixed-based operator shall not be construed as an exclusive right if both of the following apply:

a. It would be unreasonably costly, burdensome, or impractical for more than one fixed-based operator to provide such services, and

b. If allowing more than one fixed-based operator to provide such services would require the reduction of space leased pursuant to an existing agreement between such single fixed-based operator and such airport. It further agrees that it will not, either directly or indirectly, grant or permit any person, firm, or corporation, the exclusive right at the airport to conduct any aeronautical activities, including, but not limited to charter flights, pilot training, aircraft rental and sightseeing, aerial photography, crop dusting, aerial advertising and surveying, air carrier operations, aircraft sales and services, sale of aviation petroleum products whether or not conducted in conjunction with other aeronautical activity, repair and maintenance of aircraft, sale of aircraft parts, and any other activities which because of their direct relationship to the operation of aircraft can be regarded as an aeronautical activity, and that it will terminate any exclusive right to conduct an aeronautical activity now existing at such an airport before the grant of any assistance under Title 49, United States Code.

24. Fee and Rental Structure.

It will maintain a fee and rental structure for the facilities and services at the airport which will make the airport as self-sustaining as possible under the circumstances existing at the particular airport, taking into account such factors as the volume of traffic and economy of collection. No part of the Federal share of an airport development, airport planning or noise compatibility project for which a grant is made under Title 49, United States Code, the Airport and Airway Improvement Act of 1982, the Federal Airport Act or the Airport and Airway Development Act of 1970 shall be included in the rate basis in establishing fees, rates, and charges for users of that airport.

25. Airport Revenues.

a. All revenues generated by the airport and any local taxes on aviation fuel established after December 30, 1987, will be expended by it for the capital or operating costs of the airport; the local airport system; or other local facilities which are owned or operated by the owner or operator of the airport and which are directly and substantially related to the actual air transportation of passengers or property; or for noise mitigation purposes on or off the airport. The following exceptions apply to this paragraph:

1. If covenants or assurances in debt obligations issued before September 3, 1982, by the owner or operator of the airport, or provisions enacted before September 3, 1982, in governing statutes controlling the owner or operator's financing, provide for the use of the

revenues from any of the airport owner or operator's facilities, including the airport, to support not only the airport but also the airport owner or operator's general debt obligations or other facilities, then this limitation on the use of all revenues generated by the airport (and, in the case of a public airport, local taxes on aviation fuel) shall not apply.

2. If the Secretary approves the sale of a privately owned airport to a public sponsor and provides funding for any portion of the public sponsor's acquisition of land, this limitation on the use of all revenues generated by the sale shall not apply to certain proceeds from the sale. This is conditioned on repayment to the Secretary by the private owner of an amount equal to the remaining unamortized portion (amortized over a 20-year period) of any airport improvement grant made to the private owner for any purpose other than land acquisition on or after October 1, 1996, plus an amount equal to the federal share of the current fair market value of any land acquired with an airport improvement grant made to that airport on or after October 1, 1996.

3. Certain revenue derived from or generated by mineral extraction, production, lease, or other means at a general aviation airport (as defined at Section 47102 of title 49 United States Code), if the FAA determines the airport sponsor meets the requirements set forth in Sec. 813 of Public Law 112-95.

   a. As part of the annual audit required under the Single Audit Act of 1984, the sponsor will direct that the audit will review, and the resulting audit report will provide an opinion concerning, the use of airport revenue and taxes in paragraph (a), and indicating whether funds paid or transferred to the owner or operator are paid or transferred in a manner consistent with Title 49, United States Code and any other applicable provision of law, including any regulation promulgated by the Secretary or Administrator.

   b. Any civil penalties or other sanctions will be imposed for violation of this assurance in accordance with the provisions of Section 47107 of Title 49, United States Code.

26. Reports and Inspections.

It will:

a. submit to the Secretary such annual or special financial and operations reports as the Secretary may reasonably request and make such reports available to the public; make available to the public at reasonable times and places a report of the airport budget in a format prescribed by the Secretary;

b. for airport development projects, make the airport and all airport records and documents affecting the airport, including deeds, leases, operation and use agreements, regulations and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request;

c. for noise compatibility program projects, make records and documents relating to the project and continued compliance with the terms, conditions, and assurances of this grant agreement including deeds, leases, agreements, regulations, and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request; and

d. in a format and time prescribed by the Secretary, provide to the Secretary and make available to the public following each of its fiscal years, an annual report listing in detail:

1. all amounts paid by the airport to any other unit of government and the purposes for which each such payment was made; and
2. all services and property provided by the airport to other units of government and the amount of compensation received for provision of each such service and property.

27. Use by Government Aircraft.

It will make available all of the facilities of the airport developed with Federal financial assistance and all those usable for landing and takeoff of aircraft to the United States for use by Government aircraft in common with other aircraft at all times without charge, except, if the use by Government aircraft is substantial, charge may be made for a reasonable share, proportional to such use, for the cost of operating and maintaining the facilities used. Unless otherwise determined by the Secretary, or otherwise agreed to by the sponsor and the using agency, substantial use of an airport by Government aircraft will be considered to exist when operations of such aircraft are in excess of those which, in the opinion of the Secretary, would unduly interfere with use of the landing areas by other authorized aircraft, or during any calendar month that –

a. by gross weights of such aircraft) is in excess of five million pounds Five (5) or more Government aircraft are regularly based at the airport or on land adjacent thereto; or
b. The total number of movements (counting each landing as a movement) of Government aircraft is 300 or more, or the gross accumulative weight of Government aircraft using the airport (the total movement of Government aircraft multiplied.

28. Land for Federal Facilities.

It will furnish without cost to the Federal Government for use in connection with any air traffic control or air navigation activities, or weather-reporting and communication activities related to air traffic control, any areas of land or water, or estate therein, or rights in buildings of the sponsor as the Secretary considers necessary or desirable for construction, operation, and maintenance at Federal expense of space or facilities for such purposes. Such areas or any portion thereof will be made available as provided herein within four months after receipt of a written request from the Secretary.

29. Airport Layout Plan.

a. It will keep up to date at all times an airport layout plan of the airport showing:
    1. boundaries of the airport and all proposed additions thereto, together with the boundaries of all offsite areas owned or controlled by the sponsor for airport purposes and proposed additions thereto;
    2. the location and nature of all existing and proposed airport facilities and structures (such as runways, taxiways, aprons, terminal buildings, hangars and roads), including all proposed extensions and reductions of existing airport facilities;
    3. the location of all existing and proposed nonaviation areas and of all existing improvements thereon; and
    4. all proposed and existing access points used to taxi aircraft across the airport's property boundary. Such airport layout plans and each amendment, revision, or modification thereof, shall be subject to the approval of the Secretary which approval shall be evidenced by the signature of a duly authorized representative of the Secretary on the face of the airport layout plan. The sponsor will not make or permit any changes or alterations

in the airport or any of its facilities which are not in conformity with the airport layout plan as approved by the Secretary and which might, in the opinion of the Secretary, adversely affect the safety, utility or efficiency of the airport.

a. If a change or alteration in the airport or the facilities is made which the Secretary determines adversely affects the safety, utility, or efficiency of any federally owned, leased, or funded property on or off the airport and which is not in conformity with the airport layout plan as approved by the Secretary, the owner or operator will, if requested, by the Secretary (1) eliminate such adverse effect in a manner approved by the Secretary; or (2) bear all costs of relocating such property (or replacement thereof) to a site acceptable to the Secretary and all costs of restoring such property (or replacement thereof) to the level of safety, utility, efficiency, and cost of operation existing before the unapproved change in the airport or its facilities except in the case of a relocation or replacement of an existing airport facility due to a change in the Secretary's design standards beyond the control of the airport sponsor.

30. Civil Rights.

It will promptly take any measures necessary to ensure that no person in the United States shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in any activity conducted with, or benefiting from, funds received from this grant.

a. Using the definitions of activity, facility and program as found and defined in §§ 21.23 (b) and 21.23 (e) of 49 CFR § 21, the sponsor will facilitate all programs, operate all facilities, or conduct all programs in compliance with all non-discrimination requirements imposed by, or pursuant to these assurances.

b. Applicability

1. Programs and Activities. If the sponsor has received a grant (or other federal assistance) for any of the sponsor's program or activities, these requirements extend to all of the sponsor's programs and activities.

2. Facilities. Where it receives a grant or other federal financial assistance to construct, expand, renovate, remodel, alter or acquire a facility, or part of a facility, the assurance extends to the entire facility and facilities operated in connection therewith.

3. Real Property. Where the sponsor receives a grant or other Federal financial assistance in the form of, or for the acquisition of real property or an interest in real property, the assurance will extend to rights to space on, over, or under such property.

c. Duration.

The sponsor agrees that it is obligated to this assurance for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the assurance obligates the sponsor, or any transferee for the longer of the following periods:

1. So long as the airport is used as an airport, or for another purpose involving the provision of similar services or benefits; or

2. So long as the sponsor retains ownership or possession of the property.

d. Required Solicitation Language.

It will include the following notification in all solicitations for bids, Requests For Proposals for work, or material under this grant agreement and in all proposals for agreements, including airport concessions, regardless of funding source:

"The Grand Junction Regional Airport Authority, City of Grand Junction, Colorado, and the County of Mesa, Colorado, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises and airport concession disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award."

e. Required Contract Provisions.

1. It will insert the non-discrimination contract clauses requiring compliance with the acts and regulations relative to non-discrimination in Federally-assisted programs of the DOT, and incorporating the acts and regulations into the contracts by reference in every contract or agreement subject to the non-discrimination in Federally-assisted programs of the DOT acts and regulations.

2. It will include a list of the pertinent non-discrimination authorities in every contract that is subject to the non-discrimination acts and regulations.

3. It will insert non-discrimination contract clauses as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a sponsor.

4. It will insert non-discrimination contract clauses prohibiting discrimination on the basis of race, color, national origin, creed, sex, age, or handicap as a covenant running with the land, in any future deeds, leases, license, permits, or similar instruments entered into by the sponsor with other parties:

    a. For the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and

    b. For the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project, or program.

f. It will provide for such methods of administration for the program as are found by the Secretary to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the acts, the regulations, and this assurance.

g. It agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the acts, the regulations, and this assurance.

31. Disposal of Land.

a. For land purchased under a grant for airport noise compatibility purposes, including land serving as a noise buffer, it will dispose of the land, when the land is no longer needed for such purposes, at fair market value, at the earliest practicable time. That portion of the proceeds of

such disposition which is proportionate to the United States' share of acquisition of such land will be, at the discretion of the Secretary, (1) reinvested in another project at the airport, or (2) transferred to another eligible airport as prescribed by the Secretary. The Secretary shall give preference to the following, in descending order, (1) reinvestment in an approved noise compatibility project, (2) reinvestment in an approved project that is eligible for grant funding under Section 47117(e) of title 49 United States Code, (3) reinvestment in an approved airport development project that is eligible for grant funding under Sections 47114, 47115, or 47117 of title 49 United States Code, (4) transferred to an eligible sponsor of another public airport to be reinvested in an approved noise compatibility project at that airport, and (5) paid to the Secretary for deposit in the Airport and Airway Trust Fund. If land acquired under a grant for noise compatibility purposes is leased at fair market value and consistent with noise buffering purposes, the lease will not be considered a disposal of the land. Revenues derived from such a lease may be used for an approved airport development project that would otherwise be eligible for grant funding or any permitted use of airport revenue.

b. For land purchased under a grant for airport development purposes (other than noise compatibility), it will, when the land is no longer needed for airport purposes, dispose of such land at fair market value or make available to the Secretary an amount equal to the United States' proportionate share of the fair market value of the land. That portion of the proceeds of such disposition which is proportionate to the United States' share of the cost of acquisition of such land will, (1) upon application to the Secretary, be reinvested or transferred to another eligible airport as prescribed by the Secretary. The Secretary shall give preference to the following, in descending order: (1) reinvestment in an approved noise compatibility project, (2) reinvestment in an approved project that is eligible for grant funding under Section 47117(e) of title 49 United States Code, (3) reinvestment in an approved airport development project that is eligible for grant funding under Sections 47114, 47115, or 47117 of title 49 United States Code, (4) transferred to an eligible sponsor of another public airport to be reinvested in an approved noise compatibility project at that airport, and (5) paid to the Secretary for deposit in the Airport and Airway Trust Fund.

c. Land shall be considered to be needed for airport purposes under this assurance if (1) it may be needed for aeronautical purposes (including runway protection zones) or serve as noise buffer land, and (2) the revenue from interim uses of such land contributes to the financial self-sufficiency of the airport. Further, land purchased with a grant received by an airport operator or owner before December 31, 1987, will be considered to be needed for airport purposes if the Secretary or Federal agency making such grant before December 31, 1987, was notified by the operator or owner of the uses of such land, did not object to such use, and the land continues to be used for that purpose, such use having commenced no later than December 15, 1989.

d. Disposition of such land under (a) (b) or (c) will be subject to the retention or reservation of any interest or right therein necessary to ensure that such land will only be used for purposes which are compatible with noise levels associated with operation of the airport.

32. Engineering and Design Services.

It will award each contract, or sub-contract for program management, construction management, planning studies, feasibility studies, architectural services, preliminary engineering, design, engineering, surveying, mapping or related services with respect to the project in the same manner as a contract for architectural and engineering services is negotiated under Title IX of the Federal

Property and Administrative Services Act of 1949 or an equivalent qualifications-based requirement prescribed for or by the sponsor of the airport.

33. Foreign Market Restrictions.

It will not allow funds provided under this grant to be used to fund any project which uses any product or service of a foreign country during the period in which such foreign country is listed by the United States Trade Representative as denying fair and equitable market opportunities for products and suppliers of the United States in procurement and construction.

34. Policies, Standards, and Specifications.

It will carry out any project funded under an Airport Improvement Program Grant in accordance with policies, standards, and specifications approved by the Secretary including, but not limited to, current FAA Advisory Circulars for AIP projects as of
April 20, 2021 .

35. Relocation and Real Property Acquisition.

a. It will be guided in acquiring real property, to the greatest extent practicable under State law, by the land acquisition policies in Subpart B of 49 CFR Part 24 and will pay or reimburse property owners for necessary expenses as specified in Subpart B.

b. It will provide a relocation assistance program offering the services described in Subpart C and fair and reasonable relocation payments and assistance to displaced persons as required in Subpart D and E of 49 CFR Part 24.

c. It will make available within a reasonable period of time prior to displacement, comparable replacement dwellings to displaced persons in accordance with Subpart E of 49 CFR Part 24.

36. Access By Intercity Buses.

The airport owner or operator will permit, to the maximum extent practicable, intercity buses or other modes of transportation to have access to the airport; however, it has no obligation to fund special facilities for intercity buses or for other modes of transportation.

37. Disadvantaged Business Enterprises.

The sponsor shall not discriminate on the basis of race, color, national origin or sex in the award and performance of any DOT-assisted contract covered by 49 CFR Part 26, or in the award and performance of any concession activity contract covered by 49 CFR Part 23. In addition, the sponsor shall not discriminate on the basis of race, color, national origin or sex in the administration of its DBE and ACDBE programs or the requirements of 49 CFR Parts 23 and 26. The sponsor shall take all necessary and reasonable steps under 49 CFR Parts 23 and 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts, and/or concession contracts. The sponsor's DBE and ACDBE programs, as required by 49 CFR Parts 26 and 23, and as approved by DOT, are incorporated by reference in this agreement. Implementation of these programs is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the sponsor of its failure to carry out its approved program, the Department may impose sanctions as provided for under Parts 26 and 23 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1936 (31 U.S.C. 3801).

38. Hangar Construction.

If the airport owner or operator and a person who owns an aircraft agree that a hangar is to be constructed at the airport for the aircraft at the aircraft owner's expense, the airport owner or operator will grant to the aircraft owner for the hangar a long term lease that is subject to such terms and conditions on the hangar as the airport owner or operator may impose.

39. Competitive Access.

a. If the airport owner or operator of a medium or large hub airport (as defined in section 47102 of title 49, U.S.C.) has been unable to accommodate one or more requests by an air carrier for access to gates or other facilities at that airport in order to allow the air carrier to provide service to the airport or to expand service at the airport, the airport owner or operator shall transmit a report to the Secretary that-

   1. Describes the requests;
   2. Provides an explanation as to why the requests could not be accommodated; and
   3. Provides a time frame within which, if any, the airport will be able to accommodate the requests.

b. Such report shall be due on either February 1 or August 1 of each year if the airport has been unable to accommodate the request(s) in the six month period prior to the applicable due date.

SUPPLEMENTAL CO-SPONSORSHIP AGREEMENT

This Supplemental Co-Sponsorship Agreement is entered into and effective this _____ day of _____, 2021, by and between the Grand Junction Regional Airport Authority ("Airport Authority"), and the City of Grand Junction (City).

RECITALS

A. The Airport Authority is a political subdivision of the State of Colorado, organized pursuant to Section 41-3-101 et seq., C.R.S. The Airport Authority is a separate and distinct entity from the City.

B. The Airport Authority is the owner and operator of the Grand Junction Regional Airport, located in Grand Junction, Colorado ("Airport").

C. Pursuant to the Title 49, U.S.C., Subtitle VII, Part B, as amended, the Airport Authority has applied for monies from the Federal Aviation Administration ("FAA"), for the construction of certain improvements upon the Airport, pursuant to the terms, plans and specifications set forth in AIP Grant No. 3-08-0027-067-2021 ("Project").

D. The FAA is willing to provide $5,666,666 toward the estimated costs of the Projects, provided the City of Grand Junction and Mesa County execute the Grant Agreement as co-sponsors with the Airport Authority. The FAA is insisting that the City and County execute the Grant Agreement as co-sponsors for two primary reasons. First, the City and County have taxing authority, whereas the Airport Authority does not; accordingly, the FAA is insisting that the City and County execute the Grant Agreement so that public entities with taxing authority are liable for the financial commitments required of the Sponsor under the Grant Agreements, should the Airport Authority not be able to satisfy said financial commitments out of the net revenues generated by the operation of the Airport. In addition, the City and County have jurisdiction over the zoning and land use regulations of the real property surrounding the Airport, whereas the Airport Authority does not enjoy such zoning and land use regulatory authority. By their execution of the Grant Agreement, the City and County would be warranting to the FAA that the proposed improvements are consistent with their respective plans for the development of the area surrounding the Airport, and that they will take appropriate actions, including the adoption of zoning laws, to restrict the use of land surrounding the Airport to activities and purposes compatible with normal Airport operations.

E. The City is willing to execute the Grant Agreement, as a co-sponsor, pursuant to the FAA's request, subject to the terms and conditions of this Supplemental Co-Sponsorship Agreement between the City and Airport Authority.

Therefore, in consideration of the above Recitals and the mutual promises and representations set forth below, the City and Airport Authority hereby agree as follows:

AGREEMENT

1. By its execution of this Agreement, the City hereby agrees to execute the Grant Agreement, as a co-sponsor, pursuant to the FAA's request.

2. In consideration of the City's execution of the Grant Agreement, as co-sponsor, the Airport Authority hereby agrees to hold the City, its officers, employees, and agents, harmless from, and to indemnify the City, its officers, employees, and agents for:

(a) Any and all claims, lawsuits, damages, or liabilities, including reasonable attorney's fees and court costs, which at any time may be or are stated, asserted, or made against the City, its officers, employees, or agents, by the FAA or any other third party whomsoever, in any way arising out of, or related under the Grant Agreement, or the prosecution of the Projects contemplated by the Grant Agreement, regardless of whether said claims are frivolous or groundless, other than claims related to the City's covenant to take appropriate action, including the adoption of zoning laws, to restrict the use of land surrounding the Airport, over which the City has regulatory jurisdiction, to activities and purposes compatible with normal Airport operations, set forth in paragraph 21 of the Assurances incorporated by reference into the Grant Agreement ("Assurances"); and

(b) The failure of the Airport Authority, or any of the Airport Authority's officers, agents, employees, or contractors, to comply in any respect with any of the requirements, obligations or duties imposed on the Sponsor by the Grant Agreements, or reasonably related to or inferred there from, other than the Sponsor's zoning and land use obligations under Paragraph 21 of the Assurances, which are the City's responsibility for lands surrounding the Airport over which it has regulatory jurisdiction.

3. By its execution of this Agreement, the Airport Authority hereby agrees to comply with each and every requirement of the Sponsor, set forth in the Grant Agreement, or reasonably required in connection therewith, other than the zoning and land use requirements set forth in paragraph 21 of the Assurances, in recognition of the fact that the Airport Authority does not have the power to effect the zoning and land use regulations required by said paragraph.

4. By its execution of this Agreement and the Grant Agreement, the City agrees to comply with the zoning and land use requirements of paragraph 21 of the Assurances, with respect to all lands surrounding the Airport that are subject to the City's regulatory jurisdiction. The City also hereby warrants and represents that, in accordance with paragraph 6 of the Special Assurances; the Projects contemplated by the Grant Agreements are consistent with present plans of the City for the development of the area surrounding the Airport.

5. The parties hereby warrant and represent that, by the City's execution of the Grant Agreement, as a co-sponsor, pursuant to the FAA's request, the City is not a co-owner, agent, partner, joint venture, or representative of the Airport Authority in the ownership, management or administration of the Airport, and the Airport Authority is, and remains, the sole owner of the Airport, and solely responsible for the operation and management of the Airport.

Done and entered into on the date first set forth above.

GRAND JUNCTION REGIONAL AIRPORT AUTHORITY

By _____
Executive Director, Angela Padalecki
Grand Junction Regional Airport

CITY OF GRAND JUNCTION

By _____
Greg Caton, City Manager
City of Grand Junction

RESOLUTION ___-21

AUTHORIZING THE CITY MANAGER TO SIGN AND SUBMIT A GRANT AGREEMENT AND SUPPLEMENTAL CO-SPONSORSHIP AGREEMENT IN SUPPORT OF THE RUNWAY 11/29 AND TAXIWAY A REHABILITATION GRANT AT GRAND JUNCTION REGIONAL AIRPORT

RECITALS:

The Grand Junction Regional Airport Authority (GJRAA or Airport) has a multi-year program to improve the Airport with projects that will continue to develop and provide a safe and efficient airfield and overall airport operation. The Airport Improvement Program is continually coordinated with the Federal Aviation Administration (FAA) and Colorado Department of Transportation (CDOT) Aeronautics. The project that is the subject of this Resolution is the rehabilitation/reconstruction of Runway 11/29 and Taxiway A (Projects.)

The Projects to be accomplished by this phase of the Airport Improvement Program (AIP) are included on the Airport Capital Improvement Plan, are part of continuing a safe and efficient airfield and overall airport operation. The Airport Improvement Program is continually coordinated with the FAA and CDOT Aeronautics.

The GJRAA has received a grant offer from the FAA in the amount $5,666,666.00 for the Projects. The City and Mesa County, as co-sponsors of the GJRAA, must execute the Grant Offer.

Having been fully advised in the premises, the City Council by and with this Resolution affirms and directs the execution of the Grant Offers and Agreement(s) from the Federal Aviation Administration in the amount of $5,666,666.00 in support of the Projects described generally herein and in more detail in the Grant Offer and Agreement(s) (grant offer No. 3-08-0027-067-2021.)

NOW THEREFORE, the City Council of the City of Grand Junction authorizes the execution of the Grant Agreements(s) in the amount of $5,666,666.00 between the Federal Aviation Administration, Mesa County, the City of Grand Junction, and the Grand Junction Regional Airport Authority and the Co-Sponsorship Agreement between the City of Grand Junction and the Grand Junction Regional Airport Authority and authorize the City Manager and City Attorney to sign.

_____

President of the Council and Mayor

ATTEST:_____
Wanda Winkelmann
City Clerk

Grand Junction City Council

Regular Session

Item #4.c.

Meeting Date: May 5, 2021

Presented By: Greg Caton, City Manager

Department: City Manager's Office

Submitted By: Greg LeBlanc, Sr. Asst. to the City Manager

Information

SUBJECT:

A Resolution Authorizing the City Manager to Accept Airport Authority Grant Offer No. 68

RECOMMENDATION:

Approve the Runway 11/29 Design Grading and Drainage grant offer No. 3-08-0027-068-2021 in the amount of $1,368,391 between the Federal Aviation Administration, Mesa County, the City of Grand Junction, and the Grand Junction Regional Airport Authority and the Co-Sponsorship Agreement between the City of Grand Junction and the Grand Junction Regional Airport Authority and authorize the City Manager and City Attorney to sign.

EXECUTIVE SUMMARY:

The Runway 11/29 Design Grading and Drainage Grant offer from the FAA is to fund the runway prism grading and drainage design work and will cover 100% of the project costs. The design work funded with this grant will define the next phase of earth work for the runway replacement program. As creators and co-sponsors of the Airport Authority, both the County Commissioners and the City Council must also approve grant awards from the FAA to the Airport Authority. The Airport Board of Commissioners approved the grant offer at the April 20, 2021 meeting and is scheduled to be reviewed by the County at the May 3, 2021 meeting and City Council at the May 5, 2021 meeting

BACKGROUND OR DETAILED INFORMATION:

Pursuant to the Title 49, U.S.C., Subtitle VII, Part B, as amended, the Airport Authority

has applied for monies from the Federal Aviation Administration ("FAA"), for the construction of certain improvements upon the Airport, pursuant to the terms, plans and specifications set forth in AIP Grant No. 3-08-0027-068-2021 ("Project").

The FAA is willing to provide $1,368,391 toward the estimated costs of the Projects, provided the City of Grand Junction and Mesa County execute the Grant Agreement as co-sponsors with the Airport Authority. The FAA is insisting that the City and County execute the Grant Agreement as co-sponsors for two primary reasons. First, the City and County have taxing authority, whereas the Airport Authority does not; accordingly, the FAA is insisting that the City and County execute the Grant Agreement so that public entities with taxing authority are liable for the financial commitments required of the Sponsor under the Grant Agreements, should the Airport Authority not be able to satisfy said financial commitments out of the net revenues generated by the operation of the Airport. In addition, the City and County have jurisdiction over the zoning and land use regulations of the real property surrounding the Airport, whereas the Airport Authority does not enjoy such zoning and land use regulatory authority. By their execution of the Grant Agreement, the City and County would be warranting to the FAA that the proposed improvements are consistent with their respective plans for the development of the area surrounding the Airport, and that they will take appropriate actions, including the adoption of zoning laws, to restrict the use of land surrounding the Airport to activities and purposes compatible with normal Airport operations.

The City is willing to execute the Grant Agreement, as a co-sponsor, pursuant to the FAA's request, subject to the terms and conditions of this Supplemental Co-Sponsorship Agreement between the City and Airport Authority.

FISCAL IMPACT:

No direct fiscal impact to the City.

SUGGESTED MOTION:

I move to adopt Resolution No. 42-21, a resolution authorizing the City Manager to sign and submit a grant agreement and supplemental co-sponsorship agreement in support of the Runway 11/29 Rehabilitation Grant at Grand Junction Regional Airport.

Attachments

1. Grant Offer Agreement
2. Co-Sponsorship Agreement
3. Resolution-AIP-068-2021

U.S. Department
of Transportation
**Federal Aviation
Administration**

Northwest Mountain Region
Colorado · Idaho · Montana · Oregon · Utah
Washington · Wyoming

Denver Airports District Office
26805 E. 68th Ave., Suite 224
Denver, CO 80249

April 20, 2021

Mr. Thomas Benton, Chair
Grand Junction Regional Airport Authority
800 Eagle Drive
Grand Junction, Colorado 81506

Mr. Greg Caton, Manager
City of Grand Junction
250 North Fifth Street
Grand Junction, Colorado 81501

Ms. Janet Rowland, Chair
Mesa County Board of Commissioners
544 Rood Avenue
Grand Junction, Colorado 81501

Dear Mr. Benton, Mr. Caton, and Commissioner Rowland:

We are transmitting to you for execution the Grant Offer for Airport Improvement Program (AIP) Project No. 3-08-0027-068-2021 at the Grand Junction Regional Airport. Please read this letter and the Grant Offer carefully.

To properly enter into this agreement, you must do the following:

- The governing body must provide authority to execute the grant to the individual signing the grant; i.e. the sponsor's authorized representative.
- The grant must be executed no later than May 20, 2021, in order for the grant to be valid.
- The sponsor's authorized representative must execute the grant by providing their electronic signature.
- Once the sponsor's authorized representative has electronically signed the grant, the sponsor's attorney will automatically be sent via email the grant to provide their electronic signature.
- You may not make any modification to the text, terms or conditions of the grant offer.
- Following the attorney's action, the executed grant will be automatically sent to all parties as an attachment to an email.

Subject to the requirements in 2 CFR § 200.305, each payment request for reimbursement under this grant must be made electronically via the Delphi eInvoicing System. Please see the attached Grant Agreement for more information regarding the use of this System.

The terms and conditions of this agreement require you to complete the project without undue delay. To ensure proper stewardship of Federal funds, **you are expected to submit payment requests for**

reimbursement of allowable incurred project expenses in accordance with project progress. Should you fail to make draws on a regular basis, your grant may be placed in "inactive" status, which will affect your ability to receive future grant offers.

Until the grant is completed and closed, you are responsible for submitting formal reports as follows:

- A signed/dated SF-270 (non-construction projects) or SF-271 or equivalent (construction projects) and SF-425 annually, due 90 days after the end of each federal fiscal year in which this grant is open (due December 31 of each year this grant is open); and
- Performance Reports, which are due within 30 days of the end of a reporting period as follows:
    1. Non-construction project: Due annually at the end of the Federal fiscal year.
    2. Construction project: Submit FAA form 5370-1, Construction Progress and Inspection Report at the end of each fiscal quarter.

Once the project is completed and all costs are determined, we ask that you close the project without undue delay and submit the final closeout report documentation as required by FAA's Denver Airports District Office.

As a condition of receiving Federal assistance under this award, you must comply with audit requirements as established under 2 CFR part 200. Subpart F requires non-Federal entities that expend $750,000 or more in Federal awards to conduct a single or program specific audit for that year. Note that this includes Federal expenditures made under other Federal-assistance programs. Please take appropriate and necessary action to assure your organization will comply with applicable audit requirements and standards. **A copy of a "Single Audit Certification Form" will be sent separately via email.** Please complete and return a copy to our office with the executed Grant Agreement. Please make a copy for your files.

Kristin Brownson is the assigned program manager for this grant and is readily available to assist you and your designated representative with the requirements stated herein. If you should have any questions, please contact Kristin at Kristin.Brownson@faa.gov.

We sincerely value your cooperation in these efforts and look forward to working with you to complete this important project.

Sincerely,

John P Bauer (Apr 20, 2021 20:17 MDT)

John P. Bauer
Manager, Denver Airports District Office

Enclosures

U.S. Department
of Transportation
Federal Aviation
Administration

FAA Airport Improvement Program (AIP)
GRANT AGREEMENT
Part I - Offer

Federal Award Offer Date	April 20, 2021
Airport/Planning Area	Grand Junction Regional Airport
FY2021 AIP Grant Number	3-08-0027-068-2021 [Contract No. DOT-FA21NM-1005]
Unique Entity Identifier	15-613-5394

TO: County of Mesa, Colorado; City of Grand Junction, Colorado;
and the Grand Junction Regional Airport Authority

(herein called the "Sponsor") (For Co-Sponsors, list all Co-Sponsor names. The word "Sponsor" in this Grant Agreement also applies to a Co-Sponsor.)

FROM: **The United States of America** (acting through the Federal Aviation Administration, herein called the "FAA")

WHEREAS, the Sponsor has submitted to the FAA a Project Application dated April 14, 2021, for a grant of Federal funds for a project at or associated with the Grand Junction Regional Airport, which is included as part of this Grant Agreement; and

WHEREAS, the FAA has approved a project for the Grand Junction Regional Airport (herein called the "Project") consisting of the following:

Construct Runway 11/29 (design grading and drainage)

which is more fully described in the Project Application.

NOW THEREFORE, Pursuant to and for the purpose of carrying out the FAA Reauthorization Act of 2018 (Public Law Number 115-254); Title 49, United States Code (U.S.C.), Chapters 471 and 475; 49 U.S.C. §§ 40101 et seq., and 48103; the Department of Transportation Appropriations Act, 2021 (Public Law 116-260, Division L), as further amended by the American Rescue Plan Act of 2021 (Public Law 117-2); and the representations contained in the Project Application; and in consideration of: (a) the Sponsor's adoption and ratification of the Grant Assurances attached hereto; (b) the Sponsor's acceptance of this Offer; and (c) the benefits to accrue to the United States and the public from the accomplishment of the Project and compliance with the Grant Assurance and conditions as herein provided;

THE FEDERAL AVIATION ADMINISTRATION, FOR AND ON BEHALF OF THE UNITED STATES, HEREBY OFFERS AND AGREES to pay 100.00 percent of the allowable costs incurred accomplishing the Project as the United States share of the Project.

Assistance Listings Number (Formerly CFDA Number): 20.106

This Offer is made on and SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

CONDITIONS

1. **Maximum Obligation**. The maximum obligation of the United States payable under this Offer is $1,368,391.

   The following amounts represent a breakdown of the maximum obligation for the purpose of establishing allowable amounts for any future grant amendment, which may increase the foregoing maximum obligation of the United States under the provisions of 49 U.S.C. § 47108(b):
   $0 for planning;
   $1,368,391 airport development or noise program implementation; and,
   $0 for land acquisition.

2. **Grant Performance**. This Grant Agreement is subject to the following Federal award requirements:

   a. Period of Performance:

      1. Shall start on the date the Sponsor formally accepts this Agreement and is the date signed by the last Sponsor signatory to the Agreement. The end date of the Period of Performance is 4 years (1,460 calendar days) from the date of acceptance. The Period of Performance end date shall not affect, relieve, or reduce Sponsor obligations and assurances that extend beyond the closeout of this Grant Agreement.

      2. Means the total estimated time interval between the start of an initial Federal award and the planned end date, which may include one or more funded portions or budget periods. (2 Code of Federal Regulations (CFR) § 200.1).

   b. Budget Period:

      1. For this Grant is 4 years (1,460 calendar days) and follows the same start and end date as the period of performance provided in Paragraph a.1. Pursuant to 2 CFR § 200.403(h), the Sponsor may charge to the Grant only allowable costs incurred during the Budget Period.

      2. Means the time interval from the start date of a funded portion of an award to the end date of that funded portion during which the Sponsor is authorized to expend the funds awarded, including any funds carried forward or other revisions pursuant to § 200.308.

   c. Close Out and Termination

      1. Unless the FAA authorizes a written extension, the Sponsor must submit all Grant closeout documentation and liquidate (pay-off) all obligations incurred under this award no later than 120 calendar days after the end date of the period of performance. If the Sponsor does not submit all required closeout documentation within this time period, the FAA will proceed to close out the grant within one year of the period of performance end date with the information available at the end of 120 days. (2 CFR § 200.344).

2. The FAA may terminate this Grant, in whole or in part, in accordance with the conditions set forth in 2 CFR § 200.340, or other Federal regulatory or statutory authorities as applicable.

3. **Ineligible or Unallowable Costs**. The Sponsor must not include any costs in the project that the FAA has determined to be ineligible or unallowable.

4. **Indirect Costs - Sponsor**. The Sponsor may charge indirect costs under this award by applying the indirect cost rate identified in the project application as accepted by the FAA, to allowable costs for Sponsor direct salaries and wages.

5. **Determining the Final Federal Share of Costs**. The United States' share of allowable project costs will be made in accordance with 49 U.S.C. § 47109, the regulations, policies, and procedures of the Secretary, and any superseding legislation. Final determination of the United States' share will be based upon the final audit of the total amount of allowable project costs and settlement will be made for any upward or downward adjustments to the Federal share of costs.

6. **Completing the Project Without Delay and in Conformance with Requirements**. The Sponsor must carry out and complete the project without undue delays and in accordance with this Agreement, 49 U.S.C. Chapters 471 and 475, and the regulations, policies, and procedures of the Secretary of Transportation ("Secretary"). Per 2 CFR § 200.308, the Sponsor agrees to report to the FAA any disengagement from performing the project that exceeds three months or a 25 percent reduction in time devoted to the project, and request prior approval from FAA. The report must include a reason for the project stoppage. The Sponsor also agrees to comply with the grant assurances, which are part of this Agreement.

7. **Amendments or Withdrawals before Grant Acceptance**. The FAA reserves the right to amend or withdraw this offer at any time prior to its acceptance by the Sponsor.

8. **Offer Expiration Date**. This offer will expire and the United States will not be obligated to pay any part of the costs of the project unless this offer has been accepted by the Sponsor on or before May 20, 2021, or such subsequent date as may be prescribed in writing by the FAA.

9. **Improper Use of Federal Funds**. The Sponsor must take all steps, including litigation if necessary, to recover Federal funds spent fraudulently, wastefully, or in violation of Federal antitrust statutes, or misused in any other manner for any project upon which Federal funds have been expended. For the purposes of this Grant Agreement, the term "Federal funds" means funds however used or dispersed by the Sponsor, that were originally paid pursuant to this or any other Federal grant agreement. The Sponsor must obtain the approval of the Secretary as to any determination of the amount of the Federal share of such funds. The Sponsor must return the recovered Federal share, including funds recovered by settlement, order, or judgment, to the Secretary. The Sponsor must furnish to the Secretary, upon request, all documents and records pertaining to the determination of the amount of the Federal share or to any settlement, litigation, negotiation, or other efforts taken to recover such funds. All settlements or other final positions of the Sponsor, in court or otherwise, involving the recovery of such Federal share require advance approval by the Secretary.

10. **United States Not Liable for Damage or Injury**. The United States is not responsible or liable for damage to property or injury to persons which may arise from, or be incident to, compliance with this Grant Agreement.

11. **System for Award Management (SAM) Registration and Unique Entity Identifier (UEI).**

    a. Requirement for System for Award Management (SAM): Unless the Sponsor is exempted from this requirement under 2 CFR 25.110, the Sponsor must maintain the currency of its information in the SAM until the Sponsor submits the final financial report required under this

grant, or receives the final payment, whichever is later. This requires that the Sponsor review and update the information at least annually after the initial registration and more frequently if required by changes in information or another award term. Additional information about registration procedures may be found at the SAM website (currently at http://www.sam.gov).

b. Unique entity identifier (UEI) means a 12-character alpha-numeric value used to identify a specific commercial, nonprofit or governmental entity. A UEI may be obtained from SAM.gov at https://sam.gov/SAM/pages/public/index.jsf.

12. **Electronic Grant Payment(s)**. Unless otherwise directed by the FAA, the Sponsor must make each payment request under this Agreement electronically via the Delphi eInvoicing System for Department of Transportation (DOT) Financial Assistance Awardees.

13. **Informal Letter Amendment of AIP Projects**. If, during the life of the project, the FAA determines that the maximum grant obligation of the United States exceeds the expected needs of the Sponsor by $25,000 or five percent (5%), whichever is greater, the FAA can issue a letter amendment to the Sponsor unilaterally reducing the maximum obligation.

The FAA can also issue a letter to the Sponsor increasing the maximum obligation if there is an overrun in the total actual eligible and allowable project costs to cover the amount of the overrun provided it will not exceed the statutory limitations for grant amendments. The FAA's authority to increase the maximum obligation does not apply to the "planning" component of Condition No. 1.

The FAA can also issue an informal letter amendment that modifies the grant description to correct administrative errors or to delete work items if the FAA finds it advantageous and in the best interests of the United States.

An informal letter amendment has the same force and effect as a formal grant amendment.

14. **Air and Water Quality**. The Sponsor is required to comply with all applicable air and water quality standards for all projects in this grant. If the Sponsor fails to comply with this requirement, the FAA may suspend, cancel, or terminate this Grant Agreement.

15. **Financial Reporting and Payment Requirements**. The Sponsor will comply with all Federal financial reporting requirements and payment requirements, including submittal of timely and accurate reports.

16. **Buy American**. Unless otherwise approved in advance by the FAA, in accordance with 49 U.S.C. § 50101, the Sponsor will not acquire or permit any contractor or subcontractor to acquire any steel or manufactured products produced outside the United States to be used for any project for which funds are provided under this grant. The Sponsor will include a provision implementing Buy American in every contract and subcontract awarded under this Grant.

17. **Maximum Obligation Increase**. In accordance with 49 U.S.C. § 47108(b)(3), as amended, the maximum obligation of the United States, as stated in Condition No. 1 of this Grant Offer:

a. May not be increased for a planning project;

b. May be increased by not more than 15 percent for development projects if funds are available;

c. May be increased by not more than the greater of the following for a, land project, if funds are available:

   1. 15 percent; or
   2. 25 percent of the total increase in allowable project costs attributable to acquiring an interest in the land.

If the sponsor requests an increase, any eligible increase in funding will be subject to the United States Government share as provided in 49 U.S.C. § 47110, or other superseding legislation if

applicable, for the fiscal year appropriation with which the increase is funded. The FAA is not responsible for the same Federal share provided herein for any amount increased over the initial grant amount. The FAA may adjust the Federal share as applicable through an informal letter of amendment.

18. **Audits for Sponsors**.

PUBLIC SPONSORS. The Sponsor must provide for a Single Audit or program-specific audit in accordance with 2 CFR Part 200. The Sponsor must submit the audit reporting package to the Federal Audit Clearinghouse on the Federal Audit Clearinghouse's Internet Data Entry System at http://harvester.census.gov/facweb/. Upon request of the FAA, the Sponsor shall provide one copy of the completed audit to the FAA.

19. **Suspension or Debarment**. When entering into a "covered transaction" as defined by 2 CFR § 180.200, the Sponsor must:

a. Verify the non-Federal entity is eligible to participate in this Federal program by:

1. Checking the excluded parties list system (EPLS) as maintained within the System for Award Management (SAM) to determine if the non-Federal entity is excluded or disqualified; or
2. Collecting a certification statement from the non-Federal entity attesting they are not excluded or disqualified from participating; or
3. Adding a clause or condition to covered transactions attesting individual or firm are not excluded or disqualified from participating.

b. Require prime contractors to comply with 2 CFR § 180.330 when entering into lower-tier transactions (e.g. Sub-contracts).

c. Immediately disclose to the FAA whenever the Sponsor (1) learns they have entered into a covered transaction with an ineligible entity or (2) suspends or debars a contractor, person, or entity.

20. **Ban on Texting While Driving**.

a. In accordance with Executive Order 13513, Federal Leadership on Reducing Text Messaging While Driving, October 1, 2009, and DOT Order 3902.10, Text Messaging While Driving, December 30, 2009, the Sponsor is encouraged to:

1. Adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers including policies to ban text messaging while driving when performing any work for, or on behalf of, the Federal government, including work relating to a grant or subgrant.
2. Conduct workplace safety initiatives in a manner commensurate with the size of the business, such as:

a. Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and

b. Education, awareness, and other outreach to employees about the safety risks associated with texting while driving.

b. The Sponsor must insert the substance of this clause on banning texting while driving in all subgrants, contracts, and subcontracts funded with this Grant.

21. **Trafficking in Persons**.

a. You as the recipient, your employees, subrecipients under this Grant, and subrecipients' employees may not –

1. Engage in severe forms of trafficking in persons during the period of time that the Grant and applicable conditions are in effect;
2. Procure a commercial sex act during the period of time that the Grant and applicable conditions are in effect; or
3. Use forced labor in the performance of the Grant or any subgrants under this Grant.

b. We as the Federal awarding agency, may unilaterally terminate this Grant, without penalty, if you or a subrecipient that is a private entity –
   1. Is determined to have violated a prohibition in paragraph a. of this condition; or
   2. Has an employee who is determined by the agency official authorized to terminate the Grant to have violated a prohibition in paragraph a. of this condition through conduct that is either –
      a. Associated with performance under this Grant; or
      b. Imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR Part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement)," as implemented by our agency at 49 CFR Part 29.

c. You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph a. of this condition.

d. Our right to terminate unilaterally that is described in paragraph a. of this condition:
   i. Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and
   ii. Is in addition to all other remedies for noncompliance that are available to us under this Grant Agreement.

22. **Exhibit "A" Property Map**. The Exhibit "A" Property Map dated February 2019, is incorporated herein by reference or is submitted with the project application and made part of this Grant Agreement.

23. **Employee Protection from Reprisal**.

a. Prohibition of Reprisals —
   1. In accordance with 41 U.S.C. § 4712, an employee of a Sponsor, grantee, subgrantee, contractor, or subcontractor may not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing to a person or body described in sub-paragraph a.2. below, information that the employee reasonably believes is evidence of:
      i. Gross mismanagement of a Federal grant;
      ii. Gross waste of Federal funds;
      iii. An abuse of authority relating to implementation or use of Federal funds;
      iv. A substantial and specific danger to public health or safety; or
      v. A violation of law, rule, or regulation related to a Federal grant.
   2. Persons and bodies covered. The persons and bodies to which a disclosure by an employee is covered are as follows:
      i. A member of Congress or a representative of a committee of Congress;
      ii. An Inspector General;
      iii. The Government Accountability Office;

iv. A Federal employee responsible for contract or grant oversight or management at the relevant agency;
v. A court or grand jury;
vi. A management official or other employee of the Sponsor, contractor, or subcontractor who has the responsibility to investigate, discover, or address misconduct; or
vii. An authorized official of the Department of Justice or other law enforcement agency.

3. Submission of Complaint — A person who believes that they have been subjected to a reprisal prohibited by paragraph a. of this grant term may submit a complaint regarding the reprisal to the Office of Inspector General (OIG) for the U.S. Department of Transportation.
4. Time Limitation for Submittal of a Complaint — A complaint may not be brought under this condition more than three years after the date on which the alleged reprisal took place.
5. Required Actions of the Inspector General — Actions, limitations, and exceptions of the Inspector General's office are established under 41 U.S.C. § 4712(b).
6. Assumption of Rights to Civil Remedy — Upon receipt of an explanation of a decision not to conduct or continue an investigation by the Office of Inspector General, the person submitting a complaint assumes the right to a civil remedy under 41 U.S.C. § 4712(c).

24. **Co-Sponsor**. The Co-Sponsors understand and agree that they jointly and severally adopt and ratify the representations and assurances contained therein and that the word "Sponsor" as used in the application and other assurances is deemed to include all Co-Sponsors.

SPECIAL CONDITIONS

25. **Final Project Documentation.** The Sponsor understands and agrees that in accordance with 49 USC 47111, and with the Airport District Office's (ADO) concurrence, that no payments totaling more than 90.00 percent of United States Government's share of the project's estimated allowable cost may be made before the project is determined to be substantially complete. Substantially complete means the following: (1) The project results in a complete, usable unit of work as defined in the grant agreement; and (2) The sponsor submits necessary documents showing that the project is substantially complete per the contract requirements, or has a plan (that FAA agrees with) that addresses all elements contained on the punch list. Furthermore, no payments totaling more than 97.50 percent of the United States Government's share of the project's estimated allowable cost may be made until: (1) The sponsor submits all necessary closeout documentation and (2) The sponsor receives final payment notification from the ADO.
26. **Buy American Executive Orders.** The Sponsor agrees to abide by applicable Executive Orders in effect at the time this Grant Agreement is executed, including Executive Order 14005, Ensuring the Future Is Made in All of America by All of America's Workers.
27. **Design Grant.** This grant agreement is being issued in order to complete the design of the project. The Sponsor understands and agrees that within 2 years after the design is completed that the Sponsor will accept, subject to the availability of the amount of federal funding identified in the Airport Capital Improvement Plan (ACIP), a grant to complete the construction of the project in order to provide a useful and useable unit of work. The Sponsor also understands that if the FAA has provided federal funding to complete the design for the project, and the Sponsor has not completed the design within four (4) years from the execution of this grant agreement, the FAA may suspend or terminate grants related to the design.

The Sponsor's acceptance of this Offer and ratification and adoption of the Project Application incorporated herein shall be evidenced by execution of this instrument by the Sponsor, as hereinafter provided, and this Offer and Acceptance shall comprise a Grant Agreement, constituting the contractual obligations and rights of the United States and the Sponsor with respect to the accomplishment of the Project and compliance with the Grant Assurances, terms, and conditions as provided herein. Such Grant Agreement shall become effective upon the Sponsor's acceptance of this Offer.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.[1]

UNITED STATES OF AMERICA
FEDERAL AVIATION ADMINISTRATION

John P Bauer (Apr 20, 2021 20:17 MDT)

(Signature)

John P. Bauer

(Typed Name)

Manager, Denver Airports District Office

(Title of FAA Official)

[1] Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. Section 1001 (False Statements) and could subject you to fines, imprisonment, or both.

Part II - Acceptance

The Sponsor does hereby ratify and adopt all assurances, statements, representations, warranties, covenants, and agreements contained in the Project Application and incorporated materials referred to in the foregoing Offer, and does hereby accept this Offer and by such acceptance agrees to comply with all of the Grant Assurances, terms, and conditions in this Offer and in the Project Application.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.[2]

Dated April 21, 2021

GRAND JUNCTION REGIONAL AIRPORT AUTHORITY

(Name of Sponsor)

Thomas R Benton (Apr 21, 2021 13:17 MDT)

(Signature of Sponsor's Authorized Official)

By: Thomas R Benton

(Typed Name of Sponsor's Authorized Official)

Title: Chairman

(Title of Sponsor's Authorized Official)

[2] Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. Section 1001 (False Statements) and could subject you to fines, imprisonment, or both.

CERTIFICATE OF SPONSOR'S ATTORNEY

I, , acting as Attorney for the Sponsor do hereby certify:

That in my opinion the Sponsor is empowered to enter into the foregoing Grant Agreement under the laws of the State of Colorado. Further, I have examined the foregoing Grant Agreement and the actions taken by said Sponsor and Sponsor's official representative, who has been duly authorized to execute this Grant Agreement, which is in all respects due and proper and in accordance with the laws of the said State, the FAA Reauthorization Act of 2018 (Public Law Number 115-254); Title 49 U.S.C., Chapters 471 and 475; 49 U.S.C. §§ 40101, et seq., and 48103; and the Department of Transportation Appropriations Act, 2021 (Public Law 116-260, Division L), as further amended by the American Rescue Plan Act of 2021 (Public Law 117-2). In addition, for grants involving projects to be carried out on property not owned by the Sponsor, there are no legal impediments that will prevent full performance by the Sponsor. Further, it is my opinion that the said Grant Agreement constitutes a legal and binding obligation of the Sponsor in accordance with the terms thereof.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.[3]

Dated at

By: _____

(Signature of Sponsor's Attorney)

[3] Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. Section 1001 (False Statements) and could subject you to fines, imprisonment, or both.

The Sponsor does hereby ratify and adopt all assurances, statements, representations, warranties, covenants, and agreements contained in the Project Application and incorporated materials referred to in the foregoing Offer, and does hereby accept this Offer and by such acceptance agrees to comply with all of the Grant Assurances, terms, and conditions in this Offer and in the Project Application.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.[4]

Dated

CITY OF GRAND JUNCTION, COLORADO

(Name of Sponsor)

(Signature of Sponsor's Authorized Official)

By: _____

(Typed Name of Sponsor's Authorized Official)

Title: _____

(Title of Sponsor's Authorized Official)

[4] Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. Section 1001 (False Statements) and could subject you to fines, imprisonment, or both.

CERTIFICATE OF SPONSOR'S ATTORNEY

I, , acting as Attorney for the Sponsor do hereby certify:

That in my opinion the Sponsor is empowered to enter into the foregoing Grant Agreement under the laws of the State of Colorado. Further, I have examined the foregoing Grant Agreement and the actions taken by said Sponsor and Sponsor's official representative, who has been duly authorized to execute this Grant Agreement, which is in all respects due and proper and in accordance with the laws of the said State, the FAA Reauthorization Act of 2018 (Public Law Number 115-254); Title 49 U.S.C., Chapters 471 and 475; 49 U.S.C. §§ 40101, et seq., and 48103; and the Department of Transportation Appropriations Act, 2021 (Public Law 116-260, Division L), as further amended by the American Rescue Plan Act of 2021 (Public Law 117-2). In addition, for grants involving projects to be carried out on property not owned by the Sponsor, there are no legal impediments that will prevent full performance by the Sponsor. Further, it is my opinion that the said Grant Agreement constitutes a legal and binding obligation of the Sponsor in accordance with the terms thereof.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.[5]

Dated at

By: _____

(Signature of Sponsor's Attorney)

[5] Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. Section 1001 (False Statements) and could subject you to fines, imprisonment, or both.

The Sponsor does hereby ratify and adopt all assurances, statements, representations, warranties, covenants, and agreements contained in the Project Application and incorporated materials referred to in the foregoing Offer, and does hereby accept this Offer and by such acceptance agrees to comply with all of the Grant Assurances, terms, and conditions in this Offer and in the Project Application.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.[6]

Dated

COUNTY OF MESA, COLORADO

(Name of Sponsor)

(Signature of Sponsor's Authorized Official)

By: _____

(Typed Name of Sponsor's Authorized Official)

Title: _____

(Title of Sponsor's Authorized Official)

[6] Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. Section 1001 (False Statements) and could subject you to fines, imprisonment, or both.

CERTIFICATE OF SPONSOR'S ATTORNEY

I, , acting as Attorney for the Sponsor do hereby certify:

That in my opinion the Sponsor is empowered to enter into the foregoing Grant Agreement under the laws of the State of Colorado. Further, I have examined the foregoing Grant Agreement and the actions taken by said Sponsor and Sponsor's official representative, who has been duly authorized to execute this Grant Agreement, which is in all respects due and proper and in accordance with the laws of the said State, the FAA Reauthorization Act of 2018 (Public Law Number 115-254); Title 49 U.S.C., Chapters 471 and 475; 49 U.S.C. §§ 40101, et seq., and 48103; and the Department of Transportation Appropriations Act, 2021 (Public Law 116-260, Division L), as further amended by the American Rescue Plan Act of 2021 (Public Law 117-2). In addition, for grants involving projects to be carried out on property not owned by the Sponsor, there are no legal impediments that will prevent full performance by the Sponsor. Further, it is my opinion that the said Grant Agreement constitutes a legal and binding obligation of the Sponsor in accordance with the terms thereof.

Please read the following information: By signing this document, you are agreeing that you have reviewed the following consumer disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

I declare under penalty of perjury that the foregoing is true and correct.[7]

Dated at

By: _____

(Signature of Sponsor's Attorney)

[7] Knowingly and willfully providing false information to the Federal government is a violation of 18 U.S.C. Section 1001 (False Statements) and could subject you to fines, imprisonment, or both.

ASSURANCES

AIRPORT SPONSORS

A. General.

a. These assurances shall be complied with in the performance of grant agreements for airport development, airport planning, and noise compatibility program grants for airport sponsors.

b. These assurances are required to be submitted as part of the project application by sponsors requesting funds under the provisions of Title 49, U.S.C., subtitle VII, as amended. As used herein, the term "public agency sponsor" means a public agency with control of a public-use airport; the term "private sponsor" means a private owner of a public-use airport; and the term "sponsor" includes both public agency sponsors and private sponsors.

c. Upon acceptance of this grant offer by the sponsor, these assurances are incorporated in and become part of this grant agreement.

B. Duration and Applicability.

1. **Airport development or Noise Compatibility Program Projects Undertaken by a Public Agency Sponsor.**

The terms, conditions and assurances of this grant agreement shall remain in full force and effect throughout the useful life of the facilities developed or equipment acquired for an airport development or noise compatibility program project, or throughout the useful life of the project items installed within a facility under a noise compatibility program project, but in any event not to exceed twenty (20) years from the date of acceptance of a grant offer of Federal funds for the project. However, there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport. There shall be no limit on the duration of the terms, conditions, and assurances with respect to real property acquired with federal funds. Furthermore, the duration of the Civil Rights assurance shall be specified in the assurances.

2. **Airport Development or Noise Compatibility Projects Undertaken by a Private Sponsor.**

The preceding paragraph 1 also applies to a private sponsor except that the useful life of project items installed within a facility or the useful life of the facilities developed or equipment acquired under an airport development or noise compatibility program project shall be no less than ten (10) years from the date of acceptance of Federal aid for the project.

3. **Airport Planning Undertaken by a Sponsor.**

Unless otherwise specified in this grant agreement, only Assurances 1, 2, 3, 5, 6, 13, 18, 25, 30, 32, 33, and 34 in Section C apply to planning projects. The terms, conditions, and assurances of this grant agreement shall remain in full force and effect during the life of the project; there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport.

C. Sponsor Certification.

The sponsor hereby assures and certifies, with respect to this grant that:

1. General Federal Requirements

It will comply with all applicable Federal laws, regulations, executive orders, policies, guidelines, and requirements as they relate to the application, acceptance and use of Federal funds for this project including but not limited to the following:

FEDERAL LEGISLATION

a. Title 49, U.S.C., subtitle VII, as amended.

b. Davis-Bacon Act — 40 U.S.C. 276(a), et seq.[1]

c. Federal Fair Labor Standards Act - 29 U.S.C. 201, et seq.

d. Hatch Act – 5 U.S.C. 1501, et seq.[2]

e. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 Title 42 U.S.C. 4601, et seq.[1 2]

f. National Historic Preservation Act of 1966 – Section 106 - 16 U.S.C. 470(f).[1]

g. Archeological and Historic Preservation Act of 1974 - 16 U.S.C. 469 through 469c.[1]

h. Native Americans Grave Repatriation Act - 25 U.S.C. Section 3001, et seq.

i. Clean Air Act, P.L. 90-148, as amended.

j. Coastal Zone Management Act, P.L. 93-205, as amended.

k. Flood Disaster Protection Act of 1973 – Section 102(a) - 42 U.S.C. 4012a.[1]

l. Title 49, U.S.C., Section 303, (formerly known as Section 4(f))

m. Rehabilitation Act of 1973 - 29 U.S.C. 794.

n. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);

o. Americans with Disabilities Act of 1990, as amended, (42 U.S.C. § 12101 et seq.), prohibits discrimination on the basis of disability).

p. Age Discrimination Act of 1975 - 42 U.S.C. 6101, et seq.

q. American Indian Religious Freedom Act, P.L. 95-341, as amended.

r. Architectural Barriers Act of 1968 -42 U.S.C. 4151, et seq.[1]

s. Power plant and Industrial Fuel Use Act of 1978 – Section 403- 2 U.S.C. 8373.[1]

t. Contract Work Hours and Safety Standards Act - 40 U.S.C. 327, et seq.[1]

u. Copeland Anti-kickback Act - 18 U.S.C. 874.[1]

v. National Environmental Policy Act of 1969 - 42 U.S.C. 4321, et seq.[1]

w. Wild and Scenic Rivers Act, P.L. 90-542, as amended.

x. Single Audit Act of 1984 - 31 U.S.C. 7501, et seq.[2]

y. Drug-Free Workplace Act of 1988 - 41 U.S.C. 702 through 706.

z. The Federal Funding Accountability and Transparency Act of 2006, as amended (Pub. L. 109-282, as amended by section 6202 of Pub. L. 110-252).

EXECUTIVE ORDERS

a. Executive Order 11246 – Equal Employment Opportunity[1]

b. Executive Order 11990 – Protection of Wetlands

c. Executive Order 11998 – Flood Plain Management

d. Executive Order 12372 – Intergovernmental Review of Federal Programs

e. Executive Order 12699 – Seismic Safety of Federal and Federally Assisted New Building Construction[1]

f. Executive Order 12898 – Environmental Justice

FEDERAL REGULATIONS

a. 2 CFR Part 180 – OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement).

b. 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards. [OMB Circular A-87 Cost Principles Applicable to Grants and Contracts with State and Local Governments, and OMB Circular A-133 - Audits of States, Local Governments, and Non-Profit Organizations].[4, 5, 6]

c. 2 CFR Part 1200 – Nonprocurement Suspension and Debarment.

d. 14 CFR Part 13 – Investigative and Enforcement Procedures14 CFR Part 16 - Rules of Practice For Federally Assisted Airport Enforcement Proceedings.

e. 14 CFR Part 150 – Airport noise compatibility planning.

f. 28 CFR Part 35 – Discrimination on the Basis of Disability in State and Local Government Services.

g. 28 CFR § 50.3 – U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964.

h. 29 CFR Part 1 – Procedures for predetermination of wage rates.[1]

i. 29 CFR Part 3 – Contractors and subcontractors on public building or public work financed in whole or part by loans or grants from the United States.[1]

j. 29 CFR Part 5 – Labor standards provisions applicable to contracts covering federally financed and assisted construction (also labor standards provisions applicable to non-construction contracts subject to the Contract Work Hours and Safety Standards Act).[1]

k. 41 CFR Part 60 – Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor (Federal and federally assisted contracting requirements).[1]

l. 49 CFR Part 18 – Uniform administrative requirements for grants and cooperative agreements to state and local governments.[3]

m. 49 CFR Part 20 – New restrictions on lobbying.

n. 49 CFR Part 21 – Nondiscrimination in federally-assisted programs of the Department of Transportation - effectuation of Title VI of the Civil Rights Act of 1964.

o. 49 CFR Part 23 – Participation by Disadvantage Business Enterprise in Airport Concessions.

p. 49 CFR Part 24 – Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs.[1] [2]

q. 49 CFR Part 26 – Participation by Disadvantaged Business Enterprises in Department of Transportation Programs.

r. 49 CFR Part 27 – Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance.[1]

s. 49 CFR Part 28 – Enforcement of Nondiscrimination on the Basis of Handicap in Programs or Activities conducted by the Department of Transportation.

t. 49 CFR Part 30 – Denial of public works contracts to suppliers of goods and services of countries that deny procurement market access to U.S. contractors.

u. 49 CFR Part 32 – Governmentwide Requirements for Drug-Free Workplace (Financial Assistance).

v. 49 CFR Part 37 – Transportation Services for Individuals with Disabilities (ADA).

w. 49 CFR Part 41 – Seismic safety of Federal and federally assisted or regulated new building construction.

SPECIFIC ASSURANCES

Specific assurances required to be included in grant agreements by any of the above laws, regulations or circulars are incorporated by reference in this grant agreement.

FOOTNOTES TO ASSURANCE C.1.

[1] These laws do not apply to airport planning sponsors.

[2] These laws do not apply to private sponsors.

[3] 49 CFR Part 18 and 2 CFR Part 200 contain requirements for State and Local Governments receiving Federal assistance. Any requirement levied upon State and Local Governments by this regulation and circular shall also be applicable to private sponsors receiving Federal assistance under Title 49, United States Code.

[4] On December 26, 2013 at 78 FR 78590, the Office of Management and Budget (OMB) issued the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards in 2 CFR Part 200. 2 CFR Part 200 replaces and combines the former Uniform Administrative Requirements for Grants (OMB Circular A-102 and Circular A-110 or 2 CFR Part 215 or Circular) as well as the Cost Principles (Circulars A-21 or 2 CFR part 220; Circular A-87 or 2 CFR part 225; and A-122, 2 CFR part 230). Additionally it replaces Circular A-133 guidance on the Single Annual Audit. In accordance with 2 CFR section 200.110, the standards set forth in Part 200 which affect administration of Federal awards issued by Federal agencies become effective once implemented by Federal agencies or when any future amendment to this Part becomes final. Federal agencies, including the Department of Transportation, must implement the policies and procedures applicable to Federal awards by promulgating a regulation to be effective by December 26, 2014 unless different provisions are required by statute or approved by OMB.

[5] Cost principles established in 2 CFR part 200 subpart E must be used as guidelines for determining the eligibility of specific types of expenses.

[6] Audit requirements established in 2 CFR part 200 subpart F are the guidelines for audits.

2. **Responsibility and Authority of the Sponsor.**

   a. Public Agency Sponsor:

   It has legal authority to apply for this grant, and to finance and carry out the proposed project; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.

   b. Private Sponsor:

   It has legal authority to apply for this grant and to finance and carry out the proposed project and comply with all terms, conditions, and assurances of this grant agreement. It shall designate an official representative and shall in writing direct and authorize that person to file this application, including all understandings and assurances contained therein; to act in connection with this application; and to provide such additional information as may be required.

3. **Sponsor Fund Availability.**

   It has sufficient funds available for that portion of the project costs which are not to be paid by the United States. It has sufficient funds available to assure operation and maintenance of items funded under this grant agreement which it will own or control.

4. **Good Title.**

   a. It, a public agency or the Federal government, holds good title, satisfactory to the Secretary, to the landing area of the airport or site thereof, or will give assurance satisfactory to the Secretary that good title will be acquired.

   b. For noise compatibility program projects to be carried out on the property of the sponsor, it holds good title satisfactory to the Secretary to that portion of the property upon which Federal funds will be expended or will give assurance to the Secretary that good title will be obtained.

5. **Preserving Rights and Powers.**

   a. It will not take or permit any action which would operate to deprive it of any of the rights and powers necessary to perform any or all of the terms, conditions, and assurances in this grant agreement without the written approval of the Secretary, and will act promptly to acquire, extinguish or modify any outstanding rights or claims of right of others which would interfere with such performance by the sponsor. This shall be done in a manner acceptable to the Secretary.

   b. It will not sell, lease, encumber, or otherwise transfer or dispose of any part of its title or other interests in the property shown on Exhibit A to this application or, for a noise compatibility program project, that portion of the property upon which Federal funds have been expended, for the duration of the terms, conditions, and assurances in this grant agreement without approval by the Secretary. If the transferee is found by the Secretary to be eligible under Title 49, United States Code, to assume the obligations of this grant agreement and to have the power, authority, and financial resources to carry out all such obligations, the sponsor shall insert in the contract or document transferring or disposing of the sponsor's interest, and make

binding upon the transferee all of the terms, conditions, and assurances contained in this grant agreement.

c. For all noise compatibility program projects which are to be carried out by another unit of local government or are on property owned by a unit of local government other than the sponsor, it will enter into an agreement with that government. Except as otherwise specified by the Secretary, that agreement shall obligate that government to the same terms, conditions, and assurances that would be applicable to it if it applied directly to the FAA for a grant to undertake the noise compatibility program project. That agreement and changes thereto must be satisfactory to the Secretary. It will take steps to enforce this agreement against the local government if there is substantial non-compliance with the terms of the agreement.

d. For noise compatibility program projects to be carried out on privately owned property, it will enter into an agreement with the owner of that property which includes provisions specified by the Secretary. It will take steps to enforce this agreement against the property owner whenever there is substantial non-compliance with the terms of the agreement.

e. If the sponsor is a private sponsor, it will take steps satisfactory to the Secretary to ensure that the airport will continue to function as a public-use airport in accordance with these assurances for the duration of these assurances.

f. If an arrangement is made for management and operation of the airport by any agency or person other than the sponsor or an employee of the sponsor, the sponsor will reserve sufficient rights and authority to insure that the airport will be operated and maintained in accordance Title 49, United States Code, the regulations and the terms, conditions and assurances in this grant agreement and shall insure that such arrangement also requires compliance therewith.

g. Sponsors of commercial service airports will not permit or enter into any arrangement that results in permission for the owner or tenant of a property used as a residence, or zoned for residential use, to taxi an aircraft between that property and any location on airport. Sponsors of general aviation airports entering into any arrangement that results in permission for the owner of residential real property adjacent to or near the airport must comply with the requirements of Sec. 136 of Public Law 112-95 and the sponsor assurances.

6. **Consistency with Local Plans.**

The project is reasonably consistent with plans (existing at the time of submission of this application) of public agencies that are authorized by the State in which the project is located to plan for the development of the area surrounding the airport.

7. **Consideration of Local Interest.**

It has given fair consideration to the interest of communities in or near where the project may be located.

8. **Consultation with Users.**

In making a decision to undertake any airport development project under Title 49, United States Code, it has undertaken reasonable consultations with affected parties using the airport at which project is proposed.

9. **Public Hearings.**

   In projects involving the location of an airport, an airport runway, or a major runway extension, it has afforded the opportunity for public hearings for the purpose of considering the economic, social, and environmental effects of the airport or runway location and its consistency with goals and objectives of such planning as has been carried out by the community and it shall, when requested by the Secretary, submit a copy of the transcript of such hearings to the Secretary. Further, for such projects, it has on its management board either voting representation from the communities where the project is located or has advised the communities that they have the right to petition the Secretary concerning a proposed project.

10. **Metropolitan Planning Organization.**

    In projects involving the location of an airport, an airport runway, or a major runway extension at a medium or large hub airport, the sponsor has made available to and has provided upon request to the metropolitan planning organization in the area in which the airport is located, if any, a copy of the proposed amendment to the airport layout plan to depict the project and a copy of any airport master plan in which the project is described or depicted.

11. **Pavement Preventive Maintenance.**

    With respect to a project approved after January 1, 1995, for the replacement or reconstruction of pavement at the airport, it assures or certifies that it has implemented an effective airport pavement maintenance-management program and it assures that it will use such program for the useful life of any pavement constructed, reconstructed or repaired with Federal financial assistance at the airport. It will provide such reports on pavement condition and pavement management programs as the Secretary determines may be useful.

12. **Terminal Development Prerequisites.**

    For projects which include terminal development at a public use airport, as defined in Title 49, it has, on the date of submittal of the project grant application, all the safety equipment required for certification of such airport under section 44706 of Title 49, United States Code, and all the security equipment required by rule or regulation, and has provided for access to the passenger enplaning and deplaning area of such airport to passengers enplaning and deplaning from aircraft other than air carrier aircraft.

13. **Accounting System, Audit, and Record Keeping Requirements.**

    a. It shall keep all project accounts and records which fully disclose the amount and disposition by the recipient of the proceeds of this grant, the total cost of the project in connection with which this grant is given or used, and the amount or nature of that portion of the cost of the project supplied by other sources, and such other financial records pertinent to the project. The accounts and records shall be kept in accordance with an accounting system that will facilitate an effective audit in accordance with the Single Audit Act of 1984.

    b. It shall make available to the Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, for the purpose of audit and examination, any books, documents, papers, and records of the recipient that are pertinent to this grant. The Secretary may require that an appropriate audit be conducted by a recipient. In any case in which an independent audit is made of the accounts of a sponsor relating to the disposition of the proceeds of a grant or relating to the project in connection with which this grant was given or used, it shall file a certified copy of such audit with the Comptroller General of the United

States not later than six (6) months following the close of the fiscal year for which the audit was made.

14. Minimum Wage Rates.

It shall include, in all contracts in excess of $2,000 for work on any projects funded under this grant agreement which involve labor, provisions establishing minimum rates of wages, to be predetermined by the Secretary of Labor, in accordance with the Davis-Bacon Act, as amended (40 U.S.C. 276a-276a-5), which contractors shall pay to skilled and unskilled labor, and such minimum rates shall be stated in the invitation for bids and shall be included in proposals or bids for the work.

15. Veteran's Preference.

It shall include in all contracts for work on any project funded under this grant agreement which involve labor, such provisions as are necessary to insure that, in the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Vietnam era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns owned and controlled by disabled veterans as defined in Section 47112 of Title 49, United States Code. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

16. Conformity to Plans and Specifications.

It will execute the project subject to plans, specifications, and schedules approved by the Secretary. Such plans, specifications, and schedules shall be submitted to the Secretary prior to commencement of site preparation, construction, or other performance under this grant agreement, and, upon approval of the Secretary, shall be incorporated into this grant agreement. Any modification to the approved plans, specifications, and schedules shall also be subject to approval of the Secretary, and incorporated into this grant agreement.

17. Construction Inspection and Approval.

It will provide and maintain competent technical supervision at the construction site throughout the project to assure that the work conforms to the plans, specifications, and schedules approved by the Secretary for the project. It shall subject the construction work on any project contained in an approved project application to inspection and approval by the Secretary and such work shall be in accordance with regulations and procedures prescribed by the Secretary. Such regulations and procedures shall require such cost and progress reporting by the sponsor or sponsors of such project as the Secretary shall deem necessary.

18. Planning Projects.

In carrying out planning projects:

a. It will execute the project in accordance with the approved program narrative contained in the project application or with the modifications similarly approved.

b. It will furnish the Secretary with such periodic reports as required pertaining to the planning project and planning work activities.

c. It will include in all published material prepared in connection with the planning project a notice that the material was prepared under a grant provided by the United States.

d. It will make such material available for examination by the public, and agrees that no material prepared with funds under this project shall be subject to copyright in the United States or any other country.

e. It will give the Secretary unrestricted authority to publish, disclose, distribute, and otherwise use any of the material prepared in connection with this grant.

f. It will grant the Secretary the right to disapprove the sponsor's employment of specific consultants and their subcontractors to do all or any part of this project as well as the right to disapprove the proposed scope and cost of professional services.

g. It will grant the Secretary the right to disapprove the use of the sponsor's employees to do all or any part of the project.

h. It understands and agrees that the Secretary's approval of this project grant or the Secretary's approval of any planning material developed as part of this grant does not constitute or imply any assurance or commitment on the part of the Secretary to approve any pending or future application for a Federal airport grant.

19. Operation and Maintenance.

a. The airport and all facilities which are necessary to serve the aeronautical users of the airport, other than facilities owned or controlled by the United States, shall be operated at all times in a safe and serviceable condition and in accordance with the minimum standards as may be required or prescribed by applicable Federal, state and local agencies for maintenance and operation. It will not cause or permit any activity or action thereon which would interfere with its use for airport purposes. It will suitably operate and maintain the airport and all facilities thereon or connected therewith, with due regard to climatic and flood conditions. Any proposal to temporarily close the airport for non-aeronautical purposes must first be approved by the Secretary. In furtherance of this assurance, the sponsor will have in effect arrangements for-

1. Operating the airport's aeronautical facilities whenever required;

2. Promptly marking and lighting hazards resulting from airport conditions, including temporary conditions; and

3. Promptly notifying airmen of any condition affecting aeronautical use of the airport. Nothing contained herein shall be construed to require that the airport be operated for aeronautical use during temporary periods when snow, flood or other climatic conditions interfere with such operation and maintenance. Further, nothing herein shall be construed as requiring the maintenance, repair, restoration, or replacement of any structure or facility which is substantially damaged or destroyed due to an act of God or other condition or circumstance beyond the control of the sponsor.

b. It will suitably operate and maintain noise compatibility program items that it owns or controls upon which Federal funds have been expended.

20. Hazard Removal and Mitigation.

It will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.

21. Compatible Land Use.

It will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and

purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended.

22. **Economic Nondiscrimination.**

    a. It will make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the airport.

    b. In any agreement, contract, lease, or other arrangement under which a right or privilege at the airport is granted to any person, firm, or corporation to conduct or to engage in any aeronautical activity for furnishing services to the public at the airport, the sponsor will insert and enforce provisions requiring the contractor to-

        1. furnish said services on a reasonable, and not unjustly discriminatory, basis to all users thereof, and

        2. charge reasonable, and not unjustly discriminatory, prices for each unit or service, provided that the contractor may be allowed to make reasonable and nondiscriminatory discounts, rebates, or other similar types of price reductions to volume purchasers.

            a. Each fixed-based operator at the airport shall be subject to the same rates, fees, rentals, and other charges as are uniformly applicable to all other fixed-based operators making the same or similar uses of such airport and utilizing the same or similar facilities

            b. Each air carrier using such airport shall have the right to service itself or to use any fixed-based operator that is authorized or permitted by the airport to serve any air carrier at such airport.

            c. Each air carrier using such airport (whether as a tenant, non-tenant, or subtenant of another air carrier tenant) shall be subject to such nondiscriminatory and substantially comparable rules, regulations, conditions, rates, fees, rentals, and other charges with respect to facilities directly and substantially related to providing air transportation as are applicable to all such air carriers which make similar use of such airport and utilize similar facilities, subject to reasonable classifications such as tenants or non-tenants and signatory carriers and non-signatory carriers. Classification or status as tenant or signatory shall not be unreasonably withheld by any airport provided an air carrier assumes obligations substantially similar to those already imposed on air carriers in such classification or status.

            d. It will not exercise or grant any right or privilege which operates to prevent any person, firm, or corporation operating aircraft on the airport from performing any services on its own aircraft with its own employees [including, but not limited to maintenance, repair, and fueling] that it may choose to perform.

            e. In the event the sponsor itself exercises any of the rights and privileges referred to in this assurance, the services involved will be provided on the same conditions as would apply to the furnishing of such services by commercial aeronautical service providers authorized by the sponsor under these provisions.

f. The sponsor may establish such reasonable, and not unjustly discriminatory, conditions to be met by all users of the airport as may be necessary for the safe and efficient operation of the airport.

g. The sponsor may prohibit or limit any given type, kind or class of aeronautical use of the airport if such action is necessary for the safe operation of the airport or necessary to serve the civil aviation needs of the public.

23. Exclusive Rights.

It will permit no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public. For purposes of this paragraph, the providing of the services at an airport by a single fixed-based operator shall not be construed as an exclusive right if both of the following apply:

a. It would be unreasonably costly, burdensome, or impractical for more than one fixed-based operator to provide such services, and

b. If allowing more than one fixed-based operator to provide such services would require the reduction of space leased pursuant to an existing agreement between such single fixed-based operator and such airport. It further agrees that it will not, either directly or indirectly, grant or permit any person, firm, or corporation, the exclusive right at the airport to conduct any aeronautical activities, including, but not limited to charter flights, pilot training, aircraft rental and sightseeing, aerial photography, crop dusting, aerial advertising and surveying, air carrier operations, aircraft sales and services, sale of aviation petroleum products whether or not conducted in conjunction with other aeronautical activity, repair and maintenance of aircraft, sale of aircraft parts, and any other activities which because of their direct relationship to the operation of aircraft can be regarded as an aeronautical activity, and that it will terminate any exclusive right to conduct an aeronautical activity now existing at such an airport before the grant of any assistance under Title 49, United States Code.

24. Fee and Rental Structure.

It will maintain a fee and rental structure for the facilities and services at the airport which will make the airport as self-sustaining as possible under the circumstances existing at the particular airport, taking into account such factors as the volume of traffic and economy of collection. No part of the Federal share of an airport development, airport planning or noise compatibility project for which a grant is made under Title 49, United States Code, the Airport and Airway Improvement Act of 1982, the Federal Airport Act or the Airport and Airway Development Act of 1970 shall be included in the rate basis in establishing fees, rates, and charges for users of that airport.

25. Airport Revenues.

a. All revenues generated by the airport and any local taxes on aviation fuel established after December 30, 1987, will be expended by it for the capital or operating costs of the airport; the local airport system; or other local facilities which are owned or operated by the owner or operator of the airport and which are directly and substantially related to the actual air transportation of passengers or property; or for noise mitigation purposes on or off the airport. The following exceptions apply to this paragraph:

1. If covenants or assurances in debt obligations issued before September 3, 1982, by the owner or operator of the airport, or provisions enacted before September 3, 1982, in governing statutes controlling the owner or operator's financing, provide for the use of the

revenues from any of the airport owner or operator's facilities, including the airport, to support not only the airport but also the airport owner or operator's general debt obligations or other facilities, then this limitation on the use of all revenues generated by the airport (and, in the case of a public airport, local taxes on aviation fuel) shall not apply.

2. If the Secretary approves the sale of a privately owned airport to a public sponsor and provides funding for any portion of the public sponsor's acquisition of land, this limitation on the use of all revenues generated by the sale shall not apply to certain proceeds from the sale. This is conditioned on repayment to the Secretary by the private owner of an amount equal to the remaining unamortized portion (amortized over a 20-year period) of any airport improvement grant made to the private owner for any purpose other than land acquisition on or after October 1, 1996, plus an amount equal to the federal share of the current fair market value of any land acquired with an airport improvement grant made to that airport on or after October 1, 1996.

3. Certain revenue derived from or generated by mineral extraction, production, lease, or other means at a general aviation airport (as defined at Section 47102 of title 49 United States Code), if the FAA determines the airport sponsor meets the requirements set forth in Sec. 813 of Public Law 112-95.

    a. As part of the annual audit required under the Single Audit Act of 1984, the sponsor will direct that the audit will review, and the resulting audit report will provide an opinion concerning, the use of airport revenue and taxes in paragraph (a), and indicating whether funds paid or transferred to the owner or operator are paid or transferred in a manner consistent with Title 49, United States Code and any other applicable provision of law, including any regulation promulgated by the Secretary or Administrator.

    b. Any civil penalties or other sanctions will be imposed for violation of this assurance in accordance with the provisions of Section 47107 of Title 49, United States Code.

26. Reports and Inspections.

It will:

a. submit to the Secretary such annual or special financial and operations reports as the Secretary may reasonably request and make such reports available to the public; make available to the public at reasonable times and places a report of the airport budget in a format prescribed by the Secretary;

b. for airport development projects, make the airport and all airport records and documents affecting the airport, including deeds, leases, operation and use agreements, regulations and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request;

c. for noise compatibility program projects, make records and documents relating to the project and continued compliance with the terms, conditions, and assurances of this grant agreement including deeds, leases, agreements, regulations, and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request; and

d. in a format and time prescribed by the Secretary, provide to the Secretary and make available to the public following each of its fiscal years, an annual report listing in detail:

1. all amounts paid by the airport to any other unit of government and the purposes for which each such payment was made; and
2. all services and property provided by the airport to other units of government and the amount of compensation received for provision of each such service and property.

27. Use by Government Aircraft.

It will make available all of the facilities of the airport developed with Federal financial assistance and all those usable for landing and takeoff of aircraft to the United States for use by Government aircraft in common with other aircraft at all times without charge, except, if the use by Government aircraft is substantial, charge may be made for a reasonable share, proportional to such use, for the cost of operating and maintaining the facilities used. Unless otherwise determined by the Secretary, or otherwise agreed to by the sponsor and the using agency, substantial use of an airport by Government aircraft will be considered to exist when operations of such aircraft are in excess of those which, in the opinion of the Secretary, would unduly interfere with use of the landing areas by other authorized aircraft, or during any calendar month that –

a. by gross weights of such aircraft) is in excess of five million pounds Five (5) or more Government aircraft are regularly based at the airport or on land adjacent thereto; or
b. The total number of movements (counting each landing as a movement) of Government aircraft is 300 or more, or the gross accumulative weight of Government aircraft using the airport (the total movement of Government aircraft multiplied.

28. Land for Federal Facilities.

It will furnish without cost to the Federal Government for use in connection with any air traffic control or air navigation activities, or weather-reporting and communication activities related to air traffic control, any areas of land or water, or estate therein, or rights in buildings of the sponsor as the Secretary considers necessary or desirable for construction, operation, and maintenance at Federal expense of space or facilities for such purposes. Such areas or any portion thereof will be made available as provided herein within four months after receipt of a written request from the Secretary.

29. Airport Layout Plan.

a. It will keep up to date at all times an airport layout plan of the airport showing:
    1. boundaries of the airport and all proposed additions thereto, together with the boundaries of all offsite areas owned or controlled by the sponsor for airport purposes and proposed additions thereto;
    2. the location and nature of all existing and proposed airport facilities and structures (such as runways, taxiways, aprons, terminal buildings, hangars and roads), including all proposed extensions and reductions of existing airport facilities;
    3. the location of all existing and proposed nonaviation areas and of all existing improvements thereon; and
    4. all proposed and existing access points used to taxi aircraft across the airport's property boundary. Such airport layout plans and each amendment, revision, or modification thereof, shall be subject to the approval of the Secretary which approval shall be evidenced by the signature of a duly authorized representative of the Secretary on the face of the airport layout plan. The sponsor will not make or permit any changes or alterations

in the airport or any of its facilities which are not in conformity with the airport layout plan as approved by the Secretary and which might, in the opinion of the Secretary, adversely affect the safety, utility or efficiency of the airport.

a. If a change or alteration in the airport or the facilities is made which the Secretary determines adversely affects the safety, utility, or efficiency of any federally owned, leased, or funded property on or off the airport and which is not in conformity with the airport layout plan as approved by the Secretary, the owner or operator will, if requested, by the Secretary (1) eliminate such adverse effect in a manner approved by the Secretary; or (2) bear all costs of relocating such property (or replacement thereof) to a site acceptable to the Secretary and all costs of restoring such property (or replacement thereof) to the level of safety, utility, efficiency, and cost of operation existing before the unapproved change in the airport or its facilities except in the case of a relocation or replacement of an existing airport facility due to a change in the Secretary's design standards beyond the control of the airport sponsor.

30. Civil Rights.

It will promptly take any measures necessary to ensure that no person in the United States shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in any activity conducted with, or benefiting from, funds received from this grant.

a. Using the definitions of activity, facility and program as found and defined in §§ 21.23 (b) and 21.23 (e) of 49 CFR § 21, the sponsor will facilitate all programs, operate all facilities, or conduct all programs in compliance with all non-discrimination requirements imposed by, or pursuant to these assurances.

b. Applicability

1. Programs and Activities. If the sponsor has received a grant (or other federal assistance) for any of the sponsor's program or activities, these requirements extend to all of the sponsor's programs and activities.

2. Facilities. Where it receives a grant or other federal financial assistance to construct, expand, renovate, remodel, alter or acquire a facility, or part of a facility, the assurance extends to the entire facility and facilities operated in connection therewith.

3. Real Property. Where the sponsor receives a grant or other Federal financial assistance in the form of, or for the acquisition of real property or an interest in real property, the assurance will extend to rights to space on, over, or under such property.

c. Duration.

The sponsor agrees that it is obligated to this assurance for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the assurance obligates the sponsor, or any transferee for the longer of the following periods:

1. So long as the airport is used as an airport, or for another purpose involving the provision of similar services or benefits; or

2. So long as the sponsor retains ownership or possession of the property.

d. Required Solicitation Language.

It will include the following notification in all solicitations for bids, Requests For Proposals for work, or material under this grant agreement and in all proposals for agreements, including airport concessions, regardless of funding source:

"The Grand Junction Regional Airport Authority, City of Grand Junction, Colorado, and the County of Mesa, Colorado, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises and airport concession disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award."

e. Required Contract Provisions.

1. It will insert the non-discrimination contract clauses requiring compliance with the acts and regulations relative to non-discrimination in Federally-assisted programs of the DOT, and incorporating the acts and regulations into the contracts by reference in every contract or agreement subject to the non-discrimination in Federally-assisted programs of the DOT acts and regulations.

2. It will include a list of the pertinent non-discrimination authorities in every contract that is subject to the non-discrimination acts and regulations.

3. It will insert non-discrimination contract clauses as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a sponsor.

4. It will insert non-discrimination contract clauses prohibiting discrimination on the basis of race, color, national origin, creed, sex, age, or handicap as a covenant running with the land, in any future deeds, leases, license, permits, or similar instruments entered into by the sponsor with other parties:

    a. For the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and

    b. For the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project, or program.

f. It will provide for such methods of administration for the program as are found by the Secretary to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the acts, the regulations, and this assurance.

g. It agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the acts, the regulations, and this assurance.

31. Disposal of Land.

a. For land purchased under a grant for airport noise compatibility purposes, including land serving as a noise buffer, it will dispose of the land, when the land is no longer needed for such purposes, at fair market value, at the earliest practicable time. That portion of the proceeds of

such disposition which is proportionate to the United States' share of acquisition of such land will be, at the discretion of the Secretary, (1) reinvested in another project at the airport, or (2) transferred to another eligible airport as prescribed by the Secretary. The Secretary shall give preference to the following, in descending order, (1) reinvestment in an approved noise compatibility project, (2) reinvestment in an approved project that is eligible for grant funding under Section 47117(e) of title 49 United States Code, (3) reinvestment in an approved airport development project that is eligible for grant funding under Sections 47114, 47115, or 47117 of title 49 United States Code, (4) transferred to an eligible sponsor of another public airport to be reinvested in an approved noise compatibility project at that airport, and (5) paid to the Secretary for deposit in the Airport and Airway Trust Fund. If land acquired under a grant for noise compatibility purposes is leased at fair market value and consistent with noise buffering purposes, the lease will not be considered a disposal of the land. Revenues derived from such a lease may be used for an approved airport development project that would otherwise be eligible for grant funding or any permitted use of airport revenue.

b. For land purchased under a grant for airport development purposes (other than noise compatibility), it will, when the land is no longer needed for airport purposes, dispose of such land at fair market value or make available to the Secretary an amount equal to the United States' proportionate share of the fair market value of the land. That portion of the proceeds of such disposition which is proportionate to the United States' share of the cost of acquisition of such land will, (1) upon application to the Secretary, be reinvested or transferred to another eligible airport as prescribed by the Secretary. The Secretary shall give preference to the following, in descending order: (1) reinvestment in an approved noise compatibility project, (2) reinvestment in an approved project that is eligible for grant funding under Section 47117(e) of title 49 United States Code, (3) reinvestment in an approved airport development project that is eligible for grant funding under Sections 47114, 47115, or 47117 of title 49 United States Code, (4) transferred to an eligible sponsor of another public airport to be reinvested in an approved noise compatibility project at that airport, and (5) paid to the Secretary for deposit in the Airport and Airway Trust Fund.

c. Land shall be considered to be needed for airport purposes under this assurance if (1) it may be needed for aeronautical purposes (including runway protection zones) or serve as noise buffer land, and (2) the revenue from interim uses of such land contributes to the financial self-sufficiency of the airport. Further, land purchased with a grant received by an airport operator or owner before December 31, 1987, will be considered to be needed for airport purposes if the Secretary or Federal agency making such grant before December 31, 1987, was notified by the operator or owner of the uses of such land, did not object to such use, and the land continues to be used for that purpose, such use having commenced no later than December 15, 1989.

d. Disposition of such land under (a) (b) or (c) will be subject to the retention or reservation of any interest or right therein necessary to ensure that such land will only be used for purposes which are compatible with noise levels associated with operation of the airport.

32. Engineering and Design Services.

It will award each contract, or sub-contract for program management, construction management, planning studies, feasibility studies, architectural services, preliminary engineering, design, engineering, surveying, mapping or related services with respect to the project in the same manner as a contract for architectural and engineering services is negotiated under Title IX of the Federal

Property and Administrative Services Act of 1949 or an equivalent qualifications-based requirement prescribed for or by the sponsor of the airport.

33. Foreign Market Restrictions.

It will not allow funds provided under this grant to be used to fund any project which uses any product or service of a foreign country during the period in which such foreign country is listed by the United States Trade Representative as denying fair and equitable market opportunities for products and suppliers of the United States in procurement and construction.

34. Policies, Standards, and Specifications.

It will carry out any project funded under an Airport Improvement Program Grant in accordance with policies, standards, and specifications approved by the Secretary including, but not limited to, current FAA Advisory Circulars for AIP projects as of
April 20, 2021 .

35. Relocation and Real Property Acquisition.

a. It will be guided in acquiring real property, to the greatest extent practicable under State law, by the land acquisition policies in Subpart B of 49 CFR Part 24 and will pay or reimburse property owners for necessary expenses as specified in Subpart B.

b. It will provide a relocation assistance program offering the services described in Subpart C and fair and reasonable relocation payments and assistance to displaced persons as required in Subpart D and E of 49 CFR Part 24.

c. It will make available within a reasonable period of time prior to displacement, comparable replacement dwellings to displaced persons in accordance with Subpart E of 49 CFR Part 24.

36. Access By Intercity Buses.

The airport owner or operator will permit, to the maximum extent practicable, intercity buses or other modes of transportation to have access to the airport; however, it has no obligation to fund special facilities for intercity buses or for other modes of transportation.

37. Disadvantaged Business Enterprises.

The sponsor shall not discriminate on the basis of race, color, national origin or sex in the award and performance of any DOT-assisted contract covered by 49 CFR Part 26, or in the award and performance of any concession activity contract covered by 49 CFR Part 23. In addition, the sponsor shall not discriminate on the basis of race, color, national origin or sex in the administration of its DBE and ACDBE programs or the requirements of 49 CFR Parts 23 and 26. The sponsor shall take all necessary and reasonable steps under 49 CFR Parts 23 and 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts, and/or concession contracts. The sponsor's DBE and ACDBE programs, as required by 49 CFR Parts 26 and 23, and as approved by DOT, are incorporated by reference in this agreement. Implementation of these programs is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the sponsor of its failure to carry out its approved program, the Department may impose sanctions as provided for under Parts 26 and 23 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1936 (31 U.S.C. 3801).

38. Hangar Construction.

If the airport owner or operator and a person who owns an aircraft agree that a hangar is to be constructed at the airport for the aircraft at the aircraft owner's expense, the airport owner or operator will grant to the aircraft owner for the hangar a long term lease that is subject to such terms and conditions on the hangar as the airport owner or operator may impose.

39. Competitive Access.

a. If the airport owner or operator of a medium or large hub airport (as defined in section 47102 of title 49, U.S.C.) has been unable to accommodate one or more requests by an air carrier for access to gates or other facilities at that airport in order to allow the air carrier to provide service to the airport or to expand service at the airport, the airport owner or operator shall transmit a report to the Secretary that-

   1. Describes the requests;
   2. Provides an explanation as to why the requests could not be accommodated; and
   3. Provides a time frame within which, if any, the airport will be able to accommodate the requests.

b. Such report shall be due on either February 1 or August 1 of each year if the airport has been unable to accommodate the request(s) in the six month period prior to the applicable due date.

SUPPLEMENTAL CO-SPONSORSHIP AGREEMENT

This Supplemental Co-Sponsorship Agreement is entered into and effective this _____ day of _____, 2021, by and between the Grand Junction Regional Airport Authority ("Airport Authority"), and the City of Grand Junction (City).

RECITALS

A. The Airport Authority is a political subdivision of the State of Colorado, organized pursuant to Section 41-3-101 et seq., C.R.S. The Airport Authority is a separate and distinct entity from the City.

B. The Airport Authority is the owner and operator of the Grand Junction Regional Airport, located in Grand Junction, Colorado ("Airport").

C. Pursuant to the Title 49, U.S.C., Subtitle VII, Part B, as amended, the Airport Authority has applied for monies from the Federal Aviation Administration ("FAA"), for the construction of certain improvements upon the Airport, pursuant to the terms, plans and specifications set forth in AIP Grant No. 3-08-0027-068-2021 ("Project").

D. The FAA is willing to provide $1,368,391 toward the estimated costs of the Projects, provided the City of Grand Junction and Mesa County execute the Grant Agreement as co-sponsors with the Airport Authority. The FAA is insisting that the City and County execute the Grant Agreement as co-sponsors for two primary reasons. First, the City and County have taxing authority, whereas the Airport Authority does not; accordingly, the FAA is insisting that the City and County execute the Grant Agreement so that public entities with taxing authority are liable for the financial commitments required of the Sponsor under the Grant Agreements, should the Airport Authority not be able to satisfy said financial commitments out of the net revenues generated by the operation of the Airport. In addition, the City and County have jurisdiction over the zoning and land use regulations of the real property surrounding the Airport, whereas the Airport Authority does not enjoy such zoning and land use regulatory authority. By their execution of the Grant Agreement, the City and County would be warranting to the FAA that the proposed improvements are consistent with their respective plans for the development of the area surrounding the Airport, and that they will take appropriate actions, including the adoption of zoning laws, to restrict the use of land surrounding the Airport to activities and purposes compatible with normal Airport operations.

E. The City is willing to execute the Grant Agreement, as a co-sponsor, pursuant to the FAA's request, subject to the terms and conditions of this Supplemental Co-Sponsorship Agreement between the City and Airport Authority.

Therefore, in consideration of the above Recitals and the mutual promises and representations set forth below, the City and Airport Authority hereby agree as follows:

AGREEMENT

1. By its execution of this Agreement, the City hereby agrees to execute the Grant Agreement, as a co-sponsor, pursuant to the FAA's request.

2. In consideration of the City's execution of the Grant Agreement, as co-sponsor, the Airport Authority hereby agrees to hold the City, its officers, employees, and agents, harmless from, and to indemnify the City, its officers, employees, and agents for:

(a) Any and all claims, lawsuits, damages, or liabilities, including reasonable attorney's fees and court costs, which at any time may be or are stated, asserted, or made against the City, its officers, employees, or agents, by the FAA or any other third party whomsoever, in any way arising out of, or related under the Grant Agreement, or the prosecution of the Projects contemplated by the Grant Agreement, regardless of whether said claims are frivolous or groundless, other than claims related to the City's covenant to take appropriate action, including the adoption of zoning laws, to restrict the use of land surrounding the Airport, over which the City has regulatory jurisdiction, to activities and purposes compatible with normal Airport operations, set forth in paragraph 21 of the Assurances incorporated by reference into the Grant Agreement ("Assurances"); and

(b) The failure of the Airport Authority, or any of the Airport Authority's officers, agents, employees, or contractors, to comply in any respect with any of the requirements, obligations or duties imposed on the Sponsor by the Grant Agreements, or reasonably related to or inferred there from, other than the Sponsor's zoning and land use obligations under Paragraph 21 of the Assurances, which are the City's responsibility for lands surrounding the Airport over which it has regulatory jurisdiction.

3. By its execution of this Agreement, the Airport Authority hereby agrees to comply with each and every requirement of the Sponsor, set forth in the Grant Agreement, or reasonably required in connection therewith, other than the zoning and land use requirements set forth in paragraph 21 of the Assurances, in recognition of the fact that the Airport Authority does not have the power to effect the zoning and land use regulations required by said paragraph.

4. By its execution of this Agreement and the Grant Agreement, the City agrees to comply with the zoning and land use requirements of paragraph 21 of the Assurances, with respect to all lands surrounding the Airport that are subject to the City's regulatory jurisdiction. The City also hereby warrants and represents that, in accordance with paragraph 6 of the Special Assurances; the Projects contemplated by the Grant Agreements are consistent with present plans of the City for the development of the area surrounding the Airport.

5. The parties hereby warrant and represent that, by the City's execution of the Grant Agreement, as a co-sponsor, pursuant to the FAA's request, the City is not a co-owner, agent, partner, joint venture, or representative of the Airport Authority in the ownership, management or administration of the Airport, and the Airport Authority is, and remains, the sole owner of the Airport, and solely responsible for the operation and management of the Airport.

Done and entered into on the date first set forth above.

GRAND JUNCTION REGIONAL AIRPORT AUTHORITY

By _____
Executive Director, Angela Padalecki
Grand Junction Regional Airport

CITY OF GRAND JUNCTION

By _____
Greg Caton, City Manager
City of Grand Junction

RESOLUTION ___-21

AUTHORIZING THE CITY MANAGER TO SIGN AND SUBMIT A GRANT AGREEMENT AND SUPPLEMENTAL CO-SPONSORSHIP AGREEMENT IN SUPPORT OF THE RUNWAY 11/29 REHABILITATION GRANT AT GRAND JUNCTION REGIONAL AIRPORT

RECITALS:

The Grand Junction Regional Airport Authority (GJRAA or Airport) has a multi-year program to improve the Airport with projects that will continue to develop and provide a safe and efficient airfield and overall airport operation. The Airport Improvement Program is continually coordinated with the Federal Aviation Administration (FAA) and Colorado Department of Transportation (CDOT) Aeronautics. The project that is the subject of this Resolution is the rehabilitation/reconstruction of Runway 11/29 (Project.)

The Project to be accomplished by this phase of the Airport Improvement Program (AIP) is included on the Airport Capital Improvement Plan, are part of continuing a safe and efficient airfield and overall airport operation. The Airport Improvement Program is continually coordinated with the FAA and CDOT Aeronautics.

The GJRAA has received a grant offer from the FAA in the amount $1,368,391.00 for design, grading and drainage necessary to the Project. The City and Mesa County, as co-sponsors of the GJRAA, must execute the Grant Offer.

Having been fully advised in the premises, the City Council by and with this Resolution affirms and directs the execution of the Grant Offers and Agreement(s) from the Federal Aviation Administration in the amount of $1,368,391.00 in support of the Project described generally herein and in more detail in the Grant Offer and Agreement(s) (grant offer No. 3-08-0027-068-2021.)

NOW THEREFORE, the City Council of the City of Grand Junction authorizes the

execution of the Grant Agreements(s) in the amount of $1,368,391.00 between the Federal Aviation Administration, Mesa County, the City of Grand Junction, and the Grand Junction Regional Airport Authority and the Co-Sponsorship Agreement between the City of Grand Junction and the Grand Junction Regional Airport Authority and authorize the City Manager and City Attorney to sign.

_____

President of the Council and Mayor

ATTEST:_____
Wanda Winkelmann
City Clerk

Grand Junction City Council

Regular Session

Item #5.a.i.

Meeting Date: May 5, 2021

Presented By: Lance Gloss, Senior Planner

Department: Community Development

Submitted By: Lance Gloss, Senior Planner

Information

SUBJECT:

An Ordinance Rezoning the Northern 21.53 Acres of a 43.31 Acre Parcel from an I-1 (Light Industrial) to a R-5 (Residential - 5 du/ac) Zone District, Located at 853 21 ½ Road

RECOMMENDATION:

Planning Commission heard this request at their April 13, 2021 public hearing and forwarded a recommendation of approval (4-0).

EXECUTIVE SUMMARY:

Senergy Builders, LLC ("Applicant") is requesting a rezone of a portion of the property at 853 21 ½ Road from an I-1 (Light Industrial) zone district to an R-5 (Residential - 5 dwelling units per acre) zone district. This request is consistent with the 2020 One Grand Junction Comprehensive Plan, which identifies the Land Use of the northern portion of the property (i.e. that portion which is proposed to be rezoned) as Residential Low, while the remainder of the property is identified for Industrial Land Use. This request is a component of a larger set of development requests identified as the Brookfield project, an ongoing greenfield development that comprises a mix of industrial and low-density residential subdivisions west of 21 ½ Road south of I Road. Rezoning of the northern portion of the subject property as proposed would provide for the development of between 65 and 118 dwelling units, based on the density of the R-5 zone, which would be served by public utilities that have been extended to the area as a component of the Brookfield North project. Staff recommends approval of the request, finding that it meets the relevant criteria in the Zoning and Development Code and responds to the vision and goals of the 2020 One Grand Junction Comprehensive Plan.

BACKGROUND OR DETAILED INFORMATION:

BACKGROUND

The subject site is comprised of the northern 21.53 acres of the property at 853 21 ½ Road. The entirety of the property remains in agricultural use and has been an irrigated field for more than 50 years. There is no structure on the subject property, but it has historically been owned and managed jointly with the property neighboring to the west at 860 21 Road, where a residence and several outbuildings have existed since 1900. Overhead electrical lines and an open drainage exist along the eastern frontage of the subject property. The subject property was annexed into the City of Grand Junction in 2009 as a part of the Northwest GJ Annexation No. 1, at which time the zone of annexation of I-1 was applied to the entire property.

Two additional development applications that concern the subject property are currently active, but both are being reviewed administratively and intended to provide for the development of the southern portion of the property that is proposed to remain in the I-1 zone district, rather than that portion which is proposed to be rezoned to R-5 herein. Those two applications are a simple subdivision (lot split) request City File (SUB-2019-352) and a major site plan request (SPN-2019-672). Together, those two proposals would facilitate development of industrial uses on the southeastern quarter of the subject property, with the southwestern corner apparently reserved for future industrial development. Neither of those development applications are directly related to eventual residential development of the area proposed to be rezoned herein, but the interface between the industrial and proposed residential area would be subject to screening and buffering standards as found in the Zoning and Development Code. That is already the case where the industrial and residential zone districts currently interface, which is at the northern edge of the subject property.

The proposed R-5 is a low-density residential zone district that provides for a residential density of between 3 and 5.5 dwelling units per acre that would result in a total number of residential units between 65 and 118 dwellings. The allowed uses within the proposed R-5 zone district include a range of residential uses, such as two-family dwellings (i.e. duplex), single-family detached dwellings, multifamily dwellings, and accessory dwelling units, as well as manufactured housing parks which require a Conditional Use Permit. Non-residential uses are limited in the R-5 zone district, and include such uses as home-based day care (maximum of 12 attendees per day), civic uses such as golf courses and elementary schools, and short-term rental or home occupation within residential dwelling units. The allowed uses within the proposed zone district of R-5 contrast substantially with the uses that are allowed in the current zone district of I-1, which is primarily industrial in nature. Uses allowed in the I-1 zone district include a wide array of commercial, industrial, and agricultural. Examples of allowed uses include feed stores, drive-through restaurants, alcohol beverage production, oil and gas support operations, and commercial pasture. Very few of the uses that are

currently allowed in the I-1 zone district would be allowed following rezoning to a residential district.

Based on the Comprehensive Plan Land Use designation of Residential Low, R-5 is one of two applicable zone districts. The alternative zone district under this designation is R-4 (Residential – 4 du/ac), which provides for a similar range of residential uses but does not allow for multifamily development, and has substantially higher minimum building setbacks than the R-5 zone district that is proposed. The Comprehensive Plan also identifies this property as part of Tier 1 – Urban Infill, which is prioritized for growth ahead of both Tier 2 – Suburban Infill and Tier 3 – Rural Areas and County Development.

NOTIFICATION REQUIREMENTS

A Neighborhood Meeting regarding the proposed rezone request was held on February 11, 2021 in accordance with Section 21.02.080 (e) of the Zoning and Development Code. There were nine attendees at the neighborhood meeting, including the development team and City project manager. No concerns were expressed with the proposed rezone, though some questions were raised about subdivision design and circulation in the event of rezoning to R-5.

Notice was completed consistent with the provisions in Section 21.02.080 (g) of the Zoning and Development Code. The subject property was posted with an application sign on . Mailed notice of the public hearings before Planning Commission and City Council in the form of notification cards was sent to surrounding property owners within 500 feet of the subject property, as well as neighborhood associations within 1000 feet, on April 2, 2021. The notice of this public hearing was published on April 6, 2021 in the Grand Junction Daily Sentinel.

Pursuant to Section 21.02.140 of the Grand Junction Municipal Code, in order to maintain internal consistency between this code and the zoning maps, zoning map amendments must only occur if at least one of the five criteria listed below is met. Staff analysis of the criteria is found below each listed criterion.

ANALYSIS

Pursuant to Section 21.02.140 of the Grand Junction Municipal Code, in order to maintain internal consistency between this code and the zoning maps, zoning map amendments must only occur if at least one of the five criteria listed below is met. Staff analysis of the criteria is found below each listed criterion.

(1) Subsequent events have invalidated the original premises and findings; and/or

A major event has occurred since the zone of annexation was applied in 2009 that can be considered to have invalidated the original premises of the decision to zone the

entirety of the subject property as I-1 (Light Industrial). This event was the adoption of the 2020 One Grand Junction Comprehensive Plan. The previous Comprehensive Plan identified the entirety of the subject property for Industrial Future Land Use. However, the newly adopted Plan identifies exactly that portion of the property proposed for rezoning herein for Residential Low Land Use, leaving the remainder of the property under the Industrial designation. This is a substantial change in the legislative environment guiding the zoning of this property. The reason for that change in the Comprehensive Plan is complex, but one key factor of note is the development of the Brookfield North Subdivision immediately to the north of the subject property and directly adjacent to the portion of the subject property that is proposed to be rezoned to R-5. The Brookfield North Subdivision has R-4 (Residential – 4 du/ac) zoning and its construction has included the extension of utilities, including a substantial extension of public sewer services, along the eastern boundary of the subject property where such services previously did not exist. This substantially improves the viability of residential development in the area proposed for rezoning herein. The change in the Comprehensive Plan designation, as well as the factors such as infrastructure development that informed that change, lead staff to the conclude that this criterion has been met.

(2) The character and/or condition of the area has changed such that the amendment is consistent with the Plan; and/or

The immediate area around the subject property has not changed substantially since the decision to zone the property I-1 was made in 2009. The area is primarily agricultural with several non-agricultural residential properties of 2 to 5 acres in size. The industrial properties to the south of the subject property have also been stable for many years. The only exception to this development stability of this agricultural and industrial area is the recent and ongoing development of single-family housing immediately north of the subject property as a component of the overall Brookfield project. The subject property, if rezoned as requested would be incorporated in, and become a later phase of the Brookfield project., The limited scope of new residential development to date, relative to the general stability of the broader area (if conceived of as all properties within 1 to 2 miles of the subject property) lead staff to conclude that this criterion has not been met.

(3) Public and community facilities are adequate to serve the type and scope of land use proposed; and/or

Generally, the existing public and community facilities serving the property are adequate to support low density residential development. Public sewer service, Ute Water domestic water service, gas service, and electrical service are all available in the 21 ½ Road Right-of-Way. The roadway network, particularly 21 ½ Road, is adequate to serve the development for motor vehicle access, and upgrades to that facility that might

be deemed necessary to support residential development based on this proposed rezone would be required to be implemented by the developer as a component of subdivision review. Conversely, there are no improved bicycle or pedestrian ways serving the site, nor an easily-accessible bus stop. Despite these limitations, the site is, on balance, adequately served by public and community facilities. Therefore, in general, staff finds that this criterion is met.

(4) An inadequate supply of suitably designated land is available in the community, as defined by the presiding body, to accommodate the proposed land use; and/or

The city is broadly in need of additional residential development if it is to meet the needs of a growing population. Citywide, low-density residential zoning is common, but very few properties with low-density residential zoning remain undeveloped. It is thus logical that, in order to continue to provide housing opportunities, and to include low-density housing patterns in the range of housing options available in the community, additional land must be zoned to low-density residential districts such as R-5. R-5 is also a more flexible zone in terms of housing types than the alternative zone for this area, based on the Comprehensive Plan, which is R-4, given that R-4 does not allow for multifamily development. Staff therefore finds this creation to be met.

(5) The community or area, as defined by the presiding body, will derive benefits from the proposed amendment.

The community can generally be said to benefit by the facilitation and subsequent development of housing and associated infrastructure. However, the community can also be said to benefit through the provision of agricultural services as currently occupy the property, and which would be reduced or eliminated in the event of residential development under the constraints of R-5 zoning. As public utilities have already been extended past the subject property, relative to the core service area of Grand Junction, it is not evident that the community would derive benefits from the proposed change in zoning that are not counterbalanced by limitations. As a result, staff finds that this criterion is not met.

Comprehensive Plan Goals and Strategies

3.1.b. Intensification and Tiered Growth – Support the efficient use of existing public facilities and services by directing development to locations where it can meet and maintain the level of service targets as described in Chapter 3, Servicing Growth. Prioritize development in the following locations (in order of priority). Periodically consider necessary updates to the Tiers.
i. Tier 1: Urban Infill
ii. Tier 2: Suburban Infill
iii. Tier 3: Rural Areas and County Development

5.1.c. Housing Types – Promote a variety of housing types that can provide housing options while increasing density in both new and existing neighborhoods, such as duplexes, triplexes, multiplexes, apartments, townhomes, and accessory dwelling units, while maintaining neighborhood character.

RECOMMENDATION AND FINDINGS OF FACT

After reviewing the Senergy Builders, LLC rezone request, RZN-2021-113, for the property located at 853 21 ½ Road, the following findings of fact have been made:

1. The request conforms with Section 21.02.140 of the Zoning and Development Code.

FISCAL IMPACT:

There is no direct fiscal impact associated with this request.

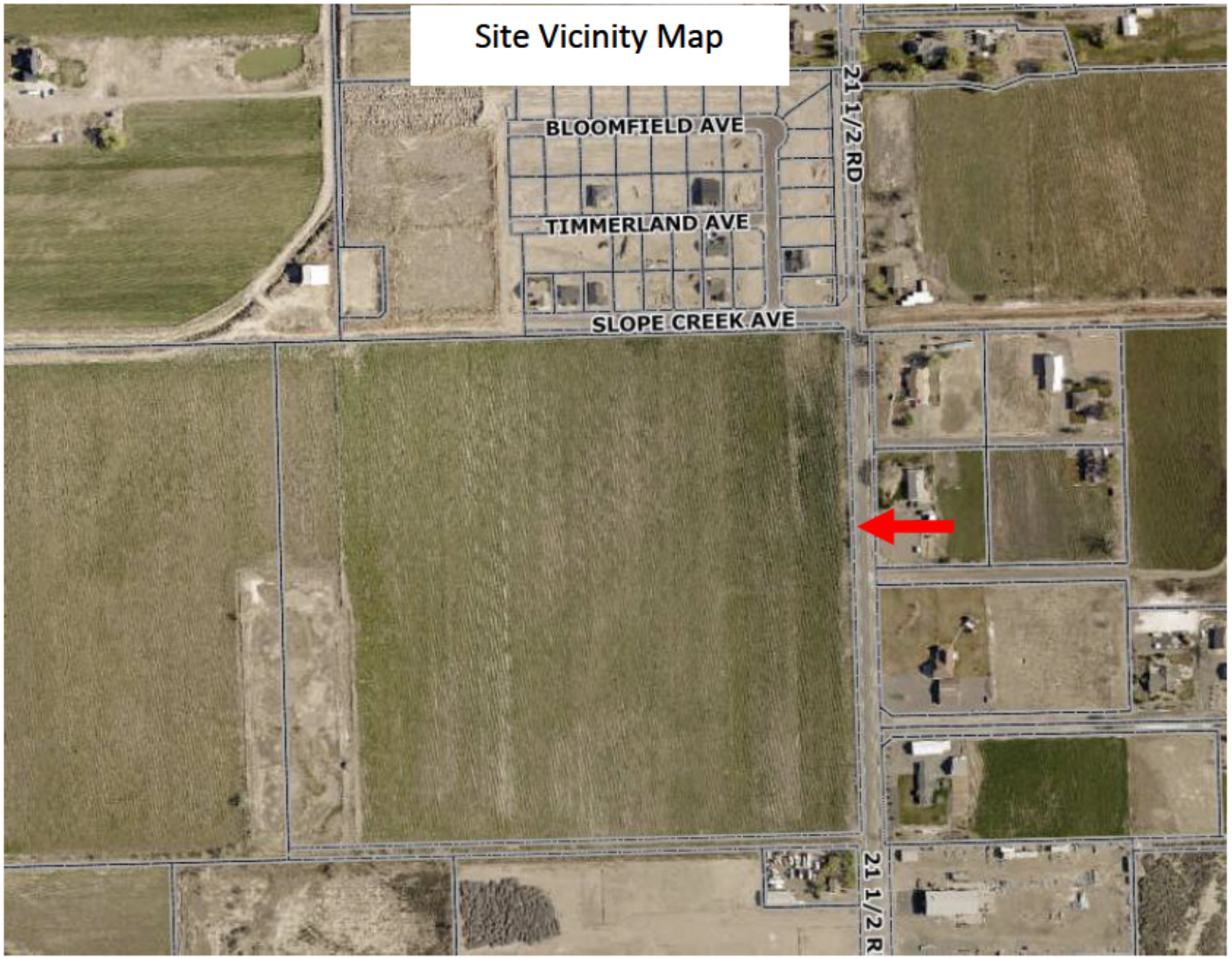
SUGGESTED MOTION:

I move to (adopt/deny) Ordinance No. 4999, an ordinance rezoning H & M Trust Properties from I-1 (Light Industrial) to R-5 (Residential – 5 du/ac), located at the northern 21.53 acres of 853 21 1/2 Road on final passage and order final publication in pamphlet form.

Attachments

1. Map Exhibits
2. Development Application
3. Planning Commission Minutes - 2021 - April 13 - Draft
4. Public Comment - Claussen - GJSpeaks
5. Draft Zoning Ordinance _ Brookfield III IV

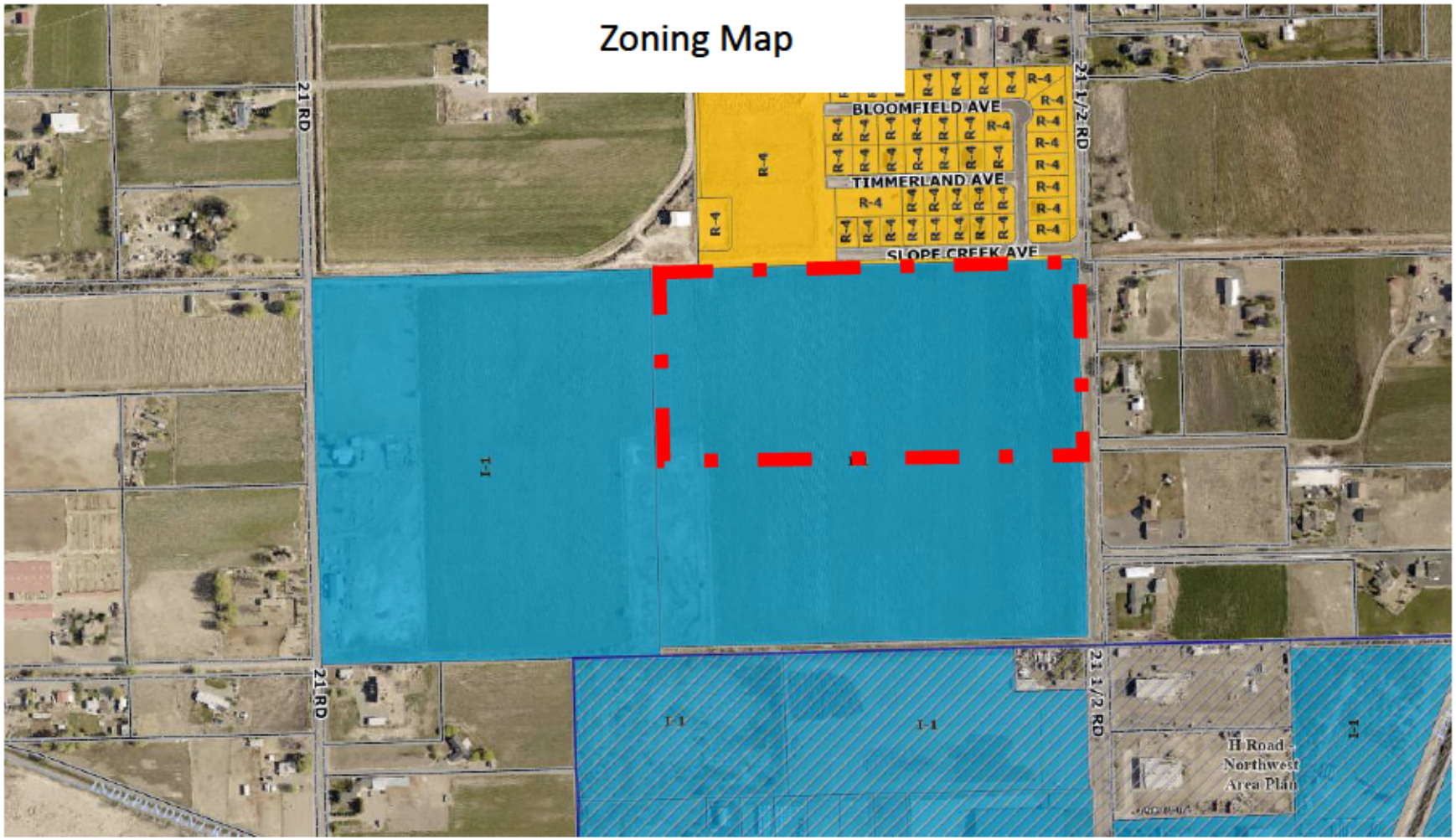

Location
70
70
26
28
6&50
23 RD
24 RD
25 RD
G RD
HORIZON DR
6&50
24 RD
24 1/2 RD
25 RD
Western Colorado Community College
REDLANDS PKWY
RIVERSIDE PKWY
6&50
Colorado Mesa University

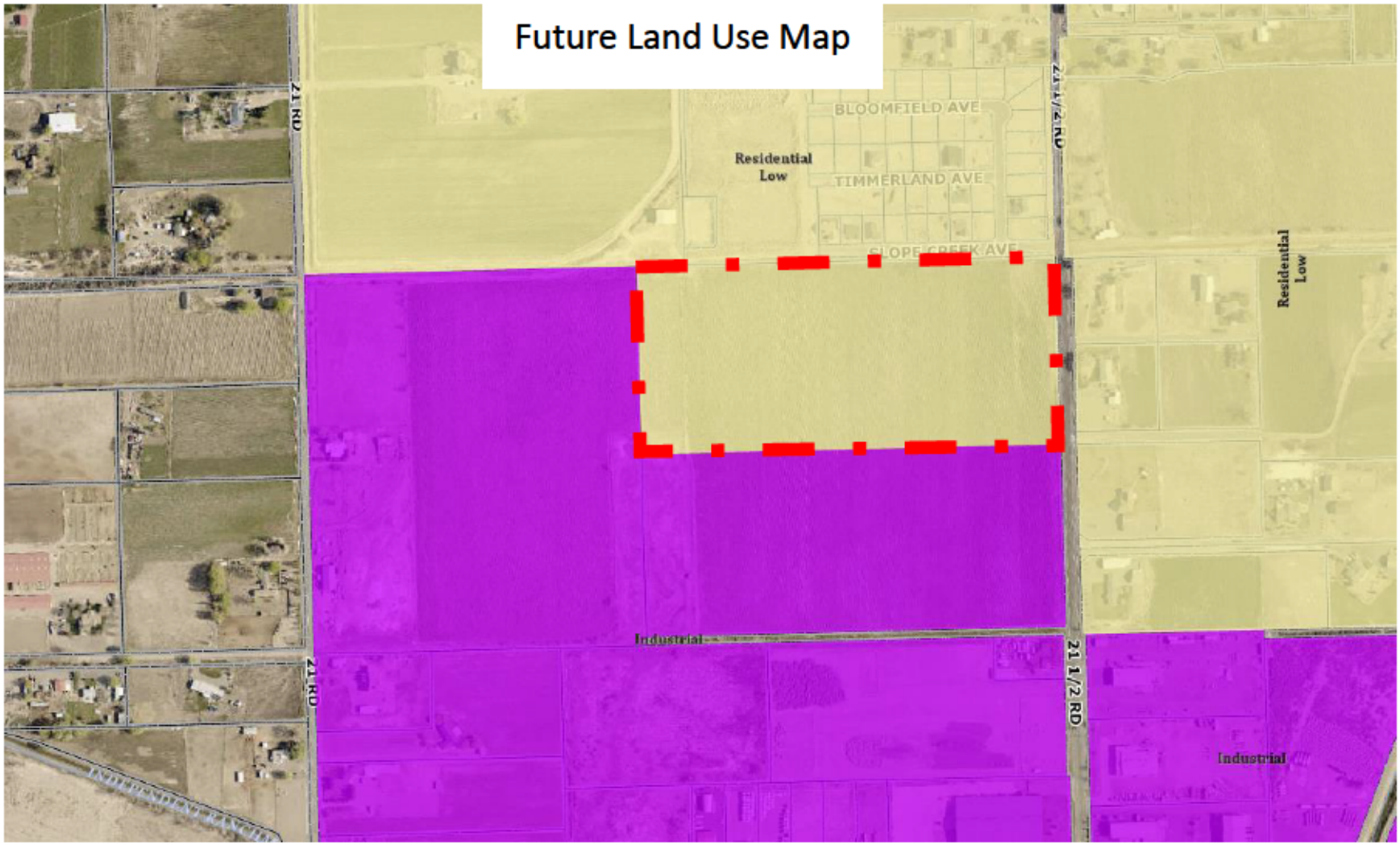

Site Vicinity Map
BLOOMFIELD AVE
TIMMERLAND AVE
SLOPE CREEK AVE
21 1/2 RD
21 1/2 R

View from 21 ½ Rd

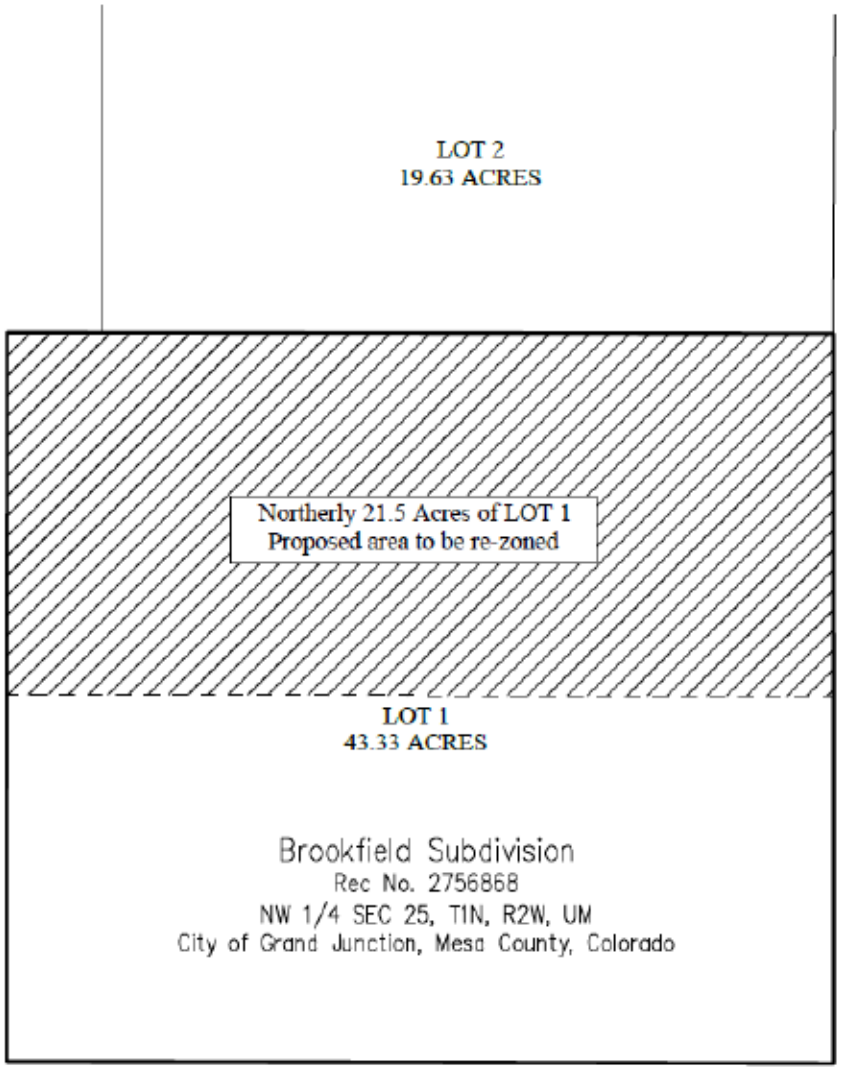


Zoning Map


21 RD
21 1/2 RD
BLOOMFIELD AVE
TIMMERLAND AVE
SLOPE CREEK AVE
R-4
I-1
H Road Northwest Area Plan


Future Land Use Map
21 RD
BLOOMFIELD AVE
Residential
Low
TIMMERLAND AVE
SLOPE CREEK AVE
21 1/2 RD
Residential
Low
Industrial
21 RD
21 1/2 RD
Industrial

Exhibiting Showing
Subject Property



City of Grand Junction
COLORADO

PUBLIC WORKS & PLANNING

Development Application

We, the undersigned, being the owner's of the property adjacent to or situated in the City of Grand Junction, Mesa County, State of Colorado, as described herein do petition this:

Petition For: Rezone

Please fill in blanks below only for Zone of Annexation, Rezones, and Comprehensive Plan Amendments:

Existing Land Use Designation: Industrial
Existing Zoning: I-1
Proposed Land Use Designation: Split Residential Low and Industrial
Proposed Zoning: R-5 (northern 20 +/- AC) and

Property Information

Site Location: 853 21 1/2 Road, Grand Junction, CO 81505
Site Acreage: 43.33 Acres
Site Tax No(s): 2697-252-18-001
Site Zoning: I-1
Project Description: To rezone approximately 20 +/-acres of the northern part of the parcel to R-5. The remainder will remain

Property Owner Information

Name: Northwest GJ LLC
Street Address: 8061 Castle Pines Ave
City/State/Zip: Las Vegas, NV 89113
Business Phone #: 702-873-9404
E-Mail: ampastel26@gmail.com
Fax #: 702-473-5462
Contact Person: Arthur Pastel
Contact Phone #: 702-873-9404

Applicant Information

Name: Senergy Builders, LLC
Street Address: 1111 S. 7th Street
City/State/Zip: Grand Junction, CO 8
Business Phone #: 970-234-0708
E-Mail: dcarei@senergybuilders.com
Fax #: 970-523-0103
Contact Person: Darin Carei
Contact Phone #: 970-234-0708

Representative Information

Name: River City Consultants, Inc.
Street Address: 215 Pitkin Ave. #201
City/State/Zip: Grand Junction, CO 8
Business Phone #: 970-241-4722
E-Mail: tstates@rccwest.com
Fax #: 970-241-8841
Contact Person: Tracy States
Contact Phone #: 970-241-4722

NOTE: Legal property owner is owner of record on date of submittal.

We hereby acknowledge that we have familiarized ourselves with the rules and regulations with respect to the preparation of this submittal, that the foregoing information is true and complete to the best of our knowledge, and that we assume the responsibility to monitor the status of the application and the review comments. We recognize that we or our representative(s) must be present at all required hearings. In the event that the petitioner is not represented, the item may be dropped from the agenda and an additional fee may be charged to cover rescheduling expenses before it can again be placed on the agenda.

Signature of Person Completing the Application: Tracy States — Digitally signed by Tracy States Date: 2021.01.27 14:12:54 -07'00'
Date: January 27, 2021

Signature of Legal Property Owner: A. Pastel
Date: Feb 13, 2021

General Project Report

Brookfield North III & IV Rezone

A Portion (North 20 Acres) of 853 21 ½ Road, Grand Junction, CO

February 12, 2021

Prepared for:

Senergy Builders

1111 S. 7th Street, Grand Junction, CO 81501

Prepared by:

215 Pitkin, Grand Junction, CO 81501

Grand Junction, CO 81506

Phone: (970) 241-4722

Fax: (970) 241-8841

A. Project Description

1) Location: The project is located at 853 21 ½ Road, Grand Junction, CO (Parcel No. 2697-252-18-001).

2) Acreage: The subject parcel contains approximately 43.30 acres.

3) Proposed Use: This submittal is for a Rezone of the north approximately 21.53 acres of this parcel from I-1 to R-5 in accordance with the newly adopted 2020 Comprehensive Plan. The future land use indicates Residential Low zoning on the north portion of the parcel and industrial zoning on the south portion. The remaining southern acreage will remain zoned I-1.

B. Public Benefit

The proposed partial Rezoning will allow the continuation of residential low-density development similar to the adjacent property to the north (Brookfield North Filing One). The partial Rezone will facilitate affordable, quality housing and the extension of services in this much desired area of Grand Junction.

C. Neighborhood Meeting

A neighborhood meeting was held virtually via a zoom meeting on February 11, 2021. A summary of the meeting is included with this submittal.

D. Project Compliance, Compatibility, and Impact

1) Adopted plans and/or policies:

The proposed Rezoning, in conjunction with the 2020 Comprehensive Plan, will comply with the adopted codes, plans and requirements for the property.

2) Land use in the surrounding area:

The uses contained within the surrounding area are a mix of commercial/industrial, agricultural and large lot residential, as well as low density residential.

3) Site access and traffic patterns:

Not applicable for this submittal.

4) Availability of utilities, including proximity of fire hydrants:

The subject parcel is served by the following:

Ute Water
City of Grand Junction Sewer
Grand Valley Irrigation Company
Xcel Energy
Grand Valley Power
City of Grand Junction Fire
Spectrum/Charter

CenturyLink

Fire Hydrants are located on the east side of 21 ½ Road, across from this site, as well as to the north on Slope Creek Avenue.

5) Special or unusual demands on utilities:

There will be no unusual demand on utilities as a result of the Rezone.

6) Effects on public facilities:

The Rezone will have no adverse effect on public facilities.

7) Hours of operation:

Typical of residential development.

8) Number of employees:

Not applicable.

9) Signage:

Not applicable.

10) Site Soils Geology:

Not applicable.

11) Impact of project on site geology and geological hazards:

None are anticipated.

E. Must address the review criteria contained in the Zoning and Development Code for the type of application being submitted

Section 21.02.070 (6) of the Zoning and Development Code:

General Approval Criteria. No permit may be approved unless all of the following criteria are satisfied:

(i) Compliance with the Comprehensive Plan and any applicable adopted plan.
The Rezone request is in compliance with the newly adopted 2020 Comprehensive Plan.

(ii) Compliance with this zoning and development code.
The Rezone request is in compliance with the zoning and development code.

(iii) Conditions of any prior approvals.
There are no conditions of prior approvals.

(iv) Public facilities and utilities shall be available concurrent with the development.

All public facilities and utilities will be available concurrent with the rezoning and subsequent development of this property.

(v) Received all applicable local, State and federal permits.
All applicable permits will be obtained for this project.

Section 21.02.140 Code amendment and rezoning:

(a) **Approval Criteria.** In order to maintain internal consistency between this code and the zoning maps, map amendments must only occur if:

(1) Subsequent events have invalidated the original premises and findings; and/or

The proposed partial Rezone request to R-5 will bring the parcel into compliance with the newly adopted 2020 Comprehensive Plan.

(2) The character and/or condition of the area has changed such that the amendment is consistent with the Plan; and/or

The amendment would allow the continuation of low density, affordable, quality housing in this much desired area of Grand Junction and is consistent with the Comprehensive Plan.

(3) Public and community facilities are adequate to serve the type and scope of land use proposed; and/or

Public and community facilities are existing and adequate and will support low density residential and industrial developments and are not affected as a result of the Rezone request.

(4) An inadequate supply of suitably designated land is available in the community, as defined by the presiding body, to accommodate the proposed land use; and/or

This parcel of land is adequately serviced by utilities and roadways. There is an inadequate supply of smaller parcels in this area to accommodate residential development.

(5) The community or area, as defined by the presiding body, will derive benefits from the proposed amendment.

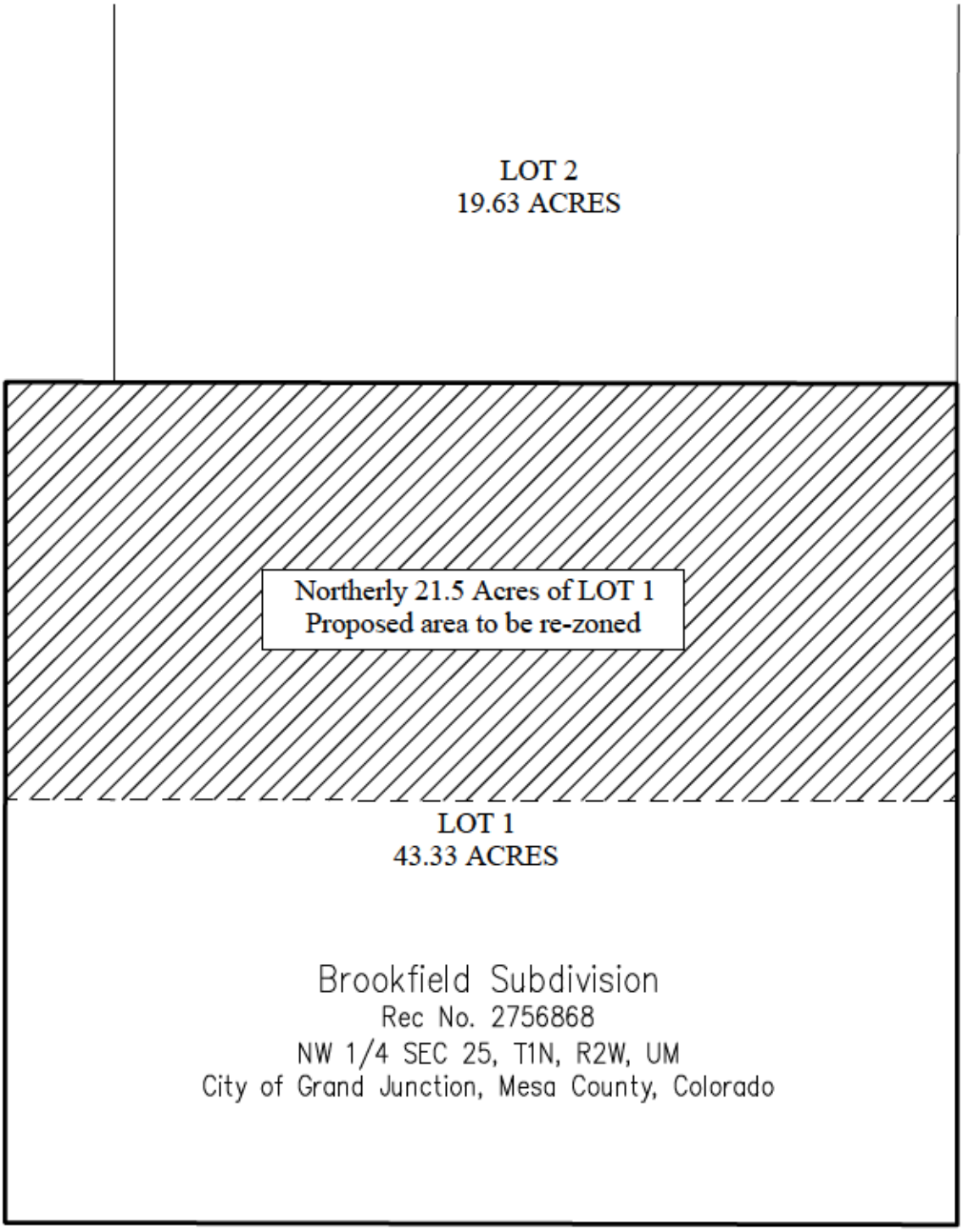
The area will benefit with the development of low-density residential development with the extension of services, i.e. sewer. It also serves as a buffer between Industrial and Rural Residential uses.

F. Development Schedule

Not applicable for this submittal.

The northerly 21.5 Acres of Lot 1 of the Brookfield Subdivision in the Northwest Quarter of Section 25, Township 1 North, Range 2 West of the Ute Meridian, City of Grand Junction, Mesa County, Colorado, as recorded at Reception Number 2756868.

EXHIBIT B



1" = 250'

0 250

U.S. Survey feet

THIS EXHIBIT IS FOR THE PURPOSE OF GRAPHICALLY REPRESENTING A WRITTEN DESCRIPTION - IT DOES NOT REPRESENT A MONUMENTED BOUNDARY SURVEY

RIVER CITY CONSULTANTS
215 Pitkin Avenue, Unit 201
Grand Junction, CO 81501
Phone: 970.241.4722
Fax: 970.241.8841
www.rccwest.com

Drawn: BDM	Checked: AKT	2/2/21	Job No. 1378- 007

Z:\PROJECTS\1378 Senergy Builders\007 Brookfield South Simple Sub\Survey\DWG\1378-007 Legal For Zoning.dwg

Brookfield North III & IV Rezone
Located 853 21 ½ Road, Grand Junction, CO
(Parcel No. 2697-252-18-001)

SUMMARY OF VIRTUAL NEIGHBORHOOD MEETING
THURSDAY, FEBRUARY 11, 2021 @ 5:30 PM
VIA ZOOM

A virtual neighborhood meeting for the above-referenced Preliminary Plan was held Thursday, February 11, 2021, via Zoom, at 5:30 PM. The initial letter notifying the neighboring property owners within the surrounding 500 feet was sent on January 29, 2021, per the mailing list received from the City of Grand Junction. There were approximately 9 attendees including Tracy States, Project Coordinator and Jarrod Whelan, P.E. with River City Consultants, Jace Hochwalt, Senior Planner with the City of Grand Junction, and Darin Carei with Senergy Builders, the Developer.

The meeting included a presentation, given by Tracy States, and a question-and-answer session. Information about the proposed project presented the proposed rezone on the northern half of the parcel to R-5, and a preliminary plan showing 82 lots, street with connections, on approximately 21.53 acres (3.81 DU/Acre). Also presented was a map of the Future Land Use. Tracy explained that the Comprehensive Plan adopted by the City in December 2020 indicated that the northern portion of the parcel was slated for Residential Low Development and thus the rezone request. Tracy explained that the rezone process would involve two public hearings in front of the Planning Commission and the City Council.

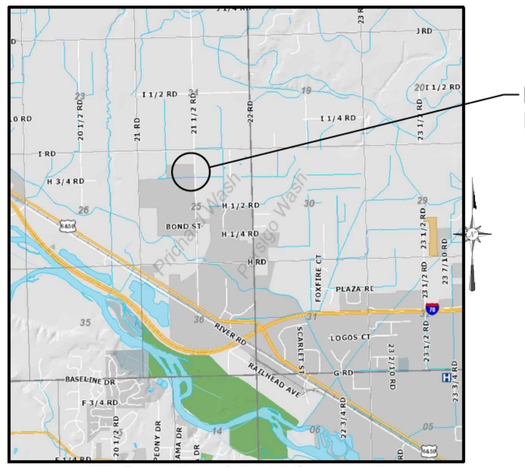
Jace Hochwalt verified the municipal process and the public hearing process for the rezone and that the subdivision process would be administrative with no further meetings. Jace stated that either R-4 or R-5 zoning were appropriate for the northern portion of the parcel and both would be supported by staff.

The only concerns expressed were the alignment of the proposed access to 21 ½ Road and perimeter fencing along 21 ½ Road. Jace stated that the City would request fencing that would match what was done in Filings I and II and that a 14' landscape strip would be required adjacent to the right-of-way on 21 ½ road, similar to what was required with Filings I and II. Increased speeding along 21 ½ Road was also expressed. The attendees seemed pleased with the chosen street alignment and that development would be residential.

The meeting adjourned at approximately 5:50 PM.

Tracy States received a notification that a neighbor tried to logon to the meeting as it concluded as well as a voicemail the morning of February 12th. Tracy contacted the individual and provided him with the maps presented at the meeting. He expressed concern about the removal of industrial zoned land and the state of 21 ½ Road and asked when it was planned to overlay 21 ½ Road to improve driving conditions. Tracy gave him the contact information for the Planner at the City to inquire further about overlay plans.

BROOKFIELD NORTH REZONE



PROJECT LOCATION MAP
(N.T.S.)

REZONE LAND USAGE
Total Area: 21.53 acre
Current Zone: Light Industrial (I-1)

Proposed Zone: Residential-4 (R-4)
Single Family Residential: 80± Units
3.81 Unit/Acre

PROPOSED ZONING SUMMARY

Zoning: R-4
Min Lot Size: 7,000 SF
Min Lot Width: 70 FT
Min Lot Frontage: 20 FT
Min Setbacks:
Front (Principle Structure): 20 FT
Front (Accessory Structure): 25 FT
Rear: 25 FT
Side: 7 FT
Identified Buffer Area: 15 FT
Max Height: 72 FT
Max Lot Coverage: 80%

UTILITY CONTACTS

Sewer – City of Grand Junction
Contact.....970-245-6378
Water – Ute Water District
Contact.....970-242-7491
Electric – Grand Valley Power
Contact.....970-242-0040
Gas – Xcel Energy
Contact.....970-242-2626
Phone – CenturyLink
Contact.....970-244-4311
Cable – Charter Communications
Contact.....970-210-2550
Irrigation – Grand Valley Irrigation Company
Contact.....970-242-2762



811 Know what's below. Call before you dig.
UNCC UTILITY NOTIFICATION CENTER OF COLORADO
800.922.1987
www.uncc.org
CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

Project Benchmark
MCSM xxxx
x" Brass Cap
Intersection of x Road and x Road
Sec. xx, Txx, Rxx, U.M.
Northing: xxxxxx.xx
Easting: xxxxxx.xx
Elevation: xxxx.xx
Datum Source: MCLCS Zone "GVA" (NAVD 88)

SCALE
100 0 50 100 200
(IN FEET)
CONTOUR INTERVAL = 1 FOOT
ORIGINAL SHEET SIZE: 22 x 34

REVISIONS			
NO.	DATE	DESCRIPTION	BY

S:\Projects\1378 Synergy Builders\013 Brookfield North Filing III & IV\Design\CAD\02-Layout\1378-013 Parcels-Layout.dwg [Exhibit 01] 2/11/2021 5:01:49 PM

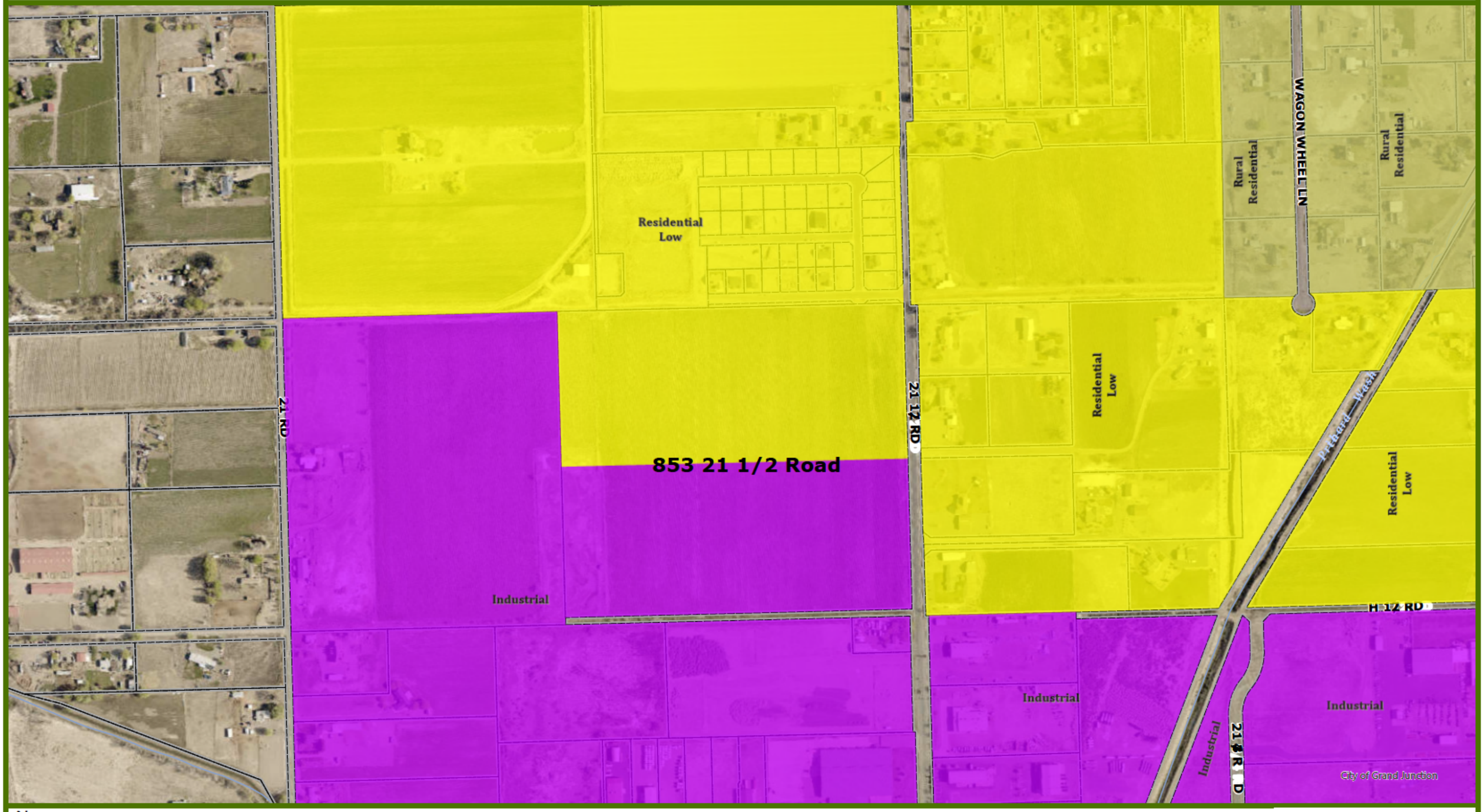
PRELIMINARY

RIVER CITY CONSULTANTS
215 Pitkin Avenue, Unit 201
Grand Junction, CO 81501
Phone: 970.241.4722
www.rccwest.com
Fax: 970.241.8841

PROJECT #:	1378-013	DATE ISSUED:	2021.02.10
DRAWN BY:	JSW	HORIZ:	AS SHOWN
CHECKED BY:		VERT:	N/A

SENERGY BUILDERS
BROOKFIELD NORTH
FILING III & IV
01

City of Grand Junction



N

0 0.28 0.55 mi

Printed: 1/27/2021
1 inch equals 376 feet
Scale: 1:4,514

CITY OF Grand Junction COLORADO GEOGRAPHIC INFORMATION SYSTEM

OWNERSHIP STATEMENT - CORPORATION OR LIMITED LIABILITY COMPANY

(a) Northwest GJ LLC ("Entity") is the owner of the following property:

(b) 853 21 1/2 Road, Grand Junction, CO 81505

A copy of the deed(s) evidencing the owner's interest in the property is attached. Any documents conveying any interest in the property to someone else by the owner are also attached.

I am the (c) Managing Member for the Entity. I have the legal authority to bind the Entity regarding obligations and this property. I have attached the most recent recorded Statement of Authority of the Entity.

◉ My legal authority to bind the Entity both financially and concerning this property is unlimited.

○ My legal authority to bind the Entity financially and/or concerning this property is limited as follows:

◉ The Entity is the sole owner of the property.

○ The Entity owns the property with other(s). The other owners of the property are:

On behalf of Entity, I have reviewed the application for the (d) Rezone

I have the following knowledge or evidence of a possible boundary conflict affecting the property:

(e) None

I understand the continuing duty of the Entity to inform the City planner of any changes regarding my authority to bind the Entity and/or regarding ownership, easement, right-of-way, encroachment, lienholder and any other interest in the land.

I swear under penalty of perjury that the information in this Ownership Statement is true, complete and correct.

Signature of Entity representative: A. Pastel

Printed name of person signing: Arthur M. Pastel, Managing Member

State of Colorado)

County of Mesa) ss.

Subscribed and sworn to before me on this 16th day of February, 20 21

by Arthur M. Pastel

Witness my hand and seal.

My Notary Commission expires on

KIM L SMEINS
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19904000196
MY COMMISSION EXPIRES JANUARY 25, 2025

Notary Public Signature

RECEPTION #: 2451115, BK 4706 PG 591 07/31/2008 at 03:57:49 PM, 1 OF 2, R $10.00 S $1.00 D $300.00 Doc Code: WD Janice Rich, Mesa County, CO CLERK AND RECORDER

A/S 2 PAGE DOCUMENT

STATE DOCUMENTARY FEE
Date: July 28, 2008
$ 300.00

SPECIAL WARRANTY DEED

THIS DEED, Made on this day of July 28, 2008, between

IRMA L. KAPUSHION REVOCABLE TRUST

of the County of _____ and State of _____, Grantor(s), and

300.00

NORTHWEST GJ, LLC, A COLORADO LIMITED LIABILITY COMPANY

whose legal address is : 8061 CASTLE PINES AVENUE LAS VEGAS, NV 89113
of the _____ County of CLARK and State of NEVADA, of the Grantee(s):

WITNESS, That the Grantor, for and in consideration of the sum of ($3,000,000.00)
*** Three Million and 00/100 *** **DOLLARS**
the receipt and sufficiency of which is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell, convey and confirm unto the Grantee(s), their heirs and assigns forever, all the real property, together with improvements, if any, situate, lying and being in the _____ County of MESA and State of Colorado, described as follows:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

also known as street number East of 860 21 ROAD FRUITA CO 81521

TOGETHER with all and singular and hereditaments and appurtenances thereunto belonging, or in anywise appertaining and the reversion and reversions, remainder and remainders, rents, issues and profits thereof; and all the estate, right title interest, claim and demand whatsoever of the Grantor(s), either in law or equity, of, in and to the above bargained premises, with the hereditaments and appurtenances;

TO HAVE AND TO HOLD the said premises above bargained and described with appurtenances, unto the Grantee(s), their heirs, successors and assigns forever. The Grantor, for itself, its successors and assigns, does covenant, and agree that it shall and will WARRANT AND FOREVER DEFEND the above-bargained premises in the quiet and peaceable possession of the Grantee(s), their heirs, successors and assigns, against all and every person or persons claiming the whole or any part thereof, by, through or under the Grantor(s),

SUBJECT TO GENERAL TAXES FOR THE YEAR 2008; AND EASEMENTS, RESERVATIONS, RESTRICTIONS, COVENANTS AND RIGHTS OF WAY OF RECORD, IF ANY; AND DISTRIBUTION UTILITY EASEMENTS; AND MATTERS NOT SHOWN BY THE PUBLIC RECORDS BUT OF WHICH GRANTEE HAS ACTUAL KNOWLEDGE; AND INCLUSION OF THE PROPERTY WITHIN ANY SPECIAL TAXING DISTRICT; AND THE BENEFITS AND BURDENS OF ANY DECLARATION AND PARTY WALL AGREEMENTS, IF ANY.

IN WITNESS WHEREOF the Grantor(s) have executed this deed on the date set forth above.

IRMA L. KAPUSHION REVOCABLE TRUST

By: Irma L. Kapushion
IRMA L. KAPUSHION, AS TRUSTEE

STATE OF Colorado)
)ss.
_____ County of Mesa)

The foregoing instrument was acknowledged before me on this day of ***July 28, 2008***,
by ***IRMA L. KAPUSHION, AS TRUSTEE OF IRMA L. KAPUSHION REVOCABLE TRUST***

My commission expires
Witness my hand and official seal.

SUSAN J. OTTMAN
NOTARY PUBLIC
STATE OF COLORADO
My Commission Expires 11/02/2009
County of Mesa

Notary Public

Name and Address of Person Creating Newly Created Legal Description (38-35-106.5, C.R.S.)

Escrow# GJ65006346
Title# GJC65006346

When Recorded Return to: NORTHWEST GJ, LLC, A COLORADO LIMITED LIABILITY COMPANY
8061 Castle Pines Avenue Las Vegas, Nv 89113

Form 767 01/27/03 SPEC.WD1 WARRANTY DEED {6702955}

EXHIBIT A

A PARCEL OF LAND SITUATE IN THE NORTHWEST ¼ OF SECTION 25, TOWNSHIP 1 NORTH, RANGE 2 WEST OF THE UTE MERIDIAN, MESA COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE NORTH 1/16TH CORNER ON THE WEST LINE OF SAID SECTION 25, BEING A FOUND MESA COUNTY SURVEY MARKER, THE BASIS OF BEARING BEING S00°01'28"W TO THE WEST ¼ CORNER OF SAID SECTION 25, BEING A FOUND MESA COUNTY SURVEY MARKER;
THENCE S89°52'29"E ALONG THE NORTH LINE OF THE SOUTHWEST ¼ OF THE NORTHWEST ¼ OF SAID SECTION 25 A DISTANCE OF 1157.60 FEET TO THE POINT OF BEGINNING;
THENCE S89°52'29"E ALONG SAID NORTH LINE, A DISTANCE OF 166. 88 FEET TO THE NORTHWEST 1/16TH CORNER OF SAID SECTION 25, BEING WITNESSED BY A FOUND 2" ALUMINUM CAP MARKED "L.S.9960", N00°00'06"E A DISTANCE OF 3.67 FEET;
THENCE N00°00'06"E A DISTANCE OF 660.59 FEET TO THE NORTH LINE OF THE SOUTH ½ OF THE NORTHEAST ¼ OF THE NORTHWEST ¼ OF SAID SECTION 25;
THENCE S89°52'26"E ALONG SAID NORTH LINE A DISTANCE OF 1324.51 FEET TO THE EAST LINE OF SAID NORTHWEST ¼ OF SECTION 25;
THENCE S00°00'15"W A DISTANCE OF 660.57 FEET TO THE CENTER NORTH 1/16TH CORNER OF SAID SECTION 25, BEING A FOUND 2" ALUMINUM CAP STAMPED "L. S.9960";
THENCE S00°00'25"E A DISTANCE OF 1321.19 FEET TO THE CENTER ¼ CORNER OF SAID SECTION 25, BEING A FOUND MESA COUNTY SURVEY MARKER;
THENCE N89°51'58"W ALONG THE SOUTH LINE OF SAID NORTHWEST ¼ A DISTANCE OF 1492.07 FEET;
THENCE N00°01'28"E A DISTANCE OF 1320.97 FEET TO THE POINT OF BEGINNING.

RECEPTION #: 2748400, BK 5813 PG 715 01/12/2016 at 02:21:32 PM, 1 OF 1, R
$10.00 S $1.00 Sheila Reiner, Mesa County, CO CLERK AND RECORDER

STATEMENT OF AUTHORITY

1. This Statement of Authority relates to an entity named Northwest GJ, LLC., a Colorado Limited Liability Company.

2. The type of entity is a: Limited Liability Company

3. The entity is formed under the laws of the State of Colorado.

4. The mailing address for the entity is: ,2060 Broadway Suite 400 Boulder, CO. 80302.

5. The name and position of each said person authorized to execute instruments conveying, encumbering, or otherwise affecting the title to real property on behalf of the entity is: Arthur M. Pastel as Managing Member.

6. The authority of the foregoing person to bind the entity is not limited.

7. There are no other matter of limitations concerning the manner in which the entity deals with interests in real property.

8. This Statement of Authority is executed on behalf of the entity pursuant to the provisions of Section §38-30-172, C.R.S.

Executed this 1st day of December, 2015

Arthur M. Pastel, as Managing Member

STATE OF ~~COLORADO~~ Nevada)
) SS.
COUNTY OF ~~MESA~~ Clark)

The foregoing instrument was acknowledged before me this 28 day of December, 2015 by Arthur M. Pastel.

Witness my hand and official seal.

My commission expires 7-24-18

VICTORIA A CASSINGHAM
NOTARY PUBLIC
STATE OF NEVADA
My Commission Expires: 07-24-18
Certificate No: 14-14484-1

Victoria A. Cassingham
Notary Public

GRAND JUNCTION PLANNING COMMISSION
April 13, 2021 MINUTES
5:30 p.m.

The meeting of the Planning Commission was called to order at 5:30 p.m. by Planning Commissioner Ehlers.

Those present were Planning Commissioners; George Gatseos, Andrea Haitz, Ken Scissors, and Keith Ehlers.

Also present were Jamie Beard (Assistant City Attorney), Tamra Allen (Community Development Director), and Lance Gloss (Senior Planner).

There were 2 members of the public in virtual attendance: Sydnee Flotron and Dan Ramsay

CONSENT AGENDA

Commissioner Gatseos moved to adopt Consent Agenda Item #1. Commissioner Scissors seconded the motion. The motion carried 4-0.

1. **Approval of Minutes**

Minutes of Previous Meeting(s) from March 23, 2021.

Planning Commission took a break due to technical difficulties.

Planning Commission resumed at 6:03. p.m.

REGULAR AGENDA

1. **Brookfield North 3 and 4 Rezone** **File # RZN-2021-113**

Agenda item can be viewed online here at 19:16

Consider a request by Senergy Builders, LLC to rezone 21.53 acres from an I-1 (Light Industrial) zone district to an R-5 (Residential - 5 dwelling units per acre) zone district, located at the northern 21.53 acres of 853 21 ½ Road.

Staff Presentation

Lance Gloss, Senior Planner, introduced exhibits into the record and provided a presentation regarding the request.

Questions for Staff

Commissioner Gatseos asked a question regarding the future land use designation.

DRAFT

Commissioner Ehlers made a statement regarding the rezone process and future subdivision request.

Applicant Presentation
Tracy States, River City Consultants, was present and available for questions.

Questions for Applicant
None.

Public Hearing
The public hearing was opened at 5 p.m. on Tuesday, April 6, 2021 via www.GJSpeaks.org.

The following made comments regarding the request via GJSPeaks: Scott W Claussen

The public hearing was closed at 6:24 p.m. on April 13, 2021.

Questions for Applicant or Staff
None.

Discussion
Commissioner Gatseos made a comment regarding the review criteria.

Commissioner Ehlers made a comment regarding the review criteria.

Motion and Vote
Commissioner Scissors made the following motion, "Chairman, on the rezone from I-1 (Light Industrial) to R-5 (Residential – 5 dwelling units per acre) for the northern 21.53 acres of the property located at 853 21 ½ Road, City file number RZN-2021-113, I move that the Planning Commission forward a recommendation of approval to City Council with the findings of fact as listed in the staff report."

Commissioner Haitz seconded the motion. The motion carried 4-0.

2. Other Business
None.

3. Adjournment
Commissioner Scissors moved to adjourn the meeting. Commissioner Haitz seconded the motion. The vote to adjourn was 4-0. The meeting adjourned at 6:28 p.m.

DRAFT

SCOTT W CLAUSSEN:

I am very disappointed that city government / planning originally rezoned this area as I-1 against local opposition back in 2006-2007 with the stated need for more industrial vacant land as there was an extreme shortage of industrial, now the same property is converted to residential. After adopting plans and standards for this area, compliance and enforcement of standards is left up to citizen complaints. When is the city going to quit treating 21 1/2 road like it is no-man's land and schedule resurface/rebuild of section from US 50 to H 1/2 and require that businesses quit using right of way as parking and staging areas (UPS/ Shamrock Foods). If more development keeps being allowed, then development/ city needs to improve access road - 21 1/2 was a decent road until sewer line was originally installed from before H Road to Bond St. and it only took three tries to install sewer line addition for first Brookfield development - has any study been done for adequacy of existing sewer line to handled additional development including this one and potential others, along with the gas line that was patched back together when damaged twice while installing sewer line. The high water table throughout this area is a major concern and disturbing the overburden while constructing sewer has changed some ground water flows patterns. There is also the irrigation lateral that is serving these developments that will need repairs and upgrades that nobody wants to help pay to do - including existing water users. (Rhone lateral has no existing water company as no quorum could be obtained). Maintenance on ditch is performed by a very few neighborly individuals. These are just some of the concerns that should be addressed before future development is allowed to continue forward.

4/12/2021

CITY OF GRAND JUNCTION, COLORADO

ORDINANCE NO.

AN ORDINANCE REZONING H & M TRUST PROPERTIES FROM I-1 (LIGHT INDUSTRIAL) TO R-5 (RESIDENTIAL – 5 DU/AC)

LOCATED AT THE NORTHERN 21.53 ACRES OF 853 21 1/2 ROAD

Recitals:

After public notice and public hearing as required by the Grand Junction Zoning and Development Code, the Grand Junction Planning Commission recommended approval of zoning the northern 21.53 acres of the property located at 853 21 ½ Road to the R-5 (Residential – 5 du/ac) zone district, finding that it conforms to and is consistent with the Land Use Map designation of Residential Low of the Comprehensive Plan and the Comprehensive Plan's goals and policies and is generally compatible with land uses located in the surrounding area.

After public notice and public hearing, the Grand Junction City Council finds that the R-5 (Residential – 8 du/ac) zone district is in conformance with at least one of the stated criteria of Section 21.02.140 of the Grand Junction Zoning and Development Code.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION THAT:

The following properties shall be zoned R-5 (Residential – 5 du/ac):

THE NORTHERLY 21.5 ACRES OF LOT 1 OF THE BROOKFIELD SUBDIVISION IN THE NORTHWEST QUARTER OF SECTION 25, TOWNSHIP 1 NORTH, RANGE 2 WEST OF THE UTE MERIDIAN, CITY OF GRAND JUNCTION, MESA COUNTY, COLORADO, AS RECORDED AT RECEPTION NUMBER 2756868.

Introduced on first reading this 21st day of April, 2021 and ordered published in pamphlet form.

Adopted on second reading this 5th day of May, 2021 and ordered published in pamphlet form.

ATTEST:

City Clerk

Mayor

Grand Junction City Council

Regular Session

Item #6.a.

Meeting Date: May 5, 2021

Presented By: Ken Watkins, Fire Chief, Jay Valentine, General Services Director

Department: Fire

Submitted By: Gus Hendricks, Deputy Fire Chief

Information

SUBJECT:

Award of Contract for Fire Station #3 Construction

RECOMMENDATION:

Authorize the City Purchasing Division to enter into a construction contract with FCI Constructors, Inc for the Fire Station #3 construction project in the Guaranteed Maximum Price (GMP) amount of $4,570,069.00.

EXECUTIVE SUMMARY:

This request is to award a construction contract to build a new Fire Station #3 at 582 25 1/2 Road. The new station will be built directly south of the current location on 1.4 acres of land being exchanged with Mesa County Valley School District 51.

FCI Constructors was the only firm to submit a bid and because their response was over the estimated construction estimate, the Purchasing Division began negotiations with FCI to discuss why their bid was so high, and to find opportunities to reduce the overall cost, without sacrificing the project scope.

Through these negotiations, it was determined that converting the award from a Design-Bid-Build with a Lump Sum price, to a Construction Manager/General Contractor (CM/GC) with a Guaranteed Maximum Price (GMP), would offer an immediate significant savings, with the added value of the contractor and architect being able to collaborate to find additional value engineering opportunities that could be applied to the project, thus offering more cost savings, and construction schedule improvements. FCI Constructors' new Guaranteed Maximum Price following negotiation is $4,570,069.00.

This station will consist of sleeping quarters for eight personnel and three drive-through apparatus bays housing a fire engine, ambulance, and the department's Hazardous Materials Response unit. The station will be approximately 10,500 square feet to accommodate additional storage capacity for hazardous materials equipment and supplies.

This project involves using the Fire Station #6 design for construction of the new Fire Station, demolition and asbestos abatement of the old station, reconstruction of the parking lot for the Pomona/Kronkright Softball Complex, and minor improvements to the Monument Little League parking lot.

This contract approval is only for construction of the Fire Station and adjacent area. Demolition and asbestos abatement of the old station and reconstruction of the parking lot for the Pomona/Kronkright Softball Complex will be completed separately.

BACKGROUND OR DETAILED INFORMATION:

The existing Fire Station #3 located at 582 25 1/2 Road was constructed nearly 50 years ago and was scheduled for replacement in 2023. Concerns related to firefighter safety and cancer prevention, gender separation and privacy, ability for future growth, and several maintenance and capital needs have moved this project up to 2021.

The proposed new Fire Station #3 will be approximately 10,500 square feet with a capability of housing 3 to 4 pieces of fire equipment including an engine, ambulance, and hazardous materials response unit. The station will be staffed 24 hours a day and will include office and training space, residential areas, storage, fitness, and drive-through bays for fire apparatus.

The new fire station building will sit adjacent to the existing station. Nineteen total parking spaces (including 2 ADA accessible parking spaces) are included in the design. The fire department has worked closely with Mesa County Valley School District 51 and the City of Grand Junction Parks Department in order to maintain easy access to the adjacent softball fields and school grounds both during and after construction of the fire station. This access will allow pedestrian movement to and from the ball fields and school grounds. Concrete sidewalks will run along the perimeter of the building for ease of navigation to the public areas. The south side of the building will feature a fenced courtyard.

Existing mature trees shall be protected with a new irrigation system for the fire station which will be connected to the Pomona Park irrigation system and have a back-up connection to the building domestic line.

The project was scheduled to start construction mid-May but delays in obtaining

construction materials (specifically steel) has pushed that timing out to late fall. Once awarded, FCI will provide a more accurate construction schedule.

A formal Invitation for Bids was issued via BidNet (an online site for government agencies to post solicitations), posed on the City's Purchasing website, sent to the Grand Junction Chamber of Commerce, the Western Colorado Contractor's Association, and advertised in The Daily Sentinel. One company submitted a formal bid and this bid was found to be responsive and responsible as follows:

Contractor	**Location**	**Amount**
FCI Constructors, Inc.	Grand Junction	$5,029,563.88

A total of five (5) general contractors were present at the initial site visit meeting which allowed the bidders to tour the current Fire Station #6 and the location of the build for Fire Station #3.

Since only one bidder submitted and their bid response was over the estimated construction estimate, the Purchasing Division began negotiations with FCI to discuss why their bid was so high, and to find opportunities to reduce the overall cost, without sacrificing the project scope.

Through these negotiations, it was determined that converting the award from a Design-Bid-Build with a Lump Sum price, to a Construction Manager/General Contractor (CM/GC) with a Guaranteed Maximum Price (GMP), would offer an immediate significant savings, with the added value of the contractor and architect being able to collaborate to find additional value engineering opportunities that could be applied to the project, thus offering more cost savings, and construction schedule improvements. FCI Constructors' new Guaranteed Maximum Price following negotiation is $4,570,069.00.

FISCAL IMPACT:

Funding for this project was approved as part of the City of Grand Junction Capital Improvement budget adopted by City Council on December 2, 2020. A total of $200,000.00 was budgeted for station design in the 2020 budget. The 2021 budget for this project is in the amount of $5,300,000.00 for a total cost of $5,500,000.00. The amount allocated within the project for the construction contract is $4,600,000. Additional costs included in the overall budget are for demolition and abatement of the old fire station, furniture fixtures and equipment as well as a new parking lot on the site of the old fire station.

The project has been awarded grant funds from the Colorado Department of Local

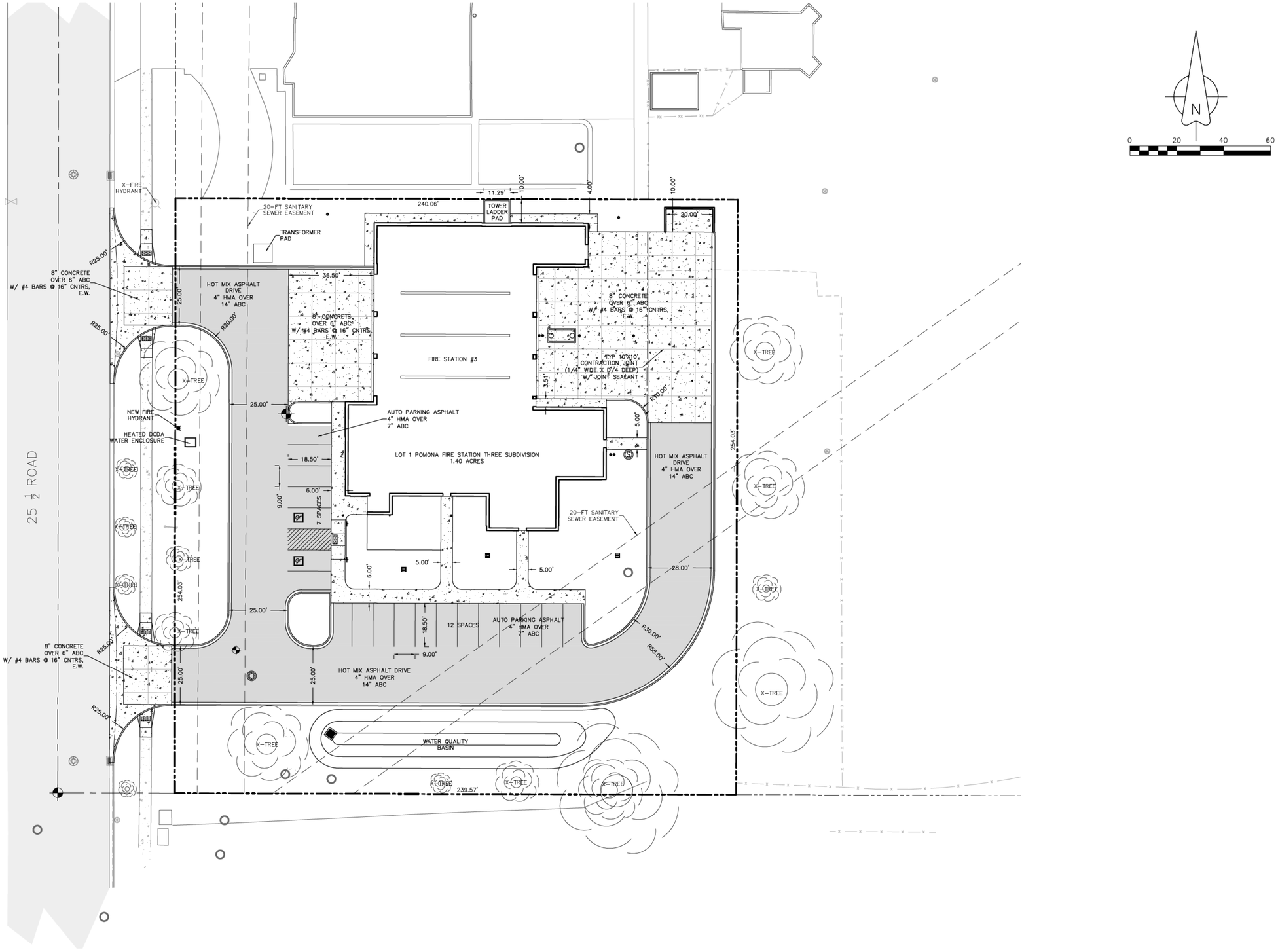
Affairs (DOLA) Tier II Energy Impact Grant in the amount of $250,000.00.

SUGGESTED MOTION:

I move to (authorize/not authorize) the City Purchasing Division to enter into a construction contract with FCI Constructors, Inc for the Fire Station #3 construction project in the Guaranteed Maximum Price (GMP) amount of $4,570,069.00.

Attachments

1. Site Plan
2. Concept Plan
4. Contract IFB-4889-21-DH



BG+ co.
Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office
BLYTHE GROUP + co.

A • C • G
AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services
2337 N. 7th Street, Suite 205 • Grand Junction, Colorado 81501
(970) 242-7540

GJFD-FIRE STATION #3

580 25 1/2 RD GRAND JUNCTION, COLORADO 81501

SITE PLAN

PROJECT STATUS

REV.	DESC.	DATE:

DATE: ISSUE DATE
PROJECT #: 2072
SHEET #:

C3-0

M:\PROJECTS\1001.0018 - Fire Station #3\Drawings\C3D\Production Drawings\PROD-SITE.dwg, 1/5/2021 2:56:19 PM, DWG To PDF.pc3

EXISTING FIRE STATION #3
1.10 ACRE PARCEL

NEW FIRE STATION #3
PARCEL SIZE=1.37 ACRES

ASPHALT/CONCRETE

HIGH VALUE SPECIMEN TREE

HIGH VALUE TREE

DOMESTIC WATER & FIRE LINE ENTRY (TBD)

SEWER ENTRY (TBD)

11 SPACES

6 SPACES

WATER QUALITY/TURF AREA

STORM CONNECTION

ENTER

EXIT

240.00'

136.92'

85.15'

239.51'

32.91'

249.07'

9.96'

55.96'

40.00'

14.00' MPE

R25.00'

R50.00'

0 30 60 90

N

Know what's below. Call before you dig. 811

SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET
ADJUST SCALES ACCORDINGLY

REVISIONS

NO.	DESCRIPTION	DATE	BY

A • C • G
AUSTIN CIVIL GROUP, INC
Land Planning • Civil Engineering • Development Services
123 N. 7th Street, Suite 300 • Grand Junction, Colorado 81501
(970) 242-7540

FIRE STATION #3

description
PRE-APPLICATION CONCEPT
GRAND JUNCTION, CO

prepared for
GJFD

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
STS	STS		

JOB NUMBER: 1001.0018
DATE: 12-9-20
SCALE: 1"=30'
SHEET NO: C1

M:\PROJECTS\1001.0018 - Fire Station #3\Drawings\CSD\Source Drawings\Bases\P-LW_2.dwg, 12/7/2020 3:06:52 PM, DWG To PDF.pc3

CITY OF GRAND JUNCTION, COLORADO

****

CONTRACT

This CONTRACT made and entered into this 22nd day of April, 2021 by and between the **City of Grand Junction, Colorado,** a government entity in the County of Mesa, State of Colorado, hereinafter in the Contract Documents referred to as the "Owner" and **FCI Constructors, Inc.** hereinafter in the Contract Documents referred to as the "Contractor."

WITNESSETH:

WHEREAS, the Owner advertised that sealed Responses would be received for furnishing all labor, tools, supplies, equipment, materials, and everything necessary and required for the work described by the Contract Documents and known as **Grand Junction Fire Department Fire Station #3 Construction IFB-4889-21-DH**.

This project has been negotiated from an Invitation for Bid (IFB) Lump Sum delivery method to a Construction Manager/General Contractor (CM/GC) Guaranteed Maximum Price (GMP) delivery method for any potential value engineering services, and construction.

WHEREAS, the Contract has been awarded to the above-named Contractor by the Owner, and said Contractor is now ready, willing and able to perform the Services/Work specified in accordance with the Contract Documents;

NOW, THEREFORE, in consideration of the compensation to be paid the Contractor, the mutual covenants hereinafter set forth and subject to the terms hereinafter stated, it is mutually covenanted and agreed as follows:

ARTICLE 1

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

The order of contract document governance shall be as follows:

a. The body of this contract agreement;
b. Negotiated terms to convert to CM/GC and establish Guaranteed Maximum Price (GMP);
c. Solicitation Documents for the Project; **Grand Junction Fire Department Fire Station #3;**
d. Contractors Response to the Solicitation;

e. Services/Work Change Requests (directing that changed Services/Work be performed);
f. Field Orders;
g. Change Orders.

ARTICLE 2

Definitions: The clauses provided in the Solicitation apply to the terms used in the Contract and all the Contract Documents.

ARTICLE 3

Contract Services/Work: The Contractor agrees to furnish all labor, tools, supplies, equipment, materials, and all that is necessary and required to complete the tasks associated with the Services/Work described, set forth, shown, and included in the Contract Documents as indicated in the Solicitation Document.

ARTICLE 4

Contract Time: Time is of the essence with respect to this Contract. The Contractor hereby agrees to commence Services/Work under the Contract on or before the date specified in the Solicitation from the Owner, and to achieve Substantial Completion and Final Completion of the Services/Work upon developed, proposed and accepted timeline.

ARTICLE 5

Contract Price and Payment Procedures: The Contractor shall accept as compensation for the performance and completion of all of the Services/Work specified in the Contract Documents, the GMP (Guaranteed Maximum Price) of **Four Million Five Hundred Seventy Thousand Sixty Nine and 00/100 Dollars ($4,570,069.00). This GMP amount includes the Contractor's Overhead and Profit (OH&P)/Construction Phase Fee.** If this Contract contains unit price pay items, the Contract Price shall be adjusted in accordance with the actual quantities of items completed and accepted by the Owner at the unit prices quoted in the Solicitation Response. The amount of the Contract Price is and has heretofore been appropriated by the Grand Junction City Council for the use and benefit of this Project. The Contract Price shall not be modified except by Change Order or other written directive of the Owner. The Owner shall not issue a Change Order or other written directive which requires additional Services/Work to be performed, which Services/Work causes the aggregate amount payable under this Contract to exceed the amount appropriated for this Project, unless and until the Owner provides Contractor written assurance that lawful appropriations to cover the costs of the additional Services/Work have been made.

Unless otherwise provided in the Solicitation, monthly partial payments shall be made as the Services/Work progresses. Applications for partial and Final Payment shall be prepared by the Contractor and approved by the Owner in accordance with the Solicitation.

Upon Final Completion of the Services/Work under the Contract and before the Contractor shall receive final payment, the Owner shall publish at least twice in a newspaper of general circulation published in the County a notice that: 1. the Owner has accepted such Services/Work as completed according to the Contract Documents; 2. the Contractor is entitled to final payment therefore; 3. thirty days after the first publication, specifying the exact date, the Owner shall pay the full balance due under the Contract; and 4. persons

having claims for labor, materials, team hire, sustenance, provisions, provender, or other supplies used or consumed by the Contractor or a subcontractor shall file a verified statement of the amount due and unpaid on account of such claim prior to the date specified for such payment. Nothing herein shall be construed as relieving the Contractor and the Sureties on the Contractor's Bonds from any claim or claims for Services/Work or labor done or materials or supplies furnished in the execution of the Contract.

ARTICLE 6

Bonds: The Contractor shall furnish currently herewith the Bonds required by the Contract Documents, such Bonds being attached hereto. The Performance Bond shall be in an amount not less than one hundred percent (100%) of the Contract Price set forth in Article 5. The Payment Bond shall be in an amount not less than one hundred (100%) of the Contract Price set forth in Article 5.

ARTICLE 7

Contract Binding: The Owner and the Contractor each binds itself, its partners, successors, assigns and legal representatives to the other party hereto in respect to all covenants, agreements and obligations contained in the Contract Documents. The Contract Documents constitute the entire agreement between the Owner and Contractor and may only be altered, amended or repealed by a duly executed written instrument. Neither the Owner nor the Contractor shall, without the prior written consent of the other, assign or sublet in whole or in part its interest under any of the Contract Documents and specifically, the Contractor shall not assign any moneys due or to become due without the prior written consent of the Owner.

ARTICLE 8

Severability: If any part, portion or provision of the Contract shall be found or declared null, void or unenforceable for any reason whatsoever by any court of competent jurisdiction or any governmental agency having the authority thereover, only such part, portion or provision shall be effected thereby and all other parts, portions and provisions of the Contract shall remain in full force and effect.

IN WITNESS WHEREOF, City of Grand Junction, Colorado, has caused this Contract to be subscribed and sealed and attested in its behalf; and the Contractor has signed this Contract the day and the year first mentioned herein. The Contract is executed in two counterparts.

CITY OF GRAND JUNCTION, COLORADO

By: _____ _____

Duane Hoff Jr., Senior Buyer Date

FCI Constructors, Inc.

By: _____ _____

Date

PROJECT:

Grand Junction Fire Department

Grand Junction CO

Fire Station #3

PREPARED FOR:

GMP Estimate
April 7, 2021

PREPARED BY:

FCI Constructors, Inc.

FCI Constructors, Inc.

	Project: Grand Junction Fire Department Fire Station #3			Project: Grand Junction Fire Department Fire Station #6		April 7, 2021
	GMP Estimate			*Final GMP after Bid Pack #2 CO*		
	TOTAL SF	10,485				
DESCRIPTION	TOTAL COST	COST/SF	NOTES	TOTAL COST	VARIANCE	
GENERAL CONDITIONS	$ 288,001	$ 27.47		$ 235,000	$ 53,001	
31-330000 EARTHWORK & UTILITIES	$ 608,563	$ 58.04		$ 523,730	$ 84,834	
320000 EXTERIOR IMPROVEMENTS	$ 344,297	$ 32.84		$ 202,427	$ 141,870	
020000 EXISTING CONDITIONS	$ 31,012	$ 2.96		$ -	$ 31,012	
030000 CONCRETE	$ 226,326	$ 21.59		$ 230,352	$ (4,026)	
040000 MASONRY	$ 281,803	$ 26.88		$ 268,932	$ 12,871	
050000 METALS	$ 265,120	$ 25.29		$ 186,376	$ 78,744	
060000 WOODS & PLASTICS	$ 388,127	$ 37.02		$ 307,808	$ 80,319	
070000 THERMAL & MOISTURE PROTECTION	$ 362,884	$ 34.61		$ 287,090	$ 75,794	
080000 OPENINGS	$ 175,969	$ 16.78		$ 216,583	$ (40,614)	
090000 FINISHES	$ 232,231	$ 22.15		$ 226,131	$ 6,100	
100000 SPECIALTIES	$ 23,309	$ 2.22		$ 16,389	$ 6,920	
110000 EQUIPMENT	$ 40,039	$ 3.82		$ 42,786	$ (2,747)	
120000 FURNISHINGS	$ 14,467	$ 1.38		$ 15,301	$ (834)	
130000 SPECIAL CONSTRUCTION	$ -	$ -	NONE SHOWN OR ANTICIPATED	$ -	$ -	
140000 CONVEYING SYSTEMS	$ -	$ -	NONE SHOWN OR ANTICIPATED	$ -	$ -	
210000 FIRE SUPPRESSION	$ 41,252	$ 3.93		$ 32,000	$ 9,252	
220000 PLUMBING	$ 154,940	$ 14.78		$ 150,407	$ 4,533	
230000 HVAC	$ 272,120	$ 25.95		$ 232,905	$ 39,215	
26-280000 ELECTRICAL & LOW VOLTAGE	$ 444,545	$ 42.40		$ 322,800	$ 121,745	
SUBTOTAL - DIRECT COST	**$ 4,195,007**	**$ 400.10**		**$ 3,497,017**	**$ 697,990**	
PRECONSTRUCTION FEE	$ -	$ -		$ -	$ -	
BIM MODELING	$ -	$ -	NOT INCLUDED	$ -	$ -	
CONTINGENCY	$ 125,850	$ 12.00	3.00%	$ 104,910	$ 20,940	
BUILDERS RISK INSURANCE	$ 10,967	$ 1.05		$ 7,172	$ 3,795	
GENERAL LIABILITY INSURANCE	$ 34,276	$ 3.27	0.75%	$ 28,695	$ 5,581	
PROPERTY SURVEY	$ -	$ -	BY OWNER	$ -	$ -	
SOILS INVESTIGATION /GEOTECHNICAL ENGINEE	$ -	$ -	BY OWNER	$ -	$ -	
MATERIALS TESTING / INSPECTION	$ -	$ -	BY OWNER	$ -	$ -	
PLANNING APPLICATIONS/APPROVALS /FEES	$ -	$ -	BY OWNER	$ -	$ -	
BUILDING PERMIT	$ -	$ -	BY OWNER	$ 15,685	$ (15,685)	
SWMP PERMIT	$ 1,000	$ 0.10		$ -	$ 1,000	
PAYMENT/PERFORMANCE BONDS	$ 27,198	$ 2.59		$ 24,599	$ 2,599	
CONSTRUCTION PHASE FEE	$ 175,772	$ 16.76	4.00%	$ 147,123	$ 28,649	
TOTAL COST	**$ 4,570,069**	**$ 435.87**		**$ 3,825,201**	**$ 744,868**	

BID DAY COST	**$**	**5,029,063**
CITY FORCE ACCOUNT	**$**	**(350,000)** - NOT IN FIRE STATION #6 -
SAVINGS REALIZED FROM CM/GC APPROACH	**$**	**(108,994)**
CM/GC GUARANTEED MAXIMUM PRICE	**$**	**4,570,069**

FCI Constructors, Inc.

Grand Junction Fire Department
Fire Station #3
GMP Estimate
April 7, 2021

DIV 1: GENERAL CONDITIONS											
DESCRIPTION	QUANTITY	UNIT	PRICE	MATERIAL	MATERIAL TAX	PRICE	EQUIP/SUB	PRICE	LABOR	LABOR BURDEN	TOTAL
ONSITE MANAGEMENT											
PROJECT MANAGER	11	WK	$ -	$ -	$ -	$ -	$ -	$ 4,480.00	$ 51,391.30	included	$ 51,391.30
SUPERINTENDENT	35	WK	$ -	$ -	$ -	$ -	$ -	$ 4,080.00	$ 141,826.63	included	$ 141,826.63
PROJECT ENGINEER	17	WK	$ -	$ -	$ -	$ -	$ -	$ 3,280.00	$ 57,008.74	included	$ 57,008.74
TEMPORARY FACILITIES											
TEMP FENCE	1,000	LF	$ 1.00	$ 1,000.00	$ -	$ -	$ -	$ 1.50	$ 1,500.00	$ 1,020.00	$ 3,520.00
STORAGE VAN - RENT	8.0	MO	$ 225.00	$ 1,799.78	$ -	MOB IN/OUT	$ 500.00	$ -	$ -	$ -	$ 2,299.78
OFFICE TRAILER	8.0	MO	$ 450.00	$ 3,599.56	$ -	MOB IN/OUT	$ 1,000.00	$ -	$ -	$ -	$ 4,599.56
JOB SIGN **(BY CITY PER ITB)**	0	EA	$ 400.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TEMP POWER	8.0	MO	$ 200.00	$ 1,599.80	$ -	INSTALL	$ 300.00	$ -	$ -	$ -	$ 1,899.80
CELL PHONE	8.0	MO	$ 125.00	$ 999.88	$ -	$ -	$ -	$ -	$ -	$ -	$ 999.88
OFFICE TRAILER PHONE/INTERNET	8.0	MO	$ 147.10	$ 1,176.65	$ -	INSTALL	$ 250.00	$ -	$ -	$ -	$ 1,426.65
COMPUTER/IT SERVICES	12.8	MO		$ -	$ -	$ 245.00	$ 3,135.61	$ -	$ -	$ -	$ 3,135.61
OFFICE SUPPLIES, COPIER, PLAN REPRO	8.0	MO	$ 200.00	$ 1,599.80	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,599.80
TEMP TOILET (2)	16.0	MO	$ -	$ -	$ -	$ 130.00	$ 2,079.74	$ -	$ -	$ -	$ 2,079.74
TEMP WATER - POTABLE	8.0	MO	$ -	$ -	$ -	$ 100.00	$ 799.90	$ -	$ -	$ -	$ 799.90
EQUIPMENT											
PICKUP RENT	8.0	MO	$ 500.00	$ 3,999.51	$ -	$ 1,025.00	$ 8,198.99	$ -	$ -	$ -	$ 12,198.50
MISCELLANEOUS											
SAFETY	8.0	MO	$ 150.00	$ 1,199.85	$ -	$ -	$ -	$ 150.00	$ 1,199.85	$ 815.90	$ 3,215.60
TOTALS				$ 16,974.83	$ -		$ 16,264.25		$ 252,926.52	$ 1,835.90	**$ 288,001**

DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
31-330000 EARTHWORK & UTILITIES					
310100 SITE PREPARATION & OPERATION					
IMPLEMENT SWMP	***SKYLINE***	1.00	LS	$4,181.00	$ 4,181
LAYOUT AND STAKING	***POLARIS SURVEYING***	1.00	LS	$14,400.00	$ 14,400
DUST ABATEMENT		1.00	LS	$3,000.00	$ 3,000
MAINTAIN SWMP		1.00	LS	$2,000.00	$ 2,000
TRAFFIC CONTROL		1.00	LS	$31,000.00	$ 31,000
CLEANUP & LABOR		80.00	HRS	$ 41.00	$ 3,280
DUMPSTERS		1.00	PULLS	$ 600.00	$ 600
SUBTOTALS - SITE PREPARATION & OPERATION					$ 58,461
312200 CLEARING, GRADING, STABILIZATION, PREP					
EARTHWORK SUB CONTRACTOR	***SKYLINE***	1.00	LS	$185,500.00	$ 185,500
MOBILIZATION		1.00	LS	$0.00	$ -
CLEAR AND GRUB		1.00	LS	$0.00	w/above
SUB GRADE RECONDITIONING		3,110.00	SY	$0.00	w/above
SITE GRADING		1,440.00	CY	$0.00	w/above
SUB GRADE STABILIZATION		3,110.00	SY	$0.00	w/above
GEOTEXTILE		3,110.00	SY	$0.00	w/above
ASPHALT PAVING SUBGRADE PREP & 6" CLASS 6		377.00	SY	$0.00	w/above
ASPHALT PAVING SUBGRADE PREP & 14" CLASS 6		1,330.00	SY	$0.00	w/above
SITE CONCRETE SUBGRADE PREP & 6" CLASS 6		355.00	SY	$0.00	w/above
SITE CONCRETE SUBGRADE PREP & 6" CLASS 6		842.00	SY	$0.00	w/above
SITE CONCRETE SUBGRADE PREP & 6" CLASS 6		232.00	SY	$0.00	w/above
SITE CONCRETE SUBGRADE PREP & 6" CLASS 6		8.00	SY	$0.00	w/above
SITE CONCRETE SUBGRADE PREP & 6" CLASS 6		21.00	SY	$0.00	w/above
SITE CONCRETE SUBGRADE PREP & 6" CLASS 6		868.00	LF	$0.00	w/above
SITE CONCRETE SUBGRADE PREP & 6" CLASS 6		67.00	LF	$0.00	w/above
TOPSOIL LANDSCAPE AREAS 6"	*SKYLINE*	1.00	LS	$0.00	w/above
LAYOUT/COORDINATION		80.00	HRS	$ 61.00	$ 4,880
CLEANUP & LABOR		80.00	HRS	$ 41.00	$ 3,280
DUMPSTERS		1.00	PULLS	$ 600.00	$ 600
SUBTOTALS - CLEARING, GRADING, STABILIZATION, PREP					$ 194,260
312300 EXCAVATION & FILL					
EARTHWORK SUB CONTRACTOR	***SKYLINE***	1.00	LS	$48,455.00	$ 48,455
SLAB SUBGRADE PREP - BUIDLING		1,180.00	SY	$0.00	w/above
FOUNDATION EXCAVATION - BUILDING		680.00	CY	$0.00	w/above
FOUNDATION BACKFILL - NATIVE MATL - BUILDING		630.00	CY	$0.00	w/above
1/4" MINUS BELOW SLAB - BUIDLING		870.00	TON	$0.00	w/above
15 MIL VAPOR BARRIER AT SLAB AND CRAWL - BUILDING		1,180.00	SY	$0.00	w/above
3/4" WASH ROCK BELOW SOG - 4" - BUILDING		120.00	TON	$0.00	w/above
FOUNDATION EXCAVATION - UT ENCLOSURE		100.00	CY	$0.00	w/above
FOUNDATION BACKFILL - NATIVE MATL - UT ENCLOSURE		60.00	CY	$0.00	w/above

DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
1/4" MINUS BELOW SLAB - UT ENCLOSURE		50.00	TON	$0.00	w/above
3/4" WASH ROCK BELOW SOG - 4" - UT ENCLOSURE		10.00	TON	$0.00	w/above
LAYOUT/COORDINATION		40.00	HRS	$ 61.00	$ 2,440
CLEANUP & LABOR		24.00	HRS	$ 41.00	$ 984
SUBTOTALS - EXCAVATION & FILL					**$ 51,879**
316000 DEEP FOUNDATIONS					
DRIVEN PILE SUB	***COLORADO PILING SERVICE***	1.00	LS	$169,907.50	$ 169,908
STEEL PIERS - 10-3/4 X 49-0		67.00	EA	$0.00	w/above
STEEL PIERS - 10-3/4 X 49-0 - UT ENCLOSURE		6.00	EA	$0.00	w/above
LAYOUT/COORDINATION		40.00	HRS	$2,440.00	$ 2,440
CLEANUP & LABOR		24.00	HRS	$ 41.00	$ 984
SUBTOTALS - DEEP FOUNDATION					**$ 173,332**
331000 WATER UTILITIES					
DEMO ASPHALT - FOR WATER SERVICE		29.80	SY	$292.04	$ 292
PATCH ASPHALT		268.20	SF	$2,521.08	$ 2,521
DEMO CITY SIDE WALK FOR WATER SERVICE	*PATCH BACK w/DIV 32*	55.00	SF	$858.00	$ 858
DEMO CURB & GUTTER FOR WATER SERVICE	*PATCH BACK w/DIV 32*	6.30	LF	$64.89	$ 65
UTILLITY SUB CONTRACTOR	***SKYLINE***	1.00	LS	$38,056.00	$ 38,056
CONNECT TO EXISTING (DOM & FIRE)		2.00	EA	$0.00	w/above
FIRE WATER - 6"		160.00	LF	$0.00	w/above
6" BACK FLOW PREVENTOR AND HOT BOX		1.00	EA	$0.00	w/above
6" DUCTILE IRON FIRE RISER TO FIRST FLANGE AFF		1.00	EA	$0.00	w/above
DOMESTIC WATER - 2" COPPER		70.00	LF	$0.00	w/above
DOMESTIC WATER - 4" C900		90.00	LF	$0.00	w/above
4" DUTILE IRON RISER TO FIRST FLANGE AFF		1.00	EA	$0.00	w/above
LAYOUT/COORDINATION		40.00	HRS	$ 61.00	$ 2,440
CLEANUP & LABOR		32.00	HRS	$ 41.00	$ 1,312
SUBTOTALS - WATER UTILITIES					**$ 45,544**
334000 SANITARY SEWERAGE					
UTILLITY SUB CONTRACTOR	***SKYLINE***	1.00	LS	$14,895.00	$ 14,895
SANI SEWER - TAP SADDLE CONNECTION		2.00	EA	$0.00	w/above
SANI SEWER - 4"		100.00	LF	$0.00	w/above
SANI SEWER - SAND/OIL SEP 1500 GAL		1.00	EA	$0.00	w/above
LAYOUT/COORDINATION		24.00	HRS	$ 61.00	$ 1,464
SUBTOTALS - SANITARY SEWERAGE					**$ 16,359**
334000 STORMWATER					
UTILLITY SUB CONTRACTOR	***SKYLINE***	1.00	LS	$51,695.00	$ 51,695
STORM SEWER - CONNECT TO EXISTING		1.00	EA	$0.00	w/above
STORM SEWER - 12"		110.00	LF	$0.00	w/above
STORM SEWER - 6"		530.00	LF	$0.00	w/above

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
	STORM SEWER - 4"		250.00	LF	$0.00	w/above
	STORM SEWER - 48" MANHOLE		1.00	LF	$0.00	w/above
	STORM SEWER - WATER QUALITY OUTLET STRUCTURE		1.00	EA	$0.00	w/above
	STORM SEWER - AREA DRAIN BASIN 15"		1.00	EA	$0.00	w/above
	STORM SEWER - AREA DRAIN BASIN 12"		2.00	EA	$0.00	w/above
	RIP RAP AT WATER QUALITY STRUCTURE		5.00	SY	$0.00	w/above
	PERIMETER DRAIN 4" PERF AT FOUNDATION		640.00	LF	$11,904.00	$ 11,904
	LAYOUT/COORDINATION		32.00	HRS	$ 61.00	$ 1,952
	CLEANUP & LABOR		16.00	HRS	$ 41.00	$ 656
	SUBTOTALS - STORMWATER					**$ 66,207**
335000	**GAS UTILITIES**					
	T&B ONLY - BLDG TO GEN		86.40	LF	$ 11.35	$ 981
	T&B ONLY - TAP TO BUILDING		135.80	LF	$ 11.35	$ 1,541
	SUBTOTALS - GAS UTILITIES					**$ 2,522**
337000	**ELECTRIC/COMMUNICATIONS UTILITIES**					
		w/DIV 26	-		$ -	w/div 26
	SUBTOTALS - ELECTRIC/COMMUNICATIONS UTILITIES					**$ -**
31-330000	**EARTHWORK & UTILITIES - TOTALS**					**$ 608,563**

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
320000	**EXTERIOR IMPROVEMENTS**					
321200	**FLEXIBLE PAVING**					
	ASPHALT SUB CONTRACTOR - 25-1/2 ROAD PATCH	***ASPHALT SPECIALISTS***	1.00	LS	$8,810.00	$ 8,810
	MOBILIZATION		1.00	LS	$0.00	w/above
	FINAL SHAPE AND GRADE		140.00	SY	$0.00	w/above
	PRE-EMERGENT		140.00	SY	$0.00	w/above
	HMA 4' OVER 7" ABC		147.00	SY	$0.00	w/above
	COMPACTION TESTING		1.00	LS	$0.00	w/above
	ASPHALT SUB CONTRACTOR	***ASPHALT SPECIALISTS***	1.00	LS	$43,412.00	$ 43,412
	MOBILIZATION		1.00	LS	$0.00	w/above
	FINAL SHAPE AND GRADE		378.00	SY	$0.00	w/above
	PRE-EMERGENT		378.00	SY	$0.00	w/above
	HMA 4' OVER 7" ABC		377.00	SY	$0.00	w/above
	HMA 4" OVER 14" ABC		1330.00	SY	$0.00	w/above
	COMPACTION TESTING		1.00	LS	$0.00	w/above
	PARKING STALL/NO PARKING STRIPES & ADA LOGO & ADA SIGN ON POST		1.00	LS	$0.00	w/above
	LAYOUT/COORDINATION		40.00	HRS	$ 61.00	$ 2,440
	CLEANUP & LABOR		24.00	HRS	$ 41.00	$ 984
	SUBTOTALS - FLEXIBLE PAVING					$ 55,646
321600	**SITE CONCRETE**					
	CONCRETE SUB CONTRACTOR	***M&M CONCRETE***	1.00	LS	$131,343.00	$ 131,343
	MOBILIZATION		1.00	LS	$0.00	w/above
	CONC SIDEWALK 4" AT BUILDING		2631.51	SF	$0.00	w/above
	CONC SIDEWALK 4" CITY SIDEWALK		277.73	SF	$0.00	w/above
	TURNED DOWN EDGE AT SIDEWALK		254.84	LF	$0.00	w/above
	ADA RAMP AT CITY SIDEWALK		4.00	EA	$0.00	w/above
	ADA RAMP AT BUILDING		1.00	EA	$0.00	w/above
	CONC PATIO 4"		579.50	SF	$0.00	w/above
	FLAG POLE BASE		1.00	EA	$0.00	w/above
	CONCRETE APRON 8"		7712.46	SF	$0.00	w/above
	8" SOG - UT ENCLOSURE		279.70	SF	$0.00	w/above
	SET BOLLARDS		12.00	EA	$0.00	w/above
	CONCRETE FILET W/INTEGRAL CURB 8"		2114.00	SF	$0.00	w/above
	8" CONCRETE TRANSFORMER PAD		72.00	SF	$0.00	w/above
	CONCRETE V PAN 2'		91.50	LF	$0.00	w/above
	CONC CURB TYPE A/B CATCH/SPILL 2-0		912.24	LF	$0.00	w/above
	CONC CURB TYPE E BARRIER 6"		70.35	LF	$0.00	w/above
	PUMPING		2.00	DAY	$0.00	w/above
	PATCH CITY SIDE WALK FOR WATER SERVICE		55.00	SF	$440.00	$ 440
	PATCH CURB & GUTTER FOR WATER SERVICE		6.30	LF	$252.00	$ 252
	A/C PAD 4" CONCRETE		81.20	SF	$454.72	$ 455
	BACK FLOW PREVENTOR PAD		1.25	SY	$122.75	$ 123
	PATCH BACK CITY SIDEWALK FROM WATER INSTALL		55.00	SF	$308.00	$ 308
	WINTER CONDITIONS		1.00	LS	$ 5,000.00	$ 5,000
	LAYOUT/COORDINATION		80.00	HRS	$ 61.00	$ 4,880
	CLEANUP & LABOR		40.00	HRS	$ 41.00	$ 1,640
	CONCRETE WASH OUT BOX		2.00	PULLS	$1,800.00	$ 1,800

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL
	SUBTOTALS - SITE CONCRETE					**$ 146,240**
323100	**FENCES & GATES**					
	FENCE SUBCONTRACTOR	***TAYLOR FENCE***	1.00	LS	$46,213.00	$ 46,213
	DECORATIVE FENCE 6-0		752.30	LF	$0.00	w/above
	DECORATIVE FENCE GATE 10-0 X 6-0		2.00	EA	$0.00	w/above
	DECORATIVE FENCE GATE 5-0 X 6-0		1.00	EA	$0.00	w/above
	SUBTOTALS - FENCES & GATES					**$ 46,213**
329000	**LANDSCAPING & IRRIGATION**					
	LANSCAPE SUB CONTRACTOR	***DEEP CREEK***	1.00	LS	$89,877.80	$ 89,878
	HCT COCKSPUR THORNLESS HAWTHORN - 2"		4.00	EA	$0.00	w/above
	KCT KENTUCKY COFFEETREE - 2'		2.00	EA	$0.00	w/above
	ATR ALTHER ROSE OF SHARON - #5		2.00	EA	$0.00	w/above
	BMS BLUE MIST SPIREA - #5		5.00	EA	$0.00	w/above
	MKL MISS KIM LILAC - #5		5.00	EA	$0.00	w/above
	NMP NEW MEXICO PRIVET - #5		3.00	EA	$0.00	w/above
	LSB LILLA SMOKE BUSH - #5		4.00	EA	$0.00	w/above
	DBB DWARF BURNING BUSH - #5		5.00	EA	$0.00	w/above
	RSA RUSSIAN SAGE - #5		3.00	EA	$0.00	w/above
	YFC YELLOW FLOWERING CURRANT - #5		2.00	EA	$0.00	w/above
	GMD GROUND MOUND JUNIPER - #5		12.00	EA	$0.00	w/above
	ACB ARIZONA CYPRESS - 5' TALL		4.00	EA	$0.00	w/above
	PHM PANICUM HEAVY METAL - #1		6.00	EA	$0.00	w/above
	MRU MUHLENBERGIA -#1		6.00	EA	$0.00	w/above
	DAY DAYLILLY - #1		7.00	EA	$0.00	w/above
	SDA AUTUMN JOY SEDUM - #1		7.00	EA	$0.00	w/above
	ELA ENGLISH LAVENDER - #5		2.00	EA	$0.00	w/above
	APD ASTER PURPLE DOME - #1		7.00	EA	$0.00	w/above
	ERE EREMERUS BULB		20.00	EA	$0.00	w/above
	ALG ALLIUM GLOBEMASTER BULB		20.00	EA	$0.00	w/above
	CRO CROCUS BULB		300.00	EA	$0.00	w/above
	SOIL AMENDMENT		32765.00	SF	$0.00	w/above
	SOD		32765.00	SF	$0.00	w/above
	LANDSCAPE ROCK		3412.00	SF	$0.00	w/above
	METAL EDGING		103.80	LF	$0.00	w/above
	IRRIGATION SYSTEM		35471.00	SF	$0.00	w/above
	IRRIGATION SLEEVES		560.00	LF	$0.00	w/above
	LAYOUT/COORDINATION		40.00	HRS	$ 61.00	$ 2,440
	CLEANUP & LABOR		80.00	HRS	$ 41.00	$ 3,280
	DUMPSTERS		1.00	PULLS	$ 600.00	$ 600
	SUBTOTALS - LANDSCAPING & IRRIGATION					**$ 96,198**
320000	**EXTERIOR IMPROVEMENTS - TOTALS**					**$ 344,297**

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
020000	**EXISTING CONDITIONS**					
024113	**SELECTIVE SITE DEMOLITION**					
	EARTHWORK SUB CONTRACTOR	***SKYLINE***	1.00	LS	$24,092.00	$ 24,092
	DEMO ASPHALT		4,700.00	SY	$0.00	w/above
	DEMO FLATWORK INCLUDES SAW CUTTING		310.00	SY	$0.00	w/above
	DEMO CURB & GUTTER		865.00	LF	$0.00	w/above
	DEMO CONCRETE CURB & GUTTER		155.00	LF	$0.00	w/above
	DEMO FENCE		285.00	LF	$0.00	w/above
	DEMO TREE		4.00	EA	$0.00	w/above
	MANHOLE/UTILITY RIM ADJUSTMENTS		1.00	LS	$0.00	w/above
	LAYOUT/COORDINATION		40.00	HRS	$ 61.00	$ 2,440
	CLEANUP & LABOR		80.00	HRS	$ 41.00	$ 3,280
	DUMPSTERS		2.00	PULLS	$ 600.00	$ 1,200
	SUBTOTALS - SELECTIVE SITE DEMOLITION					**$ 31,012**
020000	**EXISTING CONDITIONS - TOTALS**					**$ 31,012**

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
030000	**CONCRETE**					
033000	**CAST IN PLACE CONCRETE**					
	CONCRETE SUB CONTRACTOR	***M&M CONCRETE***	1.00	LS	$181,240.00	$ 181,240
	MAIN BUILDING					
	PIPE PILE 10-3/4 X 49-0 (1.15 CY EACH)		67.00	EA	$0.00	w/above
	PILE CAP A 2-6 X 2-6 X 1-10 (.42CY EACH)		41.00	EA	$0.00	w/above
	PILE CAP B 5-6 X 2-6 X 3-0 (1.52CY EACH)		12.00	EA	$0.00	w/above
	PILE CAP B1 5-6 X 3-0 X 3-0 (1.83CY EACH)		1.00	EA	$0.00	w/above
	1,2/S3-1 GRADE BEAM		37.40	CY	$0.00	w/above
	10/S3-1 GRADE BEAM		4.73	CY	$0.00	w/above
	3,4/S3-1 GRADE BEAM		28.60	CY	$0.00	w/above
	5,9/S3-1 GRADE BEAM		13.09	CY	$0.00	w/above
	6/S3-1 GRADE BEAM		2.09	CY	$0.00	w/above
	7/S3-1 GRADE BEAM		20.02	CY	$0.00	w/above
	8/S3-1 GRADE BEAM		12.87	CY	$0.00	w/above
	5" SOG FITNESS		363.80	SF	$0.00	w/above
	5" SOG BUNKER GEAR		371.40	SF	$0.00	w/above
	5" SOG HOSE TOWER		167.40	SF	$0.00	w/above
	5" SOG SHOP		516.10	SF	$0.00	w/above
	8" SOG APPARATUS BAYS		4,179.60	SF	$0.00	w/above
	P1 PILASTER 2-0 X 2-0 X 3-2 (.46 CY EACH)		4.00	EA	$0.00	w/above
	PUMPING		10.00	DAY	$0.00	w/above
	UT ENCLOSURE					
	PIPE PILE 10-3/4 X 49-0 (1.15 CY EACH)		6.00	EA	$0.00	w/above
	PILE CAP A 2-6 X 2-6 X 1-0 (.42CY EACH)		6.00	EA	$0.00	w/above
	5/S3-2 GRADE BEAM		8.80	CY	$0.00	w/above
	WINTER CONDITIONS/TEMP HEAT		1.00	LS	$ 10,000.00	$ 10,000
	LAYOUT/COORDINATION		40.00	HRS	$ 61.00	$ 2,440
	CLEANUP & LABOR		80.00	HRS	$ 41.00	$ 3,280
	CONCRETE WASH OUT BOX		2.00	PULLS	$1,800.00	$ 1,800
	SUBTOTALS - CAST IN PLACE CONCRETE					$ 198,760
035300	**CONCRETE UNDERLAYMENT**					
	1.50" GYPCRETE TOPPING	***COLORADO CRETE***	1.00	LS	$24,170.00	$ 24,170
	BLOCK OFF AND DOORWAYS		1.00	LS	$688.00	$ 688
	LAYOUT/COORDINATION		16.00	HRS	$ 61.00	$ 976
	CLEANUP & LABOR		24.00	HRS	$ 41.00	$ 984
	SUBTOTALS - CONCRETE UNDERLAYMENT					$ 26,818
036200	**NON-SHRINK GROUT**					
	GROUT STEEL BASE PLATES		1.00	LS	$ 748.00	$ 748
	SUBTOTALS - NON-SHRINK GROUT					$ 748
030000	**CONCRETE - TOTALS**					$ 226,326

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
040000	**MASONRY**					
042100	**CLAY & BLOCK MASONRY**					
	MASONRY SUB CONTRACTOR		1.00	LS	$251,843.00	**$ 251,843**
	BRICK VENEER - GEN SHALE COL SATIN COLORED MORTAR		3,177.45	SF	$0.00	w/above
	CMU - 10" WALL TYPE 4		3,679.08	SF	$0.00	w/above
	CMU - 8" WALL TYPE 3		3,309.47	SF	$0.00	w/above
	CMU - 8" GROUT SOLID UT ENCLOSURE		383.30	SF	$0.00	w/above
	WINTER CONDITIONS/TEMP HEAT		1.00	LS	$ 20,000.00	**$ 20,000**
	LAYOUT/COORDINATION		80.00	HRS	$ 61.00	**$ 4,880**
	CLEANUP & LABOR		80.00	HRS	$ 41.00	**$ 3,280**
	DUMPSTERS		3.00	PULLS	$ 600.00	**$ 1,800**
	SUBTOTALS - CLAY & BLOCK MASONRY					**$ 281,803**
040000	**MASONRY - TOTALS**					**$ 281,803**

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
050000	**METALS**					
051200	**STEEL WORK**					
	STEEL SUB CONTRACTOR		1.00	LS	$254,250.00	**$ 254,250**
	STRUCTURAL STEEL		1.00	LS	$0.00	w/above
	PLATES AND CONNECTIONS		1.00	LS	$0.00	w/above
	STRUCTURAL STEEL ERECTION		1.00	LS	$0.00	w/above
	OPEN WEB GIRDER TRUSSES		1.05	LS	$0.00	w/above
	OPEN WEB BAR JOIST		1.05	LS	$0.00	w/above
	GIRDER/JOIST ERECTION		1.00	LS	$0.00	w/above
	ROOF DECKING SUPPLY AND INSTALL		1.10	LS	$0.00	w/above
	STEEL GATE S AT UT ENCLOSURE		4.00	EA	$0.00	w/above
	6' PIPE BOLLARDS		12.00	EA	$0.00	w/above
	PIPE HANGER IN HOSE TOWER		1.00	EA	$0.00	w/above
	HOSE DRYING RACK AT STAIR		1.00	EA	$0.00	w/above
	HOSE TOWER STAIRS W/BAR GRATE TREAD & LANDINGS, MESH GUARDRAILS		1.00	LS	$0.00	w/above
	BAR GRATE DECK ABOVE SHOP		1.00	LS	$0.00	w/above
	LAYOUT/COORDINATION		40.00	HRS	$ 61.00	$ 2,440
	CLEANUP & LABOR		24.00	HRS	$ 41.00	$ 984
	SUBTOTALS - STEEL WORK					**$ 257,674**
055000	**MISC. METALS**					
	HOIST PULLY - TROLLY & TRACK		1.00	LS	$ 4,187.00	$ 4,187
	MISC METAL FABRICATION		10,485.00		$ 0.31	$ 3,259
	SUBTOTALS - MISC. METALS					**$ 7,446**
050000	**METALS - TOTALS**					**$ 265,120**

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
060000	**WOOD & PLASTICS**					
061000	**ROUGH CARPENTRY**					
	FRAMING SUB CONTRACTOR	***NORTH PEAK CONSTRUCTION***	1.00	LS	$275,943.00	$ 275,943
	MATERIALS - FRAMING					
	WOOD FRAMING - FLOOR SYSTEM, WALLS, HOUSE WRAP		4,738.00	SF	$0.00	w/above
	TRUSSES - LIVING/OFFICE		5,797.00	SF	$0.00	w/above
	WOOD FUR AT CMU WALL INTERIOR FOR DRYWALL		2,600.00	SF	$0.00	w/above
	WOOD FUR AT CMU WALL EXTERIOR FOR SIDING		1,440.00	SF	$0.00	w/above
	BLOCKING BACKING		1.00	LS	$0.00	w/above
	FRAMED DROPPED CEILINGS, SOFFITS, BULKHEADS		1,302.00	SF	$0.00	w/above
	HARDWARE		1.00	LS	$0.00	w/above
	FASTENERS & ADHESIVES		1.00	LS	$0.00	w/above
	LABOR - FRAMING					
	WOOD FRAMING - FLOOR SYSTEM, WALLS, ROOF TRUSSES, HOUS WRAP		5,797.00	SF	$0.00	w/above
	WOOD FUR AT CMU WALL INTERIOR FOR DRYWALL		2,600.00	SF	$0.00	w/above
	WOOD FUR AT CMU WALL EXTERIOR FOR SIDING		1,440.00	SF	$0.00	w/above
	BLOCKING BACKING		1.00	LS	$0.00	w/above
	FRAMED DROPPED CEILINGS, SOFFITS, BULKHEADS		1,302.00	SF	$0.00	w/above
	OFF ROAD FORKLIFT		1.00	LS	$0.00	w/above
	CRANE FOR TRUSSES		1.00	LS	$0.00	w/above
	MATERIALS - SIDING					
	T&G SOFFIT - PREFINISHED		2,964.50	SF	$0.00	w/above
	LINEAL TRIM - PREFINISHED		776.60	LF	$0.00	w/above
	B&B SIDING - PREFINISHED		3,456.20	SF	$0.00	w/above
	FASTENERS & ADHESIVES		1.00	LS	$0.00	w/above
	LABOR - SIDING					
	T&G SOFFIT - PREFINISHED		2,695.00	SF	$0.00	w/above
	LINEAL TRIM - PREFINISHED		706.00	LF	$0.00	w/above
	B&B SIDING - PREFINISHED		3,142.00	SF	$0.00	w/above
	TIE DOWNS AND ANCHORS		1.00	LS	$6,000.00	$ 6,000
	MISC ROUGH CARPENTRY		1.00	LS	$15,000.00	$ 15,000
	LAYOUT/COORDINATION		80.00	HRS	$ 61.00	$ 4,880
	CLEANUP & LABOR		40.00	HRS	$ 41.00	$ 1,640
	DUMPSTERS		3.00	PULLS	$ 600.00	$ 1,800
	SUBTOTALS - ROUGH CARPENTRY					$ 305,263
064100	**MILLWORK, CASEWORK, COUNTERTOPS**					
	MILL/CASEWORK SUB CONTRACTOR	***WOODSIDE INDUSTRIES***	1.00	LS	$79,928.00	$ 79,928
	BUNK ROOMS - PLAM WARDROBE 8-0		68.80	LF	$0.00	w/above
	BUNK ROOMS - PLAM FIXED PANEL		76.80	SF	$0.00	w/above
	BUNK ROOMS - SSM WORK TOP		52.90	SF	$0.00	w/above
	HALL 110 - SSM SHELVES		29.20	SF	$0.00	w/above
	HALL 105 - PLAM WALL PANEL		240.00	SF	$0.00	w/above
	HALL 121 - PLAM LOCKER 8-0		11.80	LF	$0.00	w/above
	HALL 121 - PLAM FIXED PANEL		15.30	SF	$0.00	w/above
	KITCHEN - PLAM BASE		24.80	LF	$0.00	w/above
	KITCHEN - PLAM UPPER 21"		2.00	LF	$0.00	w/above

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL
	KITCHEN - PLAM UPPER 26"		13.70	LF	$0.00	w/above
	KITCHEN - PLAM UPPER 42"		12.20	LF	$0.00	w/above
	KITCHEN - PLAM VALANCE AT HOOD		11.50	SF	$0.00	w/above
	KITCHEN - PLAM FIXED PANEL		19.00	SF	$0.00	w/above
	KITCHEN - SSM COUNTERTOP		84.40	SF	$0.00	w/above
	LAUNDRY - PLAM UPPER 30"		11.80	LF	$0.00	w/above
	LAUNDRY - FIXED PLAM PANEL		8.30	SF	$0.00	w/above
	LOUNGE - PLAM WALL PANEL		34.70	SF	$0.00	w/above
	SHOWERS - PLAM VANITY BASE		11.90	LF	$0.00	w/above
	SHOWERS - SSM VANITY TOPS		23.30	SF	$0.00	w/above
	WORKSTATION - PLAM BASE		11.30	LF	$0.00	w/above
	WORKSTATION - PLAM UPPER 42"		21.00	LF	$0.00	w/above
	WORKSTATION - FIXED PLAM PANEL		22.10	SF	$0.00	w/above
	WORKSTATION - SSM COUNTERTOP		64.70	SF	$0.00	w/above
	WORKSTATION - STEEL COUNTERTOP SUPPORT		4.00	EA	$0.00	w/above
	WOOD WINDOW SILLS, SIDES, AND HEADS		1.00	LS	$0.00	w/above
	LAYOUT/COORDINATION		32.00	HRS	$ 61.00	$ 1,952
	CLEANUP & LABOR		24.00	HRS	$ 41.00	$ 984
	SUBTOTALS - MILLWORK, CASEWORK, COUNTERTOPS					**$ 82,864**
060000	**WOODS & PLASTICS - TOTALS**					**$ 388,127**

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
070000	**THERMAL & MOISTURE PROTECTION**					
072000	**THERMAL, MOISTURE, ACOUSTICAL PROTECTION**					
	INSULATION SUB CONTRACTOR		1.00	LS	$90,852.00	**$ 90,852**
	WATER PROOFING AT FOUNDATION		2,405.26	SF	$0.00	w/above
	R-10 RIGID AT FOUNDATION - SLAB & CRAWL		1,801.58	SF	$0.00	w/above
	R-12.5 RIGID AT CMU WALLS		3,374.25	SF	$0.00	w/above
	R-10 RIGID AT EXT WOOD WALLS		3,316.06	SF	$0.00	w/above
	R-5 SPRAY FOAM AT EXT WOOD WALLS		3,316.06	SF	$0.00	w/above
	BATT INSULATION AT WOOD FLOOR SYSTEM		4,913.15	SF	$0.00	w/above
	INT SOUND BATTS 2X4		4,449.50	SF	$0.00	w/above
	INT SOUND BATTS 2X6		287.10	SF	$0.00	w/above
	R-38 SPRAY FOAM/INTUMESCENT AT WOOD ATTIC		4,051.08	SF	$0.00	w/above
	FOAM DOORS, WINDOWS & PENETRATIONS		0.00	SF	$0.00	w/above
	R-38 RIGID AT METAL DECK ROOF		1.00	LS	$0.00	w/roofer below
	LAYOUT/COORDINATION		40.00	HRS	$ 61.00	**$ 2,440**
	CLEANUP & LABOR		24.00	HRS	$ 41.00	**$ 984**
	DUMPSTERS		1.00	PULLS	$ 600.00	**$ 600**
	SUBTOTALS - THERMAL, MOISTURE, ACOUSTICAL PROTECTION					**$ 94,876**
076620	**SHEET METAL FLASHINGS**					
	PREFINISHED METAL CAP AT UT ENCLOSURE		65.00	LF	$8.00	$ 520
	FLASHING AT DISSIMILAR MATERIALS		10,485.00	SF	$0.97	$ 10,123
	SUBTOTALS - SHEET METAL FLASHINGS					**$ 10,643**
075000	**ROOFING AND METAL PANELS**					
	ROOFING SUB CONTRACTOR	***KRUGER ROOFIING***	1.00	LS	$229,500.00	**$ 229,500**
	TPO ROOF SYSTEM		13,146.83	SF	$0.00	w/above
	TPO RIBS		13,146.83	SF	$0.00	w/above
	PREFINISHED DOWNSPOUT		147.32	LF	$0.00	w/above
	PREFINISHED GUTTER		257.78	LF	$0.00	w/above
	METAL SOFFIT PANELS AND FASCIA		1.00	LS	$0.00	w/above
	ACM TIGHT FIT WALL PANELS		1.00	LS	$0.00	w/above
	LAYOUT/COORDINATION		40.00	HRS	$ 61.00	**$ 2,440**
	CLEANUP & LABOR		40.00	HRS	$ 41.00	**$ 1,640**
	DUMPSTERS		1.00	PULLS	$ 600.00	**$ 600**
	SUBTOTALS - ROOFING AND METAL PANELS					**$ 234,180**
078000	**FIRE & SMOKE PROTECTION**					
	FIRE AND SMOKE STOPPING BEYOND TRADE WORK		10,485.00	SF	$ 0.49	**$ 5,134**
	SUBTOTALS - FIRE & SMOKE PROTECTION					**$ 5,134**

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
079000	**JOINT PROTECTION**					
	JOINT SEALANTS	***SUMMIT SEALANTS***	1.00	LS	$ 12,990.00	$ 12,990
	MISC CAULKING		10,485.00	SF	$ 0.48	$ 5,061
	SUBTOTALS - JOINT PROTECTION					$ 18,051
070000	**THERMAL & MOISTURE PROTECTION - TOTALS**					$ 362,884

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
080000	**OPENINGS**					
081100	**FRAMES, DOORS, & HARDWARE**					
	SUPPLY	***MCKINNEY DOOR & HARDWARE***	1.00	LS	$46,634.00	**$ 46,634**
	HM FRAMES					
	HM FRAME 3-0 X 4-4 TYPE 1 SIM		1.00	EA	$0.00	w/above
	HM FRAME 3-0 X 7-0 TYPE 1		23.00	EA	$0.00	w/above
	HM FRAME 3-0 X 7-0 TYPE 4		7.00	EA	$0.00	w/above
	HM FRAME 6-0 X 7-0 TYPE 5		3.00	EA	$0.00	w/above
	HM FRAME 6-9 X 3-8 TYPE 1 SIM		1.00	EA	$0.00	w/above
	HM DOORS					
	HM DOOR 3-0 X 4-4 TYPE A		1.00	EA	$0.00	w/above
	HM DOOR 3-0 X 7-0 TYPE A		8.00	EA	$0.00	w/above
	HM DOOR 3-0 X 7-0 TYPE D		8.00	EA	$0.00	w/above
	HM DOOR 3-4 X 3-8 TYPE A		1.00	EA	$0.00	w/above
	WOOD DOORS					
	WOOD DOOR 3-0 X 7-0 TYPE A		16.00	EA	$0.00	w/above
	WOOD DOOR 3-0 X 7-0 TYPE D		3.00	EA	$0.00	w/above
	WOOD DOOR 3-0 X 7-0 TYPE F		1.00	EA	$0.00	w/above
	HARDWARE					
	HDW GRP 01		3.00	EA	$0.00	w/above
	HDW GRP 02		1.00	EA	$0.00	w/above
	HDW GRP 02A		1.00	EA	$0.00	w/above
	HDW GRP 03		2.00	EA	$0.00	w/above
	HDW GRP 04		4.00	EA	$0.00	w/above
	HDW GRP 05		3.00	EA	$0.00	w/above
	HDW GRP 06		4.00	EA	$0.00	w/above
	HDW GRP 07		3.00	EA	$0.00	w/above
	HDW GRP 08		1.00	EA	$0.00	w/above
	HDW GRP 09		1.00	EA	$0.00	w/above
	HDW GRP 10		1.00	EA	$0.00	w/above
	HDW GRP 11		1.00	EA	$0.00	w/above
	HDW GRP 11A		1.00	EA	$0.00	w/above
	HDW GRP 12		8.00	EA	$0.00	w/above
	HDW GRP AL-03 **(NO THIS IS NOT FOR AN AL DOOR)**		1.00	EA	$0.00	w/above
	TRAFFIC DOORS					
	PASSAGE DOOR 6-0 X 7-4 TYPE H		1.00	SET	$0.00	w/above
	INSTALL					
	HM FRAMES					
	HM FRAME 3-0 X 4-4 TYPE 1 SIM		1.00	EA	$157.00	**$ 157**
	HM FRAME 3-0 X 7-0 TYPE 1		23.00	EA	$157.00	**$ 3,611**
	HM FRAME 3-0 X 7-0 TYPE 4		7.00	EA	$157.00	**$ 1,099**
	HM FRAME 6-0 X 7-0 TYPE 5		3.00	EA	$157.00	**$ 471**
	HM FRAME 6-9 X 3-8 TYPE 1 SIM		1.00	EA	$157.00	**$ 157**
	INSTALLER	***PREMIER DOOR & WINDOW***	1.00	EA	$6,765.00	**$ 6,765**
	HM DOORS					
	HM DOOR 3-0 X 4-4 TYPE A		1.00	EA	$0.00	w/above
	HM DOOR 3-0 X 7-0 TYPE A		8.00	EA	$0.00	w/above
	HM DOOR 3-0 X 7-0 TYPE D		8.00	EA	$0.00	w/above
	HM DOOR 3-4 X 3-8 TYPE A		1.00	EA	$0.00	w/above
	WOOD DOORS					

DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
WOOD DOOR 3-0 X 7-0 TYPE A		16.00	EA	$0.00	w/above
WOOD DOOR 3-0 X 7-0 TYPE D		3.00	EA	$0.00	w/above
WOOD DOOR 3-0 X 7-0 TYPE F		1.00	EA	$0.00	w/above
HARDWARE					
HDW GRP 01		3.00	EA	$0.00	w/above
HDW GRP 02		1.00	EA	$0.00	w/above
HDW GRP 02A		1.00	EA	$0.00	w/above
HDW GRP 03		2.00	EA	$0.00	w/above
HDW GRP 04		4.00	EA	$0.00	w/above
HDW GRP 05		3.00	EA	$0.00	w/above
HDW GRP 06		4.00	EA	$0.00	w/above
HDW GRP 07		3.00	EA	$0.00	w/above
HDW GRP 08		1.00	EA	$0.00	w/above
HDW GRP 09		1.00	EA	$0.00	w/above
HDW GRP 10		1.00	EA	$0.00	w/above
HDW GRP 11		1.00	EA	$0.00	w/above
HDW GRP 11A		1.00	EA	$0.00	w/above
HDW GRP 12		8.00	EA	$0.00	w/above
HDW GRP AL-03 **(NO THIS IS NOT FOR AN AL DOOR)**		1.00	EA	$0.00	w/above
TRAFFIC DOORS					
PASSAGE DOOR 6-0 X 7-4 TYPE H				$0.00	w/above
LAYOUT/COORDINATION		40.00	HRS	$ 61.00	$ 2,440
SUBTOTALS - FRAMES, DOORS & HARDWARE					$ 61,334
083100 ACCESS DOORS & PANELS					
CRAWL SPACE ACCESS HATCH		1.00	EA	$ 744.00	$ 744
CELLING ACCESS PANELS - FIRE RATED		1.00	EA	$ 1,222.00	$ 1,222
SUBTOTALS - ACCESS DOORS & PANELS					$ 1,966
083000 OVERHEAD DOORS					
16-0 X 12-9 OHD WITH OPERATOR	***BAILEYS GARAGE DOORS***	6.00	EA	$ 6,688.17	$ 40,129
SUBTOTALS - OVERHEAD DOORS					$ 40,129
084100 ALUMINUM STOREFRONT & GLAZING					
GLAZING SUB CONTRACTOR	*ALPINE GLASS*	1.00	LS	$51,000.00	$ 51,000
STOREFRONT ENTRY		82.80	SF	$0.00	w/above
STOREFRONT DOOR 3-0 X 7-0		2.00	EA	$0.00	w/above
STOREFRONT HDW GRP AL-01		1.00	EA	$0.00	w/above
STOREFRONT HDW GRP AL-02		1.00	EA	$0.00	w/above
STOREFRONT WINDOW TYPE A		8.00	EA	$0.00	w/above
STOREFRONT WINDOW TYPE B		2.00	EA	$0.00	w/above
STOREFRONT WINDOW TYPE C		1.00	EA	$0.00	w/above
STOREFRONT WINDOW TYPE D		1.00	EA	$0.00	w/above
STOREFRONT WINDOW TYPE E		124.50	SF	$0.00	w/above
STOREFRONT WINDOW TYPE F		1.00	EA	$0.00	w/above
STOREFRONT WINDOW TYPE G		1.00	EA	$0.00	w/above
FULL GLASS DOOR LITE TYPE GL-4		1.00	EA	$0.00	w/above
HALF GLASS DOOR LITE TYPE GL-4		7.00	EA	$0.00	w/above

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
	GLASS SHOWER DOORS		3.00	EA	$0.00	w/above
	SHOWER ROOM VANITY MIRROR		3.00	EA	$0.00	w/above
	TOILET ROOM VANITY MIRROR		1.00	EA	$0.00	w/above
	LAYOUT/COORDINATION		24.00	HRS	$ 61.00	$ 1,464
	SUBTOTALS - ALUMINUM STOREFRONT & GLAZING					**$ 52,464**
084500	**TRANSLUCENT PANELS**					
	TRANSLUCENT PANELS	***DALYTE***	1.00	LS	$ 19,100.00	$ 19,100
	LAYOUT/COORDINATION		16.00	HRS	$ 61.00	$ 976
	SUBTOTALS - TRANSLUCENT PANELS					**$ 20,076**
080000	**OPENINGS - TOTALS**					**$ 175,969**

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
090000	**FINISHES**					
092000	**DRYWALL & ACT**					
	DRYWALL SUB CONTRACTOR	***ALL IN ONE DRYWALL***	1.00	LS	$42,873.00	$ 42,873
	GYP HARD LID - (1) LAYER 5/8 TO TRUSS, FINISHED		1,482.18	SF	$0.00	w/above
	GYP HARD LID - (1) LAYER 5/8 TO TRUSS, FIRE TAPED		2,843.19	SF	$0.00	w/above
	GYP HARD LID - (1) LAYER 5/8 DROPPED FRAMING FINISHED		1,367.21	SF	$0.00	w/above
	GYP WALL - (1) LAYER 5/8 FINISHED SOUND CAULKED		13,664.70	SF	$0.00	w/above
	ACT		1,368.73	SF	$0.00	w/above
	CAULKING AND MINERAL FIBER		1.00	LS	$10,153.00	$ 10,153
	TOUCH UP		40.00	HRS	$70.00	$ 2,800
	FINAL CLEAN		10,485.00	HRS	$ 0.40	$ 4,194
	LAYOUT/COORDINATION		40.00	HRS	$ 61.00	$ 2,440
	CLEANUP & LABOR		80.00	HRS	$ 41.00	$ 3,280
	DUMPSTERS		3.00	PULLS	$ 600.00	$ 1,800
	SUBTOTALS - DRYWALL & ACT					$ 67,540
096000	**FLOORING**					
	ADDITIONAL FLOOR PREP		4,057.60	SF	$0.55	$ 2,232
	FLOORING SUB CONTRACTOR		1.00	LS	$45,515.00	$ 45,515
	MOISTURE TESTING		4.00	EA	$0.00	w/above
	4" RUBBER BASE		2,065.20	LF	$0.00	w/above
	CPT 2 MAN FORCE TBD TBD WALL OFF CARPET		93.45	SF	$0.00	w/above
	CPT 3 MAN BOUCLE 15297 ONYX		1,678.20	SF	$0.00	w/above
	CPT1 MAN OFFLINE LOOP 14199 LINKED		542.85	SF	$0.00	w/above
	LVT MAN NATURES PATH WOOD AMER WALNUT		2,148.52	SF	$0.00	w/above
	PT1 FLOOR TILE LANDMARK ATTITUDE CALM BROWN		226.93	SF	$0.00	w/above
	PT2 WALL TILE		393.58	SF	$0.00	w/above
	PT3 WALL TILE		258.17	SF	$0.00	w/above
	RUBBER ATHLETIC FLOORING	***BY OWNER***	355.10	SF	$0.00	by owner
	LAYOUT/COORDINATION		24.00	HRS	$ 61.00	$ 1,464
	CLEANUP & LABOR		32.00	HRS	$ 41.00	$ 1,312
	SUBTOTALS - FLOORING					$ 50,523
096700	**SPECIALTY FLOORING**					
	CONCRETE POLISH SUB CONTRACTOR	***CONCRETE FLOOR SYSTEMS***	1.00	LS	$29,497.00	$ 29,497
	POLISHED FLOOR MOCK UP PER SPEC 033511, PART 1, 1.05		1.00	LS	$0.00	w/above
	POLISHED CONCRETE		4,334.50	SF	$0.00	w/above
	SEALED CONCRETE		897.20	SF	$0.00	w/above
	FLOOR PROTECTION (POLISHED AREAS)		4,334.50	SF	$0.00	w/above
	FLOOR PROTECTION (SEALED AREAS)		897.20	SF	$0.70	$ 624
	LAYOUT/COORDINATION		36.00	HRS	$ 61.00	$ 2,196
	CLEANUP & LABOR		40.00	HRS	$ 41.00	$ 1,640
	SUBTOTALS - SPECIALTY FLOORING					$ 33,957
098300	**ACOUSTIC FINISHES**					

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL
	2" ACOUSTIC WALL PANEL		136.51	LS	$40.00	$ 5,460
	SUBTOTALS - SPECIALTY FLOORING					**$ 5,460**
099000	**PAINTING & COATINGS**					
	PAINTING SUB CONTRACTOR	***WBS COATINGS***	1.00	LS	$62,839.00	$ 62,839
	GYP WALLS - EGGSHELL PNT 1		7,400.40	SF	$0.00	w/above
	GYP WALLS - EGGSHELL PNT 2		1,537.94	SF	$0.00	w/above
	GYP WALLS - EGGSHELL PNT 3		842.42	SF	$0.00	w/above
	GYP WALLS - EPOXY PNT 1		712.95	SF	$0.00	w/above
	GYP CEILING - FLAT LATEX PNT2		2,331.63	SF	$0.00	w/above
	GYP CEILING - EPOXY PNT 2		540.65	SF	$0.00	w/above
	CMU WALL - PNT		8,312.85	SF	$0.00	w/above
	OPEN STRUCTURE PAINT		6,053.38	SF	$0.00	w/above
	STEEL STAIR SYSTEM AT HOSE TOWER		1.00	LS	$0.00	w/above
	STEEL GRATE AT SHOP ATTIC		1.00	LS	$0.00	w/above
	PAINT HM DOOR FRAME		35.00	EA	$0.00	w/above
	PAINT HM DOOR LEAF		18.00	EA	$0.00	w/above
	FINISH WOOD DOOR		20.00	EA	$0.00	$ -
	FINISH COMPOSITE SIDING, TRIM, SOFFIT		1.00	LS	$0.00	$ -
	CMU WALL UT ENCLOSURE - PNT		672.95	SF	$0.00	w/above
	WATER REPELLENT AT BRICK		2,763.00	SF	$0.00	w/above
	PAINT UT ENCLOSURE GATE		4.00	EA	$0.00	w/above
	PAINT STEEL BOLLARD		12.00	EA	$0.00	$ -
	TOUCH UP		104.00	HRS	$80.00	$ 8,320
	LAYOUT/COORDINATION		32.00	HRS	$ 61.00	$ 1,952
	CLEANUP & LABOR		40.00	HRS	$ 41.00	$ 1,640
	SUBTOTALS - PAINTING & COATINGS					**$ 74,751**
090000	**FINISHES - TOTALS**					**$ 232,231**

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
100000	**SPECIALTIES**					
101300	**SITE SIGNAGE**					
	DO NOT ENTER SIGN ON POST		4.00	EA	$347.00	$ 1,388
	RELOCATE PARK SIGN		1.00	LS	$688.00	$ 688
	SUBTOTALS - SITE SIGNAGE					$ 2,076
101400	**BUILDING SIGNAGE**					
	SIGNAGE SUB CONTRACTOR	*BUDS SIGNS*	1.00	LS	$ 9,547.00	$ 9,547
	INT SIGN TYPE A		1.00	EA	$ -	w/above
	INT SIGN TYPE B		14.00	EA	$ -	w/above
	INT SIGN TYPE C		1.00	EA	$ -	w/above
	"GJFD" CUT MTL LOGO		1.00	LS	$ -	w/above
	"FIRE STATION #3" CUT METAL LETTERS		1.00	LS	$ -	w/above
	"3" ON HOSE TOWER		1.00	LS	$ -	w/above
	SUBTOTALS - BUILDING SIGNAGE					$ 9,547
102600	**WALL & DOOR PROTECTION**					
	FRP PANELS TO 9-6 - DECON SINK		122.76	SF	$ 16.98	$ 2,084
	STAINLESS STEEL CORNER GUARD - 86" WITH 2" WINGS		6.00	EA	$ 187.75	$ 1,127
	STAINLESS STEEL END GUARD - 86" WITH 2" WINGS		3.00	EA	$ 206.50	$ 620
	SUBTOTALS -WALL & DOOR PROTECTION					$ 3,830
102800	**TOILET, BATH, & LAUNDRY ACCESSORIES**					
	TA-1 TOILET PAPER DISPENSER	*ORCI*	4.00	EA	$ 61.00	$ 244
	TA-2 SOAP DISPENSER	*ORCI*	2.00	EA	$ 61.00	$ 122
	TA-6 PAPER TOWEL DISPENSER	*ORCI*	2.00	EA	$ 61.00	$ 122
	WASTE RECEPTACLE	*ORCI*	4.00	EA	$ 61.00	$ 244
	TA-5 18" GRAB BAR	*CFCI*	1.00	EA	$ 147.00	$ 147
	TA-5 36" GRAB BAR	*CFCI*	1.00	EA	$ 152.00	$ 152
	TA-5 42" GRAB BAR	*CFCI*	1.00	EA	$ 162.00	$ 162
	ROBE HOOK	*CFCI*	3.00	EA	$ 76.00	$ 228
	36" STAINLESS STEEL UT SHELF/MOP HOLDER	*CFCI*	1.00	EA	$ 220.50	$ 221
	SUBTOTALS - TOILET, BATH, & LAUNDRY ACCESSORIES					$ 1,642
104400	**FIRE PROTECTION SPECIALTIES**					
	10 LBS ABC FIRE EXTINGUISHER		3.00	EA	$ 136.00	$ 408
	STEEL FE CABINET		3.00	EA	$ 237.00	$ 711
	SUBTOTALS - FIRE PROTECTION SPECIALTIES					$ 1,119
107500	**FLAG POLES**					
	TAPERED FLAG POLE & FLAGS - SUPPLY ONLY	***KD FLAGS***	1.00	LS	$3,920.00	$ 3,920
	FLAGPOLE BASE	*w/DIV 32 SITE CONCRETE*	1.00	EA	$0.00	w/div 32
	FLAGPOLE INSTALL		1.00	EA	$1,176.00	$ 1,176
	SUBTOTALS - FLAG POLES					$ 5,096
100000	**SPECIALTIES - TOTALS**					$ 23,309

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
110000	**EQUIPMENT**					
112000	**FIRE STATION EQUIPMENT**					
	INSTALL OWNER SUPPLIED AIR COMPRESSOR		1.00	EA	$ 732.00	**$ 732**
	GEAR GRID LOCKERS (SUPPLY & DELIVER)		1.00	LS	$ 12,374.00	**$ 12,374**
	GEAR GRID LOCKERS (INSTALL)		1.00	LS	$ 2,928.00	**$ 2,928**
	EXTRACTOR WASHER	***BY OWNER***	1.00	EXCL	$ -	by owner
	SUBTOTALS - RESIDENTIAL EQUIPMENT					**$ 16,034**
113000	**RESIDENTIAL EQUIPMENT**					
	APPLIANCE VENDOR	***TRI RIVER APPLIANCES***	1.00	LS	$ 18,253.00	**$ 18,253**
	GAS RANGE - WOLF GR486G		1.00	EA	$ -	w/above
	STAINLESS STEEL BACK SPLASH AT RANGE		1.00	EA	$ -	w/above
	COOKING EXHAUST - WOLF PW482210		1.00	EA	$ -	w/above
	REMOTE BLOWER - WOLF 801640		1.00	EA	$ -	w/above
	DISHWASHER - BOSCH SHEM63W55N		2.00	EA	$ -	w/above
	COFFEE MAKER - BUNN AXIOM 15-3 (2U/1l WARMER)	***FCI***	1.00	EA	$ 1,388.00	**$ 1,388**
	ICE MAKER - MANITOWOC NEO 140 UDF-0140A	***FCI***	1.00	EA	$ 3,064.29	**$ 3,064**
	OUTDOOR GAS GRILL - WEBER GENESIS II E-310	***FCI***	1.00	EA	$ 1,300.00	**$ 1,300**
	MICROWAVE	***BY OWNER***	1.00	EA	$ -	by owner
	REFRIGERATORS	***BY OWNER***	3.00	EA	$ -	by owner
	SUBTOTALS - RESIDENTIAL EQUIPMENT					**$ 24,005**
110000	**EQUIPMENT - TOTALS**					**$ 40,039**

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
120000	**FURNISHINGS**					
122100	**WINDOW TREATMENTS**					
	WINDOW COVERINGS SUB CONTRACT	***AMBASSADOR BLINDS***	1.00	LS	$ 14,467.00	$ 14,467
	SHADE - DOUBLE, MECHO/5, THERMO/BLACKOUT - BUNKS		8.00	EA	$ -	w/above
	SHADE - SINGLE, MECHO/5, THERMO - CAPTAIN 101		11.00	SF	$ -	w/above
	SHADE - SINGLE, MECHO/5, THERMO - WORKSTATION 102		11.00	SF	$ -	w/above
	SHADE - SINGLE, MECHO/5, THERMO - COMM/TRAIN 103		197.80	SF	$ -	w/above
	SHADE - SINGLE, MECHO/5, THERMO - FITNESS 133		103.10	SF	$ -	w/above
	SHADE - SINGLE, MECHO/5, THERMO - LOUNGE 106		34.40	SF	$ -	w/above
	SUBTOTALS - FURNISHINGS					**$ 14,467**
120000	**FURNISHINGS - TOTALS**					**$ 14,467**

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
210000	**FIRE SUPPRESSION**					
211000	**WATER BASED SYSTEMS**					
	FIRE SPRINKLER SUB	***AFFORDABLE FIRE***	1.00	LS	$ 37,500.00	$ 37,500
	DESIGN BUILD WATER BASED SYSTEM PER NFPA 13		10,485.00	SF	$ -	w/above
	SEISMIC RESTRAINTS & ENGINEERING		1.00	LS	$ -	w/above
	LAYOUT/COORDINATION		40.00	HRS	$ 61.00	$ 2,440
	CLEANUP & LABOR		32.00	HRS	$ 41.00	$ 1,312
	SUBTOTALS - WATER BASED SYSTEMS					$ 41,252
210000	**FIRE SUPPRESSION - TOTALS**					$ 41,252

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
220000	**PLUMBING**					
220000	**PLUMBING**					
	PLUMBING SUB CONTRACTOR	***ROBERTS PLUMBING***	1.00	LS	$ 147,820.00	**147,820**
	DRAIN, WASTE, & VENT PIPING		1.00	LS	$ -	w/above
	DOMESTIC SUPPLY PIPING		1.00	LS	$ -	w/above
	PIPE INSULATION		1.00	LS	$ -	w/above
	SAND OIL SEPARATOR		1.00	LS	$ -	w/above
	GAS PIPING - BUILDING		1.00	LS	$ -	w/above
	GAS PIPING - GENERATOR		1.00	LS	$ -	w/above
	GAS CONNECTION TO OUTDOOR GRILL		1.00	LS	$ -	w/above
	CONNECTION TO EXTRACTION WASHER		1.00	LS	$ -	w/above
	COMPRESSED AIR PIPING & OUTLETS		1.00	LS	$ -	w/above
	IRRIGATION CONNECTION & BACKFLOW		1.00	LS	$ -	w/above
	1-1/2" BALL VALVE AND HOSE THREAD OUTLET		3.00	EA	$ -	w/above
	CP-1		1.00	EA	$ -	w/above
	EWC-1		1.00	EA	$ -	w/above
	FD-1		5.00	EA	$ -	w/above
	FD-2		5.00	EA	$ -	w/above
	FS-1		1.00	EA	$ -	w/above
	FS-2		1.00	EA	$ -	w/above
	GD-1		1.00	EA	$ -	w/above
	HB-1		4.00	EA	$ -	w/above
	HR-1		3.00	EA	$ -	w/above
	IMB		4.00	EA	$ -	w/above
	LV-1		3.00	EA	$ -	w/above
	LV-2		2.00	EA	$ -	w/above
	MS-1		1.00	EA	$ -	w/above
	SH-1		3.00	EA	$ -	w/above
	SK-1		1.00	EA	$ -	w/above
	SK-2		1.00	EA	$ -	w/above
	SK-3		1.00	EA	$ -	w/above
	TD-146-0L		3.00	EA	$ -	w/above
	UR-1		2.00	EA	$ -	w/above
	WC-1		4.00	EA	$ -	w/above
	WH-1		1.00	EA	$ -	w/above
	WWB		2.00	EA	$ -	w/above
	SEISMIC RESTRAINTS & ENGINEERING		1.00	LS	$ -	w/above
	LAYOUT/COORDINATION		80.00	HRS	$ 61.00	**4,880**
	CLEANUP & LABOR		40.00	HRS	$ 41.00	**1,640**
	DUMPSTERS		1.00	PULLS	$ 600.00	**600**
	SUBTOTALS - PLUMBING					**$ 154,940**
220000	**PLUMBING - TOTALS**					**$ 154,940**

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
230000	**HVAC**					
230000	**HVAC**					
	HVAC SUB CONTRACTOR	***AIR TECH***	1.00	LS	$ 265,000.00	$ **265,000**
	ERV-1 SOLER & PALUA		1.00	EA	$ -	w/above
	GF-1,2 TRANE		2.00	EA	$ -	w/above
	IR-1,2,3,4 SUPER RADIANT PRODUCTS		4.00	EA	$ -	w/above
	FC-1 MARKEL		1.00	EA	$ -	w/above
	FC-2,3 TRANE/MITSUBISHI		2.00	EA	$ -	w/above
	FC-5 TRANE		1.00	EA	$ -	w/above
	EF-1,2,3,4,5 S&P USA		5.00	EA	$ -	w/above
	VEF-1,2,3,4 (SUPPLIED BY OWNER)		4.00	EA	$ -	w/above
	CU-4 MITSUBISHI		1.00	EA	$ -	w/above
	SS-1 MITSUBISHI		1.00	EA	$ -	w/above
	HP-1 TRANE/MITSUBISHI ELECTRIC		1.00	EA	$ -	w/above
	CU-1,2,3 TRANE		3.00	EA	$ -	w/above
	EC-1,2 PHOENIX		2.00	EA	$ -	w/above
	LV-1,2,3,4,5,6 RUSKIN (6 IS BLOCKED/NO AIR FLOW)		6.00	EA	$ -	w/above
	DUCTING		1.00	LS	$ -	w/above
	INSULATION		1.00	LS	$ -	w/above
	FIRE STOPPING FOR OWNER WORK		1.00	LS	$ -	w/above
	CONTROLS		1.00	LS	$ -	w/above
	TEST & BALANCE		1.00	LS	$ -	w/above
	SEISMIC RESTRAINTS & ENGINEERING		1.00	LS	$ -	w/above
	LAYOUT/COORDINATION		80.00	HRS	$ 61.00	$ **4,880**
	CLEANUP & LABOR		40.00	HRS	$ 41.00	$ **1,640**
	DUMPSTERS		1.00	PULLS	$ 600.00	$ **600**
	SUBTOTALS - HVAC					$ **272,120**
230000	**HVAC - TOTALS**					$ **272,120**

DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL
26-280000 ELECTRICAL & LOW VOLTAGE					
260000 POWER & LIGHTING					
ELECTRICAL SUB	***MAGNUM ELECTRIC***	1.00	LS	$ 372,380.00	**$ 372,380.00**
CONSTRUCTION POWER AND LIGHTING		1.00	LS	$ -	w/above
POWER DISTRIBUTION AND PANELS		1.00	LS	$ -	w/above
POWER TO MECH EQUIPMENT		1.00	LS	$ -	w/above
SWITCHING AND CONTROLS		1.00	LS	$ -	w/above
D1 PRESCOLITE RECESSED LED DOWN LIGHT		47.00	EA	$ -	w/above
D2 PRESCOLITE RECESSED LED WALL WASH		2.00	EA	$ -	w/above
EX COMPASS LIGHTING LED EXIT LIGHT		6.00	EA	$ -	w/above
G1 COLUMBIA 2X2 RECESSED TROFFER		16.00	EA	$ -	w/above
H1 COLUMBIA PELOTON HIGH BAY LIGHT		8.00	EA	$ -	w/above
L1 PINNACLE WALL MOUNTED EDGE LINEAR		6.00	EA	$ -	w/above
L2 COLUMBIA REVALUME LINEAR WRAP		2.00	EA	$ -	w/above
L3 PINNACLE 6'L EDGE BIDIRECTIONAL		8.00	EA	$ -	w/above
L4 COLUMBIA 4' MULTIPURPOSE LINEAR LED		37.00	EA	$ -	w/above
L5 COLUMBIA 4' LINEAR ROUGH SERVICE		8.00	EA	$ -	w/above
P1 BRUCK LIGHTING MOUTH BLOWN PENDANT		3.00	EA	$ -	w/above
P2 TECH LIGHTING SPAN LINEAR SUSPENSION		1.00	EA	$ -	w/above
SD1 PRESCOLITE RECESSED LED DOWNLIGHT		6.00	EA	$ -	w/above
SF1 LUNARSCAPE INGRADE LED UPPLIGHT (FLAGPOLE)		2.00	EA	$ -	w/above
SP1 BEACON LIGHTING VIPER POLE LIGHT		5.00	EA	$ -	w/above
SW1 HUBBLEE LED EXT WALL MOUNT		3.00	EA	$ -	w/above
SW2 WAC LIGHTING ARCHETYPE OUTDOOR SCONCE		8.00	EA	$ -	w/above
SW3 ELLIPTIPAR LIGHTING OUTDOOR LED UPPLIGHT		4.00	EA	$ -	w/above
T1 FINELITE EDGE UNDER CABINET		6.00	EA	$ -	w/above
T2 CONTECH TL TAPELIGHT		1.00	EA	$ -	w/above
T3 CONTECH TL TAPELIGHT		4.00	EA	$ -	w/above
V1 WAC LIGHTING 3'L BRINK WALL MOUNTED		3.00	EA	$ -	w/above
W1 CONTECH LIGHTING LED WALL BED LAMP		8.00	EA	$ -	w/above
TRIM OUT AN FINAL CONNECTIONS		1.00	LS	$ -	w/above
GENERATOR - NAT GAS 260kw 325 kVA STANDBY		1.00	EA	$ -	w/above
AUTO TRANSFER SWITCH		1.00	LS	$ -	w/above
BLDG		96.80	LF	$ -	w/above
ELEC - T&B ONLY - PRIM TO XFMR		39.50	LF	$ -	w/above
ELEC - T&B, CONDUIT, CONDUCTOR - BLDG TO GEN		83.80	LF	$ -	w/above
ELEC - T&B, CONDUIT, CONDUCTOR - BLDG TO HOT BOX		82.30	LF	$ -	w/above
ELEC - T&B, CONDUIT, CONDUCTOR- BLDG TO SAND/OIL		24.60	LF	$ -	w/above
EXCAVATION AND CONCRETE FOR LIGHT POLE		5.00	EA	$ -	w/above
ELEC - T&B, CONDUIT, CONDUCTOR - LIGHT POLES		331.00	LF	$ -	w/above
LAYOUT/COORDINATION		80.00	HRS	$ 61.00	**$ 4,880**
CLEANUP & LABOR		40.00	HRS	$ 41.00	**$ 1,640**
DUMPSTERS		1.00	PULLS	$ 600.00	**$ 600**

DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
SUBTOTALS - POWER & LIGHTING					**$ 379,500**
270000 COMMUNICATIONS					
ELECTRICAL SUB	***MAGNUM ELECTRIC***	1.00	LS	$ 32,969.00	**$ 32,969**
BACK BOXES AND CONDUIT FOR MASTER ANTENNA		1.00	LS	$ -	w/above
BACK BOXES AND CONDUIT FOR INTERCOM		1.00	LS	$ -	w/above
BACK BOXES AND CONDUIT FOR COMMUNICATIONS		1.00	LS	$ -	w/above
BACK BOXES AND CONDUIT AND INSTALL OWNER PROVIDED BOXES FOR WESTLAKE ALERT SYSTEM		1.00	LS	$ -	w/above
COM - T&B, 2' CONDUIT, PULL STRING - FOR SOFTBALL		232.10	LF	$ -	w/above
COM - T&B, 2" CONDUIT, PULL STRING		358.90	LF	$ -	w/above
PRE CAST PULL BOX - 30 X 28 X 24		2.00	EA	$ -	w/above
PRECAST PULL BOX - 30 X 38 X 24 W/GROUND ROD		1.00	EA	$ -	w/above
LAYOUT/COORDINATION		40.00	HRS	$ 61.00	**$ 2,440**
CLEANUP & LABOR		8.00	HRS	$ 41.00	**$ 328**
SUBTOTALS - STRUCTURED CABLING					**$ 35,737**
280000 ELECTRONIC SAFETY & SECURITY					
ELECTRICAL SUB		1.00	LS	$ 26,540.00	**$ 26,540**
FIRE ALARM SYSTEM		1.00	LS	$ -	w/above
BACK BOXES AND CONDUIT FOR ACCESS CONTROL		1.00	LS	$ -	w/above
LAYOUT/COORDINATION		40.00	HRS	$ 61.00	**$ 2,440**
CLEANUP & LABOR		8.00	HRS	$ 41.00	**$ 328**
SUBTOTALS - AUDIO/VISUAL SYSTEMS					**$ 29,308**
26-280000 ELECTRICAL & LOW VOLTAGE - TOTALS					**$ 444,545**

FCI Constructors, Inc.

Project:
Grand Junction Fire Department
Fire Station #3

April 7, 2021

	ALTERNATE #1 HELICAL PIERS		
	TOTAL SF	**10,485**	
DESCRIPTION	**TOTAL COST**	**COST/SF**	**NOTES**
GENERAL CONDITIONS	$ -	$ -	
31-330000 EARTHWORK & UTILITIES	$ 223,924	$ 21.36	
320000 EXTERIOR IMPROVEMENTS	$ -	$ -	
020000 EXISTING CONDITIONS	$ -	$ -	
030000 CONCRETE	$ -	$ -	
040000 MASONRY	$ -	$ -	
050000 METALS	$ -	$ -	
060000 WOODS & PLASTICS	$ -	$ -	
070000 THERMAL & MOISTURE PROTECTION	$ -	$ -	
080000 OPENINGS	$ -	$ -	
090000 FINISHES	$ -	$ -	
100000 SPECIALTIES	$ -	$ -	
110000 EQUIPMENT	$ -	$ -	
120000 FURNISHINGS	$ -	$ -	
130000 SPECIAL CONSTRUCTION	$ -	$ -	
140000 CONVEYING SYSTEMS	$ -	$ -	
210000 FIRE SUPPRESSION	$ -	$ -	
220000 PLUMBING	$ -	$ -	
230000 HVAC	$ -	$ -	
26-280000 ELECTRICAL & LOW VOLTAGE	$ -	$ -	
SUBTOTAL - DIRECT COST	**$ 223,924**	**$ 21.36**	
PRECONSTRUCTION FEE	$ -	$ -	
BIM MODELING	$ -	$ -	NOT INCLUDED
CONTINGENCY	$ 6,718	$ 0.64	3.00%
BUILDERS RISK INSURANCE	$ -	$ -	
GENERAL LIABILITY INSURANCE	$ 1,855	$ 0.18	0.75%
PROPERTY SURVEY	$ -	$ -	BY OWNER
SOILS INVESTIGATION/GEOTECHNICAL ENGINEERING	$ -	$ -	BY OWNER
MATERIALS TESTING / INSPECTION	$ -	$ -	BY OWNER
PLANNING APPLICATIONS/APPROVALS /FEES	$ -	$ -	BY OWNER
BUILDING PERMIT	$ -	$ -	BY OWNER
SWMP PERMIT	$ -	$ -	
PAYMENT/PERFORMANCE BONDS	$ 1,828	$ 0.17	
CONSTRUCTION PHASE FEE	$ 9,373	$ 0.89	4.00%
TOTAL ESTIMATED COST	**$ 243,697**	**$ 23.24**	

	DESCRIPTION	COMMENTS/SUBCONTRACTOR	QUANTITY	UNIT OF MEASURE	UNIT PRICE TOTAL	TOTAL
ALT #1	**HELICAL PIERS**					
	HELICAL PIER SUB		1.00	LS	$ 220,500.00	**$ 220,500**
	SCREW PILE TO 56-0 - BUILDING		67.00	EA	$ -	w/above
	SCREW PILE TO 56-0 - UT ENCLOSURE		6.00	EA	$ -	w/above
	LAYOUT/COORDINATION		40.00	HRS	$ 61.00	**$ 2,440**
	CLEANUP & LABOR		24.00	HRS	$ 41.00	**$ 984**
ALT #1	**TOTALS**					**$ 223,924**

Purchasing Division

Invitation for Bid

IFB-4889-21-DH
Grand Junction Fire Department
Fire Station #3 Construction

Responses Due:

April 1, 2021 prior to 3:00pm

Accepting Electronic Responses Only

Responses Only Submitted Through the Rocky Mountain E-Purchasing System (RMEPS)

https://www.rockymountainbidsystem.com/default.asp

(Purchasing Representative does not have access or control of the vendor side of RMEPS. If website or other problems arise during response submission, vendor MUST contact RMEPS to resolve issue prior to the response deadline. 800-835-4603)

IMPORTANT NOTICE:

Due to the recent developments with increased COVID-19 cases in Mesa County, public in-person bid openings are temporarily being suspended. Bid openings will still take place on their designated date and time virtually, and bid tabulations will still be posted for public view/access. Once the crisis has passed, public in-person bid openings will resume as normal. Attached is the virtual link and information to attend the bid opening. Public may addend through the link, or via phone.

Purchasing Representative:
Duane Hoff Jr., Senior Buyer
duaneh@gjcity.org
970-244-1545

This document has been developed specifically to solicit competitive responses for this solicitation, and may not be the same as previous City of Grand Junction solicitations. All vendors are urged to thoroughly review this solicitation prior to responding. Submittal by **FAX, EMAIL or HARD COPY IS NOT ACCEPTABLE** for this solicitation.

Invitation for Bids

Table of Contents

Section 1	Instruction to Bidders
Section 2	General Contract Conditions
Section 3	Statement of Work
Section 4	Contractor's Bid Form
	Price Proposal/Bid Schedule Form
	Appendix A – Geotechnical Report
	Appendix B – Project Manual
	Appendix C – Construction Drawings
	Attachments

1. Instructions to Bidders

1.1. **General Contractor/Bidder Pre-Qualification:** Due to the complexity, size, and scope of this project, the City has determined that a pre-qualification process is prudent to ensuring that the awarded bidder is both qualified and capable of successfully performing and completing the project. Therefore, in an effort to be respectful of the time and cost of General Contractors/Bidders putting together a bid packages for which they may not be qualified to perform, we are requiring that all General Contractors/Bidders intending to submit a bid response to this solicitation process, complete and submit the attached Pre-Qualification Application and all required documents to the City's Purchasing Agent (via e-mail duaneh@gjcity.org) **no later than March 22, 2021** General Contractors/Bidders shall be notified of their pre-qualification status **no later than March 25, 2021**.

1.2. **Purpose:** The City of Grand Junction is soliciting competitive bids from qualified and interested companies for all labor, equipment, and materials required construct a new Fire Station 3 facility. All dimensions and scope of work should be verified by Contractors prior to submission of bids.

IFB Questions:
Duane Hoff Jr., Senior Buyer
duaneh@gjcity.org

The City would like to remind all Contractors, Sub-Contractors, Vendors, Suppliers, Manufacturers, Service Providers, etc. that (with the exception of Pre-Bid or Site Visit Meetings) all questions, inquiries, comments, or communication pertaining to any formal solicitation (whether process, specifications, scope, etc.) must be directed (in writing) to the Purchasing Agent assigned to the project, or Purchasing Division. Direct communication with the City assigned Project Managers/Engineers is not appropriate for public procurement, and may result in disqualification.

1.3. **Mandatory Pre-Bid Meeting:** **Prospective bidders are required to attend a mandatory pre-bid meeting on March 10, 2021 at 10:00am**. Meeting location shall begin at Fire Station #6, located at 729 27 Road, Grand Junction, CO, and will end with Fire Station #3, located at 582 25 ½ Road, Grand Junction, CO. The purpose of this visit will be to inspect and to clarify the contents of this Invitation for Bids (IFB).

1.4. **The Owner:** The Owner is the City of Grand Junction, Colorado and is referred to throughout this Solicitation. The term Owner means the Owner or his authorized representative.

1.5. **Procurement Process:** Procurement processes shall be governed by the most current version of the City of Grand Junction Purchasing Policy and Procedure Manual.

1.6. **Submission:** ***Each bid shall be submitted in electronic format only, and only through the Rocky Mountain E-Purchasing website (https://www.rockymountainbidsystem.com/default.asp).*** *This site offers both "free" and "paying" registration options that allow for full access of the Owner's documents and*

for electronic submission of proposals. (Note: "free" registration may take up to 24 hours to process. Please Plan accordingly.) Please view our "**Electronic Vendor Registration Guide"** at http://www.gjcity.org/business-and-economic-development/bids/ for details. (Purchasing Representative does not have access or control of the vendor side of RMEPS. If website or other problems arise during response submission, vendor **MUST** contact RMEPS to resolve issue prior to the response deadline. **800-835-4603**)

Please join Solicitation Opening, IFB-4889-21-DH, Grand Junction Fire Department Fire Station #3 Construction on GoToConnect from your computer using the Chrome browser.
https://my.jive.com/meet/977567941

You can also dial in using your phone.
US: (646) 749-3129

Access Code: 977-567-941

1.7. Modification and Withdrawal of Bids Before Opening. Bids may be modified or withdrawn by an appropriate document stating such, duly executed and submitted to the place where Bids are to be submitted at any time prior to Bid Opening.

1.8. Printed Form for Price Bid: All Price Bids must be made upon the Price Bid Schedule attached, and should give the amounts both in words and in figures, and must be signed and acknowledged by the bidder.

The Offeror shall specify a unit price in figures for each pay item for which a quantity is given and shall provide the products (in numbers) of the respective unit prices and quantities in the Extended Amount column. The total Bid price shall be equal to the sum of all extended amount prices. When an item in the Price Bid Schedule provides a choice to be made by the Offeror, Offeror's choice shall be indicated in accordance with the specifications for that particular item and thereafter no further choice shall be permitted.

Where the unit of a pay item is lump sum, the lump sum amount shall be shown in the "extended amount" column and included in the summation of the total Bid.

All blank spaces in the Price Bid Schedule must be properly filled out.

Bids by corporations must be executed in the corporate name by the president or vice president or other corporate office accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown below the signature.

Bids by partnerships must be executed in the partnership name and signed by a partner whose title must appear under the signature and the official address of the partnership must be shown below the signature.

All names must be typed or printed below the signature.

The Offeror's Bid shall contain an acknowledgement of receipt of all Addenda, the numbers of which shall be filled in on the Contractor's Bid Form.

The contact information to which communications regarding the Bid are to be directed must be shown.

1.9. Exclusions: No oral, telephonic, emailed, or facsimile bid will be considered

1.10. Contract Documents: The complete IFB and bidder's response compose the Contract Documents. Copies of bid documents can be obtained from the City Purchasing website, https://co-grandjunction.civicplus.com/501/Purchasing-Bids .

1.11. Additional Documents: The July 2010 edition of the "City Standard Contract Documents for Capital Improvements Construction", Plans, Specifications and other Bid Documents are available for review or download on the Public Works & Planning/Engineering page at www.gjcity.org. Electronic copies may be obtained on a CD format at the Department of Public Works and Planning at City Hall.

1.12. Definitions and Terms: See Article I, Section 3 of the General Contract Conditions in the *Standard Contract Documents for Capital Improvements Construction*.

1.13. Examination of Specifications: Bidders shall thoroughly examine and be familiar with the project Statement of Work. The failure or omission of any Offeror to receive or examine any form, addendum, or other document shall in no way relieve any Offeror from any obligation with respect to his bid. The submission of a bid shall be taken as evidence of compliance with this section. Prior to submitting a bid, each Offeror shall, at a minimum:

a. Examine the *Contract Documents* thoroughly;

b. Visit the site to familiarize themselves with local conditions that may in any manner affect cost, progress, or performance of the Work;

c. Become familiar with federal, state, and local laws, ordinances, rules, and regulations that may in any manner affect cost, progress or performance of the Work;

d. Study and carefully correlate Bidder's observations with the *Contract Documents*, and;

e. Notify the Purchasing Agent of all conflicts, errors, ambiguities or discrepancies in or among the *Contract Documents* within the designated inquiry period.

On request, the Owner will provide each Offeror access to the site to conduct such investigations and tests as each Bidder deems necessary for submission of a Bid. It shall be the Offeror's responsibility to make or obtain any additional examinations, investigations, explorations, tests and studies and obtain any additional information and data which pertain to the physical conditions (including without limitation, surface, subsurface and underground utilities) at or contiguous to the site or otherwise which may affect cost, progress or performance of the work and which the Offeror deems necessary to determine its Bid for performing the work in accordance with the time,

price and other terms and conditions of the Contract Documents. Location of any excavation or boring made by Offeror shall be subject to prior approval of Owner and applicable agencies. Offeror shall fill all holes, restore all pavements to match the existing structural section and shall clean up and restore the site to its former condition upon completion of such exploration. The Owner reserves the right to require the Offeror to execute an access agreement with the Owner prior to accessing the site.

The lands upon which the Work is to be performed, rights of way, and access thereto, and other lands designated for use by Contractor in performing the Work, are identified on the Drawings.

Information and data reflected in the *Contract Documents* with respect to underground utilities at or contiguous to the site are based upon information and data furnished to the Owner and the Engineer by the owners of such underground utilities or others, and the Owner does not assume responsibility for the accuracy or completeness thereof, unless it is expressly provided otherwise in the *Contract Documents*.

By submission of a Bid, the Offeror shall be conclusively presumed to represent that the Offeror has complied with every requirement of these Instructions to Bidders, that the *Contract Documents* are not ambiguous and are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

1.14. Questions Regarding Statement of Work: Any information relative to interpretation of Scope of Work or specifications shall be requested of the Purchasing Representative, in writing, in ample time, prior to the inquiry deadline.

1.15. Addenda & Interpretations: If it becomes necessary to revise any part of this solicitation, a written addendum will be posted electronically on the City's website at https://co-grandjunction.civicplus.com/501/Purchasing-Bids . The Owner is not bound by any oral representations, clarifications, or changes made in the written specifications by Owner, unless such clarification or change is provided in written addendum form from the City Purchasing Representative.

1.16. Taxes: The Owner is exempt from State retail and Federal tax. The bid price must be net, exclusive of taxes.

1.17. Sales and Use Taxes: The Contractor and all Subcontractors are required to obtain exemption certificates from the Colorado Department of Revenue for sales and use taxes in accordance with the provisions of the General Contract Conditions. Bids shall reflect this method of accounting for sales and use taxes on materials, fixtures and equipment.

1.18. Offers Binding 60 Days: Unless additional time is required by the Owner, or otherwise specified, all formal offers submitted shall be binding for sixty (60) calendar days following opening date, unless the Bidder, upon request of the Purchasing Representative, agrees to an extension.

1.19. Exceptions and Substitutions: Bidders taking exception to the specifications and/or scope of work shall do so at their own risk. The Owner reserves the right to accept or

reject any or all substitutions or alternatives. When offering substitutions and/or alternatives, Bidder must state these exceptions in the section pertaining to that area. Exception/substitution, if accepted, must meet or exceed the stated intent and/or specifications and/or scope of work. The absence of such a list shall indicate that the Bidder has not taken exceptions, and if awarded a contract, shall hold the Bidder responsible to perform in strict accordance with the specifications and/or scope of work contained herein.

1.20. Collusion Clause: Each bidder by submitting a bid certifies that it is not party to any collusive action or any action that may be in violation of the Sherman Antitrust Act. Any and all bids shall be rejected if there is evidence or reason for believing that collusion exists among bidders. The Owner may, or may not, accept future bids for the same services or commodities from participants in such collusion.

1.21. Disqualification of Bidders: A Bid will not be accepted from, nor shall a Contract be awarded to, any person, firm, or corporation that is in arrears to the Owner, upon debt or contract, or that has defaulted, as surety or otherwise, upon any obligation to the Owner, or that is deemed irresponsible or unreliable.

Bidders may be required to submit satisfactory evidence that they are responsible, have a practical knowledge of the project bid upon and that they have the necessary financial and other resources to complete the proposed Work.

Either of the following reasons, without limitation, shall be considered sufficient to disqualify a Bidder and Bid:

a. More than one Bid is submitted for the same Work from an individual, firm, or corporation under the same or different name; and

b. Evidence of collusion among Bidders. Any participant in such collusion shall not receive recognition as a Bidder for any future work of the Owner until such participant has been reinstated as a qualified bidder.

1.22. Public Disclosure Record: If the bidder has knowledge of their employee(s) or sub-contractors having an immediate family relationship with a City employee or elected official, the bidder must provide the Purchasing Representative with the name(s) of these individuals. These individuals are required to file an acceptable "Public Disclosure Record", a statement of financial interest, before conducting business with the City.

2. General Contract Conditions for Construction Projects

2.1. The Contract: This Invitation for Bid, submitted documents, and any negotiations, when properly accepted by the City, shall constitute a contract equally binding between the City and Contractor. The contract represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either written or oral. The contract may be amended or modified with Change Orders, Field Orders, or Addendums.

2.2. The Work: The term Work includes all labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in such construction.

2.3. Execution, Correlation, Intent, and Interpretations: The Contract Documents shall be signed by the Owner (City) and Contractor. City will provide the contract. By executing the contract, the Contractor represents that he/she has visited the site, familiarized himself with the local conditions under which the Work is to be performed, and correlated his observations with the requirements of the Contract Documents. The Contract Documents are complementary, and what is required by any one, shall be as binding as if required by all. The intention of the documents is to include all labor, materials, equipment and other items necessary for the proper execution and completion of the scope of work as defined in the technical specifications and drawings contained herein. All drawings, specifications and copies furnished by the City are, and shall remain, City property. They are not to be used on any other project, and with the exception of one contract set for each party to the contract, are to be returned to the owner on request at the completion of the work.

2.4. The Owner: The Owner is the City of Grand Junction, Colorado and is referred to throughout the Contract Documents. The term Owner means the Owner or his authorized representative. The Owner shall, at all times, have access to the work wherever it is in preparation and progress. The Contractor shall provide facilities for such access. The Owner will make periodic visits to the site to familiarize himself generally with the progress and quality of work and to determine, in general, if the work is proceeding in accordance with the contract documents. Based on such observations and the Contractor's Application for Payment, the Owner will determine the amounts owing to the Contractor and will issue Certificates for Payment in such amounts, as provided in the contract. The Owner will have authority to reject work which does not conform to the Contract documents. Whenever, in his reasonable opinion, he considers it necessary or advisable to insure the proper implementation of the intent of the Contract Documents, he will have authority to require the Contractor to stop the work or any portion, or to require special inspection or testing of the work, whether or not such work can be then be fabricated, installed, or completed. The Owner will not be responsible for the acts or omissions of the Contractor, and sub-Contractor, or any of their agents or employees, or any other persons performing any of the work.

2.5. Contractor: The Contractor is the person or organization identified as such in the Agreement and is referred to throughout the Contract Documents. The term Contractor means the Contractor or his authorized representative. The Contractor shall carefully study and compare the General Contract Conditions of the Contract, Specification and Drawings, Scope of Work, Addenda and Modifications and shall at once report to the Owner any error, inconsistency or omission he may discover. Contractor shall not be liable to the Owner for any damage resulting from such errors, inconsistencies or omissions. The Contractor shall not commence work without clarifying Drawings, Specifications, or Interpretations.

2.6. Sub-Contractors: A sub-contractor is a person or organization who has a direct contract with the Contractor to perform any of the work at the site. The term sub-contractor is

referred to throughout the contract documents and means a sub-contractor or his authorized representative.

2.7. Award of Sub-Contractors & Other Contracts for Portions of the Work: Contractor shall submit with their bid response to the Owner, in writing for acceptance, a list of the names of the sub-contractors or other persons or organizations proposed for such portions of the work as may be designated in the proposal requirements, or, if none is so designated, the names of the sub-contractors proposed for the principal portions of the work. Prior to the award of the contract, the Owner shall notify the successful Contractor in writing if, after due investigation, has reasonable objection to any person or organization on such list. If, prior to the award of the contract, the Owner has a reasonable and substantial objection to any person or organization on such list, and refuses in writing to accept such person or organization, the successful Contractor may, prior to the award, withdraw their proposal without forfeiture of proposal security. If the successful Contractor submits an acceptable substitute with an increase in the proposed price to cover the difference in cost occasioned by the substitution, the Owner may, at their discretion, accept the increased proposal or may disqualify the Contractor. If, after the award, the Owner refuses to accept any person or organization on such list, the Contractor shall submit an acceptable substitute and the contract sum shall be increased or decreased by the difference in cost occasioned by such substitution and an appropriate Change Order shall be issued. However, no increase in the contract sum shall be allowed for any such substitution unless the Contractor has acted promptly and responsively in submitting a name with respect thereto prior to the award.

2.8. Quantities of Work and Unit Price: Materials or quantities stated as unit price items in the Bid are supplied only to give an indication of the general scope of the Work, and are as such, estimates only. The Owner does not expressly or by implication agree that the actual amount of Work or material will correspond therewith, and reserves the right after award to increase or decrease the quantity of any unit item of the Work without a change in the unit price except as set forth in Article VIII, Section 70 of the *General Contract Conditions*. The City also reserves the right to make changes in the Work (including the right to delete any bid item in its entirety or add additional bid items) as set forth in Article VIII, Sections 69 through 71 of the *General Contract Conditions*.

2.9. Substitutions: The materials, products and equipment described in the *Solicitation Documents* shall be regarded as establishing a standard of required performance, function, dimension, appearance, or quality to be met by any proposed substitution. No substitution will be considered prior to receipt of Bids unless the Offeror submits a written request for approval to the City Purchasing Division at least ten (10) days prior to the date for receipt of Bids. Such requests for approval shall include the name of the material or equipment for which substitution is sought and a complete description of the proposed substitution including drawings, performance and test data, and other information necessary for evaluation, including samples if requested. The Offeror shall set forth changes in other materials, equipment, or other portions of the Work including changes of the work of other contracts, which incorporation of the proposed substitution would require to be included. The Owner's decision of approval or disapproval of a proposed substitution shall be final. If the Owner approves a proposed substitution before receipt of Bids, such approval will be set forth in an Addendum. Offerors shall not rely upon approvals made in any other manner.

2.10. Supervision and Construction Procedures: The Contractor shall supervise and direct the work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the work under the contract.

2.11. Warranty: The Contractor warrants to the Owner that all materials and equipment furnished under this contract will be new unless otherwise specified, and that all work will be of good quality, free from faults and defects and in conformance with the Contract Documents. All work not so conforming to these standards may be considered defective. If required by Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. If within ten (10) days after written notice to the Contractor requesting such repairs or replacement, the Contractor should neglect to make or undertake with due diligence to the same, the City may make such repairs or replacements. All indirect and direct costs of such correction or removal or replacement shall be at the Contractor's expense. The Contractor will also bear the expenses of making good all work of others destroyed or damaged by the correction, removal or replacement of his defective work.

2.12. Permits, Fees, & Notices: The Contractor shall secure and pay for all permits, governmental fees and licenses necessary for the proper execution and completion of the work. The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and orders of any public authority bearing on the performance of the work. If the Contractor observes that any of the Contract Documents are at variance in any respect, he shall promptly notify the Owner in writing, and any necessary changes shall be adjusted by approximate modification. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Owner, he shall assume full responsibility and shall bear all costs attributable.

2.13. Responsibility for Those Performing the Work: The Contractor shall be responsible to the Owner for the acts and omissions of all his employees and all sub-contractors, their agents and employees, and all other persons performing any of the work under a contract with the Contractor.

2.14. Use of the Site: The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents, and shall not unreasonably encumber the site with any materials or equipment.

2.15. Cleanup: The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of work he shall remove all his waste materials and rubbish from and about the project, as well as all his tools, construction equipment, machinery and surplus materials.

2.16. Insurance: The Contractor shall secure and maintain such insurance policies as will provide the coverage and contain other provisions specified in the General Contract Conditions, or as modified in the Special Contract Conditions.

The Contractor shall file a copy of the policies or Certificates of Insurance acceptable to the City with the Engineer within ten (10) Calendar Days after issuance of the Notice of Award. These Certificates of Insurance shall contain a provision that coverage afforded under the policies shall not be canceled unless at least thirty (30) Calendar Days prior written notice has been given to the City.

2.17. Indemnification: The Contractor shall defend, indemnify and save harmless the Owner, and all its officers, employees, insurers, and self-insurance pool, from and against all liability, suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the Contractor, or of any Contractor's agent, employee, sub-contractor or supplier in the execution of, or performance under, any contract which may result from proposal award. Contractor shall pay any judgment with cost which may be obtained against the Owner growing out of such injury or damages.

2.18. Miscellaneous Conditions: Material Availability: Contractors must accept responsibility for verification of material availability, production schedules, and other pertinent data prior to submission of bid. It is the responsibility of the bidder to notify the Owner immediately if materials specified are discontinued, replaced, or not available for an extended period of time. **OSHA Standards:** All bidders agree and warrant that services performed in response to this invitation shall conform to the standards declared by the US Department of Labor under the Occupational Safety and Health Act of 1970 (OSHA). In the event the services do not conform to OSHA standards, the Owner may require the services to be redone at no additional expense to the Owner.

2.19. Time: Time is of the essence with respect to the time of completion of the Project and any other milestones or deadline which are part of the Contract. It will be necessary for each Bidder to satisfy the City of its ability to complete the Work within the Contract Time set forth in the Contract Documents. The Contract Time is the period of time allotted in the Contract Documents for completion of the work. The date of commencement of the work is the date established in a Notice to Proceed. If there is no Notice to Proceed, it shall be the date of the Contract or such other date as may be established therein, or as established as entered on the Bid Form. The Date of Final Completion of the work is the date certified by the Owner when all construction, and all other work associated to include, but not be limited to: testing, QA/QC, receipt of required reports and/or forms, grant requirements (if applicable), punch list items, clean-up, receipt of drawings and/or as-builts, etc., is fully complete, and in accordance with the Contract Documents.

2.20. Progress & Completion: The Contractor shall begin work on the date of commencement as defined in the Contract, and shall carry the work forward expeditiously with adequate forces and shall complete it within the contract time.

2.21. Payment & Completion: The Contract Sum is stated in the Contract and is the total amount payable by the Owner to the Contractor for the performance of the work under the Contract Documents. Upon receipt of written notice that the work is ready for final inspection and acceptance and upon receipt of application for payment, the Owner's Project Manager will promptly make such inspection and, when he finds the work

acceptable under the Contract Documents and the Contract fully performed, the Owner shall make payment in the manner provided in the Contract Documents.

2.22. Bid Bond: Each Bid shall as a guaranty of good faith on the part of the Bidder be accompanied by a Bid Guaranty consisting of: a certified or cashier's check drawn on an approved national bank or trust company in the state of Colorado, and made payable without condition to the City; or a **Bid Bond** written by an approved corporate surety in favor of the City. The amount of the Bid Guaranty shall not be less than 5% of the total Bid amount. Once a Bid is accepted and a Contact is awarded, the apparent successful bidder has ten calendar days to enter into a contractor in the form prescribed and to furnish the bonds with a legally responsible and approved surety. Failure to do so will result I forfeiture of the Bid Guaranty to the City as Liquidated Damages.

Each bidder shall guaranty its total bid price for a period of sixty (60) Calendar Days from the date of the bid opening.

2.23. Performance & Payment Bonds: Contractor shall furnish a Performance and a Payment Bond, each in an amount at least equal to that specified for the contract amount as security for the faithful performance and payment of all Contractor's obligations under the Contract Documents. These bonds shall remain in effect for the duration of the Warranty Period (as specified in the Special Conditions). Contractor shall also furnish other bonds that may be required by the Special Conditions. All bonds shall be in the forms prescribed by the Contract Documents and be executed by such sureties as (1) are licensed to conduct business in the State of Colorado and (2) are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Accounts, U.S. Treasury Department. All bonds singed by an agent must be accompanied by a certified copy of the Authority Act. If the surety on any bond furnished by the Contractor is declared bankrupt, or becomes insolvent, or its rights to do business in Colorado are terminated, or it ceases to meet the requirements of clauses (1) and (2) of this section, Contractor shall within five (5) days thereafter substitute another bond and surety, both of which shall be acceptable to the City.

2.24. Retention: The Owner will deduct money from the partial payments in amounts considered necessary to protect the interest of the Owner and will retain this money until after completion of the entire contract. The amount to be retained from partial payments will be five (5) percent of the value of the completed work, and not greater than five (5) percent of the amount of the Contract. When the retainage has reached five (5) percent of the amount of the Contract no further retainage will be made and this amount will be retained until such time as final payment is made.

2.25. Liquidated Damages for Failure to Enter Into Contract: Should the Successful Bidder fail or refuse to enter into the Contract within ten Calendar Days from the issuance of the Notice of Award, the City shall be entitled to collect the amount of such Bidder's Bid Guaranty as Liquidated Damages, not as a penalty but in consideration of the mutual release by the City and the Successful Bidder of all claims arising from the City's issuance of the Notice of Award and the Successful Bidder's failure to enter into the

Contract and the costs to award the Contract to any other Bidder, to readvertise, or otherwise dispose of the Work as the City may determine best serves its interest.

2.26. Liquidated Damages for Failure to Meet Project Completion Schedule: If the Contractor does not achieve Final Completion by the required date, whether by neglect, refusal or any other reason, the parties agree and stipulate that the Contractor shall pay liquidated damages to the City for each such day that final completion is late. As provided elsewhere, this provision does not apply for delays caused by the City. The date for Final Completion may be extended in writing by the Owner.

The Contractor agrees that as a part of the consideration for the City's awarding of this Contract liquidated damages in the daily amount of **$3,000.00** is reasonable and necessary to pay for the actual damages resulting from such delay. The parties agree that the real costs and injury to the City for such delay include hard to quantify items such as: additional engineering, inspection and oversight by the City and its agents; additional contract administration; inability to apply the efforts of those employees to the other work of the City; perceived inefficiency of the City; citizens having to deal with the construction and the Work, rather than having the benefit of a completed Work, on time; inconvenience to the public; loss of reputation and community standing for the City during times when such things are very important and very difficult to maintain.

The Contractor must complete the Work and achieve final completion included under the Bid Schedule in the number of consecutive calendar days after the City gives is written Notice to Proceed. When the Contractor considers the entire Work ready for its intended use, Contractor shall certify in writing that the Work is fully complete. Final Completion date is the date by which the Contractor shall have fully completed all clean-up, and all items that were identified by the City in the inspection for final completion. Unless otherwise stated in the Special Conditions, for purposes of this liquidated damages clause, the Work shall not be finished and the Contract time shall continue to accrue until the City gives its written Final Acceptance.

If the Contractor shall fail to pay said liquidated damages promptly upon demand thereof after having failed to achieve Final Completion on time, the City shall first look to any retainage or other funds from which to pay said liquidated damages; if retainage or other liquid funds are not available to pay said liquidated damages amounts, the Surety on the Contractor's Performance Bond and Payment Bond shall pay such liquidated damages. In addition, the City may withhold all, or any part of, such liquidated damages from any payment otherwise due the Contractor.
Liquidated damages as provided do not include any sums to reimburse the City for extra costs which the City may become obligated to pay on other contracts which were delayed or extended because of the Contractor's failure to complete the Work within the Contract Time. Should the City incur additional costs because of delays or extensions to other contracts resulting from the Contractor's failure of timely performance, the Contractor agrees to pay these costs that the City incurs because of the Contractor's delay, and these payments are separate from and in addition to any liquidated damages.

The Contractor agrees that the City may use its own forces or hire other parties to obtain Final Completion of the work if the time of completion has elapsed and the Contractor is

not diligently pursuing completion. In addition to the Liquidated Damages provided for, the Contractor agrees to reimburse the City for all expenses thus incurred.

2.27. Contingency/Force Account/Minor Contract Revisions: Contingency/Force Account/Minor Contract Revisions work will be authorized by the Owner's Project Manager and is defined as minor expenses to cover miscellaneous or unforeseen expenses related to the project. The expenses are not included in the Drawings, Specifications, or Scope of Work and are necessary to accomplish the scope of this contract. Contingency/Force Account/Minor Contract Revisions Authorization will be directed by the Owner through an approved form. Contingency/Force Account/Minor Contract Revisions funds are the property of the Owner and any Contingency/Force Account/Minor Contract Revisions funds, not required for project completion, shall remain the property of the Owner. Contractor is not entitled to any Contingency/Force Account/Minor Contract Revisions funds, that are not authorized by Owner or Owner's Project Manager.

2.28. Protection of Persons & Property: The Contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. Contractor shall erect and maintain, as required by existing safeguards for safety and protection, and all reasonable precautions, including posting danger signs or other warnings against hazards promulgating safety regulations and notifying owners and users of adjacent utilities. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct by the Contractor in the execution of the work, or in consequence of the non-execution thereof by the Contractor, he shall restore, at his own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring as may be directed, or it shall make good such damage or injury in an acceptable manner.

2.29. Changes in the Work: The Owner, without invalidating the contract, may order changes in the work within the general scope of the contract consisting of additions, deletions or other revisions, the contract sum and the contract time being adjusted accordingly. All such changes in the work shall be authorized by Change Order and shall be executed under the applicable conditions of the contract documents. A Change Order is a written order to the Contractor signed by the Owner issued after the execution of the contract, authorizing a change in the work or an adjustment in the contract sum or the contract time. The contract sum and the contract time may be changed only by Change Order.

2.30. Claims for Additional Cost or Time: If the Contractor wishes to make a claim for an increase in the contract sum or an extension in the contract time, he shall give the Owner written notice thereof within a reasonable time after the occurrence of the event giving rise to such claim. This notice shall be given by the Contractor before proceeding to execute the work, except in an emergency endangering life or property in which case the Contractor shall precede in accordance with the regulations on safety. No such claim shall be valid unless so made. Any change in the contract sum or contract time resulting from such claim shall be authorized by Change Order.

2.31. Minor Changes in the Work: The Owner shall have authority to order minor changes in the work not involving an adjustment in the contract sum or an extension of the contract time and not inconsistent with the intent of the contract documents.

2.32. Field Orders: The Owner may issue written Field Orders which interpret the Contract Documents in accordance with the specifications, or which order minor changes in the work in accordance with the agreement, without change in the contract sum or time. The Contractor shall carry out such Field Orders promptly.

2.33. Uncovering & Correction of Work: The Contractor shall promptly correct all work rejected by the Owner as defective or as failing to conform to the contract documents whether observed before or after substantial completion and whether or not fabricated installed or competed. The Contractor shall bear all costs of correcting such rejected work, including the cost of the Owner's additional services thereby made necessary. If within one (1) year after the date of completion or within such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the contract documents, any of the work found to be defective or not in accordance with the contract documents, the Contractor shall correct it promptly after receipt of a written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discover of condition. All such defective or non-conforming work under the above paragraphs shall be removed from the site where necessary and the work shall be corrected to comply with the contract documents without cost to the Owner. The Contractor shall bear the cost of making good all work of separate Contractors destroyed or damaged by such removal or correction. If the Owner prefers to accept defective or non-conforming work, he may do so instead of requiring its removal and correction, in which case a Change Order will be issued to reflect an appropriate reduction in the payment or contract sum, or, if the amount is determined after final payment, it shall be paid by the Contractor.

2.34. Amendment: No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All amendments to the contract shall be made in writing by the Owner.

2.35. Assignment: The Contractor shall not sell, assign, transfer or convey any contract resulting from this IFB, in whole or in part, without the prior written approval from the Owner.

2.36. Compliance with Laws: Bids must comply with all Federal, State, County and local laws governing or covering this type of service and the fulfillment of all ADA (Americans with Disabilities Act) requirements.

2.37. Confidentiality: All information disclosed by the Owner to the Contractor for the purpose of the work to be done or information that comes to the attention of the Contractor during the course of performing such work is to be kept strictly confidential.

2.38. Conflict of Interest: No public official and/or City/County employee shall have interest in any contract resulting from this IFB.

2.39. Contract Termination: This contract shall remain in effect until any of the following occurs: (1) contract expires; (2) completion of services; (3) acceptance of services or, (4) for convenience terminated by either party with a written *Notice of Cancellation* stating therein the reasons for such cancellation and the effective date of cancellation.

2.40. Employment Discrimination: During the performance of any services per agreement with the Owner, the Contractor, by submitting a Bid, agrees to the following conditions:

2.40.1. The Contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, handicap, or national origin except when such condition is a legitimate occupational qualification reasonably necessary for the normal operations of the Contractor. The Contractor agrees to post in conspicuous places, visible to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

2.40.2. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, shall state that such Contractor is an Equal Opportunity Employer.

2.40.3. Notices, advertisements, and solicitations placed in accordance with federal law, rule, or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

2.41. Affirmative Action: In executing a Contract with the City, the Contractor agrees to comply with Affirmative Action and Equal Employment Opportunity regulations presented in the General Contract Conditions.

2.42. Immigration Reform and Control Act of 1986 and Immigration Compliance: The Offeror certifies that it does not and will not during the performance of the contract employ illegal alien workers or otherwise violate the provisions of the Federal Immigration Reform and Control Act of 1986 and/or the immigration compliance requirements of State of Colorado C.R.S. § 8-17.5-101, *et.seq*. (House Bill 06-1343).

2.43. Ethics: The Contractor shall not accept or offer gifts or anything of value nor enter into any business arrangement with any employee, official, or agent of the Owner.

2.44. Failure to Deliver: In the event of failure of the Contractor to deliver services in accordance with the contract terms and conditions, the Owner, after due oral or written notice, may procure the services from other sources and hold the Contractor responsible for any costs resulting in additional purchase and administrative services. This remedy shall be in addition to any other remedies that the Owner may have.

2.45. Failure to Enforce: Failure by the Owner at any time to enforce the provisions of the contract shall not be construed as a waiver of any such provisions. Such failure to enforce shall not affect the validity of the contract or any part thereof or the right of the Owner to enforce any provision at any time in accordance with its terms.

2.46. Force Majeure: The Contractor shall not be held responsible for failure to perform the duties and responsibilities imposed by the contract due to legal strikes, fires, riots, rebellions, and acts of God beyond the control of the Contractor, unless otherwise specified in the contract.

2.47. Independent Contractor: The Contractor shall be legally considered an Independent Contractor and neither the Contractor nor its employees shall, under any circumstances, be considered servants or agents of the Owner. The Owner shall be at no time legally responsible for any negligence or other wrongdoing by the Contractor, its servants, or agents. The Owner shall not withhold from the contract payments to the Contractor any federal or state unemployment taxes, federal or state income taxes, Social Security Tax or any other amounts for benefits to the Contractor. Further, the Owner shall not provide to the Contractor any insurance coverage or other benefits, including Workers' Compensation, normally provided by the Owner for its employees.

2.48. Nonconforming Terms and Conditions: A bid that includes terms and conditions that do not conform to the terms and conditions of this Invitation for Bid is subject to rejection as non-responsive. The Owner reserves the right to permit the Contractor to withdraw nonconforming terms and conditions from its bid prior to a determination by the Owner of non-responsiveness based on the submission of nonconforming terms and conditions.

Items for non-responsiveness may include, but not be limited to:

a. Submission of the Bid on forms other than those supplied by the City;

b. Alteration, interlineation, erasure, or partial detachment of any part of the forms which are supplied herein;

c. Inclusion of unauthorized additions conditional or alternate Bids or irregularities of any kind which may tend to make the Bid incomplete, indefinite, or ambiguous as to its meaning;

d. Failure to acknowledge receipt of any or all issued Addenda;

e. Failure to provide a unit price or a lump sum price, as appropriate, for each pay item listed except in the case of authorized alternative pay items;

f. Failure to list the names of Subcontractors used in the Bid preparation as may be required in the Solicitation Documents;

g. Submission of a Bid that, in the opinion of the Owner, is unbalanced so that each item does not reasonably carry its own proportion of cost or which contains inadequate or unreasonable prices for any item;

h. Tying of the Bid with any other bid or contract; and

i. Failure to calculate Bid prices as described herein.

2.49. Evaluation of Bids and Offerors: The Owner reserves the right to:

- reject any and all Bids,
- waive any and all informalities,
- take into account any prompt payment discounts offered by Bidder,
- negotiate final terms with the Successful Bidder,
- take into consideration past performance of previous awards/contracts with the Owner of any Contractor, Vendor, Firm, Supplier, or Service Provider in determining final award. and
- disregard any and all nonconforming, nonresponsive or conditional Bids.

Discrepancies between words and figures will be resolved in favor of words. Discrepancies between Unit Prices and Extended Prices will be resolved in favor of the Unit Prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. The corrected extensions and totals will be shown in the tabulation of Bids.

The Owner may consider the qualifications and experience of Subcontractors and other persons and organizations (including those who are to furnish the principal items of material or equipment) proposed for those portions of the work as to which the identity of Subcontractors and other persons and organizations must be submitted. Operating costs, maintenance considerations performance data, and guarantees of materials and equipment may also be considered by the Owner.

The Owner will conduct such investigations as deemed necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of the Offeror, proposed Subcontractors and other persons and organizations to do the Work in accordance with the *Contract Documents* to the City's satisfaction within the Contract Time.

The Offeror shall furnish the Owner all information and data requested by the Owner to determine the ability of the Offeror to perform the Work. The Owner reserves the right to reject the Bid if the evidence submitted by, or investigation of such Offeror fails to satisfy the Owner that such Offeror is properly qualified to carry out the obligations of the Contract and to complete the Work contemplated therein.

By submitting a Bid, each Offeror authorizes the Owner to perform such investigation of the Offeror as the Owner deems necessary to establish the responsibility, qualifications and financial ability of the Offeror and, by its signature thereon, authorizes the Owner to obtain reference information concerning the Offeror and releases the party providing such information and the Owner from any and all liability to the Offeror as a result of such reference information so provided.

The Owner reserves the right to reject the Bid of any Offeror who does not pass any evaluation to the Owner's satisfaction.

If the Contract is to be awarded, it will be awarded to the Offeror who, by evaluation, the Owner determines will best meet the Owner's interests.

The Owner reserves the right to accept or reject the Work contained in any of the Price Bid Schedules or alternates, either in whole or in part.

2.50. Award of Contract: Unless otherwise indicated, a single award will be made for all the bid items in an individual bid schedule. In the event that the Work is contained in more than one Bid Schedule, the City may award Schedules individually or in combination. In the case of two Bid Schedules which are alternative to each other, only one of such alternative Schedules will be awarded. Within forty-five (45) Calendar Days of Bid Opening, the City will issue a Notice of Award to the Successful Bidder which will be accompanied by four (4) unsigned copies of the Contract and the Performance and Payment Bond forms. Within ten (10) Calendar Days thereafter, the Successful Bidder shall sign and deliver four (4) copies of the Contract, Performance Bond, Payment Bond and Certificates of Insurance to the City. Within ten (10) Calendar Days thereafter, the City will deliver two (2) fully executed counterparts of the Contract to the Contractor. No contract shall exist between the Successful Bidder and the City and the Successful Bidder shall have no rights at law or in equity until the Contract has been duly executed by the City.

The Successful Bidder's failure to sign and submit a Contract and other documents set forth in this Paragraph within the prescribed time shall be just cause of annulment of the award, and forfeiture of the Bid Guaranty. The award of Contract may then be made to the next qualified Bidder in the same manner as previously prescribed.

2.51. Ownership: All plans, prints, designs, concepts, etc., shall become the property of the Owner.

2.52. Oral Statements: No oral statement of any person shall modify or otherwise affect the terms, conditions, or specifications stated in this document and/or resulting agreement. All modifications to this request and any agreement must be made in writing by the Owner.

2.53. Patents/Copyrights: The Contractor agrees to protect the Owner from any claims involving infringements of patents and/or copyrights. In no event shall the Owner be liable to the Contractor for any/all suits arising on the grounds of patent(s)/copyright(s) infringement. Patent/copyright infringement shall null and void any agreement resulting from response to this IFB.

2.54. Remedies: The Contractor and Owner agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

2.55. Venue: Any agreement as a result of responding to this IFB shall be deemed to have been made in, and shall be construed and interpreted in accordance with, the laws of the City of Grand Junction, Mesa County, Colorado.

2.56. Expenses: Expenses incurred in preparation, submission and presentation of this IFB are the responsibility of the company and cannot be charged to the Owner.

2.57. Sovereign Immunity: The Owner specifically reserves its right to sovereign immunity pursuant to Colorado State Law as a defense to any action arising in conjunction to this agreement.

2.58. Non-Appropriation of Funds: The contractual obligation of the Owner under this contract is contingent upon the availability of appropriated funds from this fiscal year budget as approved by the City Council or Board of County Commissioners from this fiscal year only. State of Colorado Statutes prohibit obligation of public funds beyond the fiscal year for which the budget was approved. Anticipated expenditures/obligations beyond the end of the current Owner's fiscal year budget shall be subject to budget approval. Any contract will be subject to and must contain a governmental non-appropriation of funds clause.

2.59. Cooperative Purchasing: Purchases as a result of this solicitation are primarily for the City/County. Other governmental entities may be extended the opportunity to utilize the resultant contract award with the agreement of the successful provider and the participating agencies. All participating entities will be required to abide by the specifications, terms, conditions and pricings established in this Bid. The quantities furnished in this bid document are for only the City/County. It does not include quantities for any other jurisdiction. The City or County will be responsible only for the award for its jurisdiction. Other participating entities will place their own awards on their respective Purchase Orders through their purchasing office or use their purchasing card for purchase/payment as authorized or agreed upon between the provider and the individual entity. The City/County accepts no liability for payment of orders placed by other participating jurisdictions that choose to piggy-back on our solicitation. Orders placed by participating jurisdictions under the terms of this solicitation will indicate their specific delivery and invoicing instructions.

2.60. Keep Jobs in Colorado Act: Contractor shall be responsible for ensuring compliance with Article 17 of Title 8, Colorado Revised Statutes requiring 80% Colorado labor to be employed on public works. Contractor shall, upon reasonable notice provided by the Owner, permit the Owner to inspect documentation of identification and residency required by C.R.S. §8-17-101(2)(a). If Contractor claims it is entitled to a waiver pursuant to C.R.S. §8-17-101(1), Contractor shall state that there is insufficient Colorado labor to perform the work such that compliance with Article 17 would create an undue burden that would substantially prevent a project from proceeding to completion, and shall include evidence demonstrating the insufficiency and undue burden in its response.

Unless expressly granted a waiver by the Owner pursuant to C.R.S. §8-17-101(1), Contractor shall be responsible for ensuring compliance with Article 17 of Title 8, Colorado Revised Statutes requiring 80% Colorado labor to be employed on public works. Contractor shall, upon reasonable notice provided by the Owner, permit the Owner to inspect documentation of identification and residency required by C.R.S. §8-17-101(2)(a).

2.60.1. "Public project" is defined as:

(a) any construction, alteration, repair, demolition, or improvement of any land, building, structure, facility, road, highway, bridge, or other public

improvement suitable for and intended for use in the promotion of the public health, welfare, or safety and any maintenance programs for the upkeep of such projects

(b) for which appropriate or expenditure of moneys may be reasonably expected to be $500,000.00 or more in the aggregate for any fiscal year

(c) except any project that receives federal moneys.

3. Statement of Work

3.1. GENERAL: The general scope of services to be obtained as a result of this Solicitation includes construction management and general contractor services to construct the new Fire Station #3 on 25 ½ Road. The selected contractor will work for the Owner and City Staff and collaboratively with the Owner's Architect. The selection of the Contractor is expected to be concluded and approved by the City Council by April 7, 2021.

The timeline for this project is ambitious. All construction of the Fire Station must be completed by December 13, 2021.

3.2. PROJECT DESCRIPTION: This project includes the construction of a new Fire Station #3 at Pomona Park on 25 ½ Road. The proposed total building area will be approximately 10,500 square feet with a capability of housing 3 to 4 pieces of fire equipment including an engine and ambulance. The station will be staffed 24 hours a day (3 shifts of up to 8 fire personnel). The building will include office space, residential areas, storage, fitness, and drive-through bays for fire apparatus with full length floor trench drains.

The new fire station building will sit adjacent to the existing station. 19 total parking spaces (including 2 ADA accessible parking spaces) are included in the design. Concrete sidewalks will run along the perimeter of the building for ease navigation of the building outdoor area. The south side of the building will feature a fenced courtyard.

Existing mature trees shall be protected as shown on the landscape plans. The new irrigation system for the Fire Station will be connected to the Pomona Park irrigation system and have a back-up connection to the building domestic line.

NOTE: The demolition and removal of the existing Fire Station #3 that is to be replaced shall not be included with this project.

In addition, the Contractor shall coordinate with the Fire Department to maintain access to the existing fire Station during construction, and shall also coordinate with Parks & Recreation and School District 51 on access to the fields during construction.

All dimensions, scope of work, and schedule should be verified by Contractors prior to submission of bids.

3.3. SPECIAL CONDITIONS & PROVISIONS:

3.3.1 Mandatory Pre-Bid Meeting: Prospective bidders are required to attend a mandatory pre-bid meeting on March 10, 2021 at 10:00am. Meeting location shall begin at Fire Station #6, located at 729 27 Road, Grand Junction, CO, and will end with

Fire Station #3, located at 582 25 ½ Road, Grand Junction, CO. The purpose of this visit will be to inspect and to clarify the contents of this Invitation for Bids (IFB).

3.3.2 General Contractor/Bidder Pre-Qualification: Due to the complexity, size, and scope of this project, the City has determined that a pre-qualification process is prudent to ensuring that the awarded bidder is both qualified and capable of successfully performing and completing the project. Therefore, in an effort to be respectful of the time and cost of General Contractors/Bidders putting together a bid packages for which they may not be qualified to perform, we are requiring that all General Contractors/Bidders intending to submit a bid response to this solicitation process, complete and submit the attached Pre-Qualification Application and all required documents to the City's Purchasing Agent (via e-mail duaneh@gjcity.org) **no later than March 22, 2021** General Contractors/Bidders shall be notified of their pre-qualification status **no later than March 25, 2021**.

3.3.3 QUESTIONS REGUARDING SOLICIATION PROCESS/SCOPE OF WORK:

Duane Hoff Jr., Senior Buyer
City of Grand Junction
duaneh@gjcity.org

3.3.3 Project Manager: The Project Manager for the Project is Kirsten Armbruster, Project Engineer, who can be reached at (970) 244-1421. During Construction, all notices, letters, submittals, and other communications directed to the City shall be addressed and mailed or delivered to:

City of Grand Junction
Department of Public Works and Planning
Attn: Kirsten Armbruster, Project Manager
250 North Fifth Street
Grand Junction, CO 81501

3.3.4 Affirmative Action: The Contractor is not required to submit a written Affirmative Action Program for the Project.

3.3.5 Pricing: Pricing shall be all inclusive to include but not be limited to: all labor, equipment, supplies, materials, freight (F.O.B. Destination – Freight Pre-paid and Allowed to each site), travel, mobilization costs, fuel, set-up and take down costs, and full-time inspection costs, and all other costs related to the successful completion of the project.

The Owner shall not pay nor be liable for any other additional costs including but not limited to: taxes, shipping charges, insurance, interest, penalties, termination payments, attorney fees, liquidated damages, etc.

3.3.6 Freight/Shipping: All freight/shipping shall be F.O.B. Destination – Freight Pre-Paid and Allowed to the project site(s), Grand Junction, CO.

Contractor must meet all federal, state, and local rules, regulations, and requirements for providing such services.

3.3.7 Contract: A binding contract shall consist of: (1) the IFB and any amendments thereto, (2) the bidder's response (bid) to the IFB, (3) clarification of the bid, if any, and (4) the City's Purchasing Department's acceptance of the bid by "Notice of Award" or by "Purchase Order". All Exhibits and Attachments included In the IFB shall be incorporated into the contract by reference.

A. The contract expresses the complete agreement of the parties and, performance shall be governed solely by the specifications and requirements contained therein.

B. Any change to the contract, whether by modification and/or supplementation, must be accomplished by a formal contract amendment signed and approved by and between the duly authorized representative of the bidder and the City Purchasing Division or by a modified Purchase Order prior to the effective date of such modification. The bidder expressly and explicitly understands and agrees that no other method and/or no other document, including acts and oral communications by or from any person, shall be used or construed as an amendment or modification to the contract.

3.3.8 Time of Completion: The scheduled time of Completion for the Project is no later than December 13, 2021.

Completion is achieved when site cleanup and all punch list items (resulting from the final inspection) have been completed. Completion shall have the meaning set forth in Article I, Section 3 (Definitions and Terms) of the General Contract Conditions.

3.3.9 Working Days and Hours: The working days and hours shall be as stated in the General Contract Conditions or as mutually agreed upon in the preconstruction meeting with the following exception:
All work shall be performed between the hours of 7:00 AM to 5:00 PM.

3.3.10 Licenses and Permits: Contractor is responsible for obtaining all necessary licenses and permits required for Construction, at Contractors expense. See Section 2.12. Contractor shall supply to Owner all copies of finalized permits.

3.3.11 Permits: The following permits are required for the Project and will be obtained by the City at no cost to the Contractor:
-Planning Clearance (includes building permit)

The following permits are required for the Project and shall be obtained and paid for by the Contractor, with the costs included in the total bid price for the Project:
-Stormwater Management Permit shall be coordinated with the City.

3.3.12 City Furnished Materials: The City will furnish the following materials for the Project:

- Door-hangers
- AIRVAC system
- All FF&E not specifically listed in the Project Manual

3.3.13 Project Newsletters: A newsletter for the Project will be prepared and distributed by the City. It will include general information about the Project including interruptions in utility services, street closures, parking restrictions, project schedule, and the names and telephone numbers of the contacts for the City and Contractor. The newsletter will be mailed approximately one week before the Contractor commences work.

The Contractor will be responsible for notifying all businesses and / or residents located adjacent to the work. Door hanger notifications shall be distributed at least two (2) working days prior to the day the work is scheduled to begin.

3.3.14 Project Sign: Project signs, if any, will be furnished and installed by the City.

3.3.15 Authorized Representatives of the City: Those authorized to represent the City shall include Purchasing Agent, Engineers, and Inspectors employed by the City, only.

3.3.16 Stockpiling Materials and Equipment: All stockpiling/storage shall be in accordance with General Contract Condition Section 51.

3.3.17 Traffic Control: The Contractor shall provide and maintain traffic control in accordance with the approved Traffic Control Plan and the Manual on Uniform Traffic Control Devices. A Traffic Control Plan shall be prepared by the Contractor and reviewed by the City two days prior to the pre-construction meeting.

3.3.18 Clean-Up: The Contractor is responsible for cleaning up all loose materials that have been deposited or swept into gutters, and onto sidewalks and driveways as a result of sidewalk operations. The costs for all clean-up work shall be considered incidental and will not be paid for separately.

3.3.19 Quality Control Testing: Supplier shall perform quality control testing on concrete. The City will perform all other necessary QA/QC.

3.3.20 Schedule of Submittals: Contractor shall deliver these submittals at least two days prior to the pre-construction meeting:

- Traffic Control Plans
- Project Schedule

3.3.21 Uranium Mill Tailings: It is anticipated that radioactive mill tailings will not be encountered on this Project.

3.3.22 Fugitive Petroleum or Other Contamination: It is anticipated that soil contamination from fugitive petroleum or other contaminants will not be encountered with the Project.

3.3.23 Excess Material: All excess materials shall be disposed in accordance with General Contract Condition Section 50.

3.3.24 Existing Utilities and Structures: Utilities were **not** potholed during design of this project. The location of existing utilities and structures shown on the Plans is approximate with the information gathered during design. It is the responsibility of the Contractor to pothole/locate and protect all structures and utilities in accordance with General Contract Condition Section 37.

3.3.25 Incidental Items: Any item of work not specifically identified or paid for directly, but which is necessary for the satisfactory completion of any paid items of work, will be considered as incidental to those items, and will be included in the cost of those items.

3.3.26 Survey: The Contractor shall give the City survey crew a minimum of 72 hours' notice for all requested survey.

3.3.27 Work to be Performed by the City (Prior to Construction): None.

3.3.28 Existing Concrete Sidewalks, Pans, Fillets, Curbs and Gutters: The existing sidewalks, pans, fillets, curb and gutter are in good serviceable condition. In most instances the installation of new sidewalk and pavement will be adjacent to existing concrete. The Contractor will need to protect all concrete adjacent to construction. If the concrete is damaged during construction the Contractor will be responsible for its replacement at no cost to the City. The Contractor, the City Project Inspector, and/or the City Project Manager will walk and record any concrete that is deemed to be damaged before construction has started.

3.3.29 ACI Concrete and Flatwork Finisher and Technician: Hand finishing concrete will be permitted only when performed under the direct supervision of a craftsman holding the following certificate: ACI Concrete Flatwork Finisher and Technician (ACICFFT) or other Flatwork Finisher certification program approved by the City Engineering Manager.

3.4. SCOPE OF WORK: The contractor shall follow the Project Manual provided in Appendix B. These Specifications modify the City of Grand Junction Standard Contract Documents for Capital Improvement Construction.

The Contractor shall also follow the Construction Drawings in Appendix C.

3.5. Attachments:
Appendix A: Geotechnical Report
Appendix B1: Project Manual – Vol01
Appendix B2: Project Manual – Vol02
Appendix C: Construction Drawings

3.6. Contractor Bid Documents: For Contractor's convenience, the following is a list of forms/items to be submitted with the Contractor's bid response. However, should a form/item not be listed in this section, but required in the solicitation documents, it is the Contractor's responsibility to ensure all forms/items are submitted.

- **Contractor's Bid Form**
- **Price Bid Schedule**
- **Bid Bond**

3.7. IFB TENTATIVE TIME SCHEDULE:

Invitation For Bids available	February 26, 2021
Mandatory Pre-Bid Meeting	March 10, 2021
General Contractor Pre-Qualification Application Due	March 22, 2021
Inquiry deadline, no questions after this date	March 22, 2021
Addendum Posted	March 25, 2021
Submittal deadline for proposals	April 1, 2021
City Council Approval	April 7, 2021
Notice of Award & Contract execution	April 8, 2021
Bonding & Insurance Cert due	April 12, 2021
Preconstruction meeting	April 12, 2021
Work begins no later than	April 14, 2021
Final Completion	December 13, 2021
Holidays:	May 31, July 5, September 6, November 11, November 25, November 26

4. Contractor's Bid Form

Bid Date: _____

Project: IFB-4889-21-DH "Grand Junction Fire Department Fire Station #3 Construction"

Bidding Company: _____

Name of Authorized Agent: _____

Email _____

Telephone_____ **Address**_____

City_____**State**_____**Zip**_____

The undersigned Bidder, in compliance with the Invitation for Bids, having examined the Instruction to Bidders, General Contract Conditions, Statement of Work, Specifications, and any and all Addenda thereto, having investigated the location of, and conditions affecting the proposed work, hereby proposes to furnish all labor, materials and supplies, and to perform all work for the Project in accordance with Contract Documents, within the time set forth and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the Contract Documents, of which this Contractor's Bid Form is a part.

The undersigned Contractor does hereby declare and stipulate that this offer is made in good faith without collusion or connection to any person(s) providing an offer for the same work, and that it is made in pursuance of, and subject to, all terms and conditions of the Instructions to Bidders, the Specifications, and all other Solicitation Documents, all of which have been examined by the undersigned.

The Contractor also agrees that if awarded the Contract, to provide insurance certificates within ten (10) working days of the date of Notification of Award. Submittal of this offer will be taken by the Owner as a binding covenant that the Contractor will be prepared to complete the project in its entirety.

The Owner reserves the right to make the award on the basis of the offer deemed most favorable, to waive any formalities or technicalities and to reject any or all offers. It is further agreed that this offer may not be withdrawn for a period of sixty (60) calendar days after closing time. Submission of clarifications and revised offers automatically establish a new thirty day (30) period.

Prices in the bid proposal have not knowingly been disclosed with another provider and will not be prior to award.

- Prices in this bid proposal have been arrived at independently, without consultation, communication or agreement for the purpose of restricting competition.
- No attempt has been made nor will be to induce any other person or firm to submit a bid proposal for the purpose of restricting competition.
- The individual signing this bid proposal certifies they are a legal agent of the offeror, authorized to represent the offeror and is legally responsible for the offer with regard to supporting documentation and prices provided.
- Direct purchases by the City of Grand Junction are tax exempt from Colorado Sales or Use Tax. Tax exempt No. 98-03544. The undersigned certifies that no Federal, State, County or Municipal tax will be added to the above quoted prices.
- City of Grand Junction payment terms shall be Net 30 days.
- Prompt payment discount of _____ percent of the net dollar will be offered to the Owner if the invoice is paid within _____ days after the receipt of the invoice. The Owner reserves the right to take into account any such discounts when determining the bid award.

RECEIPT OF ADDENDA: the undersigned Contractor acknowledges receipt of Addenda to the Solicitation, Specifications, and other Contract Documents.

State number of Addenda received: _____.

It is the responsibility of the Bidder to ensure all Addenda have been received and acknowledged.

By signing below, the Undersigned agree to comply with all terms and conditions contained herein.

Company: _____

Authorized Signature: _____

Title: _____

Bid Schedule: Grand Junction Fire Department - Fire Station #3 Construction

Item No.	Division No.	Description	Quantity	Units	Unit Price	Total Price
1	01	General Conditions (Bond fees, Permits, Supervision, Sanitary Facility, Construction Surveying, QC Materials Testing, Traffic Control, Etc.)	Lump	Sum	---	$ _____
2	02	Existing Conditions - Removal of Asphalt	4,700.	SY	$ _____	$ _____
3	02	Existing Conditions - Removal of Concrete Flatwork	310.	SY	$ _____	$ _____
4	02	Existing Conditions - Removal of Concrete Curb & Gutter (On Site)	865.	LF	$ _____	$ _____
5	02	Existing Conditions - Removal of Concrete Curb & Gutter (25 1/2 Road)	155.	LF	$ _____	$ _____
6	02	Existing Conditions - Removal of Fence	285.	LF	$ _____	$ _____
7	02	Existing Conditions - Removal of Tree	3.	Each	$ _____	$ _____
8	02	Existing Conditions - Manhole/Utility Rim Adjustments	Lump	Sum	---	$ _____
9	03	Concrete	Lump	Sum	---	$ _____
10	04	Masonry	Lump	Sum	---	$ _____
11	05	Metals	Lump	Sum	---	$ _____
12	06	Wood, Plastics, and Composites	Lump	Sum	---	$ _____
13	07	Thermal and Moisture Protection	Lump	Sum	---	$ _____
14	08	Openings	Lump	Sum	---	$ _____
15	09	Finishes	Lump	Sum	---	$ _____
16	10	Specialties	Lump	Sum	---	$ _____
17	11	Equipment (Appliances)	Lump	Sum	---	$ _____
18	12	Furnishings	Lump	Sum	---	$ _____
19	21	Fire Suppression	Lump	Sum	---	$ _____
20	22	Plumbing	Lump	Sum	---	$ _____
21	23	Heating, Ventilating, and Air-Conditioning (HVAC)	Lump	Sum	---	$ _____
22	26	Electrical	Lump	Sum	---	$ _____
23	27	Communications	Lump	Sum	---	$ _____
24	28	Electronic Safety and Security	Lump	Sum	---	$ _____
25	31	Earthwork - Site Clearing	Lump	Sum	---	$ _____
26	31	Earthwork - Subgrade Reconditioning (12-inch Depth)	3,110.	SY	$ _____	$ _____
27	31	Earthwork - Subgrade Stabilization (24-inch Over Excavation and Replacement with Pit Run or Approved Equal, includes haul off of unuseable material)	3,110.	SY	$ _____	$ _____
28	31	Earthwork - Geotextile (Tensar BX1200 or Approved Equal, Contractor to consider overlapping)	3,110.	SY	$ _____	$ _____
29	31	Earthwork - Erosion Control (Inlet Protection, Perimeter Control, Vehicle Tracking Pad, Concrete Washout Structure)	Lump	Sum	---	$ _____
30	31	Earthwork - Concrete Filled Steel Pipe Piles	Lump	Sum	---	$ _____

Bid Schedule: Grand Junction Fire Department - Fire Station #3 Construction

Item No.	Division No.	Description	Quantity	Units	Unit Price	Total Price
31	32	Exterior Improvements - 7 inches Class VI Base Under Auto Parking Asphalt (Moisture Conditioned and Compacted)	377.	SY	$ _____	$ _____
32	32	Exterior Improvements - 14 inches Class VI Base Under Truck Traffic Aspahlt Pavement (Mositure Conditioned and Compacted)	1,330.	SY	$ _____	$ _____
33	32	Exterior Improvements - Asphalt Paving (4-inch HMA, GR SX, Binder 64-22, 75 GY)	1,706.	SY	$ _____	$ _____
34	32	Exterior Improvements - Asphalt Patching (25 1/2 Road Asphalt Patch, Per City Standards, Match Existing Conditions & Asphalt Patch Around Trash Enclosure)	140.	SY	$ _____	$ _____
35	32	Exterior Improvements - 4-Inch-Thick Concrete Flatwork, Includes 6 inches Class VI ABC (Portion Includes Turned Down Edge) & Concrete Ramps Along 25 1/2 Road	350.	SY	$ _____	$ _____
36	32	Exterior Improvements - 8-Inch-Thick Concrete Flatwork, Includes 6 inches Class VI ABC & #4 Rebar, 16" Cntrs, E.W. (Includes Dumpster Enclosure Pad)	842.	SY	$ _____	$ _____
37	32	Exterior Improvements - 8-Inch-Thick Concrete Flatwork, Includes 6 inches Class VI ABC & #4 Rebar, 16" Cntrs, E.W. (25 1/2 Road Driveway Aprons)	232.	SY	$ _____	$ _____
38	32	Exterior Improvements - 8-Inch-Thick Concrete Transformer Pad, Includes 6 inches Class VI ABC	8.	SY	$ _____	$ _____
39	32	Exterior Improvements - 6-Inch-Thick Concrete Valley Pan, Includes 6 inches Class VI ABC	21.	SY	$ _____	$ _____
40	32	Exterior Improvements - 1'-6" Concrete Curb and Gutter, Includes 6 inches Class VI ABC (Catch or Spill) (Includes C/G Replacement along 25 1/2 Road Sidewalk)	868.	LF	$ _____	$ _____
41	32	Exterior Improvements - 6"(w) x 18"(h) Ribbon Curb, Includes 6" Class VI ABC	67.	LF	$ _____	$ _____
42	32	Exterior Improvements - Parking Lot Accessories (Striping, Signs, ADA Detectable Warning Strips, Flag Pole w/ Accessories, Irrigation Sleeving, Water Quality Rip-Rap)	Lump Sum		---	$ _____
43	32	Exterior Improvements - Landscaping (including irrigation, soil prep, turf, and plants)	Lump Sum		---	$ _____
44	33	Utilities (Water, Sanitary and Drainage System)	Lump Sum		---	$ _____
MCR		MINOR CONTRACT REVISIONS	---	---	---	$ 350,000.00
				Bid Amount:		**$** _____

Bid Amount:

_____ **dollars**

Bid Schedule: Grand Junction Fire Department - Fire Station #3 Construction (Bid Alternate #1 - Item #30A)

Item No.	Division No.	Description	Quantity	Units	Unit Price	Total Price
30A	31	Earthwork - Rotary Driven Pipe Piles (Screw Piles)	Lump	Sum	- - -	$ _____

NOTE: NOTE: Do not include pricing for this Bid Alternate #1 when calculating your Base Bid total price. This Bid Alternate request is for the option of the City to select an alternate method to Item #30 of the Base Bid Price Schedule. Lowest bidder shall be determined by comparing all Base Bid price proposals received against that of all Bid Alternate #1 price proposals received, and shall be awarded to the overall lowest total bid price.

Bid Alternate #1 Item No. 30A is for Rotary Driven Pipe Piles (Screw Piles), and if selected would replace Item No. 30 Concrete Filled Steel Pipe Piles. Bidders are not required to provide a price for this Bid Alternate #1 line item. However, if so, the Bidder would only be considered for their submitted Base Bid price proposal.

The undersigned Bidder proposes to subcontract the following portion of Work:

Name & address of Sub-Contractor	Description of work to be performed	% of Contract

The undersigned Bidder acknowledges the right of the City to reject any and all Bids submitted and to waive informalities and irregularities therein in the City's sole discretion.

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

CITY OF Grand Junction COLORADO

PUBLIC WORKS AND PLANNING DEPARTMENT
CONTRACTOR PREQUALIFICATION STATEMENT
(EXPERIENCE, EQUIPMENT AND FINANCIAL)

Please **e-mail** to:	gailh@gjcity.org
And then	Attention: Gail Howe
Mail hard copy to:	City of Grand Junction 333 West Ave., Bldg. C Grand Junction, CO 81501
OR FAX to:	970-256-4022
Questions:	Call Gail at 970-256-4082

Instructions to Contractor: **Date submitted:**

- Complete this form and submit to the Department of Public Works & Planning prior to the first day of the quarter in which prequalification is requested and before you bid on a project. Failure to do so will delay your prequalification and our ability to award a bid. Bids cannot be awarded to a contractor who is not prequalified. If additional space is needed, attach sheets showing the section and number to which each sheet applies.
- Resubmit this form during the year if there are changes in your company or financial standing.
- Indicate Prequalification limits requested:

  Contracts not to exceed $500,000 ☐

  Contracts not to exceed $2 Million ☐ (Requires a Financial Statement reviewed by a licensed C.P.A.)

  Contracts on Any Project ☐ (Requires a Financial Statement audited by a licensed C.P.A.)

- **It is your responsibility to submit this form before the date your prior prequalification expires. Your failure to reapply will result in automatic expiration of your prequalification.**

Company name	Phone #	FAX #	E-Mail Address
Company physical address (street, city, county, state and zip code)			
Company mailing address (if different from above)			
Contact person name & title			
Business Type ☐ Corporation ☐ Partnership ☐ Individual ☐ Other (Specify)		No. of employees	Federal Employer Identification Number

Contractor desires to: (check all that apply)

☐ bid on any type of City project subject to the limit above (I understand my company must be prequalified in order to bid).

☐ bid on bid on the following **upcoming project**(s). **Application must be received no later than 2 weeks prior to bid**:

City project name or general description — Scheduled bid opening date

City project name or general description — Scheduled bid opening date

bid on non-city public project: (e.g. Enterprise fund projects, D.D.A. projects)

Public Project — Scheduled bid opening date

Project ID #

Description of Work:

☐ Request a new prequalification rating
(describe changes/requested rating)

SECTION ONE – GENERAL INFORMATION AND HISTORY

- Report any changes in numbers 3, 9, 10 and 13 to the City within 10 days of the change

Organization Date

1. If your company is a partnership or a limited liability company, complete:

Type:

☐ General ☐ Limited ☐ Association ☐ Other

Partner/Member names and addresses (street, city, state and zip)

Name	Street address	City, State, Zip Code

2. If your company is incorporated, complete:

Date Incorporated State Incorporated In good standing?

☐ yes ☐ no (if no, explain)

Address of primary location, if different from page 1:

3. If you are an out-of-state contractor, who is your Colorado registered agent?

Name: Phone #

Address:

4. List your business partner(s), member(s) or associates(s) who have held a financial interest with you in the last 5 years.

Name	Name

5. How many years has your company been in the contracting business?

General contracting? Subcontracting?

6. List the construction experience of the principle individuals who work for you. Use additional pages if necessary.

OR, ☐ CHECK HERE if entire list is attached, and marked as Attachment (example; "Attachment A")

Name	Present Position	Years experience	Magnitude and type of work	In what capacity

7. List the projects you completed in the last 5 years **for the City of Grand Junction**. If none, write "none" in a space below. Use additional pages if necessary.

OR, ☐ CHECK HERE if entire list is attached, and marked as Attachment (example; "Attachment A")

Year	Type of work	Employer name	Contract Amt.	Work location (City, state)	Contact Name	Contact Phone #

8. List other projects you completed in the last 3 years. Include any projects completed for Mesa County or the State of Colorado. If you plan to bid on a specific upcoming project, be sure to include projects you've completed that are of a nature similar to the upcoming project. Use additional pages if necessary.

OR, ☐ CHECK HERE if entire list is attached, and marked as Attachment (example; "Attachment A")

Year	Type of work	Employer name	Contract Amt.	Work location (City, state)	Contact Name	Contact Phone #

9. Attach a list of your construction equipment (include the quantity, name, description and capacity).

10. Attach a list of your parent, affiliate or subsidiary companies (include relationship, percentage of ownership and principals).

11. Has your company, its parent, affiliate or subsidiary been denied prequalification in the past 5 years by any governmental agency in Colorado or any other state?

☐ no ☐ yes (attach explanation)

12. Have you ever failed to complete, or has it been alleged that you have not completed, any contract awarded to you?

☐ no ☐ yes (attach statement with date, work location and reason)

13. Has any surety ever paid any payment or performance bond claim of any kind on your behalf? On behalf of your company?

Attach a confirmation letter from your surety/bonding company stating single and aggregate limits.

☐ no ☐ yes

14. Have any of your officers or partners failed to complete a contract while working for another company or managing a contract under their own name.

☐ no ☐ yes (attach statement with employee name, company name and reason)

15. Has any officer in your company, its parent, affiliate or subsidiary been indicted/convicted of bid/contract-related violations in the last five years?

☐ no ☐ yes (attach explanation)

16. Does your company have financial interests in other businesses?

☐ no ☐ yes (attach a list of the businesses)

17. Is your company owned or controlled by minorities or women? ☐ no ☐ yes

- If "yes" – is your company certified by the Department of Regulatory Agencies? ☐ no ☐ yes

- If "no" – are you or will you be applying for certification? ☐ no ☐ yes

18. Has your company been cited by OSHA in the past five years? ☐ no ☐ yes

- Do you have a current health and safety plan? ☐ no ☐ yes

- When was it last updated? _____

- What is your current Experience Modifier? _____ (Above 1.60 requires Risk Manager review).

19. Attach a Certificate of Insurance for General Liability, Auto, and Workers Compensation. (If awarded contract, the City of Grand Junction must be included on your coverage as an Additional Insured by Endorsement.)

SECTION TWO – EXPERIENCE AND EQUIPMENT

CONSTRUCTION TYPE – Indicate the work your company performs using the equipment you own.

1		GENERAL CONSTRUCTION	Ability to mobilize and undertake work of any type and magnitude.
2.		GRADING (GENERAL)	Roadway excavation and embankment of any magnitude.
3.		LIGHT GRADING	Substantially less in scope than general grading category; minor widening reconstruction; blading, structure excavation, etc.
4.		AGGREGATES	Commercial-scale gravel producing operation.
5.		PAVING (GENERAL)	Bituminous or Portland cement concrete paving of any magnitude.
6		BITUMINOUS CONCRETE	Hot bituminous pavement production and/or replacement.
7		SEAL COAT	Chip seal (plant or road mix) and related work.
8.		PORTLAND CEMENT CONCRETE	Portland cement concrete pavement production and/or placement.
9.		STRUCTURES (GENERAL)	Highway structures of any magnitude and level of complexity.
10.		SMALL BRIDGES	Steel, up to 80 ft. span (typical); concrete up to 50 ft. span (typical), bridge deck rehabilitation; all other lesser structures.
11.		MINOR STRUCTURES	Minor drainage up to 20 ft. span (typical), etc.

INCIDENTAL – Check only if work of this type is normally performed with your own forces.

12		CURB, GUTTER, FLATWORK	Curb, gutter, bikeway, median cover, slope paving, etc.
13.		FENCING	Standard highway fencing (wire, chain link, etc.); noise barrier fence; delineation.
14.		GUARD RAIL	Standard guard rail; concrete barrier; bridge rail; impact attenuator.
15.		LANDSCAPING	Seeding, sodding, topsoil, planting, fertilizing, mulching, etc.
16.		PAVEMENT MARKING	Painted and/or thermoplastic pavement markings.
17.	☐	CONSTRUCTION TRAFFIC CONTROL	Flagging, traffic control supervision, and/or construction traffic devices.

SPECIALTY – Check only if you are a likely bidder on projects consisting of this work type

18.		PAVEMENT REPAIR	Pavement sawing, joint repair, mud-jacking, pressure grouting, milling, etc.
19.		STRUCTURE REPAIR	Miscellaneous structural component repair; pier caps, bearing devices, expansion devices, girders, bridge rail, etc.
20.		ELECTRICAL, SIGNALS	Lighting, wiring, signalization, traffic monitoring devices, etc.
21.		BUILDING CONSTRUCTION	Rest areas, ports of entry, miscellaneous building-related construction.
22.		WATERLINE	Water lines, taps, and fittings; miscellaneous underground utility relocations.
23.		SPRINKLER SYSTEM	Installation, adjustment, and repair of landscape irrigation systems.
24.	☐	SEWERS OR STORM DRAINS	Gravity pipe systems, including all appurtenances.

25. OTHER (list)

SECTION THREE – FINANCIAL STATEMENT

If you intend to bid on contracts: (1) greater than $500,000, skip this section, attach a reviewed financial statement; or (2) greater than $2,000,000, skip this section, attach an audited financial statement and go to SECTION FOUR – CERTIFICATION.

Instructions: In writing, answer the following and attach required documents including a compilation opinion signed by the CFO, controller or financial officer.

1. A summary describing the accounting methods you used to:

   a. Compute profit on jobs in progress. Describe whether the profits are based on a complete contract or on a percentage of completion.

      - If based on a percentage of completion, describe the method used to measure progress (total estimated cost to date, estimate of total hours of labor to date, etc.).

   b. Compute income tax if you used a method different from the method used on the financial statement.

   c. Determine the inventory value.

   d. Depreciate and/or amortize your property, plant and equipment (include the depreciation/amortization period).

2. A general banking/financial reference statement.

3. A description of all your outstanding loans and notes payable including:

   - Loan amounts
   - Repayment terms
   - Interest rate
   - Collateral (if any)

4. A description of your commitments and contingent liabilities such as:

   - long-term, non-cancelable leases.
   - purchase orders for large equipment leases
   - unsettled lawsuits and claims, with case numbers and court/jurisdiction

5. A description of your transactions with related parties including:

   - the business purpose of the transaction
   - the nature of the relationship
   - any special or unusual payment terms
   - the volume of the transactions

Confidential

FINANCIAL BALANCE SHEET – AS OF (date) _____

- Add line items, if necessary, under the appropriate caption.

ASSETS

CURRENT ASSETS		
Cash and Short-Term Investments		
Marketable Securities at Cost		
Accounts Receivable:		
Current Billings on Contracts		
Retention on Contracts		
Current Portion of Notes Receivable		
Other Receivables		
Less: Allowance for Doubtful Accounts		
Net Receivables		
Equity and Advances to Joint Ventures		
Costs and Estimated Earnings in Excess of		
Billings on contracts		
Or		
Costs in Excess of Billings on Contracts		
Inventory		
Prepaid Expenses		
Other Current Assets		
TOTAL CURRENT ASSETS		
OTHER ASSETS		
Due from Officers and Employees		
Investments in and Advances to Affiliated Companies		
Cash Value of Life Insurance		
Less Policy Loans of		
Other		
TOTAL OTHER ASSETS		
PROPERTY, PLANT AND EQUIPMENT		
Plant		
Buildings		
Equipment		
Less: Accumulated Depreciation		
TOTAL		
Land		
TOTAL PROPERTY, PLANT AND EQUIPMENT		
TOTAL ASSETS		

Confidential

Add line items, if necessary, under the appropriate caption.

LIABILITIES

CURRENT LIABILITIES

Accounts Payable		
Trade		
Due Subcontractors - Current		
Due Subcontractors - Retention		
TOTAL		
Notes Payable and Current Maturities of		
Long Term Debt		
Current Portion of Accounts Payable		
Billings in Excess of Costs and		
Estimated Earnings on Contracts		
OR		
Billings in Excess of Costs on Contracts		
Advance Payments on Contracts		
Accrued Expenses		
Accrued Income Taxes		
Other Current Liabilities (describe)		
TOTAL CURRENT LIABILITIES		
DEFERRED INCOME TAXES - NONCURRENT		
LONG-TERM DEBT LESS CURRENT MATURITIES		
OTHER (describe)		
CONTINGENT LIABILITIES (see note / attach explanation)		
TOTAL LIABILITIES		
STOCKHOLDERS/OWNERS EQUITY (or NET WORTH)		
Individual or Partnership Capital		
Preferred Stock, _____Par Value, _____		
Shares, Authorized, _____Shares _____		
Issued and Outstanding		
Common Stock, _____Par Value, _____		
Shares, Authorized, _____Shares _____		
Issued and Outstanding Additional Paid in Capital		
Retained Earnings		
Less Cost of _____Shares of Treasury Stock		
TOTAL STOCKHOLDERS/OWNERS EQUITY		
TOTAL LIABILITIES AND STOCKHOLDERS/OWNERS EQUITY		

Confidential

SECTION FOUR – CERTIFICATION

- **NOTE: You must sign exactly as bid proposals and contracts will be signed**

I / WE CERTIFY AND UNDERSTAND:

- That the financial documents were prepared from the books and records of my/our company and details all company assets and liabilities.
- That any changes in my/our financial condition requires me/us to refrain from bidding until I/we submit an updated financial statement and the statement is approved by the City Engineer.
- Any reference listed is authorized to supply the City Engineer with all necessary information to verify this statement.
- That my surety/bonding agent is now and will continue to be rated "A" or better by Am Best.
- That my surety/bonding agent is listed on Circular 570 as an acceptable surety for federal projects.
- That my company is insured for workers compensation and no less than $1 million general liability.
- That my company is duly licensed (contractors license, sales/use tax, etc.) and that all required licenses are current and in good standing.

President Name and signature	Date
Vice-President name and signature	
Secretary name and signature	
Treasurer name and signature	
Co-partner signature and title (if applicable)	
Co-partner signature and title (if applicable)	
Co-partner signature and title (if applicable)	

IF YOU ARE A COPORATION, PLEASE AFFIX YOUR COMPANY SEAL

CITY OF Grand Junction COLORADO

Purchasing Division

ADDENDUM NO. 1

DATE: March 1, 2021
FROM: City of Grand Junction Purchasing Division
TO: All Offerors
RE: Grand Junction Fire Department Fire Station #3 Construction IFB-4889-21-DH

Offerors responding to the above referenced solicitation are hereby instructed that the requirements have been clarified, modified, superseded and supplemented as to this date as hereinafter described.

Please make note of the following clarifications:

1. Q. Is there a separate bid for signage, decals, wayfinding solutions for the building or is that going to be done by the GC selected for the build? If signage is available for bid, when will that RFP be issued?

A. All signage will be the responsibility of the awarded General Contractor.

2. Q. Is there any consideration for minority owned, underutilized businesses, veteran owned business set asides for this or other projects in Grand junction?

A. The City of Grand Junction does not give bidding preferences to minority owned, underutilized businesses, veteran owned businesses. Bidding opportunities are open and the same to all.

3. For clarification, the Pre-Qualification Application required for this project must be e-mailed to Duane Hoff Jr., Senior Buyer duaneh@gjcity.org for acceptance and processing. The application itself states to return to Gail Howe, and this is incorrect.

4. Section 3.3.19 – Quality control Testing shall be modified/clarified as follows:

The supplier shall be responsible for all Quality Control Testing of materials, such as the Concrete and Asphalt. The City will provide all Quality Assurance testing and Special Inspections in accordance with the Mesa County Building Permit. If the Contractor chooses not to perform Quality Control Testing, he shall abide by the results of the Quality Assurance testing.

The original solicitation for the project noted above is amended as noted.

All other conditions of subject remain the same.

Respectfully,

Duane Hoff Jr., Senior Buyer
City of Grand Junction, Colorado

CITY OF Grand Junction COLORADO

Purchasing Division

ADDENDUM NO. 2

DATE: **March 1, 2021**
FROM: **City of Grand Junction Purchasing Division**
TO: **All Offerors**
RE: **Grand Junction Fire Department Fire Station #3 Construction IFB-4889-21-DH**

Offerors responding to the above referenced solicitation are hereby instructed that the requirements have been clarified, modified, superseded and supplemented as to this date as hereinafter described.

Please make note of the following clarifications:

1. Please see attached sheets M3-1 and E3-3 have been modified/updated.

The original solicitation for the project noted above is amended as noted.

All other conditions of subject remain the same.

Respectfully,

Duane Hoff Jr., Senior Buyer
City of Grand Junction, Colorado

GRILLE-REGISTER-DIFFUSER SCHEDULE

TYPE MARK	SIZE	FINISH	MANUFACTURER	MODEL #	NOTES
EA-1	12"X12"	COLOR BY OWNER/ARCH	PRICE	500	NOTE-1
RA-1	PER PLANS	COLOR BY OWNER/ARCH	PRICE	LBP	NOTE-2
RA-2	PER PLANS	COLOR BY OWNER/ARCH	PRICE	500	NOTE-3
RA-3	PER PLANS	COLOR BY OWNER/ARCH	PRICE	LBPH	NOTE-2
SA-1	12"X12"	COLOR BY OWNER/ARCH	PRICE	SPD	NOTE-4
SA-2	24"X24"	COLOR BY OWNER/ARCH	PRICE	SPD	NOTE-4
SA-3		COLOR BY OWNER/ARCH	PRICE	SPD	
SA-4	18"X12"	COLOR BY OWNER/ARCH	PRICE	600	NOTE-5
SA-5	12"X12"	COLOR BY OWNER/ARCH	PRICE	SCD	NOTE-5
SA-6	30"X30"	COLOR BY OWNER/ARCH	PRICE	SPD	NOTE-5
TA-1	24"X12"	COLOR BY OWNER/ARCH	PRICE	500	NOTE-6
TA-2	8"X8"	COLOR BY OWNER/ARCH	PRICE	500	NOTE-7

NOTES:
1. CEILING MOUNTED EXHAUST GRILLE. COORDINATE MOUNTING WITH CEILING TYPES. FEILD COORDINATE EXACT LOCATION OF GRILLE IN SPACE. FINAL COLOR SELCTION BY OWNER/ARCHITECT
2. FLOOR MOUNTED RETURN GRILLE. COORDINATE MOUITING WITH FLOOR SPACES.
3. WALL MOUNTED RETURN GRILLE. COORDINATE MOUTING WITH WALL ASSEMBLY.
4. CEILING MOUNTED SUPPLY DIFFUSER. COORDINATE MOUNTING WITH CEILING TYPES. PROVIDE WITH MANUAL VOLUME DAMPER. FINAL COLOR BY OWNER/ARCHITECT.
5. DUCT MOUNTED SUPPLY GRILLE. PROVIDE WITH MANUAL VOLUME DAMPER.
6. WALL MOUNTED TRANSFER GRILLE. COORDINATE MOUNTING WITH WALL ASSEMBLY
7. CEILING MOUNTED TRANSFER GRILLE. PROVIDE WITH OPPOSED BLADE DAMPER.

ENERGY RECOVERY VENTILATOR SCHEDULE

TYPE MARK	SERVICE	LOCATION	SUPPLY FAN								EXHAUST FAN						ELECTRICAL		MANUFACTURER	MODEL #	OPTIONS/ ACCESSORIES
			AIRFLOW (CFM)	E.S.P.	MOTOR HP	TYPE	VOLTS	PHASE	FREQUENCY	E.S.P. (IN. W.G.)	AIRFLOW (CFM)	MOTOR HP	TYPE	VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)			
ERV-1	VENTALATION	MECHANICAL ROOM	938	.08	0.5	ECM	230	1	60 Hz	0.8	938	0.5	ECM	230 V	1	60 Hz	11 A	15 A	SOLER&PALUA	TRCE800-230	NOTE-1

NOTES:
1. PROVIDE WITH VIBRATION ISOLATION CEILING HANGERS, FLEXIBLE DUCT CONNECTIONS, ECM MOTOR SPEED CONTROLER, MERV 8 FILTERS, AND HINGED ACESS DOORS.

GAS FURNACE SCHEDULE

MARK	SERVICE	SUPPLY AIRFLOW (CFM)	OUTSIDE AIRFLOW (CFM)	SUPPLY E.S.P. (IN. W.G.)	NOM. COOLING CAPACITY (MBH)	HEATING				SUPPLY FAN MOTOR POWER	ELECTRICAL					MANUFACTURER	MODEL #	NOTES
						GAS FLOW RATE (CFH)	INPUT (MBH)	OUTPUT (MBH)	A.F.U.E. EFF.		VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)			
GF-1	KITCHEN,LIVING, DINING, OFFICES	1750	-	0.9	36	90.5	80	77	96	1	120 V	1	60 Hz	14 A	15 A	TRANE	4TXCD10DS3	NOTE-1
GF-2	BUNK ROOMS & ADJACENT	1150	-	0.9	22.5	67.9	60	58.2	96	3/4	120 V	1	60 Hz	8 A	15 A	TRANE	4PXCBU36BS3	NOTE-1

NOTES:
1. UPFLOW/DOWNFLOW GAS FURNACE. PROVIDE WITH VIBRATION ISOLATION, FLEXIBLE DUCT CONNECTIONS, EVAPORATOR DEFROST CONTROLS, CONCENTRIC VENT KIT, HIGH ALTITUDE KIT SIZED FOR LOCAL ELEVATION, DX COOLING COIL, THERMOSTATS, TOUCHSCREEN PROGRAMABLE CONTROLLER.

GAS FIRED INFARED HEATER SCHEDULE

MARK	SERVICE	LENGTH	HEATING			GAS PIPE CONNECTION SIZE	VENT OUTLET SIZE	AIR INLET SIZE	ELECTRICAL						MANUFACTURER	MODEL #	OPTIONS/ ACCESSORIES
			GAS FLOW RATE (CFH)	INPUT (MBH)	OUTPUT (MBH)				VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)	MOTOR HP			
IR-1	APPARATUS BAY	20' - 0"	67.9	60	49	1/2	4"	4"	120 V	1	60 Hz	1 A	2 A	-	SUPERIOR RADIANT PRODUCTS	UA-60	NOTE-1
IR-2	APPARATUS BAY	20' - 0"	67.9	60	49	1/2	4"	4"	120 V	1	60 Hz	1 A	2 A	-	SUPERIOR RADIANT PRODUCTS	UA-60	NOTE-1
IR-3	APPARATUS BAY	20' - 0"	67.9	60	49	1/2	4"	4"	120 V	1	60 Hz	1 A	2 A	-	SUPERIOR RADIANT PRODUCTS	UA-60	NOTE-1
IR-4	APPARATUS BAY	20' - 0"	67.9	60	49	1/2	4"	4"	120 V	1	60 Hz	1 A	2 A	-	SUPERIOR RADIANT PRODUCTS	UA-60	NOTE-1

NOTES:
1. PROVIDE WITH THERMOSTAT, HEAT SHIELD, COMBUSTION AIR AND GAS FLUES ROUTED TO ROOF, AND CEILING HANGERS AND SISMEC SUPPORTS AS REQUIRED BY I.B.C.

FAN COIL SCHEDULE

TYPE MARK	SERVICE	SUPPLY AIRFLOW (CFM)	SUPPLY E.S.P. (IN. W.G.)	NOM. COOLING (BTU/H)	NOM. HEATING	FILTERS	SUPPLY FAN MOTOR POWER	ELECTRICAL					UNIT WEIGHT	MANUFACTURER	MODEL #	OPTIONS/ ACCESSORIES
								VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)				
FC-1	OUTSIDE AIR	650	-	-	5 KW	2" MERV 8	1/6	208 V	3	60 Hz	14.90 A	20 A	118.00 lb	MARKEL	F3G7205	NOTE-1
FC-2	FITNESS	413	-	12000	13500 BTU/H	-	-	230 V	2	60 Hz	0.38 A	15 A	29.00 lb	TRANE/MITSUBISHI ELECTRIC	TPKFYP012HM142A	NOTE-2
FC-3	BUNKER GEAR	413	-	15000	17000 BTU/H	-	-	230 V	1	60 Hz	0.38 A	15 A	29.00 lb	TRANE/MITSUBISHI ELECTRIC	TPKFYP015HM142A	NOTE-2
FC-4	SHOP	413	-	15000	17000 BTU/H	-	-	230 V	1	60 Hz	0.38 A	15 A	29.00 lb	TRANE/MITSUBISHI ELECTRIC	TPKFYP015HM142A	NOTE-2
FC-5	KITCHEN MAKE-UP-AIR	900	.5	35000	-	2" MERV 8	1	208 V	1	60 Hz	9.66 A	15 A	230.90 lb	TRANE	BCVD036B1	NOTE-3

NOTES:
1. PROVIDE WITH SINGLE STAGE THERMOSTAT, ACCESS PANELS ON BOTH SIDES OF UNIT, HANGER KIT WITH VIBRATION ISOLATION, FLEXIBLE DUCT CONNECTIONS.
2. WALL MOUNTED UNIT, PROVIDE WITH REMOTE THERMOSTAT, CONDENSATE PUMP, VARIABLE SPEED FAN, REMOVEABLE INTAKE GRILLE FILTER.
3. FLOOR MOUNTED UNIT, PROVIDE WITH ECM MOTOR, DRAINPAN, REMOTE THREMOSTAT, FLEXIBLE DUCT CONNECTIONS, REFRIGERENT PIPING ROUTED PER MANUFACTURES SPECIFICATIONS.

EXHAUST FAN SCHEDULE

TYPE MARK	SERVICE	LOCATION	AIRFLOW (CFM)	EXHAUST FAN MOTOR POWER	EXHAUST FAN SPEED (RPM)	MOTOR		ELECTRICAL FREQUENCY	MANUFACTURER	MODEL #	NOTES
						VOLTS	PHASE				
EF-1	KITCHEN HOOD	ROOF	900	1/3 HP	1750	115 V	1	60 Hz	S&P USA	STXDE10	NOTE-1
EF-2	BUNKER GEAR	CEILING	195	1/6 HP	740	115 V	1	60 Hz	S&P USA	FF200S	NOTE-2
EF-3	SHOP	CEILING	300	1/5 HP	648	115 V	1	60 Hz	S&P USA	FF400S	NOTE-2
EF-4	STAIR TOWER	CEILING	500	2/3 HP	955	115 V	1	60 Hz	S&P USA	FF1500S	NOTE-2
EF-5	CRAWL SPACE	INLINE	90	75 W	-	115 V	1	60 Hz	FANTECH	FG 4XL	NOTE-3
VEF1,2,3,4	APPARATUS BAYS	CEILING SUSPENDED	-	3/4 HP		120 V	1	60 Hz	AIRVAC	AIRVAC 911 ENGINE EXHAUST REMOVAL	NOTE-4

NOTES:
1. ROOF MOUNTED FAN FOR KITCHEN HOOD. PROVIDE WITH ROOF CURB, SPEED CONTROL, BIRD SCREEN, MOTORIZED BACKDRAFT DAMPER
2. PROVIDE WITH SPEED CONTROL, VIBRATION ISOLATION, CEILING GRILLE, BACKDRAFT DAMPER, 1/2" ACOUSTIC INSULATION
3. INLINE FAN, PROVIDE WITH SPEED CONTOLLER, THERMNAL OVERLOAD PROTECTION, MOUNTING BRACKET, ROUND DUCT CONNECTIONS.
4. PROVIDE WITH CEILING SUSPENSION, SEISMIC BRACING. VEHICLE EXHAUST VENTILATORS TO BE ACTIVATED BY SENSORS MOUNTED AT BAY DOORS.

SPLIT SYSTEM EQUIPMENT SCHEDULE

TYPE MARK	SERVICE	NOM. COOLING CAPACITY (BTU/HR)	NOM. HEATING CAPACITY (BTU/HR)	SUPPLY AIRFLOW (CFM)	EER EFF.	REFRIGERANT PIPING		ELECTRICAL				MANUFACTURER	MODEL #	OPTIONS/ ACCESSORIES
						LIQUID	VAPOR	VOLTS	PHASE	FREQUENCY	MCA (A)			
CU-4	IT ROOM	12000	-	-	12	1/4"	1/2"	208 V	1	60 Hz	11 A	MITSUBISHI ELECTRIC	PUY-A12NKA7	NOTE-1
SS-1	IT ROOM	12000	-	425	-	1/4"	1/2"	208 V	1	60 Hz	1 A	MITSUBISHI ELECTRIC	PKA-A12HA77	NOTE-2

NOTES:
1. LOW AMBIENT COOLING, VARIABLE SPEED INVERTER, ROUTE REFRIGERENT PER MANUFACTURERS INSTRUCTIONS.
2. WALL MOUNTED UNIT, PROVIDE WITH REMOTE THERMOSTAT, CONDENSATE PUMP, VARIABLE SPEED FAN, REMOVEABLE INTAKE GRILLE FILTER.

HEAT PUMP CONDENSING UNIT SCHEDULE

TYPE MARK	SERVICE	NOM. COOLING CAPACITY (TONS)	NOM. HEATING CAPACITY	REFRIG. PIPING SIZE LIQUID	REFRIG. PIPING SIZE VAPOR	ELECTRICAL					MANUFACTURER	MODEL #	OPTIONS/ ACCESSORIES
						VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)			
HP-1	FC-2,3,4	3 TONS	42 MBH	3/8"	5/8"	230 V	1	60 Hz	29 A	44 A	TRANE/MITSUBISHI ELECTRIC	TUMYP0361AK42	NOTE-1

NOTES:
1. LOW AMBIENT COOLING, VARIABLE SPEED INVERTER, ROUTE REFRIGERENT PER MANUFACTURERS INSTRUCTIONS. PROVIDE WITH 18" STAND, HEATED PAD,

AIR COOLED CONDENSING UNIT

TYPE MARK	SERVICE	NOM. COOLING CAPACITY (TONS)	REFRIGERANT PIPING		ELECTRICAL					MANUFACTURER	MODEL #	OPTIONS/ ACCESSORIES
			LIQUID	VAPOR	VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)			
CU-1	GF-1	4 TONS	3/8"	7/8"	230 V	1	60 Hz	28 A	45 A	TRANE	4TTR7048B	NOTE-1
CU-2	GF-2	3 TONS	3/8"	3/4"	230 V	1	60 Hz	24 A	35 A	TRANE	4TTR7036A	NOTE-1
CU-3	FC-5	3 TONS	3/8"	3/4"	230 V	1	60 Hz	24 A	35 A	TRANE	4TTR7036A	NOTE-2

NOTES:
1. PROVIDE WITH DEFROST CONTROLS AND SEQUENCES, HOUSEKEEPING PAD, LOW AMBIANT COOLING, REFRIGERENT PIPE TO BE ROUTED PER MANUFACTURES INSTRUCTION. TIE IN CONTROLS TO RESPECTIVE GAS FURNACE.
2. PROVIDE WITH DEFROST CONTROLS AND SEQUENCES, HOUSEKEEPING PAD, LOW AMBIANT COOLING, REFRIGERENT PIPE TO BE ROUTED PER MANUFACTURES INSTRUCTION.

EVAPORATIVE COOLER SCHEDULE

MARK	SUPPLY AIRFLOW (CFM)	SUPPLY E.S.P.	ELECTRICAL			MOTOR HP	MANUFACTURER	MODEL #	OPTIONS/ ACCESSORIES
			VOLTS	PHASE	FREQUENCY				
EC-1	3600	.4	120 V	1	60 Hz	1	PHOENIX	PH6802C	NOTE-1
EC-2	3600	.4	120 V	1	60 Hz	1	PHOENIX	PH6802C	NOTE-1

NOTES:
1. PROVIDE THERMOSTAT, VIBRATION ISOLATION HANGERS, SEISMIC BRACING, FLEXIBLE DUCT CONNECTION, INTERLOCK TO MOTORIZED DAMPERS ON INTAKE AND EXHASUT LOUVERS.

LOUVER SCHEDULES

TYPE MARK	SERVICE	DIMENSIONS	FINISH	MANUFACTURER	MODEL #	NOTES
LV-1	INTAKE	SEE PLANS	BY OWNER/ARCHITECT	RUSKIN	ELF6375DX	NOTE-1
LV-2	EXHAUST	SEE PLANS	BY OWNER/ARCHITECT	RUSKIN	ELF6375DX	NOTE-2
LV-3	INTAKE	SEE PLANS	BY OWNER/ARCHITECT	RUSKIN	ELF6375DX	NOTE-1
LV-4	INTAKE	SEE PLANS	BY OWNER/ARCHITECT	RUSKIN	ELF6375DX	NOTE-1
LV-5	EXHAUST	SEE PLANS	BY OWNER/ARCHITECT	RUSKIN	ELF6375DX	NOTE-2
LV-6	BLOCKED/NO AIR FLOW	SEE PLANS	BY OWNER/ARCHITECT	RUSKIN	ELF6375DX	NOTE-3

NOTES:
1. PROVIDE WITH WALL FRAME COORDINATED WITH WALL ASSEMBLIES, MOTORIZED DAMPER, BIRD SCREEN, FINAL COLOR SELECTION BY OWNER/ARCHITECT.
2. PROVIDE WITH WALL FRAME COORDINATED WITH WALL ASSEMBLIES, MOTORIZED BACKDRAFT DAMPER, BIRD SCREEN, FINAL COLOR SELECTION BY OWNER/ARCHITECT.
3. LOUVER PROVIDED AS DECORATIVE FIXTURE. PROVIDE WITH SHEET METAL COVER ON INSIDE, INSULATION BY GC.

BG+ co.
Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office
BLYTHE GROUP + co.

Bighorn Consulting Engineers, Inc.
Mechanical & Electrical Engineers
386 Indian Road
Grand Junction, CO 81501
Phone (970) 241-8709
101 W 11th Street #109-C
Durango, CO 81301
Phone: (970) 422-7676

GRAND JUNCTION FIRE DEPARTMENT - FIRE STATION #3

580 25 1/2 RD GRAND JUNCTION, COLORADO 81505

MECHANICAL - SCHEDULES

FOR CONSTRUCTION

REV. DESC. DATE:

DATE: 2-25-2021

PROJECT #: 20-213

SHEET #:

M3-1

Project Team: BCE
Print Date: 2/26/2021 9:58:49 AM

POWER FOR ENERGY RECOVERY VENTILATOR SCHEDULE

TYPE MARK	SERVICE	LOCATION	SUPPLY FAN					EXHAUST FAN					ELECTRICAL		MANUFACTURER	MODEL #	Panel	Circuit Number
			MOTOR HP	TYPE	VOLTS	PHASE	FREQUENCY	MOTOR HP	TYPE	VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)				
ERV-1	VENTALATION	MECHANICAL ROOM	0.5	ECM	230	1	60 Hz	0.5	ECM	230 V	1	60 Hz	11 A	15 A	SOLER&PALUA	TRCE800-230	MP	12,14

POWER FOR FAN COIL SCHEDULE

TYPE MARK	SERVICE	NOM. COOLING (BTU/H)	NOM. HEATING	SUPPLY FAN MOTOR POWER	ELECTRICAL					UNIT WEIGHT	MANUFACTURER	MODEL #	Panel	Circuit Number
					VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)					
FC-1	OUTSIDE AIR	-	5 KW	1/6	208 V	3	60 Hz	14.90 A	20 A	118.00 lb	MARKEL	F3G720S	PP3	22,24,26
FC-2	FITNESS	12000	13500 BTUH	-	230 V	2	60 Hz	0.38 A	15 A	29.00 lb	TRANE/MITSUBISHI ELECTRIC	TPKFYP012HM142A	PP3	28,30
FC-3	BUNKER GEAR	15000	17000 BTUH	-	230 V	1	60 Hz	0.38 A	15 A	29.00 lb	TRANE/MITSUBISHI ELECTRIC	TPKFYP015HM142A	PP3	29,31
FC-4	SHOP	15000	17000 BTUH	-	230 V	1	60 Hz	0.38 A	15 A	29.00 lb	TRANE/MITSUBISHI ELECTRIC	TPKFYP015HM142A	PP3	32,34
FC-5	KITCHEN MAKE-UP-AIR	35000	-	1	208 V	1	60 Hz	9.66 A	15 A	230.90 lb	TRANE	BCVD036B1	MP	26,28

POWER FOR EXHAUST FAN SCHEDULE

TYPE MARK	SERVICE	LOCATION	EXHAUST FAN MOTOR POWER	MOTOR		ELECTRICAL FREQUENCY	MANUFACTURER	MODEL #	Panel	Circuit Number
				EXHAUST FAN SPEED (RPM)	VOLTS	PHASE				
EF-1	KITCHEN HOOD	ROOF	1/3 HP	1750	115 V	1	60 Hz	S&P USA	ST/DE10	MP	16
EF-2	BUNKER GEAR	CEILING	1/6 HP	740	115 V	1	60 Hz	S&P USA	FF200S	PP3	37
EF-3	SHOP	CEILING	1/5 HP	648	115 V	1	60 Hz	S&P USA	FF400S	PP3	39
EF-4	STAIR TOWER	CEILING	2/3 HP	955	115 V	1	60 Hz	S&P USA	FF1500S	PP3	40
EF-5	CRAWL SPACE	INLINE	75 W	-	115 V	1	60 Hz	FANTECH	FG 4XL	MP	17
VEF1,2,3,4	APPARATUS BAYS	CEILING SUSPENDED	3/4 HP		120 V	1	60 Hz	AIRVAC	AIRVAC 911 ENGINE EXHAUST REMOVAL	MP	20
VEF1,2,3,4	APPARATUS BAYS	CEILING SUSPENDED	3/4 HP		120 V	1	60 Hz	AIRVAC	AIRVAC 911 ENGINE EXHAUST REMOVAL	MP	2
VEF1,2,3,4	APPARATUS BAYS	CEILING SUSPENDED	3/4 HP		120 V	1	60 Hz	AIRVAC	AIRVAC 911 ENGINE EXHAUST REMOVAL	MP	18
VEF1,2,3,4	APPARATUS BAYS	CEILING SUSPENDED	3/4 HP		120 V	1	60 Hz	AIRVAC	AIRVAC 911 ENGINE EXHAUST REMOVAL	MP	19

POWER FOR GAS FURNACE SCHEDULE

MARK	SERVICE	NOM. COOLING CAPACITY (MBH)	SUPPLY FAN MOTOR POWER	ELECTRICAL					MANUFACTURER	MODEL #	Panel	Circuit Number
				VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)				
GF-1	KITCHEN,LIVING, DINING, OFFICES	36	1	120 V	1	60 Hz	14 A	15 A	TRANE	4TXCD10DS3	MP	13
GF-2	BUNK ROOMS & ADJACENT	22.5	3/4	120 V	1	60 Hz	8 A	15 A	TRANE	4PXCBU36BS3	MP	15

POWER FOR AIR CONDITIONING EQUIPMENT SCHEDULE

TYPE MARK	SERVICE	NOM. COOLING CAPACITY (BTU/HR)	NOM. HEATING CAPACITY (BTU/HR)	ELECTRICAL				MANUFACTURER	MODEL #	Panel	Circuit Number	POWERED FROM
				VOLTS	PHASE	FREQUENCY	MCA (A)					
CU-4	IT ROOM	12000	-	208 V	1	60 Hz	11 A	MITSUBISHI ELECTRIC	PUY-A12NKA7	MP	9,11	
SS-1	IT ROOM	12000	-	208 V	1	60 Hz	1 A	MITSUBISHI ELECTRIC	PKA-A12HA77			CU-4 POWERS UNIT

POWER FOR GAS FIRED INFARED HEATER SCHEDULE

MARK	SERVICE	ELECTRICAL						MANUFACTURER	MODEL #	Panel	Circuit Number
		VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)	MOTOR HP				
IR-1	APPARATUS BAY	120 V	1	60 Hz	1 A	2 A	-	SUPERIOR RADIANT PRODUCTS	UA-60	PP2	11
IR-2	APPARATUS BAY	120 V	1	60 Hz	1 A	2 A	-	SUPERIOR RADIANT PRODUCTS	UA-60	PP2	9
IR-3	APPARATUS BAY	120 V	1	60 Hz	1 A	2 A	-	SUPERIOR RADIANT PRODUCTS	UA-60	PP2	11
IR-4	APPARATUS BAY	120 V	1	60 Hz	1 A	2 A	-	SUPERIOR RADIANT PRODUCTS	UA-60	PP2	14

POWER FOR AIR COOLED CONDENSING UNIT

TYPE MARK	SERVICE	NOM. COOLING CAPACITY (TONS)	ELECTRICAL					MANUFACTURER	MODEL #	Panel	Circuit Number
			VOLTS	PHASE	FREQUENCY	MCA (A)	MOCP (A)				
CU-1	GF-1	4 TONS	230 V	1	60 Hz	28 A	45 A	TRANE	4TTR7048B	MP	4,6
CU-2	GF-2	3 TONS	230 V	1	60 Hz	24 A	35 A	TRANE	4TTR7036A	MP	8,10
CU-3	FC-5	3 TONS	230 V	1	60 Hz	24 A	35 A	TRANE	4TTR7036A	MP	5,7

POWER FOR EVAPORATIVE COOLER SCHEDULE

MARK	ELECTRICAL			MOTOR HP	MANUFACTURER	MODEL #	Panel	Circuit Number
	VOLTS	PHASE	FREQUENCY					
EC-1	120 V	1	60 Hz	1	PHOENIX	PH6802C	MP	1
EC-2	120 V	1	60 Hz	1	PHOENIX	PH6802C	MP	3

BG+co.

Architecture
Interior Design
Project Management

622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office

BLYTHE GROUP + co.

Bighorn Consulting Engineers, Inc.
Mechanical & Electrical Engineers

386 Indian Road
Grand Junction, CO 81501
Phone (970) 241-8709

101 W 11th Street #109-C
Durango, CO 81301
Phone: (970) 422-7676

GRAND JUNCTION FIRE DEPARTMENT - FIRE STATION #3

580 25 1/2 RD GRAND JUNCTION, COLORADO 81505

EQUIPMENT SCHEDULES

FOR CONSTRUCTION

REV. DESC. DATE:

DATE: 2-25-2021

PROJECT #: 20-213

SHEET #:

E3-3

Project Team: BCE
Print Date: 2/26/2021 9:58:28 AM

CITY OF Grand Junction COLORADO

Purchasing Division

ADDENDUM NO. 3

DATE: March 8, 2021
FROM: City of Grand Junction Purchasing Division
TO: All Offerors
RE: Grand Junction Fire Department Fire Station #3 Construction IFB-4889-21-DH

Offerors responding to the above referenced solicitation are hereby instructed that the requirements have been clarified, modified, superseded and supplemented as to this date as hereinafter described.

Please make note of the following clarifications:

1. Q. There is a ¾ peb rainbird valve listed. Rainbird does not make a ¾ -peb and I was wondering if I could bump it to a 1" peb? Also what options for the pedestal mount?

A. Contractor shall replace this item with Rainbird ESP-LX Modular Pedestal/Controller Cabinet.

2. Q. The prequalification form included in the Grand Junction Station #3 bid documents appears to be a general form, rather than project specific. Since this submittal is required specifically for Fire Station #3, would the City be willing to accept reviewed financial statements in lieu of audited financial statements?

A. Contractor may submit their pre-qualification application with "reviewed" financial statements for this specific project, if accompanied by a letter from surety stating/verifying that they have the bonding capacity to meet their submitted bid amount.

3. Pertaining to Contractor's Licensing: A Contractor's License must be obtained for projects that require it. It is the responsibility of the Contractor to verify if a Contractor's License is needed for this, or any other, City Project by contacting the Mesa County Building Department (MCBD). MCBD will provide determination of whether or not a City of Grand Junction Contractor's License is required.

The original solicitation for the project noted above is amended as noted.

All other conditions of subject remain the same.

Respectfully,

Duane Hoff Jr., Senior Buyer
City of Grand Junction, Colorado

CITY OF Grand Junction COLORADO

Purchasing Division

ADDENDUM NO. 4

DATE: **March 10, 2021**
FROM: **City of Grand Junction Purchasing Division**
TO: **All Offerors**
RE: **Grand Junction Fire Department Fire Station #3 Construction IFB-4889-21-DH**

Offerors responding to the above referenced solicitation are hereby instructed that the requirements have been clarified, modified, superseded and supplemented as to this date as hereinafter described.

Please make note of the following clarifications:

1. Q. Who is responsible for permits, clearance, etc.?

   A. The City has already obtained (or is in process of obtaining) the following permits/clearances:
   - City Planning Clearance
   - Mesa County Building Permit

   The Contractor will be responsible for the following permits:
   - Construction Stormwater Permit with the State and Mesa County (with assistance from the City)
   - Any Plumbing/Electrical/Mechanical permits required by the Mesa County Building Dept.

2. For clarification, the list of attachments in Section 3.5 of the solicitation document are links to the attachments.

3. As a reminder, the City will be providing the HVAC Air-Distribution System and the Washer/Extractor as stated in Appendix B2: Project Manual – Vol02 and Appendix C: Construction Drawings. The Contractor will install these elements during construction of the Fire Station.

4. The City is currently trying to work with the school to provide a plan for school pickup at 3:30pm.

The original solicitation for the project noted above is amended as noted.

All other conditions of subject remain the same.

Respectfully,

Duane Hoff Jr., Senior Buyer
City of Grand Junction, Colorado

CITY OF Grand Junction COLORADO

Purchasing Division

ADDENDUM NO. 5

DATE: March 15, 2021
FROM: City of Grand Junction Purchasing Division
TO: All Offerors
RE: Grand Junction Fire Department Fire Station #3 Construction IFB-4889-21-DH

Offerors responding to the above referenced solicitation are hereby instructed that the requirements have been clarified, modified, superseded and supplemented as to this date as hereinafter described.

Please make note of the following clarifications:

1. Q. Is the City looking to contract AV scope of work out directly? Are you accepting bids for this at this time, or will this be a bid out at a later date?

   A. The City is not aware of any AV need at this station that belongs to the City.

2. For clarification, the reference to the "HVAC Air-Distribution System" on Addendum 4 number 3 should be "HVAC Air Cleaning Units." Number 3 should be read as "As a reminder, the City will be providing the HVAC Air Cleaning Units and the Washer/Extractor as stated in Appendix B2: Project Manual – Vol02 and Appendix C: Construction Drawings. The Contractor will install these elements during construction of the Fire Station."

3. Is the wire mesh locker system shown in the Bunker Gear Room #134 to be furnished and installed by the contractor?

   A. The wire mesh storage lockers in Room 134 shall be furnished and installed by the contractor. Please make the following changes to the Construction Documents:

   - On Sheet A1-1, change keynote 10-1 to read: "Wire Mesh Storage Lockers".
   - In Project Manual, Volumes 1 and 2, add Section 10 51 43 – Wire Mesh Storage Lockers to Table of Contents.
   - In Project Manual, Volume 1, add Section 10 51 43 – Wire Mesh Storage Lockers as attached.

4. Is the extractor washer drainpipe large enough for the flows from the washer?

   A. The drainpipe has been called out on sheet P1-1 as 4" dia. See attached revised drawing. The 3" floor sink will work at this location to drain the extractor washer.

5. Please see attached revised Architectural Sheets A3-6 and A3-9:
   - Revised Detail 1/A3-6 on sheet A3-6, to include dimension string from roof surface to bottom of fiber cement siding.

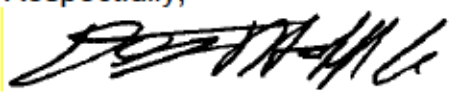
- Added Detail 10/A3-9 and Detail 11/A3-9 to sheet A3-9 for roof flashing detail to brick wall above roof.

6. Please see attached revised Plumbing and Electrical Sheets P1-1, P3-2 and E1-3. These clouded changes are in response to comments from the Building Department.

The original solicitation for the project noted above is amended as noted.

All other conditions of subject remain the same.

Respectfully,



Duane Hoff Jr., Senior Buyer
City of Grand Junction, Colorado

SECTION 10 51 43
WIRE MESH STORAGE LOCKERS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Design, fabrication and installation of wall mounted and free-standing turnout gear lockers as specified herein.

1.02 RELATED SECTIONS

A. Section 03 30 00 - Cast-In-Place Concrete, for mounting surface for free-standing lockers.

B. Section 04 22 00 - Concrete Unit Masonry, for mounting surface for wall-mounted lockers.

1.03 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions.

B. Shop Drawings: Submit manufacturer's shop drawings for each individual run of lockers.

C. Samples: Submit manufacturer's standard color samples.

D. Owner's Manual: Provide maintenance manual at closeout.

E. Warranty: Submit manufacturer's standard warranty.

1.04 QUALITY ASSURANCE

A. Manufacturer shall have a minimum of five years experience in the direct manufacture of lockers.

B. Installer Qualifications: Installer shall have experience necessary to assure lockers are installed properly and according to manufacturer's instructions.

C. Reference:
   1. ASTM A513 – Minimum properties of Electric-Resistance-Welded Carbon Allow Steel Mechanical Tubing.
   2. ASTM A510 – Minimum properties of Wire Rods and Coarse Round Wire, Carbon Steel and Alloy Steel.

1.05 DELIVERY, STORAGE AND HANDLING

A. Delivery: Deliver materials to site in manufacturer's original, unopened containers with labels identifying product and manufacturer's name.

B. Storage: Store materials in a clean dry area.

C. Handling: Protect materials and finish during installation and handling to prevent damage.

PART 2 PRODUCTS

2.01 MANUFACTURER

A. Acceptable Manufacturers: Subject to compliance with requirements of the contract documents, acceptable manufacturer's are as follows:
   1. GearGrid Corporation, 670 SW 15th Street, Forest Lake, MN 55025. Toll-free 888-643-6694. Phone 651-464-4468. Fax 651-464-4780. Web site www.geargrid.com. Email sales@geargrid.com.
   2. Additional manufacturer's may be approved, however approval does not preclude the manufacturer from providing documentation supporting their product meets or exceeds all aspects of this specification section. Failure to provide proper documentation will result in the rejection of submitted product.

2.02 TURNOUT GEAR LOCKER FABRICATION

A. Lockers must be fabricated and manufactured in the U.S.A. Products not manufactured in the U.S.A will be rejected at the time of submittals.

B. Model: GEARGRID Wall Mounted and Free-Standing Storage Systems.

C. Locker Sizes:
   1. Super Jumbo 24": Overall dimension- 74.5" high x 25.25" wide x 24" deep.
      a. Clear Opening Width: 22.75".

D. Construction: Units shall be welded at all applicable joints. Forming of metal shall be completed by standard cold-forming operations. Use of fasteners will only be required to allow for knock-down shipping, securing units to mounting surface and on applicable accessories.

E. Vertical Dividers:
   1. Outer Frames: 1.25" O.D. x 16 gauge wall thickness ASTM A513 steel tubing.
   2. Inner Grid: 0.25" diameter ASTM 510 cold drawn steel wire resistance welded to a 3" square pattern.
   3. Inner Grid wires must be full length and width of inside vertical divider frame. Wires not running full length or width, thus creating exposed wire ends will not be acceptable.
   4. Inner Grid wires must run horizontally and vertically creating a square or rectangular grid pattern only. Grid wires not creating a square or rectangular grid pattern will not be acceptable.
   5. Inner Grid wires shall intersect and cross all perpendicular wires, and shall be welded at all intersections.

F. Back Panel:
   1. Required on each locker to protect the locker contents and wall substrate, as well as provide an additional panel for accessory attachment.
   2. Grid: 0.25" diameter ASTM 510 cold drawn steel wire resistance welded to a 3" square pattern.
   3. Back panel must engage and be secured to vertical dividers via horizontal wires which extend into mounting holes pre-drilled in vertical dividers. Back panels are sandwiched between vertical dividers, preventing them from being removed after assembly is complete.
   4. Inner Grid wires must be full length and width of inside vertical divider frame. Wires not running full length or width, thus creating exposed wire ends will not be acceptable.
   5. Inner Grid wires must run horizontally and vertically creating a square or rectangular grid pattern only. Grid wires not creating a square or rectangular grid pattern will not be acceptable.
   6. Inner Grid wires shall intersect and cross all perpendicular wires, and shall be welded at all intersections.

G. Shelves: (1) Upper, (1) Lower. 0.25" diameter ASTM 510 cold drawn steel wire resistance welded and cold formed. Upper shelf shall include an integrated 20 gauge steel bracket to accept a 2" x 16" name placard, unless doors are selected as an option, in which case the name placard will be integrated into the door.

H. Apparel Hooks: (4) per locker opening. .192" diameter ASTM 510 cold drawn steel wire resistance welded, cold formed and powder coated. Apparel hooks must securely engage and snap onto side or back grid, to prevent unintentional disengagement of hook.

2.03 ACCESSORIES

A. Tubular Frame Wall Structure:
   1. Model: Tubular Frame Wall Structure Units
   2. Tubular Frame Wall Structures are engineered specifically for each installation and are designed to ship in a knocked-down configuration for efficient shipping. Wall structure components are bolted together with hardware as supplied or identified.
   3. Construction: Units shall be welded at all applicable joints. Forming of metal shall be completed by standard cold-forming operations. Use of fasteners will only be required to allow for knock-down shipping, securing units to mounting surface and on applicable accessories.
      a. Vertical Posts: 4" x 4", 0.250" wall thickness ASTM A513 steel tube.

b. Floor Mounting Plates: ½" steel plate welded to Vertical Posts. 3/8" mounting holes as needed.
c. Mounting plate hole configurations subject to locker layout.
d. Horizontal Frames: 4" x 4", 0.1875" wall thickness ASTM A513 steel tube. Frames mechanically fastened to Vertical Posts with supplied or identified hardware.
    1) Note: If PowerBars (Electric Raceway) are used, top Horizontal Frame will be 6" high x 4" wide, 0.1875" wall thickness steel tube.

2.04 FINISH

A. General: All system components excluding assembly and mounting hardware and stainless steel components are to receive the standard finish.

B. Standard Finish: Components to be cleaned using a phosphatized bath, clear water rinse and electro-statically coated with a durable and UV-stable TGIC powder coating process. Thickness of applied finish shall be 3 – 4 mm for added protection.
    1. Anti-Corrosive Primer: (Optional)

C. Color: To be selected from manufacturer's standard colors.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine area to receive lockers. Notify architect if area are not acceptable. Do not begin installation until unacceptable conditions have been corrected.

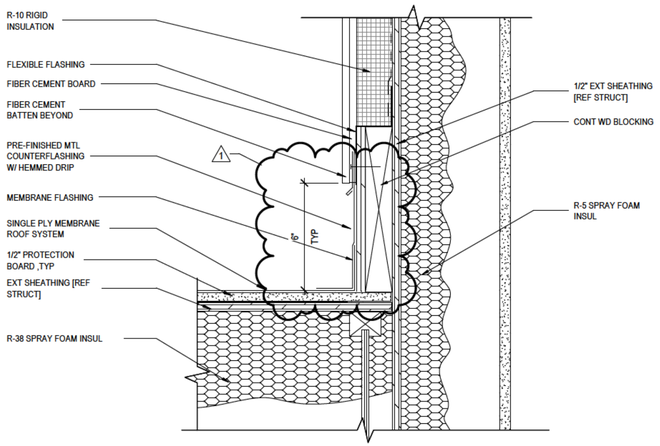
3.02 INSTALLATION

A. Install lockers in accordance with manufacturer's instructions.

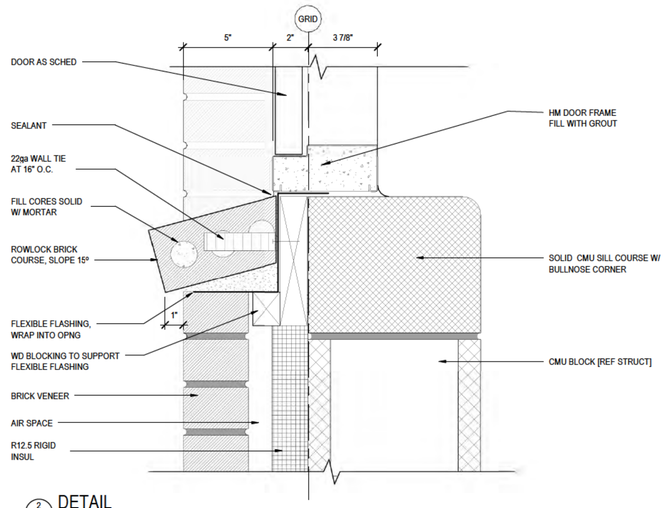
B. Use manufacturer's hardware for assembly.

C. Anchor to mounting surface with proper hardware.

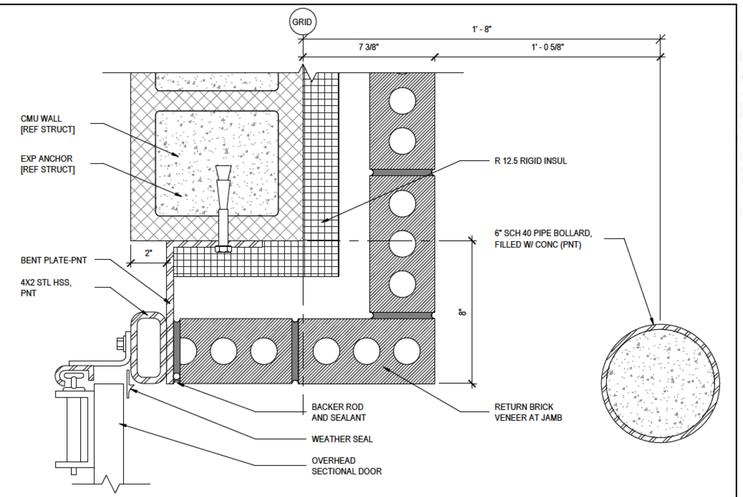
END OF SECTION



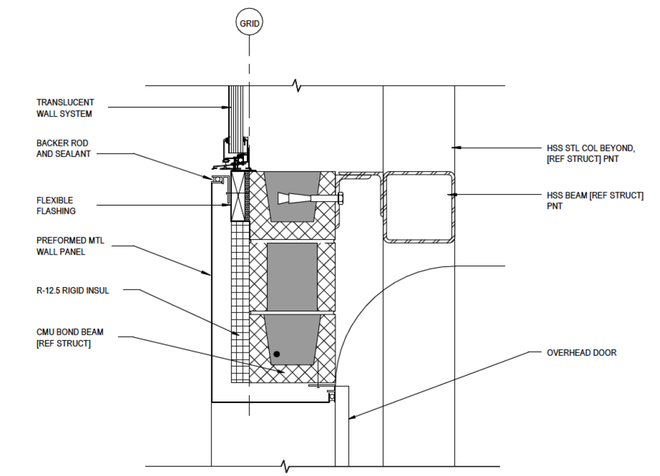
1 A3-6 DETAIL
3" = 1'-0"



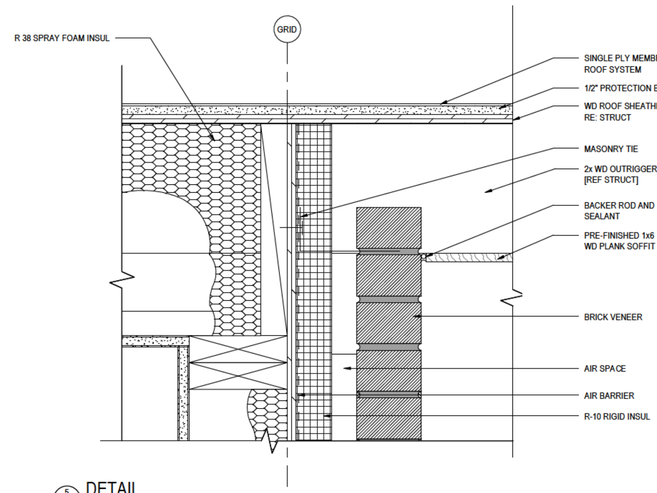
2 A3-6 DETAIL
3" = 1'-0"



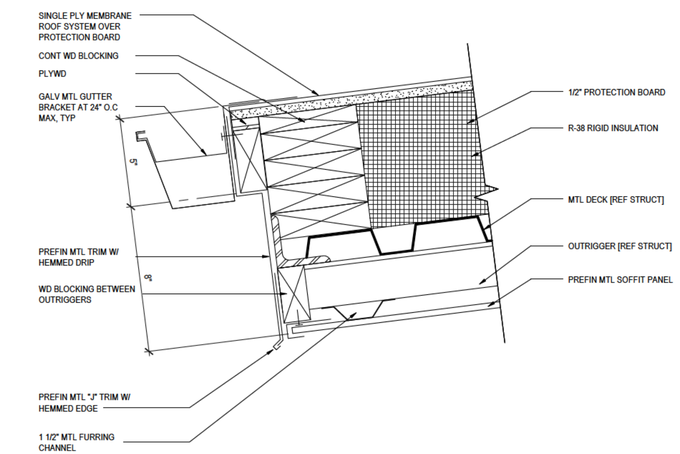
3 A3-6 JAMB AT OVERHEAD DOOR
3" = 1'-0"



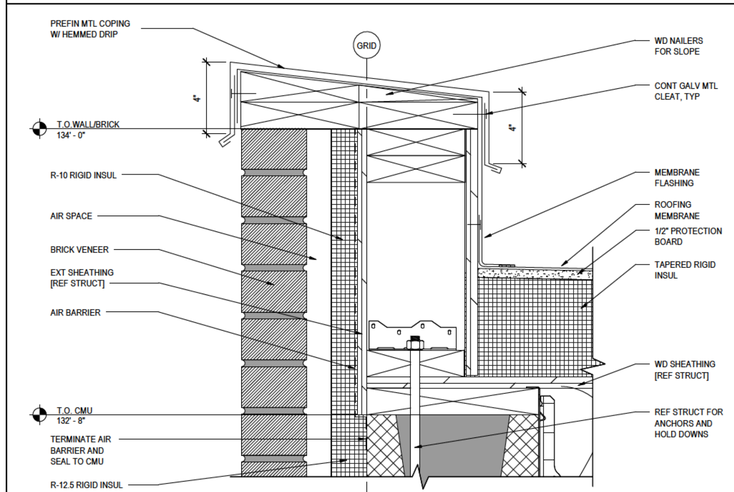
4 A3-6 DETAIL
1 1/2" = 1'-0"



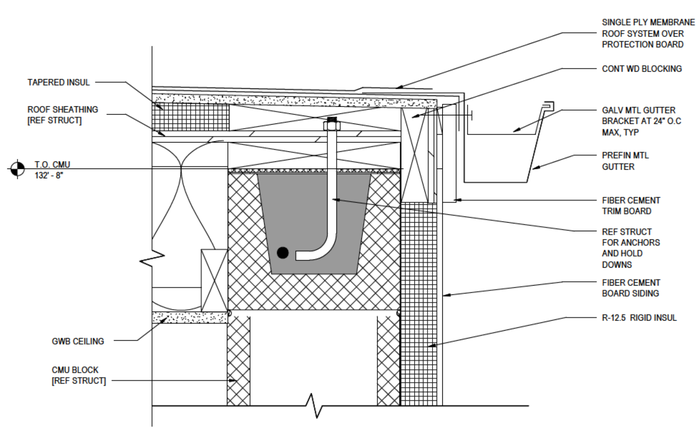
5 A3-6 DETAIL
3" = 1'-0"



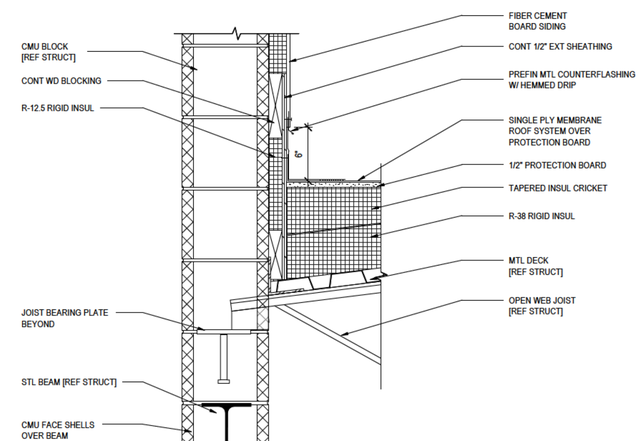
6 A3-6 DETAIL
3" = 1'-0"



7 A3-6 DETAIL
3" = 1'-0"



8 A3-6 DETAIL
3" = 1'-0"



9 A3-6 DETAIL
1 1/2" = 1'-0"

BG+co.
Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office
BLYTHE GROUP + co.

GRAND JUNCTION FIRE DEPARTMENT FIRE STATION #3

582 25 1/2 RD GRAND JUNCTION, COLORADO 81505

EXTERIOR DETAILS

FOR CONSTRUCTION

REV.	DESC.	DATE:
1	ADD 5	3/12/2021

DATE: 2/25/2021

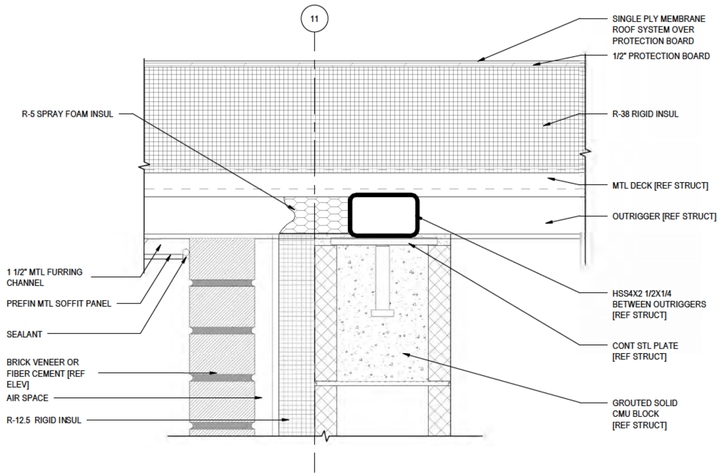
PROJECT #: 2072

SHEET #:

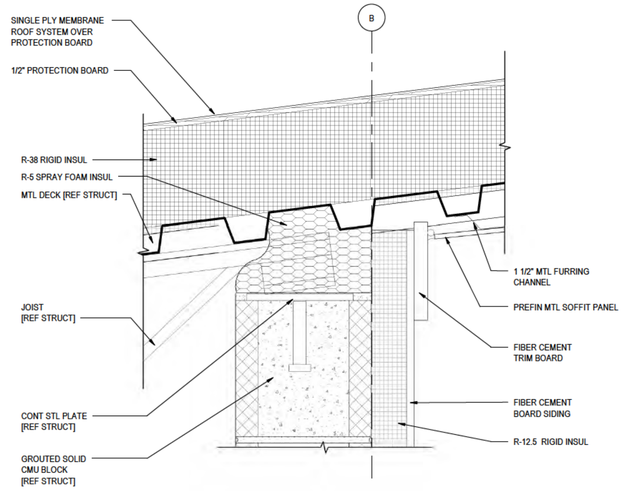
A3-6

Project Team:

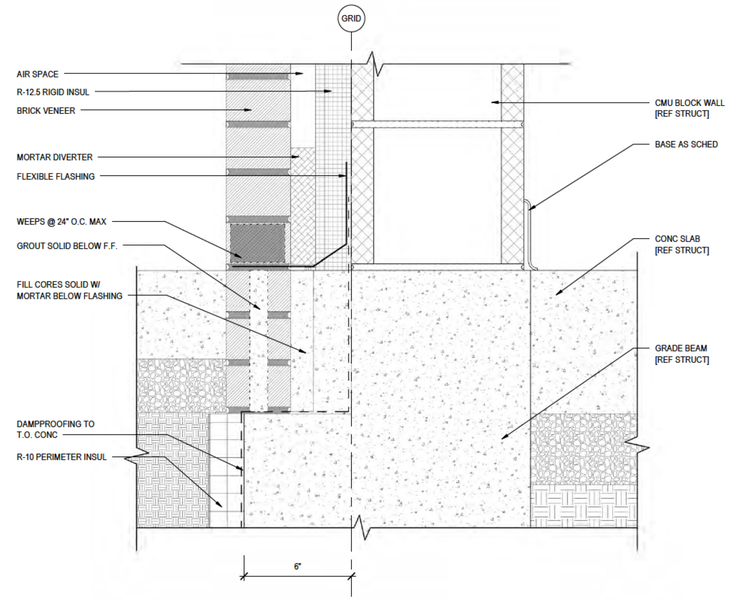
Print Date: 3/12/2021 7:15:34 AM



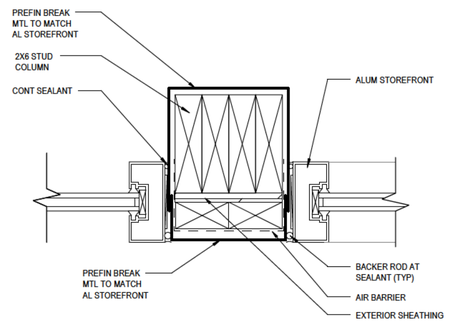
1 A3-9 EXTERIOR DETAIL
3" = 1'-0"



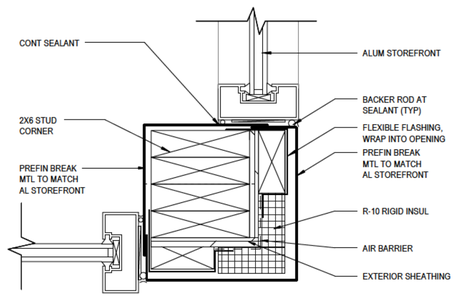
2 A3-9 EXTERIOR DETAIL
3" = 1'-0"



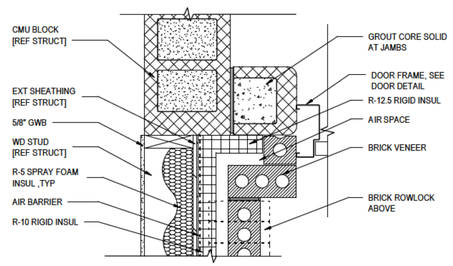
3 A3-9 EXTERIOR DETAIL
3" = 1'-0"



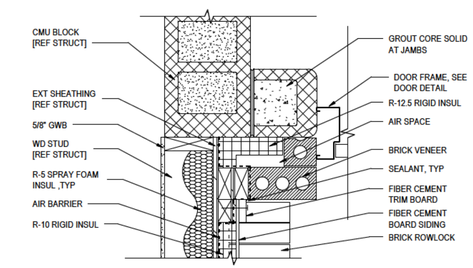
4 A3-9 WINDOW JAMB AT BRAKE MTL
3" = 1'-0"



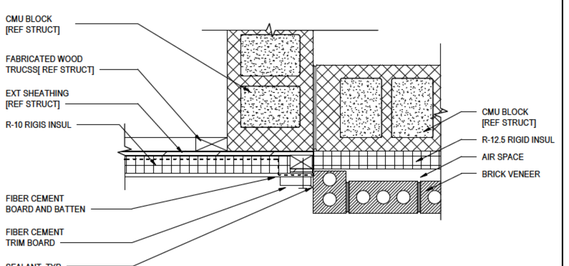
5 A3-9 WINDOW JAMB AT MTL PANEL
3" = 1'-0"



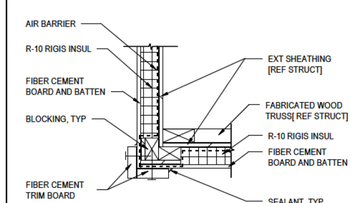
6 A3-9 DETAIL @ BRICK
1 1/2" = 1'-0"



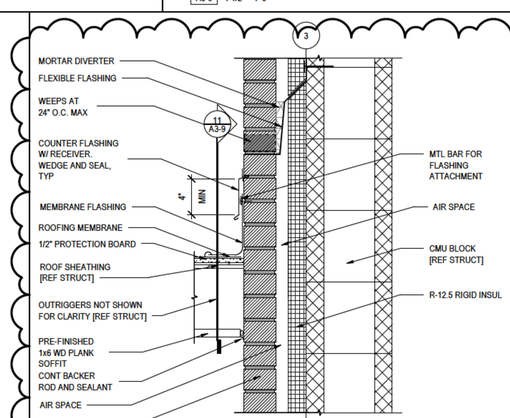
7 A3-9 DETAIL @ FIBER CEMENT SIDING
1 1/2" = 1'-0"



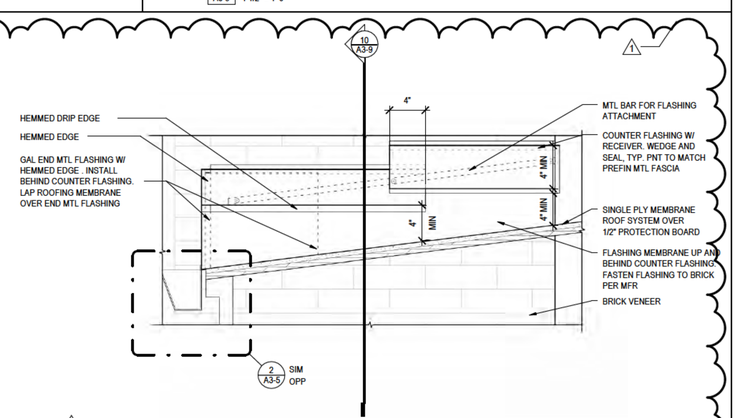
8 A3-9 DETAIL @ FIBER CEMENT SIDING ABOVE LOWER ROOF
1 1/2" = 1'-0"



9 A3-9 DETAIL @ FIBER CEMENT SIDING CORNER
1 1/2" = 1'-0"



10 A3-9 DETAIL AT ROOF FLASHING OVER BRICK
1 1/2" = 1'-0"



11 A3-9 ELEVATION AT ROOF FLASHING OVER BRICK
1 1/2" = 1'-0"

BG+co.
Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office
BLYTHE GROUP + co.

GRAND JUNCTION FIRE DEPARTMENT FIRE STATION #3

582 25 1/2 RD GRAND JUNCTION, COLORADO 81505

EXTERIOR DETAILS

FOR CONSTRUCTION

REV.	DESC.	DATE:
1	ADD 5	3/12/2021

DATE: 2/25/2021

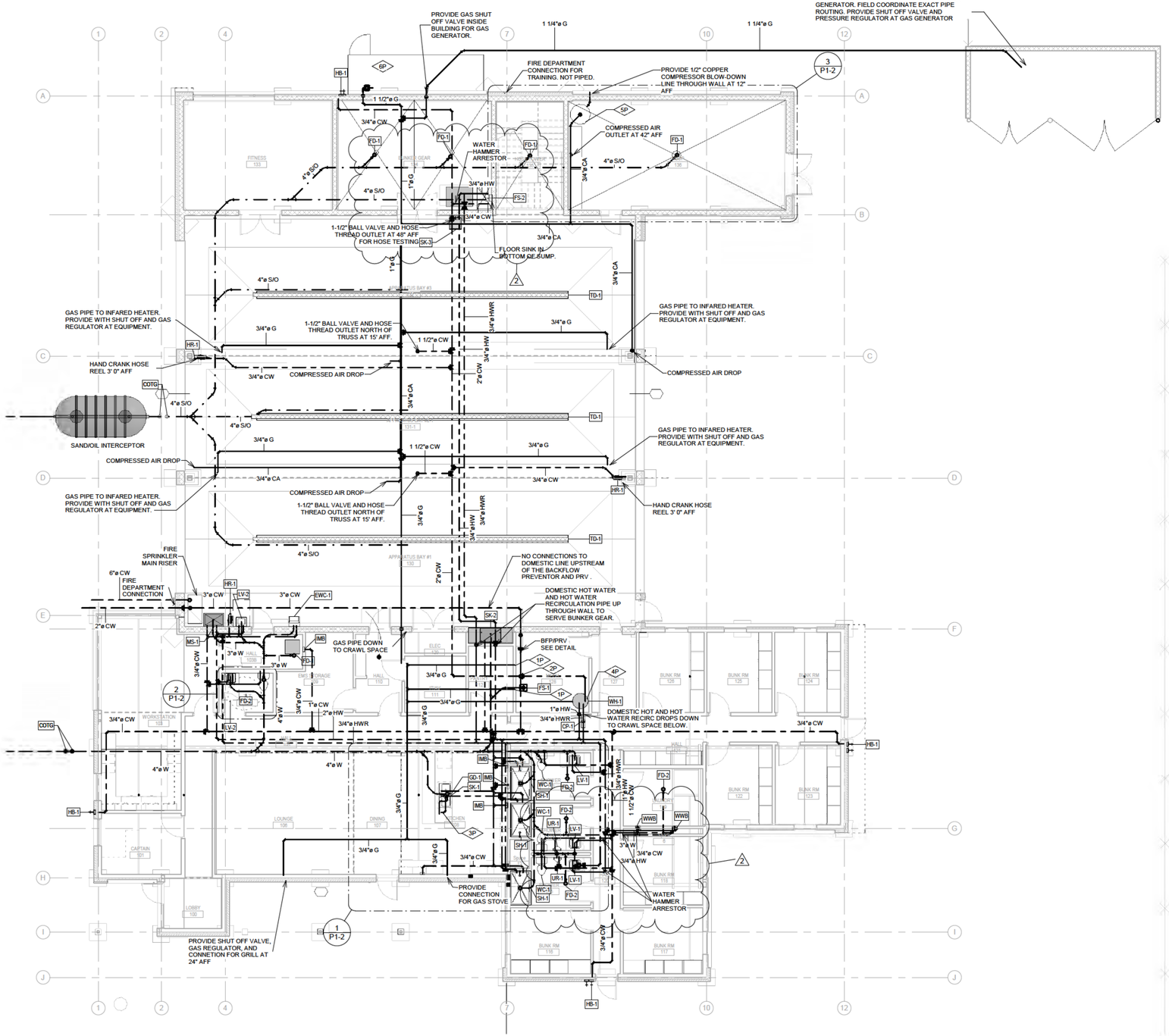
PROJECT #: 2072

SHEET #:

A3-9

Project Team:

Print Date: 3/1/2021 7:15:35 AM



P1-1 PLUMBING KEYNOTES

Note Number	Note Text
1P	GAS PIPE UP FROM CRAWL SPACE TO GAS FURNACE. PROVIDE WITH SHUT OFF VALVE AND MEDIUM TO LOW PRESSURE REGULATOR
2P	DOMESTIC COLD WATER PIPE UP THROUGH MECHANICAL ROOM TO SERVE VEHICLE BAYS
3P	DOMESITC HOT WATER AND SANITARY WASTE PIPES TO SERVE DISHWASHER
4P	GAS PIPE UP FROM CRAWL SPACE TO GAS WATER HEATER. PROVIDE WITH SHUT OFF VALVE AND MEDIUM TO LOW PRESSURE REGULATOR.
5P	PROVIDE WITH QUINCY MODEL QP-5 80 GALLON/5HP AIR COMPRESSOR. COORDINATE POWER WITH ELECTRICAL CONTRACTOR. 230V/3PH MOTOR.
6P	GAS METER LOCATION. GAS METER SIZED FOR MEDIUM PRESSURE. APROXIMATE LONGEST LENGTH IS 165' WITH AN ESTIMATED TOTAL CONNECTED LOAD OF 3248 CFH. FIELD COORDINATE EXACT LOCATION OF METER.

NORTH

PLUMBING - FLOOR PLAN

1/8" = 1'-0"

BG+co.

Architecture
Interior Design
Project Management

622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office

BLYTHE GROUP + co.

Bighorn Consulting Engineers, Inc.
Mechanical & Electrical Engineers

386 Indian Road
Grand Junction, CO 81501
Phone (970) 241-8709

101 W 11th Street #109-C
Durango, CO 81301
Phone: (970) 422-7676

GRAND JUNCTION FIRE DEPARTMENT - FIRE STATION #3

580 25 1/2 RD GRAND JUNCTION, COLORADO 81505

PLUMBING - FLOOR PLAN

FOR CONSTRUCTION

REV.	DESC.	DATE:
2	COMMENTS	03-12-21

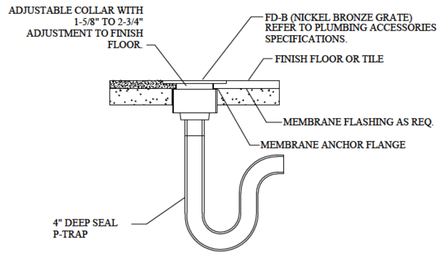
DATE: 2-25-2021

PROJECT #: 20-213

SHEET #:

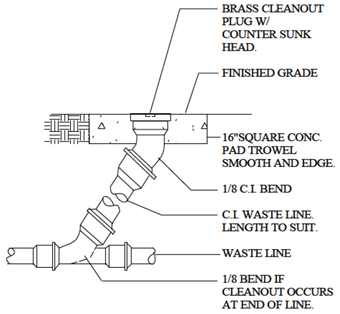
P1-1

Project Team: BCE
Print Date: 3/12/2021 12:22:06 PM



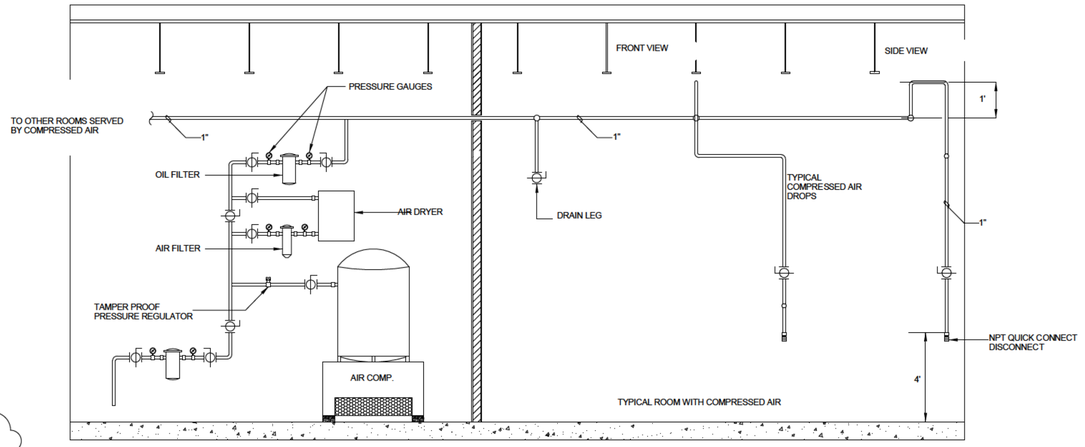
MECHANICAL AREA FLOOR DRAIN

NOT TO SCALE



CLEANOUT TO GRADE

NOT TO SCALE



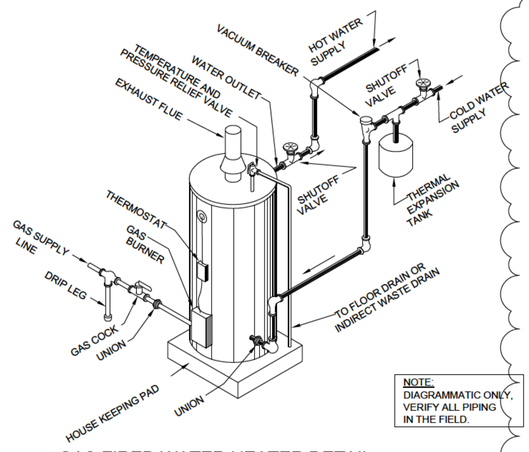
TYPICAL AIR COMPRESSOR SET UP DETAIL
N.T.S.

GENERAL NOTES:

-REQUIRED MAINTENANCE OF FILTERS WHEN PRESSURE DROP ACROSS FILTER IS 10PSI OR GREATER.

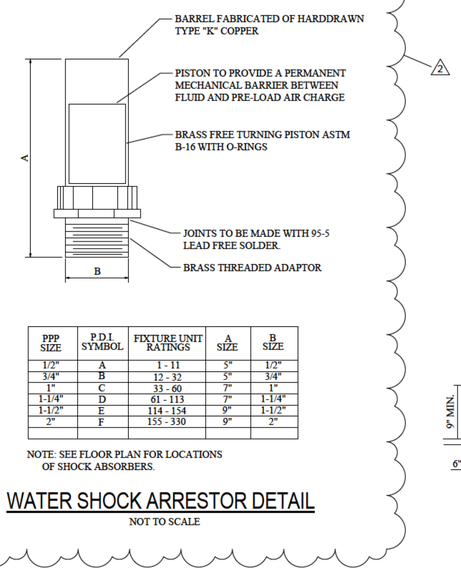
-INSTALL COMPRESSED AIR LINES AT A SLOPE OF 1/8" PER FOOT.

-INSTALL DRAIN LEGS APPROXIMATELY EVERY 60'.



GAS FIRED WATER HEATER DETAIL

NOT TO SCALE



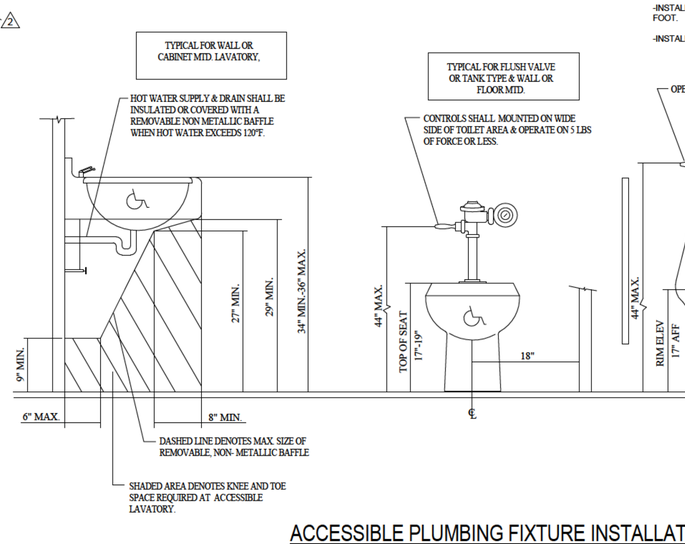
NOTE:
DIAGRAMMATIC ONLY, VERIFY ALL PIPING IN THE FIELD.

PPP SIZE	P.D.I SYMBOL	FIXTURE UNIT RATINGS	A SIZE	B SIZE
1/2"	A	1 - 11	5"	1/2"
3/4"	B	12 - 32	5"	3/4"
1"	C	33 - 60	7"	1"
1-1/4"	D	61 - 113	7"	1-1/4"
1-1/2"	E	114 - 154	9"	1-1/2"
2"	F	155 - 330	9"	2"

NOTE: SEE FLOOR PLAN FOR LOCATIONS OF SHOCK ABSORBERS.

WATER SHOCK ARRESTOR DETAIL

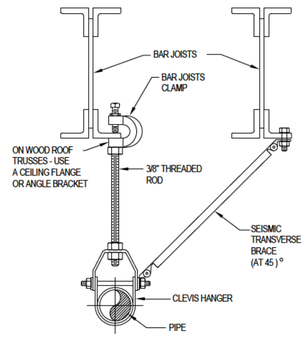
NOT TO SCALE



ACCESSIBLE PLUMBING FIXTURE INSTALLATION

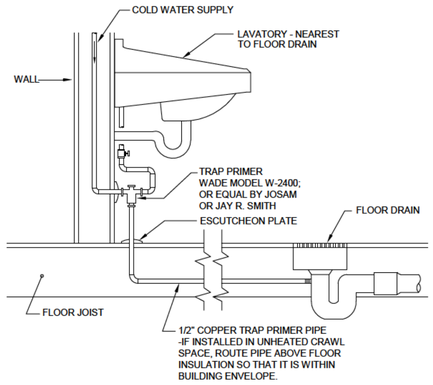
NOT TO SCALE

NOTE:
PROVIDE SEISMIC RESTRAINTS FOR PIPING AS FOLLOWS:
- 1" & 1-1/2" PIPES: 20 FT. ON CENTER
- 2" & 2-1/2" PIPES: 30 FT. ON CENTER
- 3" , 4" & 6" PIPES: 40 FT. ON CENTER



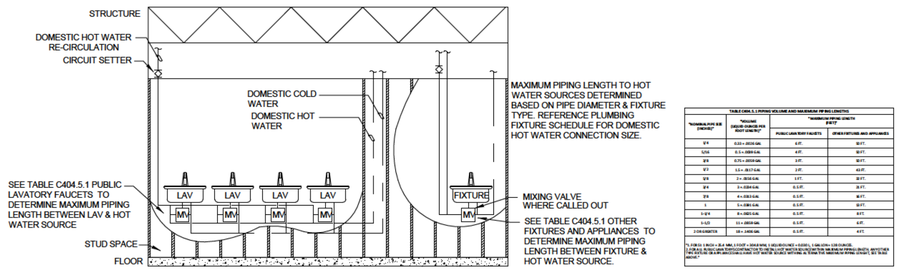
PIPE SUPPORT AND SEISMIC RESTRAINT DETAIL - HORIZONTAL PIPING

NOT TO SCALE



FLOOR DRAIN TRAP PRIMER DETAIL

NOT TO SCALE



PLUMBING FIXTURE DOMESTIC HOT WATER RE-CIRCULATION DETAIL

NOT TO SCALE

BG+co.
Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office
BLYTHE GROUP + co.

Bighorn Consulting Engineers, Inc.
Mechanical & Electrical Engineers
386 Indian Road
Grand Junction, CO 81501
Phone (970) 241-8709
101 W 11th Street #109-C
Durango, CO 81301
Phone: (970) 422-7676

GRAND JUNCTION FIRE DEPARTMENT - FIRE STATION #3

580 25 1/2 RD GRAND JUNCTION, COLORADO 81505

PLUMBING DETAILS

FOR CONSTRUCTION

REV.	DESC.	DATE:
2	COMMENTS	03-12-21

DATE: 2-25-2021

PROJECT #: 20-213

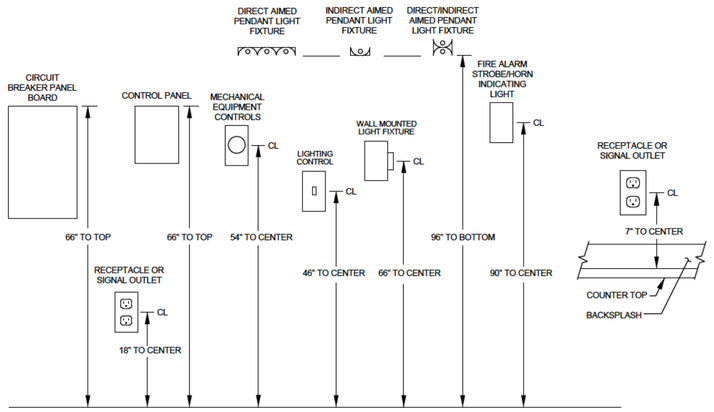
SHEET #:

P3-2

Project Team: BCE
Print Date: 3/12/2021 12:22:07 PM

LIGHTING FIXTURE SCHEDULE

TYPE MARK	MANUFACTURER	MODEL	LAMP	DESCRIPTION
D1	PRESCOLITE LIGHTING	LF4SL-4LFSL-20L-35K-8-B6	2000LM, 3500K, 22W, 80CRI, 120V, 0-10V LED DIMMING	RECESSED LED DOWN LIGHT, 0-10V DRIVER, SEMI-DIFFUSE CLEAR ALZAK TRIM, SEMI-DIFFUSE REF. FINISH
D2	PRESCOLITE LIGHTING	LC4SL-4LFSL-20L-35K-8-WW-B6	2000LM, 3500K, 22W, 80CRI, 120V, 0-10V LED DIMMING	RECESSED LED WALL WASH DOWN LIGHT, 0-10V DRIVER, SEMI-DIFFUSE CLEAR ALZAK TRIM, SEMI-DIFFUSE REF. FINISH
EX	COMPASS LIGHTING	CP-CAD	4.5W LED	LED EXIT LIGHT, WHITE HOUSING, GREEN LETTERING, SELF- DIAGNOSTICS, NICKEL CADIUM BATTERY.
G1	COLUMBIA LIGHTING	LJT22-35WLG-FS-SFA-EDU-CS88-G2	4265LM,3500K, 42W, 80CRI, 0-10V LED DIMMING	2X2 LED RECESSED GRID TROFFER, WHITE FINISH ON STEEL HOUSING, SMOOTH FROSTED ACRYLIC SHEILDING
H1 (2)	COLUMBIA LIGHTING	PEL-2-35-MH-FP-W-ED-U-F3CS-LHVQMS	24,320LM, 3500K, 80CRI, 0-10V LED DIMMING,	PELOTON HIGH PERFORMANCE HIGH BAY LED FIXTURE, WIDE DISTRIBUTION, FROSTED POLYCARBONATER LENS, AIRCRAFT CABLE HANGER.
L1	PINNACLE ARCHITECTURAL LIGHTING	EX4D-4-LW-835-4'-WA-U-PL-2-1	3000LM, 3500K, 28W, 80CRI, 0-10V LED DIMMING	WALL MOUNTED EDGE LINEAR FIXTURE, PROVIDE DOWN SHIELDING WHICH OBSCURES THE LED SOURCE, WHITE FINISH
L2	COLUMBIA LIGHTING	RLW-4-35-LW-4'-FA-W-ED-U	4251LM, 3500K, 34W, 0-10V LED DIMMING	REVALUME™ LINEAR WRAP, WHITE FINISH, FROSTED ACRYLIC SHIELDING.
L3	PINNACLE ARCHITECTURAL LIGHTING	EX1B-A-BW-835HO-835-6-AC48*-U-PL2-1-0-W	7239481M DIRECT, 2772LM INDIRECT, 79W, 80CRI, 0-10V LED DIMMING	6'L EDGE BIDIRECTIONAL LINEAR FIXTURE, SATIN LENS DIRECT SHIELDING, BATWING LENS INDIRECT SHIELDING, 15/16" BEVELED GRID MOUNTING, PROVIDE JUNCTION BOX MOUNTING FOR LIGHT MOUTNED TO GY CEILINGS
L4	COLUMBIA LIGHTING	MPS-4-35-ML-C-W-ED-U	4556LM, 3500K, 40W, 0-10V LED DRIVER	4' MULTIPURPOSE LINEAR LED FIXTURE, FROSTED ACRYLIC LENS, WIDE DISTRIBUTION,
L5	COLUMBIA LIGHTING	LXEM-4-35-HL-4-RP-ED-U	6763LM, 4000K, 80CRI, 44W, 120V	4' LINEAR ROUGH SERVICE WET LISTED IP65 AND IP66 RATED, ACRYLIC LENS
P1	BRUCK LIGHTING	LLED-35K-90-830-MC-PWH	1150LM, 3500K, 90CRI, 14.9W, 0-10V LED DIMMING	MOUTH-BLOWN GLASS PENDANT, CLEAR SHADE, MATTE CHROME FUNISH, WHITE CANOPY AND CABLE,
P2	TECH LIGHTING	700LSSPAN48-S-LED930	3622LM, 3000K, 90CRI, 76W, 0-10V DIMMING	SPAN LINEAR SUSPENSION FIXTURE, SATIN NICKEL FINISH, CABLE HUNG
T1	FINELITE LIGHTING	UC-E-22-S-PS-8W CP-*	380LM, 3500K, 87CRI, 6.1W, 120V, NON DIMMING LED	EDGE UNDER CABINET MOUNTED LIGHT FIXTURE. PROVIDE MOUNTING HARDWARE, DRIVERS, POWER SUPPLIES AND ALL NECESSARY COMPOINENTS. SILVER FINISH.
T2	CONTECH LIGHTING	TL224V235K 12R TLP24VHW96 ENC120V; TLCIP19HW TLPDIM10V TLPRPT TLACD6 TLAL*D6 TLACDC4 TLACDE2	358LM/FT, 3500K, 3.5W/FT, 80CRI, 120V LED DIMMING	TL TAPELIGHT SERIES, CLEAR LENS, REFER TO THE ARCHITECT REFELCTED CEILING PLAN FOR RUN LENGTH
T3	CONTECH LIGHTING	TL224V235K 12 TLP24VHW20 ENC; TLCIP19HW TLPDIM10V TLPRPT TLACD6 TLAL*D6 TLACDC4 TLACDE2	358LM/FT, 3500K, 3.5W/FT, 80CRI, 120V LED DIMMING	TL TAPELIGHT SERIES, CLEAR LENS, REFER TO THE ARCHITECT REFELCTED CEILING PLAN FOR RUN LENGTH
V1	WAC LIGHTING	WS-77636-3500K-30W-2561-AL	2561LM, 3500K, 30W, 120V , ELV LED DIMMING	3'L BRINK WALL MOUNTED VANITY LIGHT, BRUSHED ALUMINUM FINISH, MOUNT HORZIONTALLY OVER THE BATHROOM MIRROR.
V2	WAC LIGHTING	WS-77624-3500K-30W-2561-AL	1720LM, 3500K, 21W, 120V , ELV LED DIMMING	2'L BRINK WALL MOUNTED VANITY LIGHT, BRUSHED ALUMINUM FINISH, MOUNT HORZIONTALLY OVER THE BATHROOM MIRROR.
W1	CONTECH LIGHTING	BL3JM-WW-NK	70LM, 3000K, 5W LED	LED WALL MOUNTED BED LAMP, JUNCTION BOX MOUNTED. WARM WHITE LAMP COLOR TEMPERTURE, BRUSHED NICKEL FINISH,TOGGLE SWITCH.



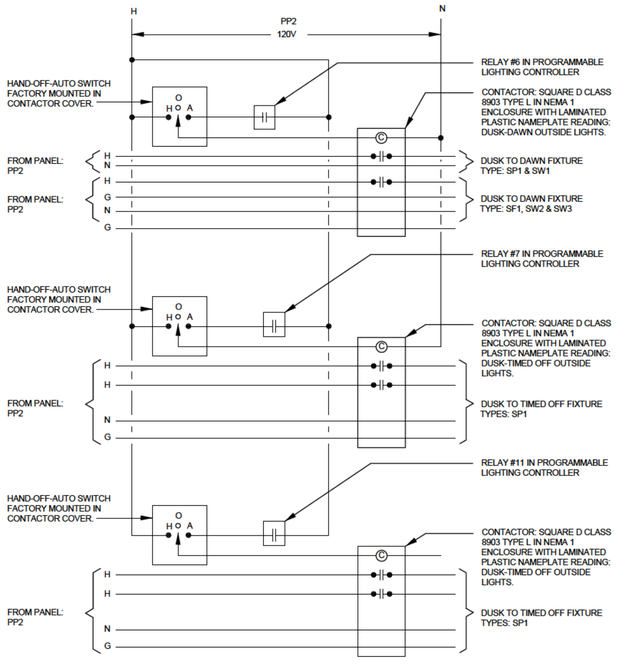
DEFAULT MOUNTING HEIGHTS

NO SCALE

CALCULATE BOX MOUNTING HEIGHT FOR WALL MOUNTED LIGHT FIXTURES USING APPROVED FIXTURE SUBMITTALS.

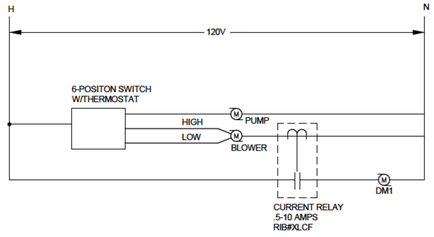
CALCULATE PENDANT LENGTH FOR HANGING LIGHTING FIXTURES USING APPROVED FIXTURE SUBMITTALS.

MOUNTING HEIGHTS SHOWN ON THE PLANS, IN ROOM KEYS, OR DEVICE TAGS TAKE PRECEDENCE OVER THE ABOVE.



EXTERIOR LIGHTING CONTROL

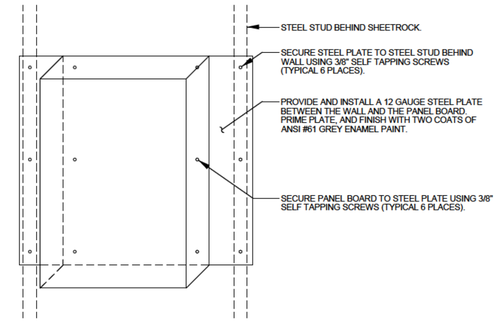
NO SCALE



EC1 / EC2 WIRING DIAGRAM

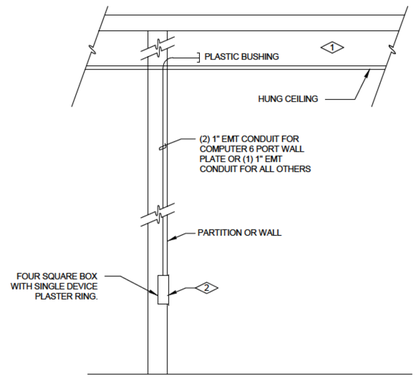
NO SCALE

ADJUST CURRENT RELAY TO OPEN DAMPER WHEN BLOWER MOTOR IS RUNNING AT LOW SPEED.



SEISMIC SUPPORT OF PANELBOARDS

NO SCALE



FLAG NOTES:

1. WIRING TO BE RUN ABOVE CEILING. USE PLENUM RATED CABLE WHERE CEILING SPACE IS USED AS A RETURN PLENUM. SUPPORT FROM STRUCTURE MIN. OF EVERY 6'-0". DO NOT LAY ON CEILING TILE OR ATTACH TO CEILING SUPPORT WIRE SYSTEM UNLESS INSTALLATION CONFORMS TO 2002 NEC 300-11.

2. LOW VOLTAGE OUTLETS (EXAMPLE TELEPHONE, FAX, DATA, ETC..) MOUNT AT 16" A.F.F. UNLESS OTHERWISE NOTED ON THE DRAWINGS, COORDINATE LOCATIONS WITH BASEBOARD, CABINETRY, WINDOWS OR OTHER ITEMS ALONG THE WALLS. REPORT ANY DISCREPANCIES TO THE ELECTRICAL ENGINEER.

LOCATE THERMOSTATS AT 60" A.F.F. UNLESS OTHER WISE NOTED ON THE DRAWINGS, COORDINATE LOCATIONS WITH CABINETRY, WINDOWS OR OTHER ITEMS ALONG THE WALLS. REPORT ANY DISCREPANCIES TO THE ELECTRICAL ENGINEER.

LOW VOLTAGE OUTLET WIRING DETAIL

NOT TO SCALE

BG+co.

Architecture
Interior Design
Project Management

622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office

BLYTHE GROUP + co.

Bighorn Consulting Engineers, Inc.
Mechanical & Electrical Engineers

386 Indian Road
Grand Junction, CO 81501
Phone (970) 241-8709

101 W 11th Street #109-C
Durango, CO 81301
Phone: (970) 422-7676

GRAND JUNCTION FIRE DEPARTMENT - FIRE STATION #3

580 25 1/2 RD GRAND JUNCTION, COLORADO 81505

LIGHTING - DETAILS

FOR CONSTRUCTION

REV.	DESC.	DATE:
2	COMMENTS	03-12-21

DATE: 2-25-2021

PROJECT #: 20-213

SHEET #:

E1-3

Project Team: BCE
Print Date: 3/12/2021 12:22:01 PM

CITY OF Grand Junction COLORADO

Purchasing Division

ADDENDUM NO. 6

DATE: **March 16, 2021**
FROM: **City of Grand Junction Purchasing Division**
TO: **All Offerors**
RE: **Grand Junction Fire Department Fire Station #3 Construction IFB-4889-21-DH**

Offerors responding to the above referenced solicitation are hereby instructed that the requirements have been clarified, modified, superseded and supplemented as to this date as hereinafter described.

Please make note of the following clarifications:

1. For the drip zone it calls for a Hardie 700 series electric valve, can that be substituted for a ¾" rainbird drip kit? This will also eliminate the need for some of the items listed on the design due to being built into the drip kit.

   A. The ¾" Rainbird drip kit will be accepted for the drip zones.

2. When it comes to the valve boxes, do they all need to say SV & Station #3 or does that pertain to valve #? Also, Carson charges $500 set up fee plus $5 per box fee to have the boxes engraved. Per my vendor, the best option is to engrave/brand the boxes yourself (via the contractor).

   A. The station number label is for the valve # that matches the irrigation zone to the controller. The City Parks Department will create these labels.

3. What is the scale of measure on the Civil Fire Dept. #3 plans. There is no measuring scale.

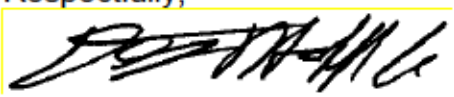
   A. When printed on a full-size sheet (24 x 36), the scale of sheets C2-0, C3-0, C4-0, C5-0, & C6-0 is 1" = 20 ft. The scale of the plans and horizontal scale on the profiles on sheets C4-1, C4-2, C4-3, C4-4 is 1" = 10 ft. The vertical scale of the utility profiles is 1" = 1 ft.

      The scale shown on the plan in sheet C4-1 is incorrect.

The original solicitation for the project noted above is amended as noted.

All other conditions of subject remain the same.

Respectfully,



Duane Hoff Jr., Senior Buyer
City of Grand Junction, Colorado

CITY OF Grand Junction COLORADO

Purchasing Division

ADDENDUM NO. 7

DATE: March 22, 2021
FROM: City of Grand Junction Purchasing Division
TO: All Offerors
RE: Grand Junction Fire Department Fire Station #3 Construction IFB-4889-21-DH

Offerors responding to the above referenced solicitation are hereby instructed that the requirements have been clarified, modified, superseded and supplemented as to this date as hereinafter described.

Please make note of the following clarifications:

1. Drawings C3-0 & C6-0: The "V" Pan in the Water Quality Basin is dimensioned at 2.00' on C3-0 and C6-0, but Detail D on C6-0 calls for the pan to be 3.00'. Please clarify.

   A. The Vpan detail on C6-0 has been changed to 2-ft wide. Please see attached revised sheet C6-0.

2. Drawings AS1-1 & C3-0: On AS1-1 The 6' Decorative Fence (10-9) terminates at the West side of the South run, but on C3-0 the fence shows a turn to the North. Which is correct? On AS1-1 the 6' Decorative Fence (10-9) terminates at the West side of the North run, but on C3-0 the fenced shows a turn to the South. Which is correct?

   A. Please use the alignment shown in sheet AS1-1 with the north and south runs terminating at the front (west) property line. Sheet C3-0 has been updated and attached to this Addendum.

3. Gutters and spouts: The Spec for the gutters does not show a gauge. The plans show 5" box style. 6" K Style seamless 26 gauge was used on Fire station #6. Please clarify Gauge and Style to be used on Station #3.

   A. Keep the style of the gutter as shown on the drawing. Spec section 07 62 00, paragraph 2.02 A, indicates 24 gauge as the minimum.

4. TPO Roofing: Specs call for HD ISO cover board to be mechanically attached. This will be an issue with appearance as plates will show through membrane and may also interfere with contour ribs and effect straightness of ribs. We Highly recommend to low rise adhere HD ISO board to avoid appearance issues. Please advise.

   A. Adhering the HD ISO board to rigid insulation is acceptable to overcome appearance issues.

5. Metal Soffit Panels: Specs call for 22 Gauge panels. Can 24 Gauge be used instead?

A. 24 gauge is acceptable for use at metal soffit panels. Revise section 07 42 13 - Metal Wall Panels, paragraph 2.02 - C - 2 to read "24 gauge" in lieu of "22 gauge".

6. Domestic Water: 3" C900 as called out on the plans is not an option. Can either 2" Pure Core or 4" C900 be used?

   A. Change 3" C900 domestic water pipe outside of building to be 4" C900.

7. Electric Cord Reels: Are the Cord Reels supplied/installed by the Owner or Contractor? If it is the Contractor, please provide product specifications.

   A. The Electric Cord Reels shall be supplied and installed by the Contractor. Cord reel to be Reelcraft #L30301233 with single receptacle end.

8. Seismic Bracing: Will Seismic Bracing be required for Plumbing and HVAC components?

   A. Yes, the spec for Seismic Bracing for Plumbing and HVAC have been included in the Project Manual (Sections 22 05 48 & 23 05 48 respectively).

9. Drinking Fountain: Given the occupancy will the drinking fountain need to be dual height?

   A. No, single water cooler with bottle filling station is acceptable as scheduled.

10. Stamped Plans: Will stamped plans be available prior the bid date?

    A. The design team provided stamped drawings to the building department for permit review. Unstamped drawings are available through the owner for bidding purposes.

11. Benchmark: There does not appear to be any vertical control shown on the Grading Plan or anywhere on the plan set. Will a project benchmark be provided?

    A. Benchmark added to revised grading plan. Refer to updated drawing sheet attached.

12. Horizontal Control: These does not appear to be any horizontal control shown on the Horizontal Control plan. Will at least two horizontal control points be established prior to construction beginning or will that be the responsibility of the of the winning bidder?

    A. The awarded contractor shall work with their construction surveyor to establish horizontal and vertical control that works for them.

13. Turf Sod: Is all the turf sod on the drawing to be quoted new sod??

    A. Yes, all turf areas on the landscape plan are to be new sod.

14. Crocus Planting Areas: Are the Crocus planting areas in the sod areas to be void of sod? Is there to be a mulch top dressing?

    A. The crocus bulbs are to be planted in the ground under the sod. No mulch is needed.

15. Trees: Is a fall dig for trees acceptable, after Nov. 1st, 2021?

A. This is okay as long as it works with the overall construction schedule. The trees will require some winter watering if they are installed after the irrigation system is turned off.

16. Project Manual Spec 122400, Part 2, 2.02, A: Specs calls for this type of shade in the "Offices". This obviously includes Captain 101. Does it also include Workstation 102 and Community/Training 103?

    A. Yes, this type of shade shall be used in the Captain (101) office, Workstation (102), and Community/Training room (103).

17. Shades: Are shades needed in Lounge 106 and Fitness 133? If so what spec?

    A. Yes, please provide shades spec'd as follows: Section 12 24 00, Part 2, 2.02.A - Lounge (106) & Fitness room (133). (Blackout shade not required at these locations.)

18. Overhead Doors: Will Overhead Door 591 Series be acceptable?

    A. "Overhead Door is an acceptable manufacturer, but model No. 591 is not acceptable. Revise section 08 36 13 - Sectional Doors as follows:
        1) Add paragraph 2.01 - B - 3 to read: ""Overhead Door Company; Model 596: www.overheaddoor.com
        2) Revise paragraph 2.01 - B - 1 to read: ""Raynor Garage Doors; TC Series, Model TC224: www.raynor.com"

19. Drawing 2/A2-2: Please provide dimensions and specs for the "3" on the hose tower.

    A. Revise section 10 14 00 - Signage to include or revise requirements for sign on hose tower, dedication plaque, and cut metal letters. Refer to attached revised section and revised Sheet A2-2.

20. SWMP: In order to make all bids equal please provide a Storm Water Management Plan. It is understood permitting, implementation, and maintenance of the plan is by the winning GC.

    A. A SWMP, prepared by Summit Services, has been attached to this Addendum. The winning Contractor shall be responsible to coordinate with the City on all Stormwater Permitting requirements.

21. Access to Existing Fire Station: Access to the back of the existing Fire Station during construction may require demo of some landscaping North of the limits of construction. Is this acceptable?

    A. The existing trees along the south side of the existing fire station shall be protected, as well as any existing utilities in this area. Contractor may demo some landscaping north of the existing parking - contractor to coordinate irrigation shutoff with GJ Parks. Successful bidder shall coordinate with Owner for extent of required demolition and protection of existing trees. Refer to updated sheet C2-0.

22. Mech 128: The hard lid as shown in this room was deleted on Fire Station #6. Should it be deleted on this Station?

    A. The drop (acoustical tile) ceiling was deleted at Station 6. The hard ceiling is still spec'd for Station 3.

23. Plans do not show a solenoid shut off for the gas to the stove and grill. One was included on Station #6. Shall it be included on this station?

    A. Solenoid shut off valve is shown on enlarged plumbing detail on sheet P1-2.

24. Utilities: The City is in the process of working with the necessary utility companies to connect the new fire station to water, sewer, electric and gas. The Contractor will be responsible for connecting the building to these utilities. There is also an existing streetlight that will be relocated by Xcel at the new north entrance, as well as a communications pedestal that will need to be relocated during construction. Please note the existing communications line running west to east across the north side of the property – this line will be relocated by the Contractor to the north of the new building (see sheet C4-0).

25. Drawing Sheet A7-1, Interior Finish Color Schedule: Revise tile line items to be as follows:
    A. PT1 (floor tile) – Crossville Gotham, AV325, Dockside, 12" x 24"
    B. PT2 (wall tile) - Crossville Gotham, AV321, Lamppost, 12" x 24"
    C. PT3 (accent wall tile) – Crossville Cursive, CRV02, Smoke, 4" x 4" circle with 6" x 6" (4) corner surround

    Section 09 30 00 – Tiling: Revise paragraphs 2.01 – A, B, C, and D as follows:

    A. Manufacturers: All products by the same manufacturer.

    B. Porcelain Tile, Type PT1: ANSI A137.1 standard grade.
        1. Moisture Absorption: 0 to 0.5 percent as tested in accordance with ASTM C373.
        2. Size: as shown on drawings inch, nominal.
        3. Thickness: 3/8 inch.
        4. Edges: Cushioned.
        5. Surface Finish: Unpolished.
        6. Color(s): As indicated on drawings.
        7. Pattern: As indicated on drawings.
        8. Trim Units: Matching bullnose and cove base in sizes coordinated with field tile.
        9. Products:
            a. Crossville Gotham

    C. Porcelain Tile, Type PT2: ANSI A137.1 standard grade.
        1. Moisture Absorption: 0 to 0.5 percent as tested in accordance with ASTM C373.
        2. Size: as shown on drawings inch, nominal.
        3. Thickness: 3/8 inch.
        4. Edges: Cushioned.
        5. Surface Finish: Unpolished.
        6. Color(s): As indicated on drawings.
        7. Pattern: As indicated on drawings.
        8. Trim Units: Matching bullnose and cove base in sizes coordinated with field tile.
        9. Products:
            b. Crossville Gotham

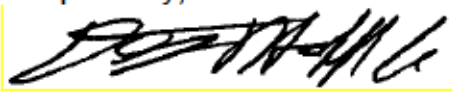
    D. Porcelain Tile, Type PT3:
        1. Moisture Absorption: Up to 15 percent as tested in accordance with ASTM C373.
        2. Size: as shown on drawings inch, nominal.

3. Thickness: 3/8 inch.
4. Edges: Cushioned.
5. Surface Finish: Gloss.
6. Color(s): As indicated on drawings.
7. Pattern: As indicated on drawings.
8. Trim Units: None.
9. Products:
    c. Crossville Cursive

The original solicitation for the project noted above is amended as noted.

All other conditions of subject remain the same.

Respectfully,



Duane Hoff Jr., Senior Buyer
City of Grand Junction, Colorado

Bid Schedule: Grand Junction Fire Department - Fire Station #3 Construction (Addendum #7)

Item No.	Division No.	Description	Quantity	Units	Unit Price	Total Price
1	01	General Conditions (Bond fees, Permits, Supervision, Sanitary Facility, Construction Surveying, QC Materials Testing, Traffic Control, Etc.)	Lump	Sum	---	$ _____
2	02	Existing Conditions - Removal of Asphalt	4,700.	SY	$ _____	$ _____
3	02	Existing Conditions - Removal of Concrete Flatwork	310.	SY	$ _____	$ _____
4	02	Existing Conditions - Removal of Concrete Curb & Gutter (On Site)	865.	LF	$ _____	$ _____
5	02	Existing Conditions - Removal of Concrete Curb & Gutter (25 1/2 Road)	155.	LF	$ _____	$ _____
6	02	Existing Conditions - Removal of Fence	285.	LF	$ _____	$ _____
7	02	Existing Conditions - Removal of Tree	4.	Each	$ _____	$ _____
8	02	Existing Conditions - Manhole/Utility Rim Adjustments	Lump	Sum	---	$ _____
9	03	Concrete	Lump	Sum	---	$ _____
10	04	Masonry	Lump	Sum	---	$ _____
11	05	Metals	Lump	Sum	---	$ _____
12	06	Wood, Plastics, and Composites	Lump	Sum	---	$ _____
13	07	Thermal and Moisture Protection	Lump	Sum	---	$ _____
14	08	Openings	Lump	Sum	---	$ _____
15	09	Finishes	Lump	Sum	---	$ _____
16	10	Specialties	Lump	Sum	---	$ _____
17	11	Equipment (Appliances)	Lump	Sum	---	$ _____
18	12	Furnishings	Lump	Sum	---	$ _____
19	21	Fire Suppression	Lump	Sum	---	$ _____
20	22	Plumbing	Lump	Sum	---	$ _____
21	23	Heating, Ventilating, and Air-Conditioning (HVAC)	Lump	Sum	---	$ _____
22	26	Electrical	Lump	Sum	---	$ _____
23	27	Communications	Lump	Sum	---	$ _____
24	28	Electronic Safety and Security	Lump	Sum	---	$ _____
25	31	Earthwork - Site Clearing	Lump	Sum	---	$ _____
26	31	Earthwork - Subgrade Reconditioning (12-inch Depth)	3,110.	SY	$ _____	$ _____
27	31	Earthwork - Subgrade Stabilization (24-inch Over Excavation and Replacement with Pit Run or Approved Equal, includes haul off of unuseable material)	3,110.	SY	$ _____	$ _____
28	31	Earthwork - Geotextile (Tensar BX1200 or Approved Equal, Contractor to consider overlapping)	3,110.	SY	$ _____	$ _____
29	31	Earthwork - Erosion Control (Inlet Protection, Perimeter Control, Vehicle Tracking Pad, Concrete Washout Structure)	Lump	Sum	---	$ _____
30	31	Earthwork - Concrete Filled Steel Pipe Piles	Lump	Sum	---	$ _____

Bid Schedule: Grand Junction Fire Department - Fire Station #3 Construction (Addendum #7)

Item No.	Division No.	Description	Quantity	Units	Unit Price	Total Price
31	32	Exterior Improvements - 7 inches Class VI Base Under Auto Parking Asphalt (Moisture Conditioned and Compacted)	377.	SY	$ _____	$ _____
32	32	Exterior Improvements - 14 inches Class VI Base Under Truck Traffic Aspahlt Pavement (Mositure Conditioned and Compacted)	1,330.	SY	$ _____	$ _____
33	32	Exterior Improvements - Asphalt Paving (4-inch HMA, GR SX, Binder 64-22, 75 GY)	1,706.	SY	$ _____	$ _____
34	32	Exterior Improvements - Asphalt Patching (25 1/2 Road Asphalt Patch, Per City Standards, Match Existing Conditions & Asphalt Patch Around Trash Enclosure)	140.	SY	$ _____	$ _____
35	32	Exterior Improvements - 4-Inch-Thick Concrete Flatwork, Includes 6 inches Class VI ABC (Portion Includes Turned Down Edge) & Concrete Ramps Along 25 1/2 Road	355.	SY	$ _____	$ _____
36	32	Exterior Improvements - 8-Inch-Thick Concrete Flatwork, Includes 6 inches Class VI ABC & #4 Rebar, 16" Cntrs, E.W. (Includes Dumpster Enclosure Pad)	842.	SY	$ _____	$ _____
37	32	Exterior Improvements - 8-Inch-Thick Concrete Flatwork, Includes 6 inches Class VI ABC & #4 Rebar, 16" Cntrs, E.W. (25 1/2 Road Driveway Aprons)	232.	SY	$ _____	$ _____
38	32	Exterior Improvements - 8-Inch-Thick Concrete Transformer Pad, Includes 6 inches Class VI ABC	8.	SY	$ _____	$ _____
39	32	Exterior Improvements - 6-Inch-Thick Concrete Valley Pan, Includes 6 inches Class VI ABC	21.	SY	$ _____	$ _____
40	32	Exterior Improvements - 1'-6" Concrete Curb and Gutter, Includes 6 inches Class VI ABC (Catch or Spill) (Includes C/G Replacement along 25 1/2 Road Sidewalk)	868.	LF	$ _____	$ _____
41	32	Exterior Improvements - 6"(w) x 18"(h) Ribbon Curb, Includes 6" Class VI ABC	67.	LF	$ _____	$ _____
42	32	Exterior Improvements - Parking Lot Accessories (Striping, Signs, ADA Detectable Warning Strips, Flag Pole w/ Accessories, Irrigation Sleeving, Water Quality Rip-Rap)	Lump Sum		---	$ _____
43	32	Exterior Improvements - Landscaping (including irrigation, soil prep, turf, and plants)	Lump Sum		---	$ _____
44	33	Utilities (Water, Sanitary and Drainage System)	Lump Sum		---	$ _____
MCR		MINOR CONTRACT REVISIONS	---	---	---	$ 350,000.00
				Bid Amount:		**$** _____

Bid Amount:

_____ **dollars**

SECTION 10 14 00
SIGNAGE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Room and door signs.

B. Building identification signs.

C. Plaque.

1.02 REFERENCE STANDARDS

A. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines current edition.

B. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design 2010.

C. ICC A117.1 - Accessible and Usable Buildings and Facilities 2017.

1.03 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.

B. Product Data: Manufacturer's printed product literature for each type of sign, indicating sign styles, font, foreground and background colors, locations, overall dimensions of each sign.

C. Signage Schedule: Provide information sufficient to completely define each sign for fabrication, including room number, room name, other text to be applied, sign and letter sizes, fonts, and colors.

1. When room numbers to appear on signs differ from those on drawings, include the drawing room number on schedule.
2. When content of signs is indicated to be determined later, request such information from Owner through Architect at least 2 months prior to start of fabrication; upon request, submit preliminary schedule.
3. Submit for approval by Owner through Architect prior to fabrication.

D. Samples: Submit one sample of each type of sign, of size similar to that required for project, illustrating sign style, font, and method of attachment.

E. Selection Samples: Where colors are not specified, submit two sets of color selection charts or chips.

F. Verification Samples: Submit samples showing colors specified.

1.04 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of experience.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Package signs as required to prevent damage before installation.

B. Package room and door signs in sequential order of installation, labeled by floor or building.

C. Store tape adhesive at normal room temperature.

1.06 FIELD CONDITIONS

A. Do not install tape adhesive when ambient temperature is lower than recommended by manufacturer.

B. Maintain this minimum temperature during and after installation of signs.

PART 2 PRODUCTS

2.01 SIGNAGE APPLICATIONS

A. Accessibility Compliance: Signs are required to comply with ADA Standards and ICC A117.1, unless otherwise indicated; in the event of conflicting requirements, comply with the most comprehensive and specific requirements.

B. Room and Door Signs: Provide a sign for doorways as scheduled on the drawings.
   1. Sign Type: Flat signs with engraved panel media as specified.
   2. Provide "tactile" signage, with letters raised minimum 1/32 inch and Grade II braille.
   3. Character Height: 1 inch.
   4. Sign Height: 2 inches, unless otherwise indicated.
   5. Office Doors: Identify with room numbers to be determined later, not the numbers indicated on drawings; in addition, provide "window" section for replaceable occupant name.
   6. Conference and Meeting Rooms: Identify with room numbers to be determined later, not the numbers indicated on drawings; in addition, provide "window" section with sliding "In Use/Vacant" indicator.
   7. Service Rooms: Identify with room names and numbers to be determined later, not those indicated on drawings.
   8. Rest Rooms: Identify with pictograms, the names "MEN" and "WOMEN", and braille.

C. Building Identification Signs:
   1. Use individual cast aluminum letters.
   2. Mount on outside wall in location indicated on drawings.

D. Plaque: See drawings for details.

2.02 SIGN TYPES

A. Flat Signs: Signage media without frame.
   1. Edges: Square.
   2. Corners: Square.
   3. Wall Mounting of One-Sided Signs: Tape adhesive.

B. Color and Font: Unless otherwise indicated:
   1. Character Font: Helvetica, Arial, or other sans serif font.
   2. Character Case: Upper case only.
   3. Background Color: Clear.
   4. Character Color: Contrasting color.

2.03 TACTILE SIGNAGE MEDIA

A. Engraved Panels: Laminated colored plastic; engraved through face to expose core as background color:
   1. Total Thickness: 1/16 inch.

2.04 PLAQUES

A. Metal Plaques:
   1. Metal: Aluminum casting.
   2. Metal Thickness: 1/8 inch, minimum.
   3. Size: As indicated on drawings.
   4. Text and Typeface:
      a. Character Font: Helvetica, Arial, or other sans serif font.
      b. Character Case: Upper case only.
      c. Character Color: Contrast with background color.
   5. Border Style: As indicated on drawings.
   6. Background Texture: Pebble.

7. Surface Finish: Brushed, satin.

2.05 DIMENSIONAL LETTERS

A. ***Metal Letters [S-1]:***
   1. ***Metal: Aluminum sheet, flat.***
   2. Metal Thickness: Manufacturer's standard for letter size.
   3. Letter Height: As indicated on drawings.
   4. Text and Typeface: As indicated on drawings
   5. Finish: Brushed, satin.
   6. Mounting: Studs / anchors on backs of letters.

B. ***Metal Letters [S-2]:***
   1. ***Metal: Aluminum.***
   2. ***Metal thickness: Manufacturer's standard for letter size.***
   3. ***Letter Height: As indicated on drawings.***
   4. ***Finish: Satin***
   5. ***Mounting: Stud Mounting in adhesive grout for stand-off requirment***
   6. ***Manufacturer: ASI Signage Innovations, 8181 Jetstar Drive, Suite 100, Irving, TX 75063;(214) 352- 9140 telephone; (214) 352-9741 facsimile; (800) ASI-SPEC [274-7732]***
   7. ***Substitutions: Submit in accordance with Section 01 60 00 -Product Requirments***
   8. ***Acceptable Product: Light Weight Fabricated Metal Dimensional Letters.***
   9. ***Fabricated Letters:***
      a. ***Height: Indicated on the drawing***
      b. ***Depth: 6 Inches thick letter sign.***
      c. ***Letter style: TW CEN MT BOLD FONT***
   10. ***Create signage to required sizes and layout. Comply with requirements indicated for design, dimensions, finish, color, and details of construction.***

2.06 ACCESSORIES

A. Concealed Screws: Stainless steel, galvanized steel, chrome plated, or other non-corroding metal.

B. Exposed Screws: Chrome plated.

C. Tape Adhesive: Double sided tape, permanent adhesive.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that substrate surfaces are ready to receive work.

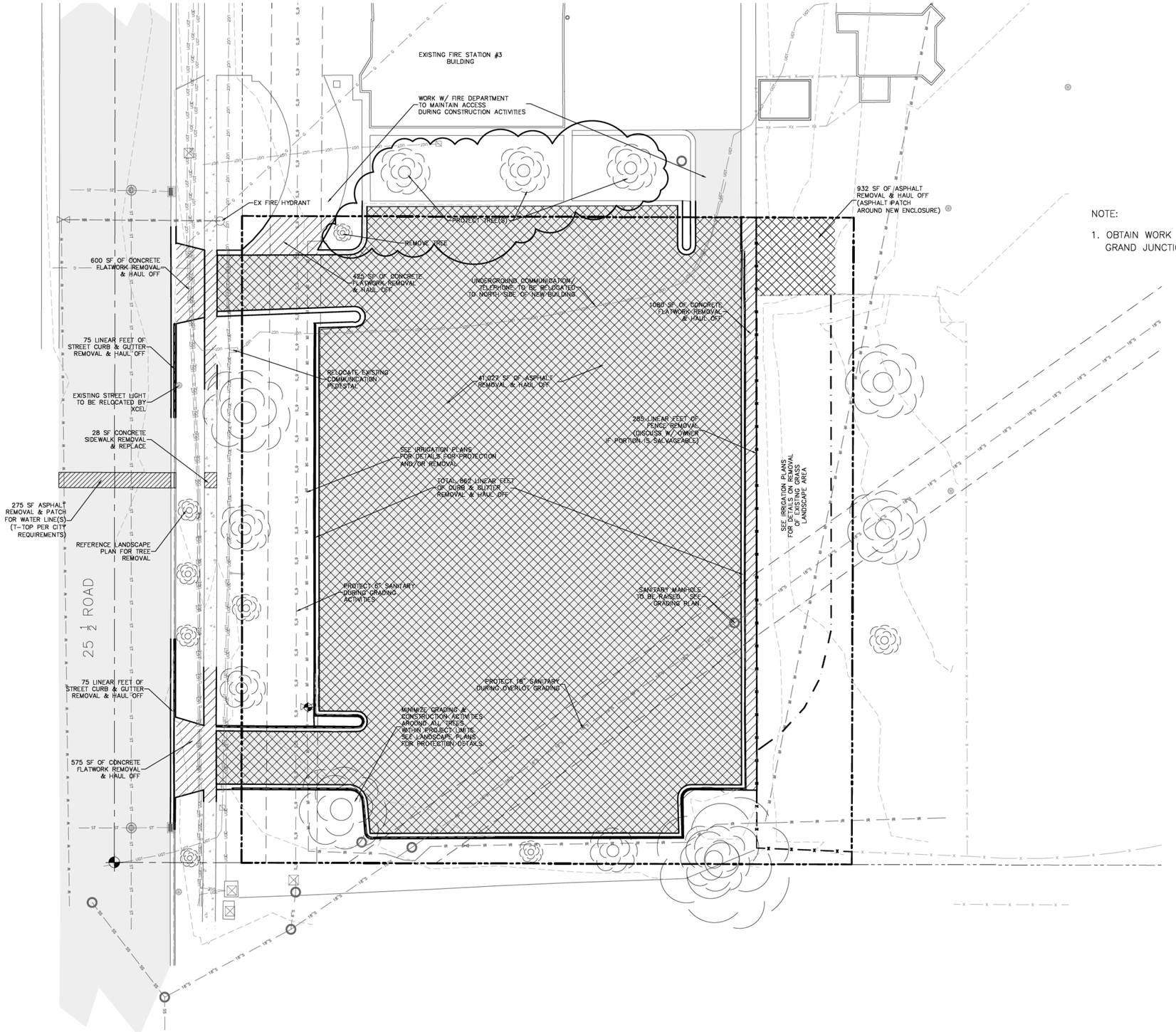
3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install neatly, with horizontal edges level.

C. Protect from damage until Date of Substantial Completion; repair or replace damaged items.

END OF SECTION



NOTE:

1. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 25 $\frac{1}{2}$ ROAD.

BG+ co.
Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office
BLYTHE GROUP + co.

A • C • G
AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services
123 N. 7th Street, Suite 300 • Grand Junction, Colorado 81501
970-242-7540

GRAND JUNCTION FIRE DEPARTMENT FIRE STATION #3

580 25 1/2 RD GRAND JUNCTION, COLORADO 81501

DEMOLITION PLAN

FOR CONSTRUCTION

REV.	DESC.	DATE:
1	ADDENDUM #7	3-19-21

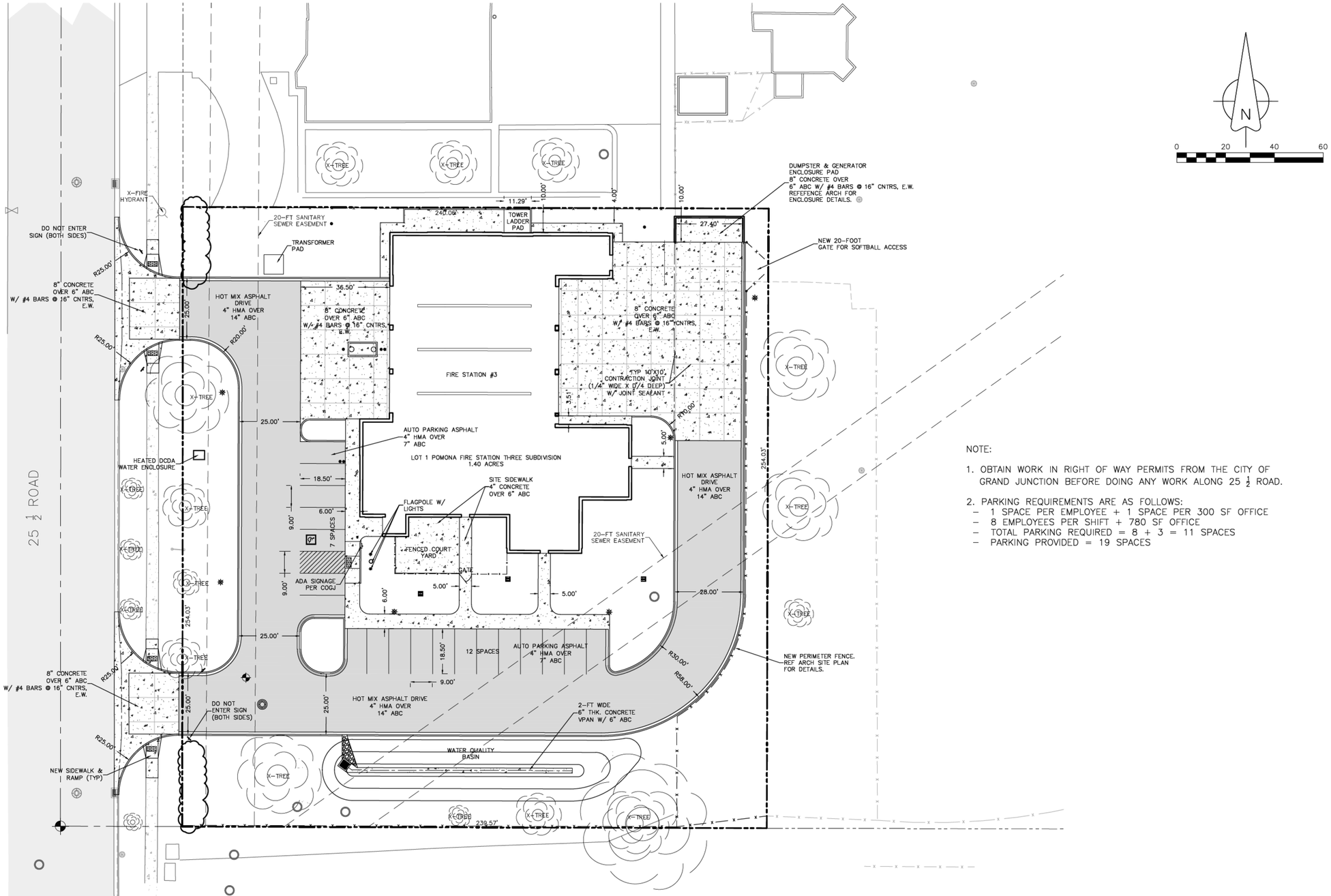
DATE: 03-15-21

PROJECT #: 2072

SHEET #:

C2-0

M:\PROJECTS\2072\DWG\Fire Station #3\Drawings\CDs\Production Drawings\PROD-DEMO.dwg, 3/15/2021 11:53:44 PM, DWG To PDF.pc3



NOTE:

1. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 25 ½ ROAD.

2. PARKING REQUIREMENTS ARE AS FOLLOWS:
   - 1 SPACE PER EMPLOYEE + 1 SPACE PER 300 SF OFFICE
   - 8 EMPLOYEES PER SHIFT + 780 SF OFFICE
   - TOTAL PARKING REQUIRED = 8 + 3 = 11 SPACES
   - PARKING PROVIDED = 19 SPACES

BG+ co.
Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office
BLYTHE GROUP + co.

A • C • G
AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services

GRAND JUNCTION FIRE DEPARTMENT
FIRE STATION #3

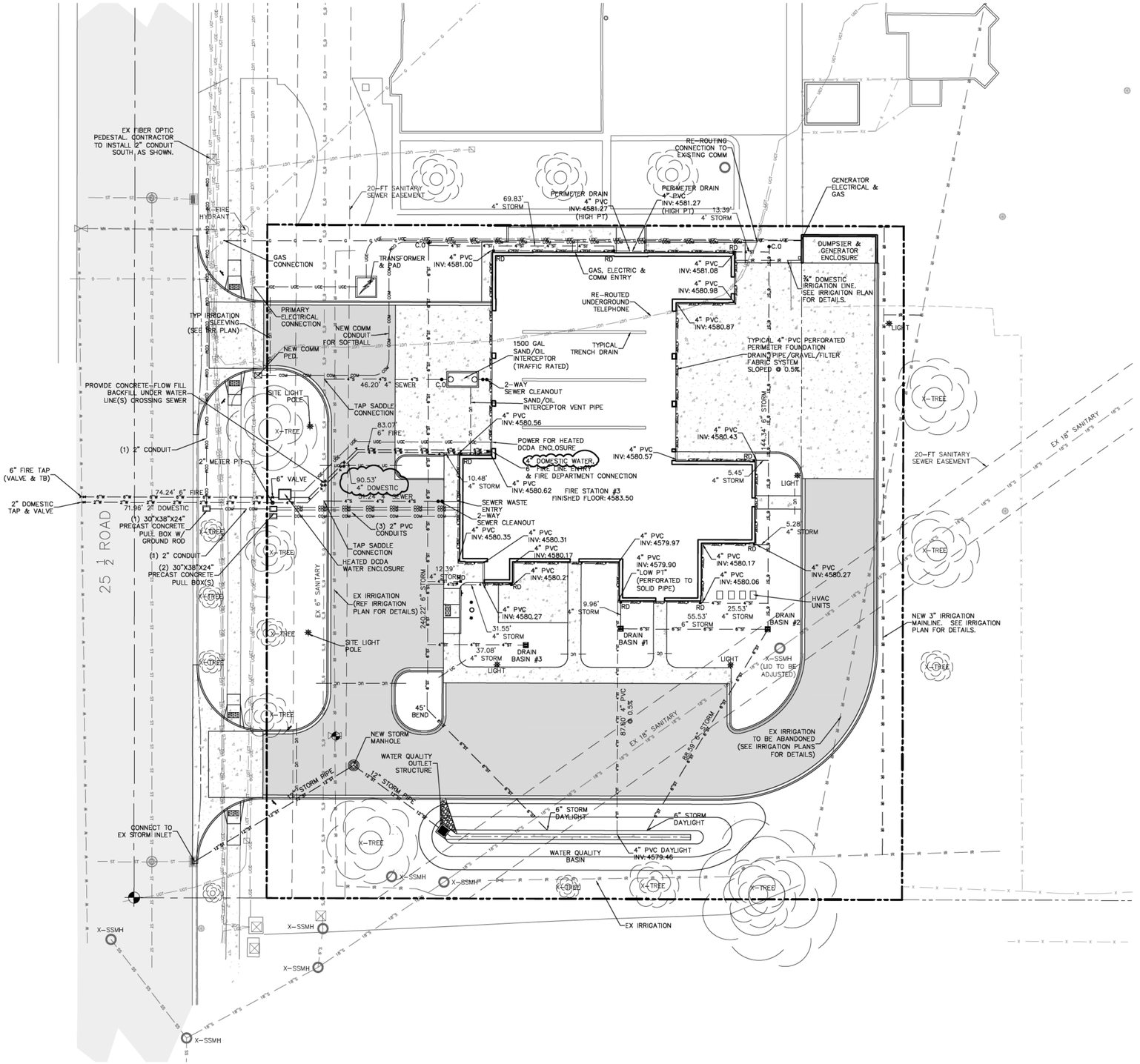
580 25 1/2 RD GRAND JUNCTION, COLORADO 81501

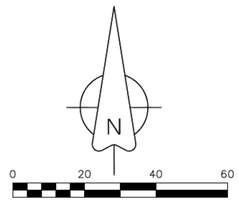
SITE PLAN

FOR CONSTRUCTION

REV.	DESC.	DATE:
1	ADDENDUM #7	3-19-21

DATE: 03-15-21
PROJECT #: 2072
SHEET #:
C3-0





GENERAL NOTES:

1. ALL EXISTING UTILITY INFORMATION DEPICTED ON THESE PLANS IS A QUALITY LEVEL "C", UNLESS OTHERWISE NOTED.
2. OBTAIN WORK IN RIGHT OF WAY PERMITS FROM THE CITY OF GRAND JUNCTION BEFORE DOING ANY WORK ALONG 25 ½ ROAD.
3. STORM DRAINS ARE TO BE 12" "NYLOPLAST" DRAIN BASINS OR EQUAL WITH A STANDARD 12" SQUARE PEDESTRIAN GRATE.

BG+ co.
Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office
BLYTHE GROUP + co.

A • C • G
AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services
(970) 245-7340

GRAND JUNCTION FIRE DEPARTMENT
FIRE STATION #3

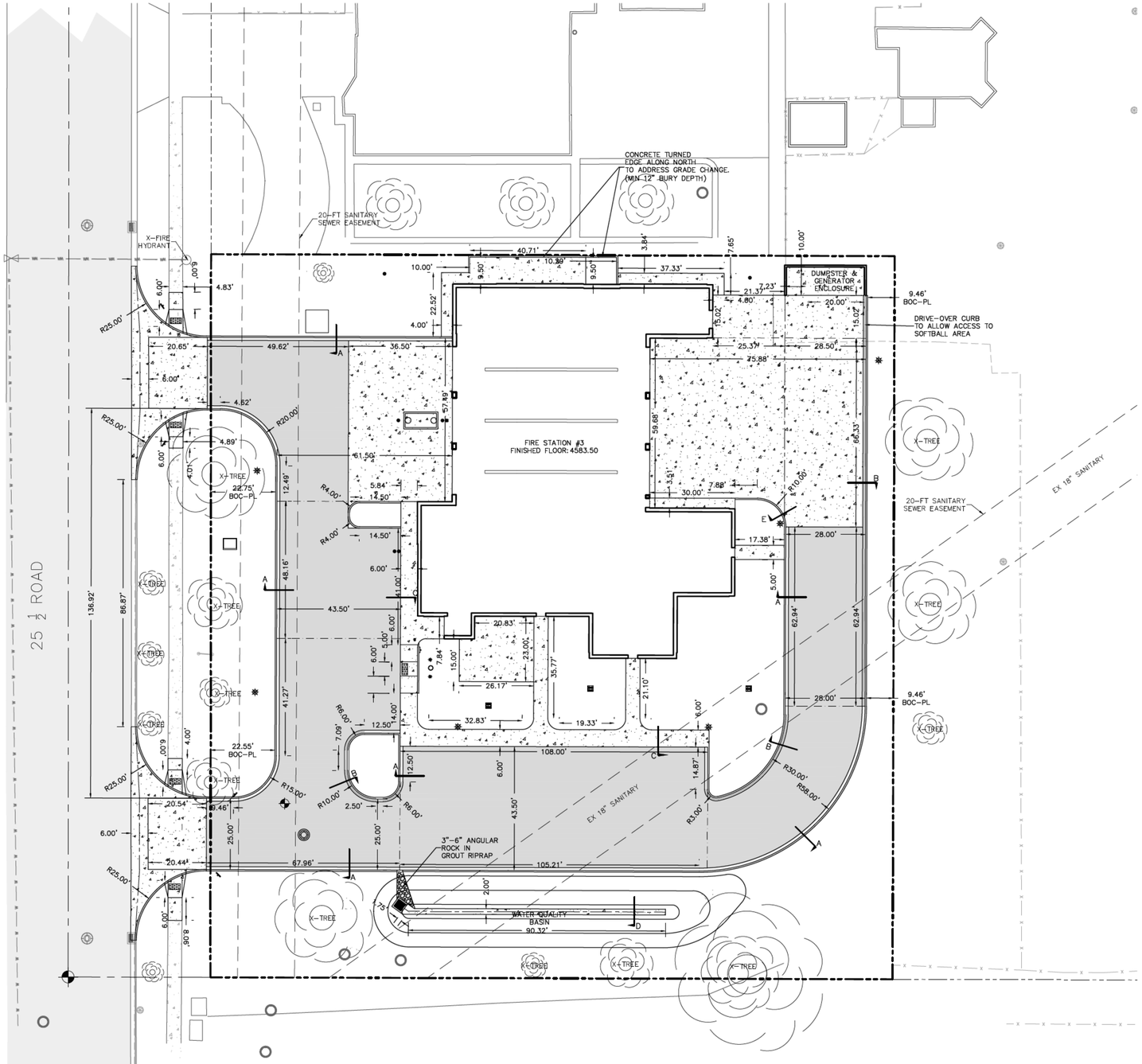
580 25 1/2 RD GRAND JUNCTION, COLORADO 81501

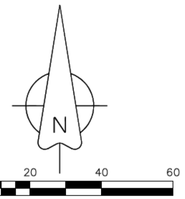
UTILITY COMPOSITE

FOR CONSTRUCTION

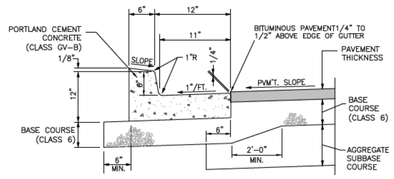
REV.	DESC.	DATE:
1	ADDENDUM #7	3-19-21

DATE: 03-15-21
PROJECT #: 2072
SHEET #:
C4-0

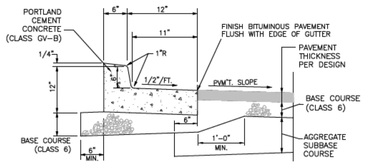




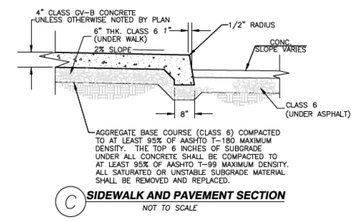
TYPICAL CONCRETE SECTIONS



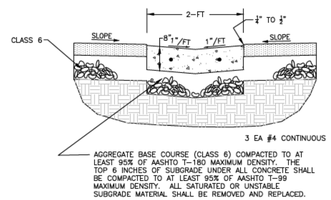
A ***STANDARD 1'-6" CURB AND GUTTER***
NOT TO SCALE



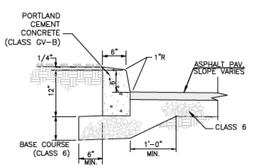
B ***1'-6" SPILL CURB AND GUTTER***
NOT TO SCALE



C ***SIDEWALK AND PAVEMENT SECTION***
NOT TO SCALE



D ***2' WIDE VALLEY PAN DETAIL***
NOT TO SCALE



E ***BARRIER CURB***
NOT TO SCALE

BG+ co.
Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office
BLYTHE GROUP + co.

A • C • G
AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services
(970) 242-7540

GRAND JUNCTION FIRE DEPARTMENT
-FIRE STATION #3

580 25 1/2 RD GRAND JUNCTION, COLORADO 81501

HORIZONTAL CONTROL PLAN

FOR CONSTRUCTION

REV.	DESC.	DATE:

DATE: 03-15-21
PROJECT #: 2072
SHEET #:

C6-0

(CSR) LANDSCAPE REQUIREMENTS

TOTAL IMPROVED AREA: 60,920 SQ. FT.

Landscape Requirements (CSR):
One tree per 2,500 square feet of improved area, with no more than 20 percent of the total being ornamental trees or evergreens. One five-gallon shrub per 300 square feet of improved area.

Location of Landscaping on Site:
Buffer, parking lot, street frontage perimeter, foundation plantings and public right-of-way.

Landscape Calculations:
1 TREE REQUIRED FOR EVERY 2,500 SQ.FT. OF IMPROVED AREA.
IMPROVED AREA = 60,920 SQ. FT.
(60,920/ 2,500) = ROUND TO 25
TREES REQUIRED = 25 or 50 inches of caliper
- Trees exceed the minimum caliper requirement by one inch or more.

TREES PROVIDED:
9 Existing Trees (118 inches of caliper)
6 New Trees (12 inches of caliper)

1 SHRUB REQUIRED FOR EVERY 300 SQ.FT. OF IMPROVED AREA.
(60,920/ 300) = ROUND TO 203.
SHRUBS REQUIRE = 203
- Twenty-five percent of the required shrubs may be converted to turf based on one five-gallon shrub per 50 square feet of turf.

TURF SUBSTITUTES FOR 51 SHRUBS. 25% OF 203= 51 SHRUBS (50 SQ. FT. TURF X 51= 2,550 SQ. FT. TURF MIN.)
- Ten percent of the required shrubs may be converted to perennials and/or ground covers at a ratio of three one-gallon perennials and/or ground covers for one five-gallon shrub

PERENNIAL SUBSTITUTES FOR 11 SHRUBS. (33 PERENNIALS/ 3 = 11 SHRUBS)
- Additional trees or larger trees can be exchanged on a per-caliper-inch basis with three shrubs equaling one caliper inch. Credit for using larger trees would be based on a direct exchange of caliper inches.

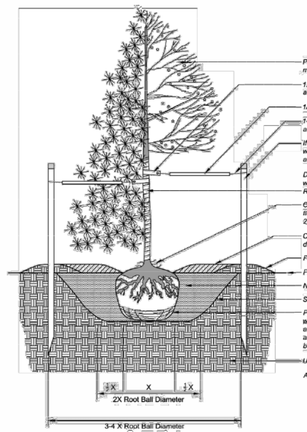
TREE CALIPER SUBSTITUTES FOR 87 SHRUBS. (29 INCHES OF LARGER TREE CALIPER = 111 SHRUBS)

SHRUBS PROVIDED:
FIVE GALLON SHRUBS PROVIDED = 45
ONE GALLON PERENNIALS = 33
TURF AREA = 31,470 SQ. FT.
80 INCHES OF LARGER TREE CALIPER

PROPOSED PLANT LIST

No.	Sym	Common Name/ Biological Name	Planting Size/ Remarks	Mature Size
Deciduous Trees:				
4	HCT	Cockspur Thornless Hawthorn/ Crataegus crus-galli 'Inermis'	2" cal./ B&B	20' Ht. & 15' Spd.
2	KCT	Kentucky Coffeetree/ Gymnocladus/ dioicus	2" cal./ B&B	60' Ht. & 50' Spd.
Deciduous Shrubs:				
2	ATR	Althea- Rose of Sharon / Hibiscus syriacus	18" -24" Spread/ #5	10' Ht. & 5' Spd.
5	BMS	Blue Mist Spirea/ Caryopteris x clandonensis	18" -24" Spread/ #5	3' Ht. & 3' Spd.
5	MKL	Miss Kim Lilac/ Syringa patula 'Miss Kim'	18"-24" Spread/ #5	5' Ht. & 5' Spd.
3	NMP	New Mexico Privet/ Forestiera neomexicana	18"-24" Spread/ #5	8' Ht. & 6' Spd.
4	LSB	Lilla Smoke Bush/ Cotinus coggygria 'Lilla'	18"-24" Spread/ #5	4' Ht. & 4' Spd.
5	DBB	Dwarf Burning Bush/ Euonymus alatus 'Compacta'	18"-24" Spread/ #5	4' Ht. & 4' Spd.
3	RSA	Russian Sage/ Perovskia artiplicifolia	18"-24" Spread/ #5	4' Ht. & 4' Spd.
2	YFC	Yellow Flowering Currant/ Ribes aureum	18"-24" Spread/ #5	6' Ht. & 6' Spd.
Evergreen and Broadleaf Shrubs:				
12	GMD	Green Mound Juniper/ Juniperus procumbens Green Mound'	18"-24" Spread/ #5	1' Ht. & 6' Spd.
4	ACB	Arizona Cypress/ Cuppressus arizonica 'Blue Ice'	5' Tall/ #20	15' Ht. & 8' Spd.
Grasses/ Perennials/ Ground Cover:				
6	PHM	Panicum' Heavy Metal'	#1	3" Ht. & 2" Spd.
6	MRU	Muhlenbergia reverchonii 'Undahnted'	#1	2' Ht. & 2' Spd.
7	DAY	Daylily/ Hemerocallis 'Crimson Pirate'	#1	24" Ht. & 24" Spd.
7	SDA	Autumn Joy Sedum/ Sedum spectabile 'Autumn Joy'	#1	24" Ht. & 24" Spd.
2	ELA	English Lavender/ Lavandula angustifolia 'Munstead'	#5	18" Ht. & 24" Spd.
7	APD	Aster Purple Dome/ Aster novae-angliae ' Purple Dome'	#1	18" Ht. & 18" Spd.
Bulbs				
20	ERE	Eremerus	Bulbs	
20	ALG	Allium 'Globemaster'	Bulbs	
300	CRO	Crocus	Bulbs	

*All plant totals on the plant list shall be verified with plant numbers on the landscape plans.



Trees planted upon park land, public property, or within the Public Right of Way (PRW) are subject to the following restrictions:

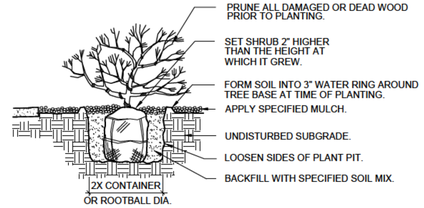
- Prior to digging, the Utility Notification Center of Colorado shall be contacted at 811 to locate underground utilities.
- A planting permit from the Grand Junction City Forester (GJCF) is required regardless of approved plans to ensure the City is available to inspect the planting of public trees.
- Tree planting shall not occur when daytime temperatures reach or exceed 90-degrees Fahrenheit, unless approved by GJCF.
- Only tree species approved by the GJCF shall be planted.
- Trees shall not be planted in tree lawns less than six feet wide unless authorized by the GJCF.
- Trees shall be centered in tree lawns and/or planting areas. Where sidewalks are not present, trees shall be located as designated by the GJCF.
- Unless authorized by the GJCF, trees shall be located:
  - Outside street intersection sight distance triangle, measured 30 (thirty) feet along the PRW in each direction from the corner.
  - Min. 10 (Ten) feet from alleys and driveways
  - Min. 20 (Twenty) feet from stop signs and curb ramps
  - Min. 25 (Twenty-five) feet from street lights
  - Min. 10 (Ten) feet from electric/gas/water lines, water meters/pits, and fire hydrants
  - Min. 15 (Fifteen) feet from small cell towers
- If overhead utility wires exist, only trees with an expected mature size that meet current clearance regulations may be planted.
- Tree spacing shall be based on projected mature canopy size and above restrictions, or as approved by the GJCF.
- All electric fixtures and utilities, including but not limited to outlets and lights, shall be located at outside perimeter of tree planting areas within hardscape. In tree lawns, fixtures shall be placed minimum 3 (three) feet radially from base of trunk.

When planting is completed, contact forestry@gjcity.org for final inspection.

Grand Junction COLORADO	City of Grand Junction Office of the City Forester 2529 High Country Ct. Grand Junction, CO 81501	Tree Planting Detail - Public Right of Way, Park, and other Public Grounds	Detail: GJCF-PLANT1 Effective: 01-12-2021

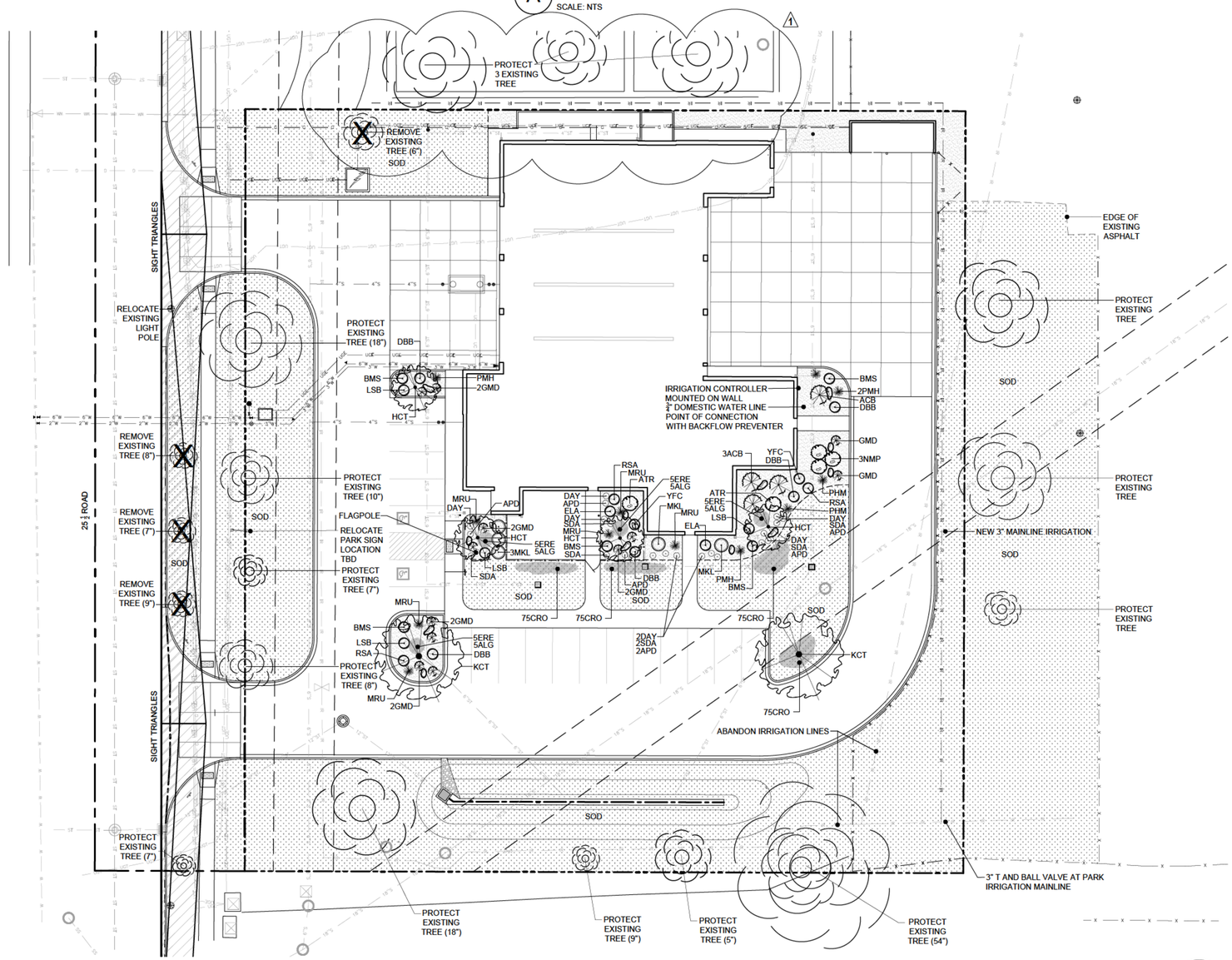
LANDSCAPE AND IRRIGATION NOTES

1. PLANTING AREAS ARE TO HAVE 3" OF LANDSCAPE ROCK (2" TAN GRANITE). ALL PLANT MATERIAL SHALL HAVE A PLANTING RING AT THE BASE OF EACH PLANT WITH 3" OF WESTERN RED CEDAR MULCH OVER LANDSCAPE FABRIC.
2. AN UNDERGROUND, PRESSURIZED IRRIGATION SYSTEM WILL BE PROVIDED FROM THE EXISTING 3" IRRIGATION MAINLINE AT THE PARK SYSTEM. A SECONDARY 3/4" DOMESTIC WATER LINE WILL BE INSTALLED TO A BACKFLOW PREVENTER FROM THE FIRE STATION FOR FUTURE USE. THE IRRIGATION CONTROLLER WILL BE LOCATED AT THE FIRE STATION. ALL PLANTING BEDS ARE TO BE IRRIGATED WITH AN AUTOMATIC DRIP SYSTEM AND ALL SOD AREAS ARE TO BE IRRIGATED WITH A POP-UP SPRAY SYSTEM. SEE IRRIGATION PLANS FOR ADDITIONAL INFORMATION.
3. METAL LANDSCAPE EDGING IS TO BE INSTALLED ALONG THE EDGE OF THE LANDSCAPE ROCK AREAS.
4. PLACE CROCUS BULBS INTO THE TURF ON THE SOUTH SIDE OF THE BUILDING AS SHOWN ON THE LANDSCAPE PLAN.
5. THE LANDSCAPE CONTRACTOR SHALL COLLECT SOILS SAMPLES AND RUN SOILS TESTING FOR THE PROPOSED PLANTING AREAS. ADD SOIL AMENDMENTS AND FERTILIZERS AS RECOMMENDED IN THE SOIL TESTING REPORT TO ENSURE A GOOD PLANTING MEDIUM. ANY IMPORTED PLANTING SOIL SHALL ALSO BE TESTED AND BE THREE PARTS SCREENED TOPSOIL AND ONE PART MANURE.



A Shrub Planting Detail

SCALE: NTS



1 LANDSCAPE PLAN

SCALE: 1"=20'-0"

0 20' 40'

NORTH

LANDSCAPE LEGEND

DECIDUOUS TREES
LARGE DECIDUOUS SHRUBS
EVERGREEN SHRUBS
SMALL DECIDUOUS SHRUBS
PERENNIALS
GRASSES
GRANITE LANDSCAPE BOULDERS
LANDSCAPE ROCK
METAL LANDSCAPE EDGING
SOD
BULBS

UTILITY NOTIFICATION CENTER OF COLORADO
CALL 811
LOCATION OF UTILITIES SHOWN HEREON WAS PROVIDED BY OTHERS. CONTRACTOR MUST VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

BG+ co.
Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office
BLYTHE GROUP + co.

MRLA
MITCH REWOLD LANDSCAPE ARCHITECT
LANDSCAPE ARCHITECTURE AND LAND PLANNING
386 34 1/4 Road
Palisade, Colorado 81526 (970) 361-4345

GRAND JUNCTION FIRE DEPARTMENT FIRE STATION #3

580 25 1/2 ROAD
GRAND JUNCTION, CO 81505

LANDSCAPE PLAN

FOR CONSTRUCTION

REV.	DESC.	DATE:
1	ADD 7	3/19/2021

DATE: 03/19/2021

PROJECT #: 2072

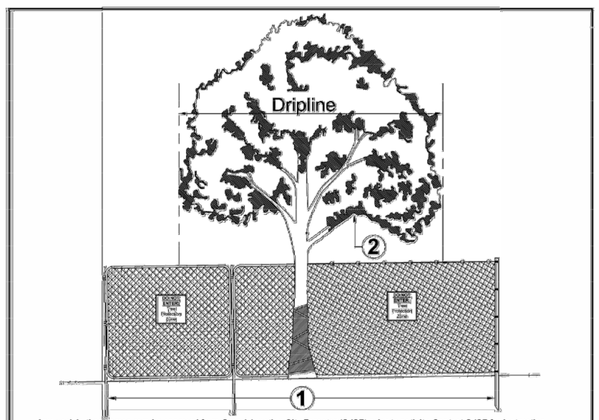
SHEET #:

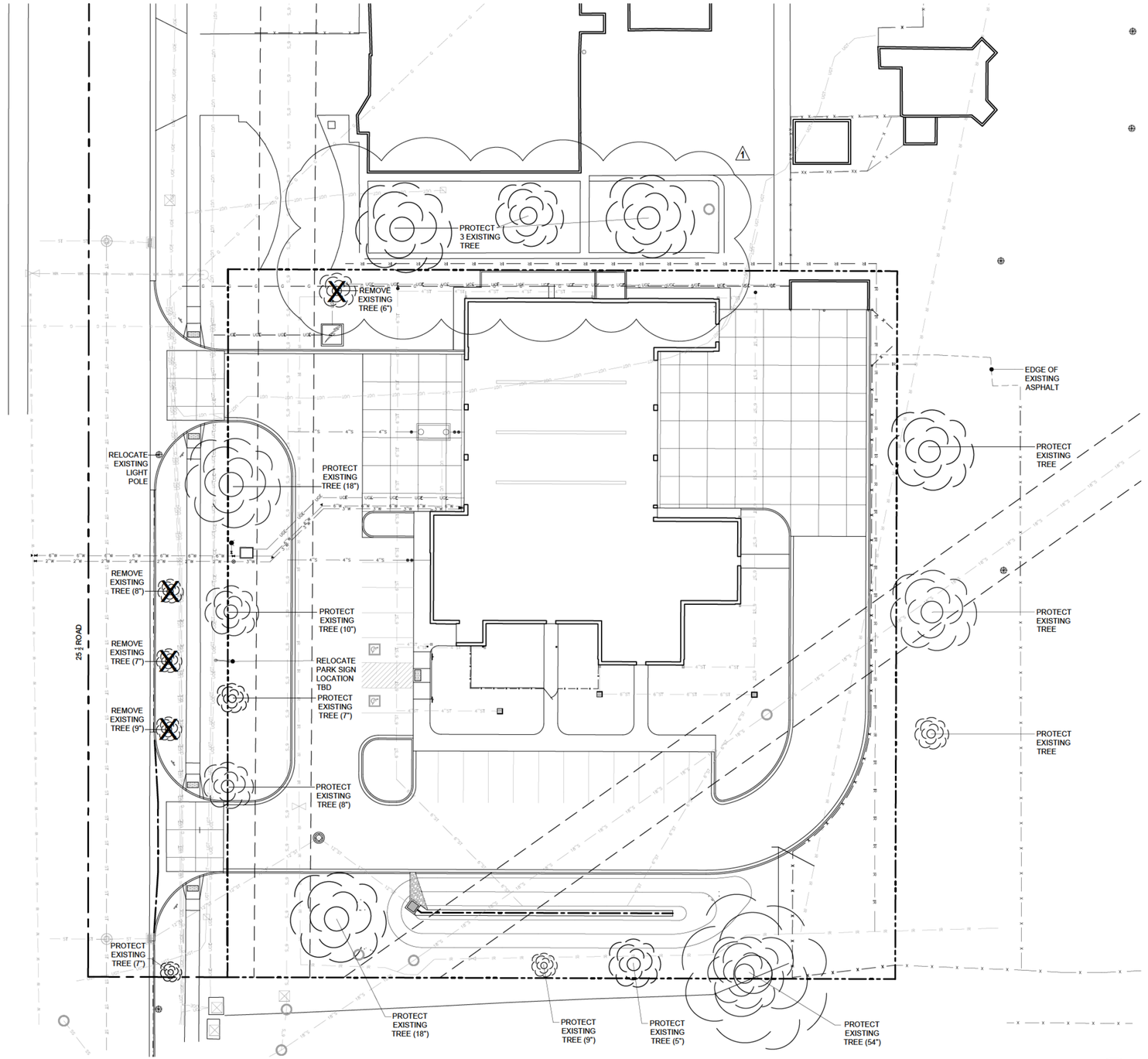
L1-0

Grand Junction City Forester (GJCF) Tree Protection Specifications

1. Existing trees to be preserved in public rights of way (ROW) or public places shall be protected per GJCF standards and practices. Tree protection shall be:
   A. Installed prior to commencement of demolition and/or construction activities
   B. Inspected and approved by GJCF staff
   C. Remain in place and as approved until Certificate of Occupancy or Substantial Completion and Final Acceptance is issued
2. Tree protection requirements:
   A. Tree Protection Zone (TPZ) shall be installed at the dripline, furthest extent of tree canopy, or is equal to eighteen inches radially from the tree for every one inch of trunk diameter at breast height (DBH = 4.5' above soil line), whichever is greater
      - Reduced TPZ areas must be approved by GJCF
   B. Install six foot (6') chain link fencing prior to commencement of project construction activities
      - With approval of GJCF, 4' orange construction fencing may be acceptable in place of chain link depending on potential impacts of activity
   C. GJCF staff shall inspect and approve boundaries of tree protection zone(s) prior to commencement of demolition or construction activities
   D. Once TPZ is in place, the following are not permitted within TPZ without prior written approval from GJCF:
      - Entrance and/or access
      - Moving, resizing, removing, or altering in any manner
      - Storage of materials/debris/equipment
      - Construction activities including but not limited to: rototilling, trenching, grading, installation of underground utilities and/or site improvements, landscaping, irrigation work
      - Irrigation line work shall be completed by directional bore or hand-dig method
   E. "Tree Protection Zone" signs shall remain in place as posted by GJCF and shall be maintained in the condition in which they were installed
   F. Tree Pruning for clearance issues must have prior authorization by GJCF staff
   G. No root 2 inches or larger shall be cut; consult with GJCF staff
3. Existing ROW or public place trees approved for removal by OCF must be protected in place until removed by an GJCF-licensed tree contractor to avoid structural failures:
   A. An GJCF tree removal permit is required
   B. Tree removal permits are not included with building permits and/or plan approval and must be obtained separately from the GJCF
4. Clear visibility into TPZ must be maintained. All construction banners, screens, barriers, and/or signs (except GJCF-posted TPZ signs) must be semi-transparent and not impede inspection of TPZ by GJCF staff
5. For projects with a duration of 5 days or longer:
   A. Protected trees shall be deep-root watered at a minimum interval of once every two weeks when temperatures are at or above 40-degrees
   B. Trees shall be watered at the rate of 20 gallons per inch caliper
      - OCF may ask for documented proof of watering and/or treatment.
6. Tree removal without permit and damages to public trees may be subject to the following:
   A. Issuance of notice of violation with associated citations / fines
   B. Responsible party for tree removal or tree damage shall be responsible for lost value based on industry standard tree appraisal methods as determined by GJCF

2529 HIGH COUNTRY CT, GRAND JUNCTION, CO 81501 P [970] 254- 3825 F [970] 254-3878 www.gjcity.org





1 TREE REMOVAL AND PROTECTION PLAN
SCALE: 1"=20'-0"

Plan Notes:
1. All tree protection and tree removal work on this plan shall be included in the Fire Station #3 construction contract.
2. The three crabapple trees along 25 1/2 Road shall be removed. Grind the stumps and haul all debris from the site. Prepare for new sod.
3. Tree protection is required for all 13 existing trees shown on this plan. The contractor must follow the GJCF specifications and details shown on this sheet.
4. Keep a safe distance from the tree protection zones. Contact the city forester if any construction activities interfere with the tree protection zones.

UTILITY NOTIFICATION CENTER OF COLORADO
CALL 811
LOCATION OF UTILITIES SHOWN HEREON WAS PROVIDED BY OTHERS. CONTRACTOR MUST VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

BG+ co.
Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office
BLYTHE GROUP + co.

MRLA
MITCH REWOLD LANDSCAPE ARCHITECT
LANDSCAPE ARCHITECTURE AND LAND PLANNING
386 34 3/4 Road
Palisade, Colorado 81526 (970) 361-4345

GRAND JUNCTION
FIRE DEPARTMENT
FIRE STATION #3

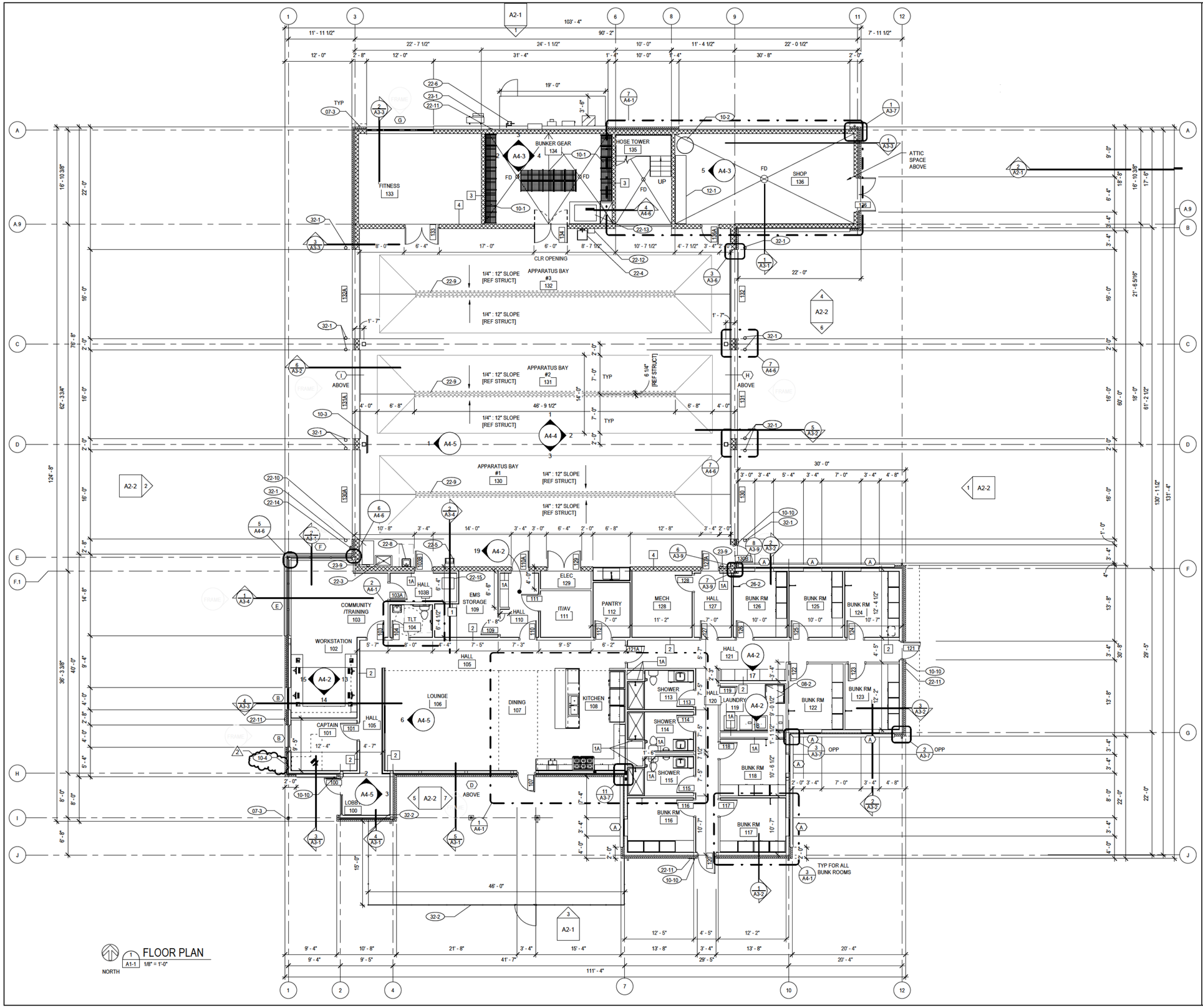
580 25 1/2 ROAD
GRAND JUNCTION, CO 81505

TREE REMOVAL AND PROTECTION PLAN

FOR CONSTRUCTION

REV.	DESC.	DATE:
1	ADD 7	3/19/2021

DATE: 03/19/2021
PROJECT #: 2072
SHEET #:
L1-1



KEYNOTE LEGEND	
07-3	DOWN SPOUT, TYP
08-2	CRAWL SPACE ACCESS DOOR
10-1	WIRE MESH GEAR LOCKER, TYP
10-2	AIR COMPRESSOR, FBO CONTRACTOR INSTALLED
10-3	40" FLAT SCREEN TV, FBO CENTER ON COLUMN. PROVIDE OUTLET BEHIND TV [REF ELEC]
10-4	DEDICATION PLAQUE SIGNAGE [REF SIGN DETAIL]
10-10	CARD READER
12-1	WORK BENCH, FBO
22-3	MOP SINK [REF PLBG]
22-4	UTILITY SINK [REF PLBG]
22-5	EWC [REF PLBG]
22-6	GAS METER [REF PLBG]
22-8	SINK [REF PLBG]
22-9	TRENCH DRAIN [REF PLBG]
22-10	FIRE SPRINKLER RISER ASSEMBLY [REF PLBG]
22-11	HOSE BIB [REF PLBG]
22-12	HOSE REEL [REF PLBG]
22-13	EXTRACTION WASHER FBO
22-14	FIR DEPARTMENT CONNECTION [REF PLBG / CIVIL]
22-15	ICE MAKER [REF PLBG]
23-1	HEAT PUMP [REF MECH]
23-9	EXHAUST SYSTEM SENSOR, MOUNT SENSOR BELOW HOSE REEL SHOWN BEYOND AT EAST AND WEST WALLS [REF MECH]
26-2	LIGHT FIXTURE, TYP [REF ELEC]
32-1	BOLLARD, TYP
32-2	PRIVACY FENCE

LEGEND

CMU

WALL

DOOR

BRICK

GENERAL NOTES

1. ALL INTERIOR PARTITIONS ARE TYPE 1, UNO. REFERENCE DRAWING SHEET G3-1 FOR ADDITIONAL WALL TYPES AND CONSTRUCTION.
2. INTERIOR DIMENSIONS ARE TO F.O. STUD, UNO.
3. EXTERIOR DIMENSIONS ARE TO F.O. STUD, MASONRY, OR CONC, UNO.
4. REFERENCE ROOM FINISH SCHEDULE FOR INTERIOR FINISHES.

BG+ co.
Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office
BLYTHE GROUP + co.

GRAND JUNCTION FIRE DEPARTMENT FIRE STATION #3

582 25 1/2 RD GRAND JUNCTION, COLORADO 81505

FLOOR PLAN

FOR CONSTRUCTION

REV.	DESC.	DATE:
1	ADD 5	3/12/2021
2	ADD 7	3/19/2021

DATE: 2/25/2021

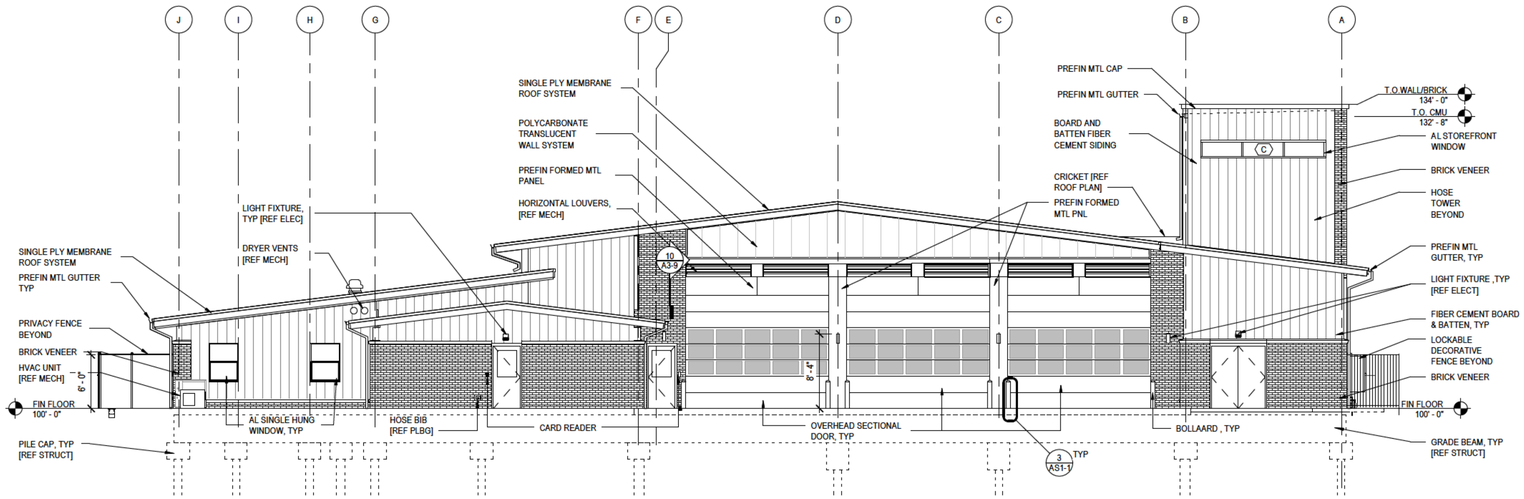
PROJECT #: 2072

SHEET #:

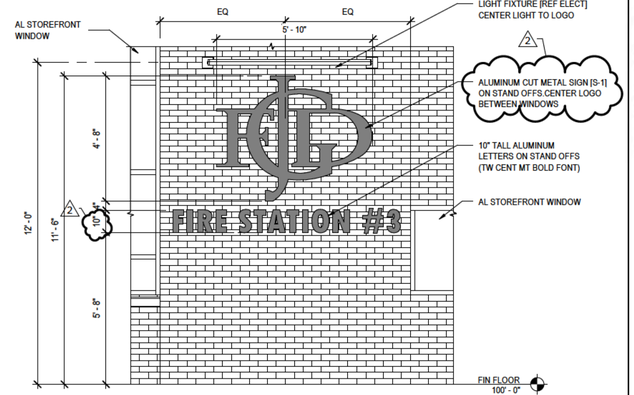
A1-1

Project Team:

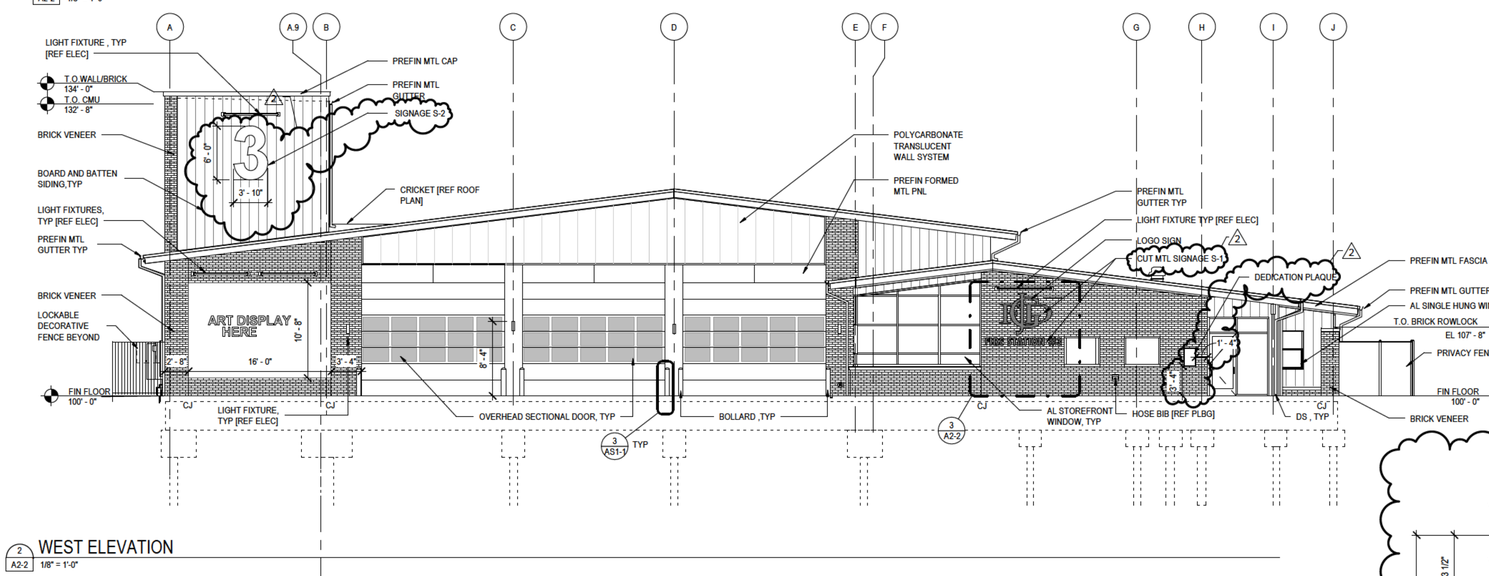
Print Date: 3/19/2021 5:09:43 PM



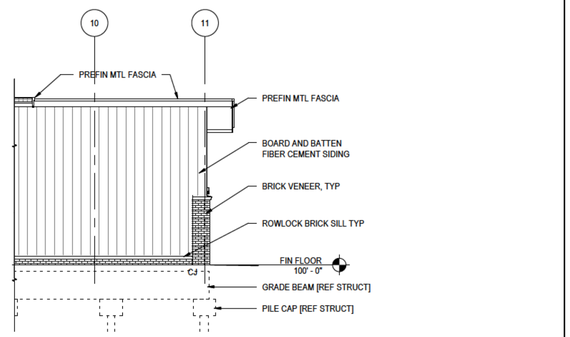
1 A2-2 EAST ELEVATION
1/8" = 1'-0"



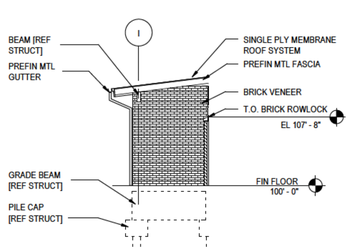
3 A2-2 GJFS LOGO
3/8" = 1'-0"



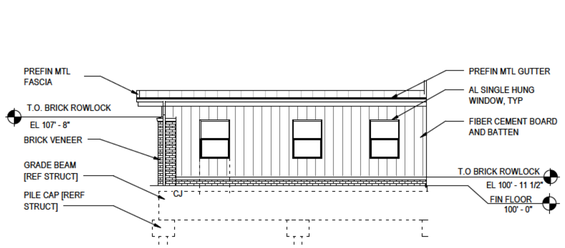
2 A2-2 WEST ELEVATION
1/8" = 1'-0"



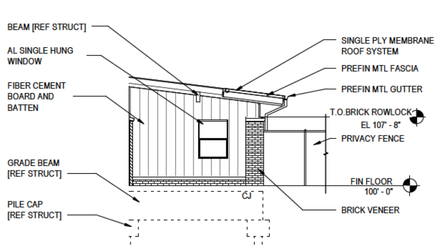
4 A2-2 SOUTH ELEVATION
1/8" = 1'-0"



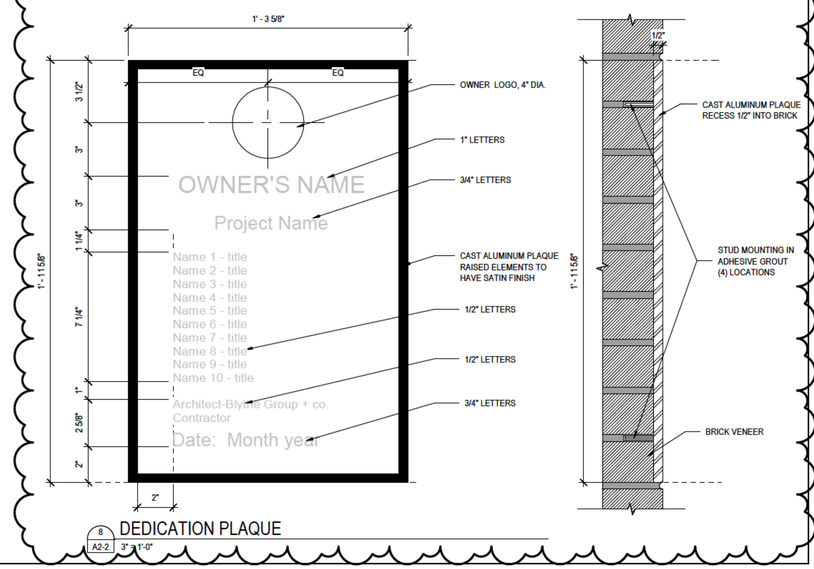
5 A2-2 EAST ELEVATION
1/8" = 1'-0"



6 A2-2 NORTH ELEVATION
1/8" = 1'-0"



7 A2-2 WEST ELEVATION
1/8" = 1'-0"



8 A2-2 DEDICATION PLAQUE
3" = 1'-0"

BG+ co.
Architecture
Interior Design
Project Management
622 Rood Avenue
Grand Junction, CO 81501
970-242-1058 office
BLYTHE GROUP + co.

GRAND JUNCTION FIRE DEPARTMENT FIRE STATION #3

582 25 1/2 RD GRAND JUNCTION, COLORADO 81505

EXTERIOR ELEVATIONS

FOR CONSTRUCTION

REV.	DESC.	DATE:
2	ADD 7	3/19/2021

DATE: 2/25/2021

PROJECT #: 2072

SHEET #:

A2-2

Project Team:

Print Date: 3/19/2021 5:09:46 PM

CITY OF Grand Junction COLORADO

Purchasing Division

ADDENDUM NO. 8

DATE: **March 25, 2021**
FROM: **City of Grand Junction Purchasing Division**
TO: **All Offerors**
RE: **Grand Junction Fire Department Fire Station #3 Construction IFB-4889-21-DH**

Offerors responding to the above referenced solicitation are hereby instructed that the requirements have been clarified, modified, superseded and supplemented as to this date as hereinafter described.

Please make note of the following clarifications:

1. Pile & Pier Depth: Please confirm that for bid equality purposes the depth for both Driven Piles (base bid) and Helical Piers (alt #1) shall be 49'-0" per S0-1 General Notes 7, A, 3 and 7, B, 4.

   A. Helical pile lengths may be 54 feet, according to the soils report.

2. Gypsum Hard Lids: Does there need to be a single layer of 5/8" gypsum applied and fire taped to the bottom cord of the trusses in rooms where the finished celling is lower than the bottom cord? Specifically inquiring about rooms: 100, 101, 102, part of 103, 103B,104,105,106,107, 108, 109, 110,111, 112, 121, 120, 121, and 127.

   A. Yes, install single layer gypsum wall board, 5/8"thick to bottom chord of trusses where the finished ceiling is lower that the bottom of the truss.

3. Sheet S1-2: Please be aware that the note on this sheet stating "Truss manufacturer shall provide a cont. 3'-0" square chase (see arch)" may not be achievable given truss design requirements and the step in the trusses.

   A. Mechanical chase size and location will need to be coordinated with the truss manufacturer. Coordinate with architect and mechanical engineer.

4. Flag Sizes: The specified flag sizes are too large for the specified pole height. Will a 4x6 US Flag and a 3x5 Colorado Flag be acceptable?

   A. Yes, those flag sizes are acceptable. The Owner will provide the flags.

5. Open to Structure Areas: Are the "Open to Structure" ceilings to be painted?

   A. Yes, all open to structure ceiling shall be painted.

6. UT Enclosure CMU: Are the CMU's of the UT enclosure to be painted? Exterior only or both Exterior and Interior?

A. Yes, both interior and exterior of the Trash Enclosure shall be painted.

7. Section 27 10 10 Structured Cabling: Is the Electrical Contractor to provide a full Structured Cabling System or just Back Boxes and Conduit? It has been typical of past projects that the City hired their own Low Volt contractor.

   A. The Electrical Contractor is to provide the back boxes and conduit for the Structured Cabling System. The City will hire its own Low Voltage Contractor to install the remaining pieces of the Structured Cabling System.

8. Section 27 41 33 Master Antenna Television Systems: Is the Electrical Contractor to provide a full Master Antenna TV System or just Back Boxes and Conduit? It has been typical of past projects that the City hired their own Low Volt contractor.

   A. The Electrical Contractor is to provide the back boxes and conduit for the Master Antenna Television System. The City will hire its own Low Voltage Contractor to install the remaining pieces of the Master Antenna Television System.

9. Section 28 10 00 Access Control: Is the Electrical Contractor to provide a full Access Control System or just Back Boxes and Conduit and Power? It has been typical of past projects that the City hired their own Low Volt contractor.

   B. The Electrical Contractor is to provide the back boxes, conduit and power for the Access Control System. The City will hire its own Low Voltage Contractor to install the remaining pieces of the Access Control System.

10. Section 28 15 23 Intercom Entry Systems: Is the Electrical Contractor to provide a full Intercom Entry Systems or just Back Boxes and Conduit and Power? It has been typical of past projects that the City hired their own Low Volt contractor.

    A. The Electrical Contractor is to provide the back boxes, conduit and power for the Intercom Entry System. The City will hire its own Low Voltage Contractor to install the remaining pieces of the Intercom Entry System.

11. Exterior Lighting Controls: Sheet E1-3 is showing exterior lighting control diagram with relays from a lighting control panel. I do not see a lighting control panel on sheet E1-1. Further, the site and exterior lighting sheet ES1-1 and exterior light fixture schedule do not show any individual control on these lights. Please provide clarification on the exterior lighting controls. FYI on Station #6 we ended up just putting in a photocell and timeclock control for the exterior lighting and got rid of the LCP all-together.

    A. Exterior lighting control is to be achieved by a photocell and time clock.

12. Sheets A1-1 and S1-2: "On Sheet A1-1 the Lobby wall from grid 2 to grid 4 running along grid I is placed 8'-0" down from grid H face to face on framing, but on Sheet S1-2 the same wall is shown centered on grid I with face of wall on grid H at 8'-0" to face of frame from grid I. Placement of wall on grid I is important as it amounts to a possible 2 ¾" bust in the truss length over the lobby depending on where the wall is placed. Please advise."

A. Keep the lobby wall where it is shown on Architectural Sheet A1-1 so the face of wall is aligned with grid I. We will issue Revised Structural sheets during construction.

13. Steel Joist and Girder Lead Times: Based on feedback from both steel fabricators and steel joist suppliers, we have been advised that lead time for jobsite delivery of standard short span joists and long span joist girders is currently 7 to 9 months from award of subcontract or purchase order. With this impact on the anticipated delivery date, the specified completion date of 12/13/2021 is not likely possible. Based on the current market conditions, is a completion timeframe of March 2022 acceptable?

    A. The City understands the situation and is open to extending the final completion deadline. However, as an option at the City's discretion, the City desires for the awarded contractor to work with both City and architect staff to explore alternate options/materials to try to keep the project on its original schedule. For bidding purposes, Contractor shall submit their bid response to the current solicitation documents as is, and if the City exercises its option for exploring alternate options/materials, the City will address the additional work in a change order.

14. Spec 10 44 00: There is a Specification for Fire Extinguishers and Cabinets, but none are shown on the plans. Is the GC to supply and install them? If so, please provide locations.

    A. Refer to architectural sheet G1-1 for fire extinguisher and cabinet locations.

15. Irrigation Controller: What model of Irrigation controller is to be used?

    A. Rainbird ESP-40SAT 40 Station Sprinkler Controller w/ Stainless Steel Pedestal / Controller Cabinet shall be used.

16. SWMP: The SWMP by Summit Services is attached to this addendum.

All other conditions of subject remain the same.

Respectfully,

Duane Hoff Jr., Senior Buyer
City of Grand Junction, Colorado

STORMWATER MANAGEMENT PLAN (SWMP)

GRAND JUNCTION FIRE DEPARTMENT STATION 3

Prepared for:

ACG
AUSTIN CIVIL GROUP

123 North 7th Street, Suite 300
Grand Junction, CO 81501

Prepared in January 2021 by:

Summit
SERVICES GROUP

COMPLIANCE ELEVATED
2008

Table of Contents

SWMP General Requirements i

Coverage Under the COR400000 Permit ii

Qualified Stormwater Manager ..... Tab 1

Spill Prevention and Response Plan ..... Tab 2

Materials Handling ..... Tab 3

Potential Sources of Pollution ..... Tab 4

Implementation of Control Measures ..... Tab 5

Site Description ..... Tab 6

a) Nature of Construction Activity at the Site
b) Proposed Schedule for Major Construction Activities and Control Measures Implementation
c) Total Acreage of Site and Area to be Disturbed
d) Existing Soils Data
e) Existing Vegetation and Topography
f) Allowable Non-Stormwater Discharges and Low Risk Discharges
g) Receiving Waters
h) Stream Crossings Located within the Construction Site Boundary

Site Map ..... Tab 7

Final Stabilization and Long-Term Stormwater Management ..... Tab 8

Temporary Stabilization

Inspection Reports ..... Tab 9

Inspection Schedule
Inspection Scope
CM Maintenance

Appendices

Appendix A CM Details/Installation Specifications.....Tab 10

Appendix B Permits, Applications, Forms.....Tab 11

Appendix C Miscellaneous.....Tab 12
Documented Use Agreement
Final Drainage Report

Appendix D Amendment Log.....Tab 13

Appendix E Site-Specific Maps.....Tab 14

Appendix F Soils Report.....Tab 15

SWMP GENERAL REQUIREMENTS (§I.C.1)

This Stormwater Management Plan (SWMP) was developed for the Grand Junction Fire Department Station 3 (hereafter "Fire Station 3) facility being constructed for the City of Grand Junction Fire Department by TBD. The approximately 1.4 acres project has been issued a certification to discharge stormwater under CDPS General Permit COR400000. The Certification Number is COR4XXXXX*.

*Note: Following selection of the construction contractor State Permit Certification will be applied for and issued.

CDPS Stormwater Permitting

The Fire Station 3 SWMP has been prepared in accordance with good engineering, hydrologic, and pollution control practices per the Colorado Discharge Permit System (CDPS) *General Permit for Stormwater Discharges Associated with Construction Activity* (Permit No. COR400000, modified on December 31st, 2020). The CDPS General Permit (Permit) authorizes stormwater discharges from construction activities that result in a total land disturbance of one acre or greater, if a project is less than one acre but part of a larger common plan of development, or for discharges designated by the Water Quality Control Division (Division) as needing a stormwater permit. A copy of the CDPS General Permit and project Certification can be found in Appendix B (Tab 11) of the SWMP.

Mesa County Stormwater Permitting

Mesa County's Stormwater Division manages, administers, and executes the Municipal Separate Storm Sewer System (MS4) Permit for the City of Grand Junction, City of Fruita, and Town of Palisade. Effective April 1, 2020 the Stormwater Division began to provide consolidated services to entities and construction sites within its jurisdictional boundaries necessary for compliance with CDPS MS4 NPDES Phase II regulations. A copy of the Mesa County Permit can be found in Appendix B (Tab 11) of the SWMP.

Owner and Operator

The Fire Station 3 SWMP was prepared by Summit Services Group, LLC for the Grand Junction Fire Department (Owner) and TBD (Operator). It includes information and/or data gathered from multiple sources, including but not limited to construction documents and the Final Drainage Letter (Austin Civil Group, Inc.; 2021), the Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual (2010), General Permit Number COR400000, and the Fact Sheet to Permit Number COR400000.

The Grand Junction Fire Department and TBD (hereafter "Grand Junction Fire and TBD") will implement the provisions of this SWMP as written and updated, from commencement of proposed construction activities until final stabilization is achieved.

COVERAGE UNDER THE GENERAL PERMIT (§I.A.1)

A. Authorized Discharges

The State of Colorado General Permit for Stormwater Discharges (Permit) authorizes Grand Junction Fire and TBD (Permittees) to discharge the following to State waters (e.g., City of Grand Junction MS4, Colorado River): stormwater associated with construction activity and specified non-stormwater associated with construction activity.

The following types of stormwater and non-stormwater discharges are authorized under the Permit.

1. Allowable Stormwater Discharges

   a. Stormwater discharges associated with construction activity.

   b. Stormwater discharges associated with producing earthen materials, such as soils, sand, and gravel dedicated to providing material to a single contiguous site, or within ¼ mile of a construction site (i.e. borrow or fill areas). **Not applicable to the project.**

   c. Stormwater discharges associated with dedicated asphalt, concrete batch plants and masonry mixing stations. (Coverage under the Permit is not required if alternative coverage has been obtained). **Not applicable to the project.**

   d. Discharges to outstanding waters. Outstanding waters shall be maintained and protected at their existing quality. (https://www.colorado.gov/pacific/cdphe/clean-water-gis-maps) An "outstanding waters" designation may be applied to certain high quality waters that constitute an outstanding natural resource. No degradation of outstanding waters by regulated activities is allowed. (Source: Colorado Water Quality Management and Drinking Water Protection Handbook, 2006) **Not applicable to the project.**

2. Allowable Non-Stormwater Discharges

The following non-stormwater discharges are allowable under the Permit if the discharges are identified in the SWMP in accordance with Part I.C. of the Permit, and if they have appropriate control measures (CMs) in accordance with Part I.B.1. Tab 6 of the SWMP further describes allowable non-stormwater sources and their potential(s) for discharge(s) at the Fire Station 3 construction site.

   a. Discharges from uncontaminated springs that do not originate from an area of land disturbance. **Not anticipated for the project.**

   b. Discharges to the ground of concrete washout water associated with the washing of concrete tools and concrete mixer chutes. Discharges of concrete washout water must not leave the site as surface runoff or reach receiving waters as defined by the Permit. Concrete on-site waste disposal is not authorized by this Permit except in accordance with Part I.B.1.a.ii.b. **A potential for the project.**

c. Discharges of landscape/agricultural irrigation return flow. **Not anticipated for the project.**

d. Discharges from diversions of State waters within the permitted site. **Not anticipated for the project.**

Discharges to the ground of water from construction dewatering activities may be authorized by a CDPHE low-risk discharge guidance policy that typically involves:

a. The source is groundwater and/or groundwater combined with stormwater that does not contain pollutants in concentrations exceeding the State groundwater standards in Regulations 5 CCR 1002-41 and 42;

b. These discharges do not leave the site as surface runoff or to surface waters; and

c. Although these are authorized under the low-risk guidance policy, these discharges must be described in this section and controls used to address this type of discharge should be shown on the Site Maps (Tab 7) and described in this section.

3. Emergency Fire Fighting

Discharges resulting from emergency firefighting activities are authorized by the Permit.

B. Limitations on Coverage – Other CDPS Permits

Discharges not authorized by the Permit include, but are not limited to, the discharges and activities listed below. Grand Junction Fire and TBD may seek individual or alternate general permit coverage for these discharges, as appropriate and available and as needed the SWMP will be updated to include (in Appendix B, Tab 11) the applicable permits.

1. Discharges of Non-Stormwater – Discharges of non-stormwater, except the authorized non-stormwater discharges listed in Part I.A.1.b., are not eligible for coverage under the Permit.

2. Discharges Currently Covered by another Individual or General Permit.

3. Discharges Currently Covered by a Water Quality Control Division (Division) Low Risk Guidance Document, including but not limited to hot springs, potable water, uncontaminated groundwater to land, power washing operations to land, discharges from snow melting machines, etc.

C. Dewatering

Groundwater and/or stormwater dewatering practices are not anticipated for this project. If needed, the SWMP shall clearly describe and locate (on Site Maps in Tab 7) the practices implemented at the site to control stormwater pollution from the dewatering of groundwater or stormwater from excavations, wells, etc. Discharges to the ground from construction dewatering activities that do not meet the criteria of the

Division's Low Risk Discharge Guidance Policy may require coverage under a separate CDPS discharge permit. As needed, separate CDPS discharge permits will be included in Appendix B (Tab 11) of the SWMP.

Grand Junction Fire and TBD will take all reasonable steps to minimize or prevent any discharge (e.g., stormwater, dewatering, etc.) in violation of the Permit which has the reasonable likelihood of adversely affecting human health or the environment.

TAB 1

QUALIFIED STORMWATER MANAGER

RESPONSIBLE PARTIES



1. QUALIFIED STORMWATER MANAGER (§I.C.2.a.i)

A. Qualified Stormwater Manager (definition):

"An individual knowledgeable in the principles and practices of erosion and sediment control and pollution prevention, and with the skills to assess conditions at construction sites that could impact stormwater quality and to assess the effectiveness of stormwater controls implemented to meet the requirements of this permit."

Grand Junction Fire and TBD (Permittees) will ensure the individuals responsible for meeting the requirements of the Permit are properly trained on up-to-date stormwater management practices in the area of construction stormwater discharges. Proper training may include, but is not limited to the proper selection, implementation, operation, and maintenance of various structural and non-structural control measures; proper documentation of various Permit requirements (e.g. inspections, corrective actions and SWMP documentation); on-the-job or in-house training; training and testing leading to certification(s); etc.

QUALIFIED STORMWATER MANAGER(S)

Individual & Company	Title	Qualifications; Contact Info
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

B. Responsible Parties

For State stormwater permitting purposes, the Grand Junction Fire Department is the Owner and TBD is the Operator of the Fire Station 3 facility and commercial project and may have construction contractors and/or subcontractors supplying equipment, materials, labor, and other services for the project.

Compliance with the project stormwater management plan includes:

- Stormwater Management Plan (SWMP) implementation;
- Identification of potential pollutant sources;
- Control measure installation and maintenance; and
- Modification and updates to the SWMP.

Grand Junction Fire and TBD will be responsible for on-site construction activities and related stormwater management, and they will be the primary contact for the CDPHE, Mesa County, City of Grand Junction and other regulatory agencies with an interest in the project's stormwater management program. Contact information for responsible parties of the project is noted below.

Owner
Company/Agency: City of Grand Junction Fire Department
Address: 582 25 ½ Road, Grand Junction, CO 81505
Contact Information: TBD
Responsible Official Title: TBD
CDPHE Permit Holder: COR4XXXXX
Responsibilities: Obtain SWMP, File Notice of Intent (NOI), File Inactivation Notice (NOT), Control of day-to-day operations, Stormwater Responsive Actions

Operator
Company/Agency: TBD
Address: TBD
Contact Information: TBD
Responsible Official Title: TBD
CDPHE Permit Holder: COR4XXXXX
Responsibilities: Obtain SWMP, File Notice of Intent (NOI), File Inactivation Notice (NOT), Control of day-to-day operations, Stormwater Responsive Actions

Engineer
Company/Agency: Austin Civil Group, Inc.
Address: 123 North 7th Street, Suite 300; Grand Junction, CO 81501
Contact Information: Scott Sorenson, P.E.; (970) 242-7540
Responsible Official Title: N/A
CDPHE Permit Holder: N/A

Responsibilities: Civil Engineering, Construction Big Package, Final Drainage Report

Stormwater Management Consultant
Company/Agency: Summit Services Group, LLC
Address: 15690 East 33rd Avenue, Unit A; Aurora, CO 80011
Contact Information: BJ Russell, Operations Manager, (970) 812-2293; Daniel Kintz, Lead Plan Developer, (970) 640-0797
Responsible Official: N/A
CDPHE Permit Holder: N/A
Responsibilities: SWMP Administration Assistance (Implementation, Maintenance, Updating/Revision, Training), Stormwater Inspections, SWMP Development

TAB 2

SPILL PREVENTION AND RESPONSE PLAN

2. SPILL PREVENTION AND RESPONSE PLAN (§I.C.2.a.ii)

The storage of construction-related fuels, oils, chemicals, fertilizers, and other similar potential stormwater pollutants at the project site during active construction is not suggested. Should their use and on-site storage be necessary for the project, engineering controls shall be employed to prevent a release of these pollutants to the environment, to shelter these pollutants from the elements (i.e., weather), and to protect against vandalism. All construction site wastes shall be properly managed to prevent pollution of State waters (e.g., City of Grand Junction MS4, Colorado River) and Grand Junction Fire and TBD (Permittees) will not permanently dispose of wastes (e.g., concrete) on-site.

A. Spill Prevention

Construction procedures and significant materials used during construction activities have the potential to contribute pollutants to stormwater runoff. Such procedures or significant materials may include building materials exposed during storage, paints and solvents, fertilizers and chemicals, waste material, and equipment and fueling procedures.

Spill prevention procedures for the project shall include:

1. Equipment fueling and/or re-fueling away from storm drain inlets, curb and gutter sections, etc. and if possible, in a designated equipment fueling/staging area.

2. If release of a hazardous substance does occur, personnel shall appropriately respond to minimize the impact of the spill by, for example, using sorbent materials stored at the construction site. Sorbent materials may consist of clay, sawdust, straw, cat litter, booms, pads, or other suitable materials.

3. Bulk (55 gallons or greater) storage for petroleum products and other liquid chemicals will have secondary containment, or equivalent protection, in order to contain spills and to prevent spilled material from entering State waters (City of Grand Junction MS4).

4. Sanitary facilities shall be located away from storm drain inlets, curb and gutter sections, and areas of high traffic and will be secured to the ground to prevent spills as a result of being knocked over.

5. If a spill does occur, post-spill training by authorized personnel to educate jobsite workers about how to recognize similar hazards and the proper operating procedures needed to reduce or eliminate the likelihood of future spills at the jobsite.

Potential pollutant releases may also occur from equipment during construction activities. In the event of a fuel, lubricant, or coolant release efforts shall be made to stop the spill and the spilled fluids shall be cleaned-up as soon as possible, immediately in most cases. All contaminated soils and used clean-up materials shall be containerized (i.e., drums, dumpsters, etc.) and stored on-site until appropriate disposal methods have been determined and can be used. Necessary repairs shall be made to the damaged equipment to prevent a continued release of potential pollutants to the environment.

B. Response Plan

Grand Junction Fire and TBD personnel, or their designated responsible party(ies), shall immediately contact the CDPHE **(Spill Hotline: 1-877-518-5608)** and Mesa County (contact information below) to report spills that may result in a non-permitted discharge of pollutants to State waters. If more than 1,320 gallons of oil will be stored on-site, a Spill Prevention, Control, and Countermeasure (SPCC) Plan may be required. If applicable, Appendix C (Tab 12) includes the project's SPCC Plan and/or a Spill Prevention Plan required by a separate CDPS permit.

C. 24-hour Reporting (§II.L.6)

Grand Junction Fire and TBD personnel shall report the following circumstances orally to the CDPHE Water Quality Control Division (Division) within twenty-four (24) hours from the time of becoming aware of the circumstances; and will mail to the Division a written report containing the information requested within five (5) working days after becoming aware of the circumstances.

1. Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident;

2. Circumstances leading to any unanticipated bypass which exceeds any effluent limitations in the Permit;

3. Circumstances leading to any upset which causes an exceedance of any effluent limitation in the Permit; and

4. Daily maximum violations for of the pollutants listed in the Permit, including any toxic pollutant or hazardous substance or any pollutant specifically identified as the method to control any toxic pollutant or hazardous substance.

CDPHE

- Oral Notification shall be to:

  Clean Water Compliance Section
  Water Quality Compliance Section
  Telephone: (303) 692-3500

Mesa County

- Stormwater Hotline
  Telephone: (970) 263-8201

CDPHE

- Written Notification shall be to:

  Clean Water Compliance Section
  Water Quality Control Division
  Colorado Department of Public Health and Environment (CDPHE)
  WQCD-WQP-B2
  4300 Cherry Creek Drive South
  Denver, CO 80246-1530

TAB 3

MATERIALS HANDLING

3. MATERIALS HANDLING (§I.C.2.a.iii)

The Fire Station 3 stormwater management plan (SWMP) describes the handling procedures of control measures (CMs) to be implemented at the construction site to minimize the impacts from handling significant materials that could contribute pollutants to stormwater runoff. These handling procedures may include, but not be limited to, CMs for pollutants and activities such as:

- exposed storage of building materials,
- paints and solvents,
- form oil and concrete forms;
- landscape and final stabilization materials,
- fertilizers or chemicals,
- sanitary waste materials,
- trash and equipment maintenance,
- fueling procedures and supplies, and
- training.

As noted in the Spill Prevention and Response Plan section above, the storage of fuels, oils, chemicals, fertilizers, or other similar potential pollutants at the project site during the specified construction period is not suggested. If it becomes necessary to store such items on-site, engineering controls shall be employed to prevent a release of these pollutants to the environment, to shelter these pollutants from the elements (i.e., weather), and to protect against vandalism. Bulk (55 gallons or greater) storage for petroleum products and other liquid chemicals will have secondary containment, or equivalent protection, to contain spills and to prevent spilled material from entering State waters (e.g., City of Grand Junction MS4).

Consistent with requirements of the CDPS *General Permit for Stormwater Discharges Associated with Construction Activity*, all potential pollutants (other than sediment) shall be handled and disposed of in a manner that does not contaminate stormwater. All workers shall exercise care in equipment fueling, oiling, and maintenance operations and construction equipment on the jobsite shall be in proper (i.e., no leaks) working order at all times. Construction equipment requiring routine servicing shall be serviced prior to arriving on-site or shall be serviced on-site in the designated staging area with appropriate clean-up materials (i.e., spill kit) being easily accessible for use in the case of a spill.

Portable toilets and waste disposal containers shall be provided for the jobsite and good housekeeping practices followed to ensure they are properly maintained and that wastes are properly disposed of when containers are full or in need of maintenance. Portable toilets and designated trash and bulk waste-collection areas shall be located on-site where shown on the Site Maps in Part 7 of this SWMP.

A. Significant Materials (definition):

"Includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the permittee is required to report under section 313 of Title III of the Superfund Amendments and Reauthorization Act

(SARA); fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges."

B. Construction Site Good Housekeeping Measures

Good housekeeping measures will be implemented at the construction site to minimize or eliminate the potential for stormwater pollution from accidental spills or releases of significant materials. The following table generally describes the practices to be implemented at the Fire Station 3 permitted facility to control stormwater pollution from construction site wastes (liquid and solid), including concrete washout activities. As needed the control measures used for the pollutant sources listed will be shown on the Site Maps (Tab 7) and detailed in Appendix A (Tab 10) of the SWMP.

Waste Management Practices	
Material/Potential Pollutant Sources	**Comments/Control Measures Selection**
Liquid Chemicals including Solvents, Stains, and Paint	Liquid chemicals shall be stored in leak proof containers and removed from the site when not in use. They should be stored in their original labeled container, per manufacturer specifications, sealed when not in use, and stored away from any stormwater drainage structures. Secondary containment shall be used for bulk (55 gallons or greater) storage of petroleum products and other liquid chemicals. Use of liquid chemicals should be performed as specified by the manufacturer and away from storm drainage systems. Equipment shall not be refilled near storm drain inlets, curb and gutter sections, etc. The location(s) of liquid chemicals at the project site shall be indicated on the Site Maps in Part 7 of this SWMP.
Fuels, Oils	Small amounts of fuel containing products may be stored on-site, in leak-proof, labeled containers away from water sources, drainage structures, and storm drain system facilities. Secondary containment will be used for bulk (55 gallons or greater) storage. The location(s) of fuels and oils on-site shall be indicated on the Site Maps in Part 7 of this SWMP.
Construction Waste, Trash	Trash around the site shall be picked up on a daily basis and stored in leak-free dumpsters or similar receptacles on-site. Regular trash pickup shall be scheduled as needed (to prevent over-filling/-topping) and covered dumpsters and trash containers shall be used at times of high wind. The location(s) of trash receptacles for the project shall be indicated on the Site Maps in Part 7 of this SWMP.
Portable Toilets	Portable toilets shall be placed away from storm drain inlets, curb and gutter sections, and other water conveyances. They shall be anchored to and located on permeable surfaces and contained by perimeter CMs as needed. Clean-out and maintenance shall be performed on a regularly scheduled basis. The location(s) of portable toilets at the project site shall be indicated on the Site Maps in Part 7 of this SWMP.

Waste Management Practices	
Material/Potential Pollutant Sources	**Comments/Control Measures Selection**
Management of Contaminated Soils	Soils contaminated by construction activities shall be contained to prevent further spread of the contaminants. Contaminated materials, soils, etc. shall be cleaned-up and placed in a sealed, leak-proof container and disposed of in accordance with local (e.g., City of Grand Junction, Mesa County) requirements. The SWMP shall be updated with the date, name of spilled material, clean-up details, and location of the contaminated soils/materials.
Concrete Washout Area (CWA)	A concrete washout area shall be used to manage wash water from washing of tools and concrete mixer chutes, equipment, and liquid concrete and masonry wastes from dump trucks, mobile batch mixers, or pump trucks. CWAs may be lined or unlined excavated pits in the ground, commercially manufactured prefabricated containers, or aboveground holding areas constructed with berms, sandbags, or straw bales with a plastic liner. The location and type of this CM used for the project shall be indicated on the Site Maps in Part 7 of this SWMP.

TAB 4

POTENTIAL SOURCES OF POLLUTION

4. POTENTIAL SOURCES OF POLLUTION (§I.C.2.a.iv)

The locations and descriptions of potential pollution sources, including surface disturbing activities, with the potential to impact stormwater runoff at the Fire Station 3 construction site are described in Tab 5 of this stormwater management plan (SWMP). Sediment will be the main pollutant of concern for the project. Other potential stormwater pollutants may be derived from equipment fueling and oiling operations during construction, construction-generated solid trash debris, and concrete activities. As needed, on-site storage of all construction materials shall be within the designated area(s) indicated on the Site Maps in Tab 7 of the SWMP.

A. Potential Pollutant Sources

The following potential pollutant sources which may reasonably be expected to affect the quality of stormwater discharges have been evaluated for the project.

1. disturbed and stored soils (from grading, excavating, stockpiling, etc.);
2. vehicle tracking of sediments (onto adjacent paved surfaces);
3. management of contaminated soils;
4. loading and unloading operations;
5. outdoor storage activities (erodible building materials, fertilizers, chemicals, etc.);
6. vehicle and equipment maintenance and fueling;
7. significant dust or particulate generating processes (e.g., saw cutting materials, including dust);
8. routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, oils, et cetera;
9. on-site waste management practices (waste piles, liquid wastes, dumpsters, etc.);
10. concrete truck/equipment washing, including washing of the concrete truck chute and associated fixtures and equipment;
11. dedicated asphalt, concrete batch plants and masonry mixing stations; and
12. non-industrial waste sources such as worker trash and portable toilets.

B. Stormwater Discharges Associated with Construction Activity (§I.A.1)

The Permit authorizes the discharge of stormwater associated with construction activities that occur at a variety of facilities and locations with the intent to reduce the amount of pollutants entering streams, rivers, lakes, and wetlands. The many kinds of pollutants (listed above) from residential, commercial, and industrial construction activities have the potential to contaminate stormwater runoff. Sediment is the primary pollutant of concern at construction sites. Construction activities, including the use of toxic or hazardous materials (e.g., fuels, oils, fertilizers, pesticides, and herbicides) and building materials (e.g., asphalt, concrete, and sealants) also have the potential to contaminate stormwater.

The following list of construction activities and/or discharges covered by the Permit are included in this section of the SWMP to help Grand Junction Fire and TBD (Permittees) and the project's Qualified Stormwater Manager(s) identify any new pollutants by giving examples of activities which may produce pollutants with the potential to contaminate stormwater discharges. Points 1 and 2 are not applicable to the project.

1. Construction activity at mining facilities – Construction of staging areas, driveways, pads for storage of auxiliary vehicles and equipment, and structures are examples of construction activities that occur at mining facilities with the potential to contribute pollutants to stormwater.

2. Construction at oil and gas facilities – Stormwater discharges associated with construction activities directly related to oil and gas exploration, production, processing, and treatment operations or transmission facilities.

3. Construction support activities – Stormwater discharges from construction support activities dedicated to a single contiguous [i.e., construction activities located in close proximity to each other (within ¼ mile)] construction site. **Not anticipated for the project.**

4. Masonry mixing stations, dedicated asphalt, and concrete batch plants – This includes concrete and asphalt batch plants and borrow or fill areas that produce earthen materials, such as soils, sand, and gravel. Benchmark sampling is not required for these types of sand and gravel facilities because they more closely meet the definition of construction activities than mining activities. **Not anticipated for the project.**

5. Discharges to the ground of concrete washout waste – This includes washout waste discharged to the ground as authorized by the Permit and washout waste from concrete trucks and masonry operations contained on-site. Depth to water table in project area is more than 80". **A potential for the project.**

   Control measures designed for concrete washout wastes shall be implemented at the project site, and the Permittees will ensure that washing activities do not contribute pollutants to stormwater runoff or receiving waters. Discharges that may reach groundwater will flow through soil that has a buffering capacity prior to reaching groundwater. Concrete washout areas shall not be located where shallow groundwater may be present and would result in the soil buffering capacity not being adequate.

C. Construction Activity (definition):

"Ground surface disturbing and associated activities (land disturbance), which include, but are not limited to clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas. Construction does not include routine maintenance to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. Activities to conduct repairs that are not part of routine maintenance or for replacement are construction activities and are not routine maintenance. Repaving activities where underlying and/or surrounding soil is exposed as part of the repaving operation are considered construction activities. Construction activity is from initial groundbreaking to final stabilization regardless of ownership of the construction activities."

An appropriate series of structural, non-structural, and procedural measures shall be selected to control potential pollutant sources during construction at the Fire Station 3 construction site. Tab 5 lists and locates the potential pollution sources for the project and the selected measures to be implemented to control them.

TAB 5

IMPLEMENTATION OF CONTROL MEASURES



5. IMPLEMENTATION OF CONTROL MEASURES (§I.C.2.a.v)

The Fire Station 3 stormwater management plan (SWMP) includes design specifications containing information on the implementation of structural and non-structural control measures in accordance with good engineering, hydrologic, and pollution control practices. Control measure (CM) details (from the Urban Drainage and Flood Control District) are contained in Appendix A (Tab 10) of the SWMP and include installation and implementation specifications to ensure proper implementation, operation, maintenance, and removal of each control measure used for the project.

Grand Junction Fire and TBD (Permittees) will implement CMs to minimize the discharge of pollutants from all potential pollutant sources at the project site. CMs will be installed prior to commencement of construction activities that may contribute pollutants to stormwater discharges. Control measures will be selected, designed, installed, and maintained in accordance with good engineering, hydrologic, and pollution control practices to prevent pollution or degradation of State waters (e.g., City of Grand Junction MS4, Colorado River).

A. Control Measures for Stormwater Pollution Prevention

The primary pollutant of concern at the Fire Station 3 construction site is sediment. Both structural and non-structural CMs have been selected for implementation to effectively minimize erosion, sediment transport, and the release of other pollutants related to construction activity.

The following is an overview of the stormwater CMs Grand Junction Fire and TBD may (in different combinations) implement during construction activities as conditions warrant. "Specific" control measures used to meet effluent limitations (addressed in Part B below) will meet the requirements as listed in the Permit. During on-site inspections, the CMs shall be evaluated for proper function, installation, and effectiveness.

1. Structural Practices for Erosion and Sediment Control

Structural practices will be implemented at the site to minimize erosion and sediment transport. The structural control measures which may be used for this project are generally described below, will be indicated on the CM Site Maps (Tab 7), and are detailed in Appendix A (Tab 10) of the SWMP.

Note: Stormwater runoff from all disturbed surfaces and soil storage areas for which permanent or temporary stabilization is not implemented, must flow to at least one CM (e.g., inlet protection, rock sock check, sediment basin, etc.) to minimize sediment in the discharge. This may be accomplished through filtering, settling, or straining, and the CM will be selected, designed, installed, and adequately sized in accordance with good engineering, hydrologic, and pollution control practices. The control measure(s) will contain or filter flows in order to prevent the bypass of flows without treatment and will be appropriate for stormwater runoff from disturbed areas and for the expected flow rate, duration, and flow conditions (i.e., sheet flow) dictated by project ground disturbances.

a. Earth Dikes and Drainage Swales (ED/DS)

Earth dikes and drainage swales are temporary stormwater conveyance control measures constructed either to divert runoff around areas of concern (e.g., prone to erosion, work areas) or to convey runoff to additional sediment control measures (i.e., sediment trap or basin) prior to discharge off-site. Earth dikes and drainage swales should be well compacted and capable of resisting erosive velocities; and earth dikes may require additional downgradient sediment control measures (i.e., wattles).

Earth dikes/berms may be used in the initial and interim phases of construction as a perimeter control for the site in general, around material storage/trash disposal areas, and as containment for concrete washout activities. Where used, the location(s) of this CM shall be indicated on the Site Maps in Part 7 of this SWMP.

b. Sediment Control Log (SCL)

A sediment control log, or wattle, is a linear sediment control measure made of natural materials such as straw, coconut fiber, or aspen excelsior. SCLs are used as a sediment barrier to intercept sheet flow runoff from disturbed areas. Sediment control logs can be used to trap sediment: as a perimeter control for stockpiles and the site in general; as part of inlet/outlet protection; as check dams in low flow velocity drainage ditches; and on disturbed slopes.

Sediment control logs are not planned for use but may be used as a perimeter control for soil stockpiles and the site in general, and as containment for concrete washout activities. If used, the location(s) of this CM shall be indicated on the Site Maps in Part 7 of this SWMP.

c. Silt Fence (SF)

Silt fence is a woven geotextile fabric attached to wooden posts and trenched into the ground. It is designed as a sediment barrier used to intercept sheet flow runoff from disturbed areas and forcing the stormwater to evaporate or infiltrate the ground. Silt fence is used where runoff is conveyed from a disturbed area as sheet flow and is not designed to receive concentrated flow or be used as a filter fabric. Appropriate uses include downslope of disturbed areas to intercept sheet flow; and along the perimeter of construction sites, streams, ponds, and wetlands.

Silt fence is not planned for use but may be used as a perimeter control for soil stockpiles and the site in general, and as containment for concrete washout activities. If used, the location(s) of this CM shall be indicated on the Site Maps in Part 7 of this SWMP.

d. Rock Sock (RS)

A rock sock is an elongated cylindrical filter sediment control measure constructed of gravel that has been wrapped by wire mesh or a geotextile fabric. They are typically used as a perimeter control or for inlet protection; and may be used in curb lines to help reduce sediment loading to storm-sewer inlets.

Rock socks are not planned for use but may be used in the initial and interim phases of construction as part of inlet protection design and/or downgradient of material stockpiles. If used, the location(s) of this CM shall be indicated on the Site Maps in Part 7 of this SWMP.

e. Inlet Protection (IP)

Inlet protection consists of a barrier of material installed in front of, around, or up-gradient of an inlet to filter runoff and remove sediment prior to entering a storm drain inlet. Common forms of inlet protection include rock socks, sediment control logs, silt fence, drop bags, and grate and gravel filters. To effectively function, inlet protection sediment control measures should be installed to ensure that stormwater flows do not bypass the inlet protection and enter the storm drain system without treatment.

Multiple forms of approved inlet protection may be used in the initial and interim phases of construction for proposed on-site storm drain inlets and existing off-site inlets. Inlet protection shall be installed at all inlets receiving stormwater runoff from disturbed areas of the construction site. Where used, the location(s) of this CM shall be indicated on the Site Maps in Part 7 of this SWMP.

f. Sediment Basin (SB)

A sediment basin is a temporary pond built on construction sites to capture eroded or disturbed soils transported in stormwater runoff prior to discharge from the site. Sediment basins are designed to capture site runoff and slowly release it, allowing time for settling of sediment prior to discharge.

A water quality basin is planned for use in the initial, interim, and final (permanent) phases of construction. The location of this CM will be indicated on the Site Maps in Part 7 of this SWMP. Post-construction, the water quality basin will be used to control stormwater runoff from the developed site.

2. Non-Structural Practices for Erosion and Sediment Control

Non-structural control measures (CMs) implemented for the Fire Station 3 project to minimize erosion and sediment transport may include temporary and permanent stabilization practices, stockpile management, surface roughening, mulching, construction phasing and/or sequencing, stormwater inspections, good housekeeping practices, etc.

Note: Stormwater runoff from all disturbed areas and soil storage areas for which permanent or temporary stabilization is not implemented must flow to at least one CM to minimize sediment in the discharge. This may be accomplished through filtering, settling, or straining and the CM will be selected, designed, installed, and adequately sized in accordance with good engineering, hydrologic, and pollution control practices. The control measure(s) will contain or filter flows in order to prevent the bypass of flows without treatment and will be appropriate for stormwater runoff from disturbed areas and for the expected flow rate, duration, and flow conditions (i.e., sheet flow).

a. Vehicle Tracking Control (VTC)

Vehicle tracking control provides stabilized construction site access where vehicles and equipment exit the site onto paved public roads. VTC helps remove sediment (e.g., mud or dirt) from vehicle and equipment tires, thereby reducing sediment tracking onto off-site paved surfaces. Effective vehicle tracking control is important during times of precipitation when mud is easily tracked off-site, during dry weather conditions when dust is a concern, and when poorly drained, clayey soils are present on site. Using water to flush sediment off paved surfaces is prohibited.

Vehicle tracking control is planned for use in the initial and interim phases of construction at the accesses from 25 ½ Road to minimize vehicle tracking of sediment from on-site disturbed areas and the areas where vehicle tracking occurs shall have measures (i.e., rock sock checks, inlet protection) in place that contain or filter flows in order to prevent the bypass of flows without treatment. Where used, the location(s) of this CM shall be indicated on the Site Maps in Part 7 of this SWMP.

b. Street Sweeping and Vacuuming (SS)

Street sweeping and vacuuming removes sediment and potential pollutants tracked onto roadways from the construction site and helps to reduce sediment transport into storm drain systems or surface waterways via stormwater runoff.

Street sweeping will be used when there is noticeable sediment accumulation on 25 ½ Road and other paved surfaces adjacent to the permitted facility. Tracked sediment needs to be removed and properly disposed of immediately.

c. Surface Roughening (SR)

Surface roughening is used to control erosion by tracking, scarifying, imprinting, or tilling disturbed surfaces (typically along the contour) to provide temporary stabilization. Surface roughening creates variations in the soil surface perpendicular to flow lines that help minimize wind and water erosion; and may also help establish conditions favorable to the establishment of vegetation. SR should be used together with other erosion and sediment control measures; and is typically implemented at the time of final grading.

Surface roughening may be used after final grade is achieved or to temporarily stabilize a disturbed area of the site during active construction that may become inactive for a short period of time (typically 14 days). Soil compaction will be minimized for areas where infiltration control measures will be used or where final stabilization will be achieved through vegetative cover. If used, the location of this CM shall be indicated on the Site Maps in Part 7 of this SWMP.

d. Temporary and Permanent Stabilization (TS/PS)

Temporary seeding is used to stabilize disturbed areas that will be inactive for an extended period of time (typically 14 days or longer). Permanent seeding is used to stabilize areas at final grade that will not be stabilized using other means (i.e., hardscaping). Effective seeding includes proper seedbed

preparation, selection of an appropriate seed mixture, proper planting techniques, and protection of the seedbed area with mulch, geotextiles, or other appropriate control measures. Temporary stabilization methods may include, but not be limited to tarps, soil tackifier, surface roughening, tracking, terracing, mulching, and hydro-seeding.

Temporary stabilization (e.g., surface roughening, seeding, mulching, etc.) will be implemented on any portion of the site where ground disturbing construction activity has permanently ceased or temporarily ceased for more than 14 calendar days. Permanent control measures (e.g., pavement, landscaping, etc.) will be implemented for the developed site at the time of final stabilization. Where used, the location(s) of these CMs shall be indicated on the Site Maps in Part 7 of this SWMP.

e. Mulching (MU)

Mulches are applied to disturbed soils to help reduce erosion by protecting the bare soil from rainfall impact, increasing infiltration, and reducing runoff. Mulching consists of applying an even cover of straw, hay, shredded wood mulch, rock, bark, or compost to disturbed soils and securing the mulch by crimping, with tackifiers, or other means. It can be used for temporary or permanent stabilization; and may be applied using mechanical dry application methods or with hydro-mulching equipment.

Mulching may be used during the interim (temporarily) and final phases of construction to temporarily stabilize idle ground disturbances and/or material stockpiles and/or to permanently stabilize surfaces as part of final stabilization/landscaping (with, for example, rock mulches). If used, the location(s) of this CM shall be indicated on the Site Maps in Part 7 of this SWMP.

f. Wind Erosion/Dust Control (DC)

Wind erosion and dust control measures are used to keep soil particles from entering the air during earth disturbing construction activities. It is important to control both for the health of workers on-site and residents adjacent to the project, and for surrounding waterbodies. Methods of control may include seeding and mulching, use of soil binders, site watering, and surface stabilization with rock and gravel.

Dust control measures (i.e., application of magnesium chloride and/or water) shall be used when dust is a potential problem to air quality in the project area. Earth disturbing construction activities shall be limited or suspended at times of high wind.

g. Concrete Washout Area (CWA)

A concrete washout area is used to manage wash water from the washing of tools and concrete mixer chutes, masonry equipment, and liquid concrete waste from dump trucks, mobile batch mixers, or pump trucks. Concrete waste management involves designating and properly managing a specific area of the construction site for concrete washout. Washout activities should be conducted in a way that does not contribute pollutants to surface waters or stormwater runoff. CWAs may be lined or unlined excavated pits in the ground, commercially manufactured prefabricated containers, or aboveground holding areas constructed with berms, sandbags, or straw bales with a plastic liner.

A concrete washout area is planned for use. Grand Junction Fire and TBD will ensure that washing activities do not contribute pollutants to stormwater runoff or receiving waters, and discharges that may reach groundwater will flow through soil that has buffering capacity prior to reaching groundwater. The depth to water table in the project area is greater than 80 inches (source: USDA Soil Report, Tab 15). The location of this CM shall be indicated in the field and on the Site Maps in Part 7 of this SWMP.

h. Stockpile Management (SM)

Stockpile management includes practices used to minimize erosion and sediment transport from erodible material/soil stockpiles. Stockpiles should be located away from all drainage-ways and storm sewer inlets, and a sediment control measure should be placed around its perimeter. Typically, soils stockpiled for an extended period of time (i.e., 14 days) should be stabilized with seed and mulch, soil binders, or erosion control blankets.

Soil stockpiles will be located on-site away from storm drain inlets, curb and gutter sections, etc. and shall be controlled for erosion and sediment transport with surface roughening, watering, mulch, and/or silt fence (or similar downslope sediment control measure). Unless infeasible, topsoil shall be preserved for those areas of the site that will utilize vegetative final stabilization measures. If used, the location of this CM shall be indicated on the Site Maps in Part 7 of this SWMP.

i. Good Housekeeping Practices (GH)

Good housekeeping practices are used to prevent pollution associated with solid, liquid, and hazardous construction-related materials and wastes. Good housekeeping practices include providing control measures for waste management; establishing proper building material staging areas; designating paint and concrete washout areas; establishing equipment and vehicle fueling and maintenance practices and areas; if needed, developing an SPCC Plan; etc. Good housekeeping practices are always necessary at construction sites.

Good housekeeping practices shall always be employed at the construction site during permitted construction activities. As needed, loads of cut and fill materials imported to or exported from the site will be properly loaded and covered to prevent loss during transport. When applicable, the location(s) of this CM shall be indicated on the Site Maps in Part 7 of this SWMP.

j. Construction Phasing/Sequencing (CP)

Construction phasing/sequencing refers to managing a construction site to avoid disturbing the entire surface area at one time. When grading and construction activities are completed, and soils are stabilized for one part of the site, grading and construction activities can begin on another part of the site. Care must be given during construction to minimize the disturbance of vegetation, and native vegetation shall remain on-site until it is necessary to remove for required construction activities.

Construction phasing/sequencing practices shall be employed at the construction site through all phases of ground disturbing activities. The amount of soil exposed during construction activity will be minimized to the extent practicable, and pre-existing vegetation shall be retained and protected

whenever possible. The exact location(s) of disturbed and stabilized areas shall be indicated on the Site Maps in Part 7 of this SWMP.

B. Specific Structural Control Measures

"Specific" control measures used for effluent limitations will meet the following requirements.

1. **Structural and non-structural vehicle tracking controls shall be implemented to minimize vehicle tracking of sediment from disturbed areas and may include tracking pads, minimizing site access, wash racks, graveled parking areas, maintaining vehicle traffic to paved areas, street sweeping, and sediment control measures.**

   The project's plan for meeting the requirement: The project may implement construction of aggregate vehicle tracking control (VTC), or manufactured proprietary devices, at the access points from 25 ½ Road until on-site surfaces are stabilized. Areas adjacent to disturbed surfaces with storm drain inlets and gutters (or similar stormwater conveyance and collection structures) will have measures in place to contain or filter flows to prevent untreated bypass flows.

2. **Stormwater runoff from all disturbed areas and soil storage areas will utilize or flow to one or more CMs to minimize erosion and sediment in the discharge. The CMs will be selected, designed, installed, and adequately sized in accordance with good engineering, hydrologic and pollution control practices. The control measure(s) will contain or filter flows in order to prevent the bypass of flows without treatment and will be appropriate for stormwater runoff from disturbed areas and for the expected flow rate, duration, and flow conditions (i.e., sheet flow).**

   The project's plan for meeting the requirement: Stormwater runoff will flow to rock sock checks, inlet protection, and a sediment trap/basin before discharging into the City of Grand Junction MS4.

3. **Selection of control measures will prioritize the use of structural and non-structural CMs that minimize the potential for erosion (e.g., covering materials). The selection will prioritize phasing construction activities to minimize the amount of soil disturbance at any point in time throughout the duration of construction.**

   The project's plan for meeting the requirement: The Fire Station 3 project will be phased to minimize the amount of soil disturbance at any point in time and control measures will be selected to prioritize the potential for erosion.

4. **Outlets that withdraw water from or near the surface shall be installed when discharging from basins and impoundments, unless infeasible.**

   The project's plan for meeting the requirement: The Fire Station 3 facility will have a water quality basin that withdraws water from or near the surface.

5. **Maintain pre-existing vegetation or equivalent control measures for areas within fifty (50) horizontal feet of receiving waters as defined by the Permit, unless infeasible.**

   The project's plan for meeting the requirement: This control measure is not applicable to the Fire Station 3 facility. The site does not have pre-existing vegetation or equivalent control measures for areas within fifty horizontal feet of receiving waters.

6. **Minimize soil compaction for areas where infiltration control measures will be used or where final stabilization will be achieved through vegetative cover.**

   The project's plan for meeting the requirement: To minimize soil compaction for areas where infiltration control measures will be used or where final stabilization will be achieved through vegetative cover, Grand Junction Fire and TBD will restrict vehicle and equipment access to areas of the site needed for development of the facility and compacted surfaces may be ripped (i.e., surface roughened) prior to implementation of temporary and/or final stabilization vegetative cover.

7. **Unless infeasible, topsoil shall be preserved for those areas of a site that will utilize vegetative final stabilization.**

   The project's plan for meeting the requirement: To the extent feasible, topsoil shall be preserved for those areas (e.g., landscaping) of the site that will utilize vegetative final stabilization.

8. **Minimize the amount of soil exposed during construction activity, including the disturbance of steep slopes.**

   The project's plan for meeting the requirement: Soil exposed during construction activity will be minimized with construction scheduling and phasing, by stabilizing with hardscaping (e.g., asphalt, concrete, etc.), with temporary stabilization control measures (e.g., vegetation, mulch, etc.) for idle (more than 14 days) areas of the site, etc. The site does not have steep slopes.

9. **Diversion CMs will minimize soil transport and erosion within the entire diversion, minimize erosion during discharge, and minimize run-on into the diversion. The Permittees must minimize the discharge of pollutants throughout the installation, implementation, and removal of the diversion. Diversions must meet one of more of the conditions listed in the Permit.**

   The project's plan for meeting the requirement: This control measure does not apply to the Fire Station 3 project. Diversion CMs will not be used for this approximately 1.4 acre facility.

10. **Bulk storage, individual containers of 55 gallons or greater, for petroleum products and other liquid chemicals must have secondary containment, or equivalent protection, in order to contain spills and to prevent spilled material from entering State waters.**

    The project's plan for meeting the requirement: As needed, Grand Junction Fire and TBD will use secondary containment, or equivalent protection, for the bulk (55 gallons or greater) storage of petroleum products and other liquid chemicals at the site during construction. Secondary containment

structures may be lined earthen berms, lined retaining walls, double-walled fuel tanks, drip pans, etc. Bulk on-site storage is not anticipated for the project. Bulk storage is not anticipated for the project.

Note: If more than 1,320 gallons of oil will be stored on-site, a Spill Prevention, Control, and Countermeasure (SPCC) Plan may be required. If applicable, Appendix C (Tab 12) includes the project's SPCC Plan and/or a Spill Prevention Plan required by a separate CDPS permit.

11. **Control measures designed for concrete washout waste must be implemented. This includes washout waste discharged to the ground as authorized under the Permit and washout waste from concrete trucks and masonry operations contained on-site. Grand Junction Fire and TBD (Permittees) must ensure the washing activities do not contribute pollutants to stormwater runoff or receiving waters. Discharges that may reach groundwater must flow through soil that has buffering capacity prior to reaching groundwater, as necessary to meet the effluent limitations in the Permit. The concrete washout location will not be located in an area where shallow groundwater may be present and would result in buffering capacity not being adequate, such as near natural drainages, springs, or wetlands. The Permit authorizes discharges to the ground of concrete washout wastes, but does not authorize on-site waste disposal.**

    The project's plan for meeting the requirement: The Permittees will meet the requirements of this control measure as described in the Permit. Control measures for concrete and masonry washout wastes may include the use of above ground storage areas or prefabricated haul away concrete washout containers. Concrete wastes will be collected and transported to designated off-site disposal facilities. The depth to groundwater at the project site is more than 80 inches.

12. **Temporary stabilization for earth disturbing activities on any portion of a site where ground disturbing construction activity has permanently ceased, or temporarily ceased for more than 14 calendar days.**

    The project's plan for meeting the requirement: Grand Junction Fire and TBD will implement surface roughening and/or temporary seeding and mulching for any portion of the site where ground disturbing construction activity has permanently ceased or temporarily ceased for more than 14 calendar days. If the requirements of this control measure must be exceeded, the constraints necessitating the alternative schedule, the alternate stabilization schedule, and the locations where the alternative schedule is applicable will be documented in Tab 8 of the SWMP and (as applicable) on the Site Maps in Tab 7 of the SWMP.

C. Potential Pollutant Sources & Control Measures Implementation

Grand Junction Fire and TBD will implement control measures at the construction site to minimize the discharge of pollutants from all potential pollutant sources. The following section lists potential pollutant sources for the project and the selected structural and/or non-structural control measures which may be implemented to minimize erosion, sediment transport, and the release of other pollutants related to proposed construction activities. Control measures implemented in the field will be designed to prevent pollution or degradation of State waters (e.g., City of Grand Junction MS4, Colorado River) and will be indicated on the Site Maps in Tab 7 of this SWMP.

1. Disturbed and Stored Soils

Source(s): Disturbed soils may be the result of demolition (existing pavement sections), grading, excavating, stockpiling, and compaction of the site. Stored soils may consist of imported backfill or road base used for utility trenches, foundations, and pavement sections. Potential pollutants from these construction activities include sediment and dust.

Control Measure(s): Construction phase sequencing; using rock sock checks/gutter protection, inlet protection, earthen berms, sediment basin, VTCs, seed and mulch, etc.; surface roughening and surface watering; etc.

Potential presence at the Fire Station 3 construction site: Yes, for all phases of construction.

2. Vehicle Tracking of Sediments

Source(s): Vehicle tracked sediment is a potential pollutant which may result from the movement of equipment and vehicles from on-site disturbed surfaces to off-site roads (typically paved) during construction activities.

Control Measure(s): Implementing a VTC at site entrances/exits to mitigate the transport of mud/sediment adhering to vehicle tires prior to leaving the site and entering the adjacent roads; immediately removing tracked sediment from off-site paved surfaces; and/or implementing control measures (e.g., rock sock checks, inlet protection, etc.) for areas where vehicle tracking occurs to contain or filter flows in order to prevent the bypass of flows without treatment.

Potential presence at the Fire Station 3 construction site: Yes, for 25 ½ Road and adjacent paved surfaces.

3. Management of Contaminated Soils

Source(s): No contaminated soils are known to exist on-site. Soils may become contaminated with leaks and spills from vehicle and equipment fuels, hydraulic and other lubricants and fluids, and materials entering the site during construction.

Control Measure(s): If encountered, temporarily storing contaminated soils a designated construction materials storage area until properly disposing of in accordance with Local (e.g., Mesa County, City of Grand Junction) and/or State (e.g., CDPHE) guidelines.

Potential presence at the Fire Station 3 construction site: Yes, for soils to become contaminated during active construction.

4. Loading and Unloading Operations

Source(s): Loading and unloading operations during construction material delivery and removal of construction wastes from the site have the potential to spill materials that may contribute sediment, nutrients, metals, oil and grease, and organics to stormwater runoff.

Control Measure(s): Designating an area for loading and unloading, loading and unloading materials in a manner to reduce the likelihood of spills, providing spill kits and determining appropriate measures to mitigate spills for the delivery of materials and supplies that cannot be made in the construction materials storage area, etc.

Potential presence at the Fire Station 3 construction site: Yes.

5. Outdoor Storage Activities

Source(s): Outdoor storage of building materials, fertilizers, chemicals, etc. has the potential to contaminate stormwater from spills and leaks of these materials and from stormwater coming into contact with them. Stormwater pollutants from outdoor storage activities include sediment, nutrients, trash, metals, oil and grease, and organics.

Control Measure(s): Where applicable, storing fertilizers or chemicals on-site in the construction materials storage area (SSA on Site Maps), storing project materials in the construction materials storage area, containing outdoor storage areas (with, for example, silt fence, sediment control logs, etc.), etc.

Bulk (55 gallons or greater) storage for petroleum products and other liquid chemicals shall have secondary containment, or equivalent protection. The location(s) of outdoor storage activities can be found on the Site Maps in Part 7 of this SWMP.

Potential presence at the Fire Station 3 construction site: Yes.

6. Vehicle and Equipment Maintenance and Fueling

Source(s): Vehicle and equipment maintenance and fueling activities have the potential to contribute trash, metals, oil and grease, and organics to stormwater runoff during all phases of construction.

Control Measure(s): Construction equipment shall not have leaking fluid or hydraulic hoses and fueling equipment shall have automatic shut-off valves to prevent overfilling and potential spills. Bulk storage of petroleum products and other liquid chemicals shall have secondary containment, or equivalent protection. The location of vehicle and equipment maintenance and fueling will be shown on the Site Maps in Part 7.

Potential presence at the Fire Station 3 construction site: A potential, but not expected.

7. Significant Dust or Particulate Generating Processes

Source(s): Significant dust or particulates may be generated during earth-disturbing construction activities (i.e., demolition, excavating, grading, trenching, moving equipment and supplies, etc.).

Control Measure(s): Periodically spraying stockpiles of stripped materials with water or a crusting agent to stabilize potentially wind-blown material, tarping trucks hauling import fill materials to control airborne dust, suspending or limiting construction activity during high wind events (20 to 30 MPH sustained) if dust cannot be controlled by wetting or similar means, etc.

Potential presence at the Fire Station 3 construction site: Yes.

8. Routine Maintenance Activities

Source(s): Routine maintenance activities have the potential to contribute trash, metals, oil and grease, and organics to stormwater runoff during all phase of construction activity.

Control Measure(s): Designating areas for maintenance activities involving potential pollutants that could spill, storing liquids and chemicals in secondary containment, training personnel in the proper use and storage of materials, etc.

Potential presence at the Fire Station 3 construction site: Yes.

9. On-site Waste Management Practices

Source(s): On-site waste management practices may generate waste piles and liquid wastes during all phases of construction. Potential stormwater pollutants associated with this source include sediment, nutrients, trash, metals, bacteria, oil and grease, and organics.

Control Measure(s): Storing and covering on-site wastes within a designated storage area, keeping waste collection areas clean, inspecting solid waste containers for leaks, emptying trash and bulk waste-collection dumpsters before they are full and overflowing, cleaning up litter and debris from construction sites daily, etc.

Potential presence at the Fire Station 3 construction site: Yes, for all phases of construction.

10. Concrete Truck/ Equipment Washing

Source(s): Waste concrete and concrete and masonry wash waters are potential pollutants that may be generated during construction activities at the Fire Station 3 construction site. Potential pollutants associated with this source include metals, pH, sediment, etc.

Control Measure(s): Concrete washout areas shall be identified in the field and maintained (i.e., cleaned-out) as necessary to maintain capacity for additional concrete waste washouts; washout activities shall be completed within contained areas using lined straw bales, earthen berms, etc. to keep

the pollutants away from stormwater runoff or receiving waters; discharges that may reach groundwater shall flow through soil with a buffering capacity prior to reaching groundwater (N/A); hardened concrete wastes on the ground shall be picked up and disposed of properly each day; at project end all concrete wastes shall be removed from the site and disposed of at an approved waste disposal facility.

Potential presence at the Fire Station 3 construction site: Yes.

11. Dedicated Asphalt, Concrete Batch Plants, and Masonry Mixing Stations

Source(s): Concrete and asphalt batch plants, masonry mixing stations, and borrow or fill areas that produce earthen materials (e.g., soils, sands, and gravel) for project sites have the potential to contribute pollutants to stormwater discharges from these dedicated stations.

Control Measure(s): Asphalt or concrete batch plants or masonry mixing stations not anticipated.

Potential presence at the Fire Station 3 construction site: No.

12. Non-Industrial Wastes

Source(s): Non-industrial wastes generated during all phases of active construction may include, but not be limited to worker trash, portable toilets, discarded construction materials, etc. Non-industrial wastes may be generated during all phases of construction and have the potential to adversely affect water quality. Pollutants from these sources include sediment, nutrients, trash, metals, bacteria, oil and grease, and organics.

Control Measure(s): Keeping the construction site clean and orderly; routine disposal of trash, construction site wastes, sanitary wastes, etc.; recycling or disposing of materials and/or fluids properly; providing waste disposal receptacles at the site and requiring that construction trash, debris, and wastes be disposed of in a proper manner; personnel training in good housekeeping practices; securing portable toilets to the ground to prevent tipping; locating away from waterways; etc.

Potential presence at the Fire Station 3 construction site: Yes.

13. Other Areas/ Procedures Where Spills Can Occur

Source(s): No other areas or procedures where potential spills can occur have been identified.

Control Measure(s): NA.

Potential presence at the Fire Station 3 construction site: NA.

D. Documented Use Agreement for Measures Located Outside of Permitted Area

If needed, the Fire Station 3 SWMP will include (in Appendix C, Tab 12) a Documented Use Agreement between Grand Junction Fire and TBD (Permittees) and the owner or operator of any control measures located outside of the permitted area utilized by the construction site for compliance with the Permit, but not under the direct control of the Permittees. If applicable, Grand Junction Fire and TBD will be responsible for ensuring that all control measures located outside of the permitted area and being utilized by the construction site are properly maintained and in compliance with all terms and conditions of the Permit. The SWMP will include all information required of and relevant to any such control measures located outside the permitted area, including location, installation specifications, design specifications, and maintenance requirements.

TAB 6

SITE DESCRIPTION

6. SITE DESCRIPTION (§I.C.2.a.vi)

A. Nature of the construction activity at the site

The nature of construction activity at the Grand Junction Fire Department Station 3 commercial facility is construction of a new 10,500 square foot building with associated paved drive lanes and parking, landscaping, and new storm sewer system infrastructure. The new station will replace Fire Station 3 located at 582 25 1/2 Rd to continue serving the northwest area of Grand Junction, the Mesa Mall, Community Hospital, and St. Mary's Hospital.

Land disturbing activities at the project site may consist of demolition (existing 25 ½ Road and parking lot pavement sections), grading, excavating and backfilling for building foundation and utilities, material stockpiling, and landscaping commonly associated with commercial (i.e., public) land development.

Construction activities may include but may not be limited to paving/hardscaping, materials and equipment staging, utilities (e.g., domestic water, electric, gas, telephone, fire protection, etc.) installation and/or tie-ins, building construction, stormwater control measures installation and management, and final stabilization.

B. Proposed schedule for the sequence for major construction activities

PROPOSED SCHEDULE FOR MAJOR CONSTRUCTION ACTIVITES*

Construction Activity	Proposed Start Date	End Date	Notes/Comments
1. Pre-Disturbance CMs	TBD		Earthen berm, IP, VTC, etc.
2. Demolition			Existing pavement sections
3. Clearing and Grading			Dust control, sediment tracking, etc.
4. Utilities			CWA, stockpile management, etc.
5. Vertical Construction			Good housekeeping
6. Concrete & Asphalt Pavement			CWA
7. Landscaping/Final Stabilization	TBD		
8. Control Measures Removal			Inlet protection

Construction activities at the site will follow standard construction and engineering protocols and procedures, and appropriate stormwater runoff, erosion, and sediment control measures (CMs) shall be used to minimize the impact of earth disturbing activities. To effectively minimize site erosion and sediment transport during construction, the following sections describe the relationship between the phases of construction, and the implementation and maintenance of both structural and non-structural stormwater management CMs used for the project.

1. Pre-construction (Initial Phase)

Preliminary site assessments were made to determine needed site-specific CMs, pre-construction vegetative cover, and existing drainages/outfalls. These features were incorporated into site-specific erosion and sediment control maps and were used to develop the project SWMP. The Fire Station 3 SWMP is a dynamic document that shall continuously be used and modified during the project as construction progresses and changes in site conditions warrant.

Prior to initial construction activities or ground disturbances, measures may be implemented at the site for safety and to delineate project boundaries (e.g. construction fence), to control erosion (i.e., sequencing of construction activities), and for sediment control (i.e., rock sock gutter checks, inlet protection, etc.).

2. Construction (Initial and Interim Phases)

The matrix on the following page may be used to select control measures for the project when the phase (e.g., initial, interim, final) of construction activity has been determined. Control measures (CMs) will be installed prior to, during, and immediately following construction with consideration given to safety, access, operational constraints, and ground conditions at the time of construction. Site preparation CMs will be installed before ground disturbing activities, and as construction activities progress additional measures (e.g., inlet protection, CWA, etc.) may be implemented to adequately control each pollutant source for the commercial construction project.

3. Post-construction (Final Phase)

Sediment and erosion control measures shall be maintained and/or modified as needed until final stabilization is achieved and site-specific maps shall be updated to reflect field conditions post-construction. After construction activities have been completed and final stabilization is achieved, all temporary non-biodegradable CMs shall be removed from the site and the appropriate forms (e.g., Notice of Termination, Tab 11) shall be completed and sent to the applicable regulatory agencies (CDPHE) for termination of active permits.

Final stabilization control measures for the project, including hardscaping and vegetation have been designed and will be installed as permanent features. Maintenance of the long-term stormwater management system (e.g., storm drain inlets, piping, outfalls, water quality basin, etc.) will be the responsibility of the City of Grand Junction to manage post-construction.

	Potential Control Measure (CM)	Initial Phase	Interim Phase	Final Phase
Permanent CMs	Permanent Vegetation			X
	Pavement (e.g., concrete, asphalt)		X	X
	Water Quality Basin	X	X	X
Structural CMs	Earthen Berm	X	X	
	Sediment Control Log	X	X	
	Silt Fence	X	X	
	Rock Sock Checks/Gutter Protection	X	X	
	Inlet Protection	X	X	
	Vehicle Tracking Control (also non-structural)	X	X	
	Street Sweeping	X	X	
	Surface Roughening (for temporary stabilization)		X	
	Temporary Vegetation		X	
	Mulching		X	X
	Dust Control	X	X	
	Concrete Washout Area	X	X	
	Stockpile Management	X	X	
	Good Housekeeping Practices	X	X	X
	Construction Phasing	X	X	X

C. Estimate of Total Site Acreage & Acreage to be Disturbed

The Fire Station 3 construction site is in the Northwest ¼ of the Northeast ¼ of Section 10, Township 1 South, Range 1 West of the Ute Meridian. The latitude and longitude for the site is:

Latitude: 39.088649 Longitude: -108.579633

1. Total area of construction site: approximately 1.4 acres

2. Total area of disturbance: 1.4 acres

Off-site Disturbances: There are no anticipated off-site activities associated with this project, and there are no planned off-site borrow or disposal activities associated with the project. Should off-site disturbances occur or become necessary, the SWMP and Site Maps (Tab 7) shall be amended by the Qualified Stormwater Manager (noted in Tab 1) to reflect these changes.

Off-site Flows: Off-site flows are expected to remain the same with the proposed stormwater drainage system and slight increase in impermeable ground cover. Post-construction stormwater runoff will discharge into the existing City of Grand Junction MS4 along 25 ½ Road.

D. Soils Description

A formal soils study was not conducted at the Fire Station 3 project location. However, soil types were evaluated using data obtained from the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), Web Soil Survey (WSS). A Custom Soil Resource Report for the project is located in Appendix F (Tab 15) of this SWMP.

Contaminated soils are not expected to be present on site or disturbed during construction activities, and groundwater contamination located within site boundaries is not anticipated nor expected to be pumped during active construction.

Soil Types:

The primary soil type for the project area is the Sagers silty clay loam (parent material: Cretaceous source alluvium derived from sandstone and shale), Hydrologic Soil Group C, 0 to 2 percent slopes. The Sagers silty clay loam is well drained, has low runoff potential, and the depth to water table is more than 80 inches.

Soil Erosion Potential:

Soil at the Fire Station 3 project site are susceptible to erosion and stormwater runoff by varying degrees. Typically, soils high in clay content have low K values (low potential for erosion) and soils with high silt content are the most erodible. The NRCS rates erosion potential on a scale of 0.02 (not highly erodible) to 0.69 (extremely erodible). Runoff potentials are dependent upon meteorological factors (e.g., type of precipitation, rainfall intensity, rainfall amount, rainfall duration, etc.) and physical characteristics (e.g., vegetation, soil type, drainage area, slope, topography, etc.) of a site. The Sagers silty clay loam has a K-vale of 0.43 and is moderately susceptible to erosion by stormwater.

Wind Erodibility:

A soil's wind erodibility rating indicates its susceptibility to erosion by wind. Soils are assigned to groups that have similar properties affecting their susceptibility to wind erosion, with Group 1 soils being the most susceptible and those assigned to Group 8 being the least. The Sagers silty clay loam has a rating of 4L and is moderately susceptible to erosion by wind.

E. Existing Vegetation and Topography Description

Prior to the proposed new fire station project, the property for Fire Station 3 was covered with an asphalt pavement parking lot and perimeter landscaping. The pre-disturbance surface vegetative cover was **ten to twenty percent (10-20%)** with landscape grasses and trees dominating the plant types.

The method used for determining the percentage of existing vegetative ground cover relative to the entire site was a visual (i.e., ocular) plant cover estimate of on-site surfaces. The project area is bounded by the 25 ½ Road right-of-way to the west, the existing Grand Junction Fire Department Station 3 facility to the north, School District 51 property to the east, and Monument Little League property to the south.

F. Allowable Non-stormwater Discharges

The following table shall be completed/updated as needed during construction. The applicable CMs installed will be included as needed.

ALLOWABLE NON-STORMWATER DISCHARGES		
Type	**Exist? Y/N**	**Description**
Discharges of uncontaminated springs	N	Uncontaminated springs are not located on-site.
Discharges to the ground of concrete washout water	Y	Discharges to the ground of concrete washout water during active construction with CMs.
Discharges of landscape/agricultural irrigation return flow	N	The site does not have active landscape/agricultural return flows.
Emergency fire fighting	Y	Fire-fighting a potential.
Discharges covered by the Low Risk Discharge Guidance Policy – WQP 27	N	Groundwater dewatering not anticipated.

G. Areas Receiving Discharge from the Site

1. Outfall Locations: The developed site will have concrete curb and gutter sections, spill curbs, and a water quality basin with outfall into the City of Grand Junction MS4 along 25 ½ Road.

2. Immediate Receiving Water: City of Grand Junction MS4.

3. Ultimate Receiving Water: Colorado River, approximately 1.0 miles southwest.

4. According to FEMA FIRM Panel 08077C0804G (City of Grand Junction) the site is within an Area of Minimal Flood Hazard (Zone X).

5. Discharges to Outstanding Waters: **No** (A map of Colorado's outstanding waters is available at: https://www.colorado.gov/pacific/cdphe/clean-water-gis-maps)

6. Impaired waters or waters subject to TMDLs: **No**

H. Stream Crossings Located within the Construction Site Boundary

1. There are no stream crossings or defined wetlands located within the construction site boundary.

2. The site does not have pre-existing vegetation or equivalent control measures within 50 horizontal feet of receiving waters.

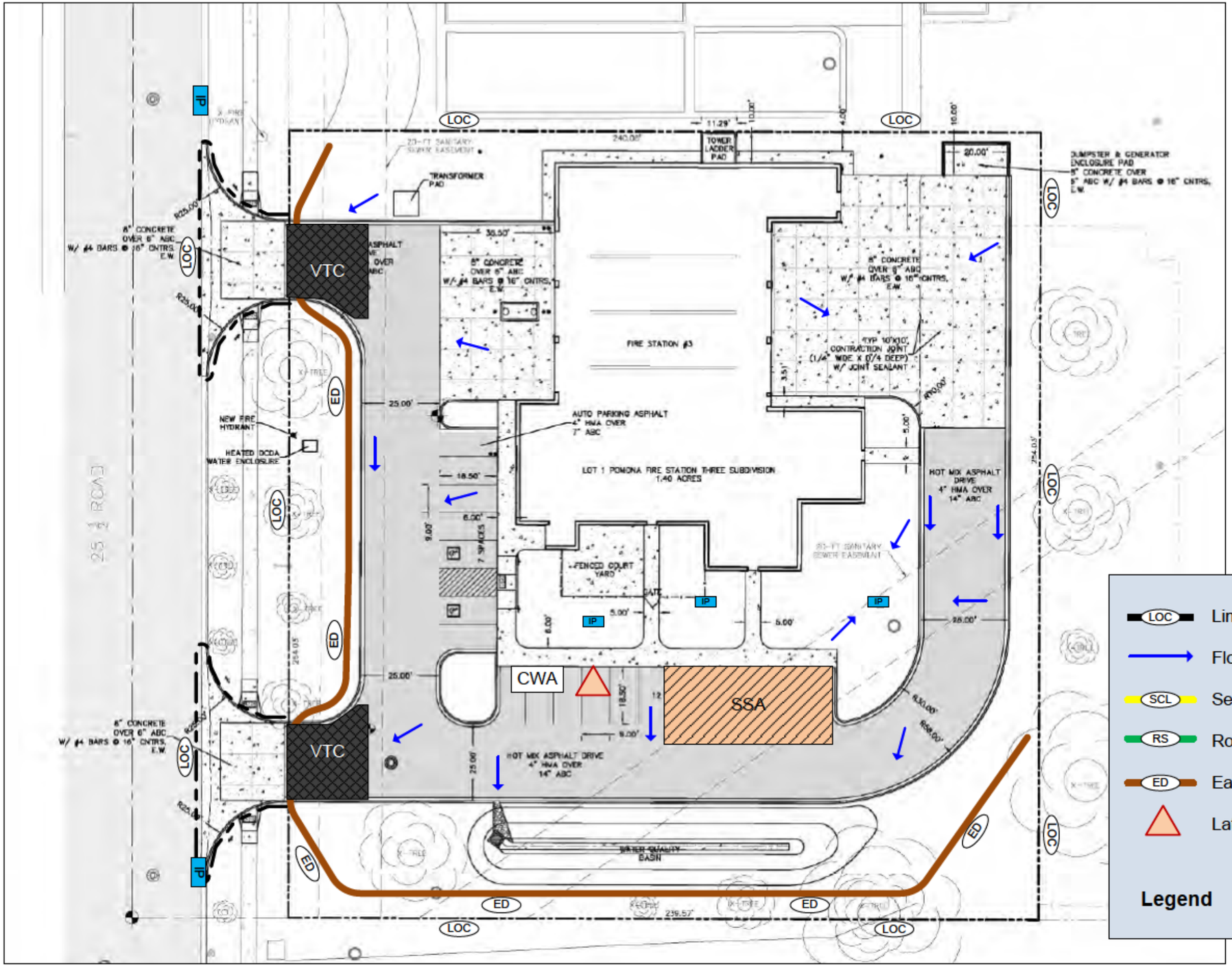
TAB 7

SITE MAP

7. SITE MAP (§I.C.2.a.vii)

This SWMP includes legible site maps showing the entire site, identifying:

A. Construction site boundaries;
B. Flow arrows depicting stormwater flow directions on-site and runoff direction;
C. All areas of ground surface disturbance, including areas of borrow and fill;
D. Areas used for storage of soil;
E. Locations of all waste accumulation areas, including areas for liquid, concrete, masonry, and asphalt;
F. Locations of dedicated asphalt, concrete batch plants and masonry mixing stations;
G. Locations of all structural control measures;
H. Locations of all non-structural control measures (e.g., temporary stabilization);
I. Locations of springs, streams, wetlands, diversions, and other State waters;
J. Locations of all stream crossings located within the construction site boundary; and
K. Locations where alternative temporary stabilization schedules apply.



Site Map Requirements

A. Limits of Construction (LOC) represents construction site boundaries. Site area is approximately 1.4 acres.

B. Flow arrows depicting stormwater flow directions on-site and runoff direction are indicated with blue arrows.

C. All areas within the limits of construction will be disturbed unless otherwise noted.

D. Areas used for storage of topsoil, subgrade, gravel, and other materials will be indicated on the site map.

E. The locations of waste areas, including for concrete, will be indicated on the map as needed.

F. There will be no asphalt, concrete batch plants and masonry mixing stations.

G. The locations of structural control measures will be shown on the map as implemented in the field.

H. The locations of non-structural control measures will be shown on the map as implemented in the field.

I. There are no springs, streams, wetlands, and other State waters near the site. The City of Grand Junction MS4 runs along the west side of the permitted facility.

J. There are no stream crossings within the construction site boundary.

K. Final stabilization will be achieved using building, pavement, and landscape covers. The site had 10-20% plant cover prior to proposed construction activities.

NO.	REVISIONS	BY	DATE

Summit SERVICES GROUP
15690 E. 33rd Ave, Unit A
Aurora, Colorado 80011

Grand Junction Fire Department Station 3
582 25 ½ Road
Grand Junction, CO 81505

1/20/2021	Date Last Updated
XX/XX/XXXX	Construction Start Date
XX/XX/XXXX	Permit Closed Date

Grand Junction Fire Department Station 3
Grand Junction, Colorado

SHEET REFERENCE NUMBER:
Sheet 1 of 1
Initial

TAB 8

FINAL STABILIZATION & LONG-TERM STORMWATER MANAGEMENT

8. FINAL STABILIZATION AND LONG-TERM STORMWATER MANGEMENT (§I.C.2.a.viii)

A. Description of Final Stabilization Measures

Final stabilization of all disturbed areas at the Fire Station 3 permitted site is required by the Permit after construction activities have been completed. Tab 14 of the stormwater management plan (SWMP) may include a Landscape Plan with materials and methods to be used to achieve final stabilization and long-term stormwater management at the site.

In general, final stabilization measures for obtaining a vegetative cover, or alternative stabilization methods, include but may not be limited to native seed mix selection and application methods; protection of existing vegetation (e.g., grass and trees); soil preparation and use of amendments; soil stabilization methods to provide adequate protection against erosion; appropriate sediment control measures as needed until final stabilization is achieved; permanent hardscape, xeriscape, stabilized driving surfaces; and other alternative stabilization practices as applicable.

1. Final stabilization measures for the Fire Station 3 project

Final stabilization has been designed and will be installed as a permanent feature. Final stabilization measures for obtaining a vegetative cover, or alternative stabilization methods, for the project site may include, but not be limited to:

- Protecting dedicated existing trees and other vegetation;
- Managing and/or importing topsoil for use in landscape areas;
- Planting ornamental trees, coniferous and deciduous shrubs, and ornamental grasses, and perennials/vines;
- Using permanent pavement, paver stones, and organic wood mulch, etc.; and
- Implementing appropriate sediment control measures (i.e., gutter protection, inlet protection, etc.) as needed until final stabilization is achieved.

2. Final Stabilization Achievement (§I.B.1.a.iii)

Final stabilization is achieved when all construction activities at the site have been completed, permanent stabilization methods are complete, and all temporary CMs have been removed from the site, except when the control measure specification allows the CM to be left in place.

Soil compaction shall be minimized for areas where infiltration control measures will be implemented or where final stabilization will be achieved through vegetative cover; unless infeasible, topsoil shall be preserved for areas of the site utilizing vegetation for final stabilization.

3. Long-term Stormwater Management

Long-term stormwater management (i.e., erosion and sediment control) for the Fire Station 3 facility will include post-construction stormwater control measures, including, but not limited to pavement and mulches, vegetation, storm drain inlets with piping, a water quality basin, and outfalls discharging off-site. If applicable, site Maps in Tab 7 of the SWMP locate planned permanent control measures as needed to control pollutants in stormwater discharges that will occur after construction operations are completed.

4. Temporary Stabilization

Temporary stabilization will be implemented for earth disturbing activities on any portion of the site where ground disturbing construction activity has permanently ceased, or temporarily ceased for more than 14 calendar days. Temporary stabilization methods may include, but are not limited to the use of tarps, soil tackifier, surface roughening, and hydro-seed/mulch. The minimum inspection frequency and scope will be followed for temporarily stabilized areas.

Grand Junction Fire and TBD (Permittees) may exceed the 14-day temporary stabilization schedule when either the function of a specific area of the site requires it to remain disturbed, or physical characteristics of the terrain and climate prevent stabilization. As needed, the SWMP will document (in the table below) the constraints necessitating the alternative schedule, provide the alternate stabilization schedule, and identify all locations where the alternative schedule is applicable on the Site Maps (Tab 7).

TEMPORARY STABILIZATION ALTERNATIVE SCHEDULE		
Constraints Necessitating Alternative Schedule	**Alternate Stabilization Date**	**Location(s) Where Alternative Schedule is Applicable (also shown on Site Maps)**

TAB 9

INSPECTION REPORTS



9. INSPECTION REPORTS (§I.C.2.a.ix)

A. Inspection and Maintenance Procedures

Site inspections shall be conducted in accordance with State regulations as detailed in the Permit. The requirements are detailed in this section of the stormwater management plan (SWMP) as specified in Part 1.D of the State Permit and represent the minimum inspection schedule for the Fire Station 3 construction site. Grand Junction Fire and TBD (Permittees) are responsible for implementing and maintaining control measures in good and effective operating condition. More frequent inspections may be needed to ensure that implemented control measures (CMs) function as designed and installed.

***Important Note:** Per COR400000 Permit requirements, the first site inspection shall be made within seven (7) calendar days of the commencement of construction activities on-site.

1. Person Responsible for Conducting Inspections

The person(s) inspecting the site may be on the staffs of the Permittees or a third party hired to conduct stormwater inspections under their direction. Grand Junction Fire and TBD are responsible for ensuring that the Inspector (noted in Tab 1) is a Qualified Stormwater Manager. The Inspector may be different than the individual(s) listed in Tab 1.

2. Inspection Frequency

Grand Junction Fire and TBD will ensure inspections are conducted in accordance with one of the following minimum frequencies unless the permitted construction site/project meets the requirements of Part I.D.4 of the State Permit. Inspection frequencies for the project are noted in the table below.

a. At least one inspection every 7 calendar days; Or

b. At least one inspection every 14 calendar days, if post-storm event inspections are conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Post-storm inspections may be used to fulfill the 14-day routine inspection requirement.

c. When site conditions make the schedule required in this section impractical, the Permittees may petition the Division to grant an alternate inspection schedule. The alternative inspection schedule must not be implemented prior to written approval by the division and incorporation into the SWMP.

3. Inspection Frequency for Discharges to Outstanding Waters

Grand Junction Fire and TBD will ensure inspections are conducted at least once every 7 calendar days if ever it is determined that the Fire Station 3 facility discharges stormwater to a water body designated as an Outstanding Water by the Water Quality Control Commission.

Note: As of 1/20/2021 the project area was not located in an area with Outstanding Waters. (Source: https://www.colorado.gov/pacific/cdphe/clean-water-gis-maps)

4. Reduced Inspection Frequency

Grand Junction Fire and TBD may perform site inspections at the following reduced frequencies when one of the following conditions exists for the project:

a. Post-Storm Inspections at Temporarily Idle Sites

For Permittees choosing to combine 14-day inspections and post-storm-event-inspections, if no construction activities will occur following a storm event, post-storm event inspections must be conducted prior to re-commencing construction activities, and no later than 72 hours following the storm event. The delay of any post-storm event inspection must be documented in the inspection record. Routine inspections must still be conducted at least every 14 calendar days.

For Permittees choosing an inspection frequency pursuant to Part I.D.2.b and if no construction activities will occur following a storm event, post-storm event inspections must be conducted prior to re-commencing construction activities, and no later than 72 hours following the storm event. If the post-storm event inspection qualifies under this section, the inspection delay must be documented in the inspection record per Part I.D.5.c. Routine inspections must still be conducted at least every 14 calendar days.

b. Inspections at Completed Sites/Areas

When the site, or portions of the site are awaiting establishment of a vegetative ground cover and final stabilization, Grand Junction Fire and TBD will conduct a thorough inspection of the stormwater management system at least once every 30 days. Post-storm event inspections are not required under this schedule. This reduced inspection schedule is allowed if all of the following criteria are met:

1) all construction activities resulting in ground disturbance are complete;

2) all activities required for final stabilization, in accordance with the SWMP, have been completed, with the exception of the application of seed that has not occurred due to seasonal conditions or the necessity for additional seed application to augment previous efforts; and

3) the SWMP has been amended to locate those areas to be inspected in accordance with the reduced schedule allowed for in the Permit.

c. Winter Conditions Inspections Exclusion

Inspections are not required if the site meets all of the following conditions: construction activities are temporarily halted, snow cover exists over the entire site for an extended period of time, and melting conditions posing a risk of surface erosion do not exist. This inspection exception is applicable only during the period where melting conditions do not exist, and applies to the routine 7-day, 14-day and monthly inspections, as well as the post-storm-event inspections. When this inspection exclusion is implemented, the following information must be documented in accordance with the requirements in Part II of the Permit:

1) dates when snow cover existed;
2) date when construction activities ceased; and
3) date melting conditions began.

PROJECT INSPECTION FREQUENCY		
Minimum Inspection Frequency (e.g., 7-day, 14-day, etc.)	**Date Applicable**	**Description of Qualifying Condition(s) for Inspection Frequency**

5. Inspection Scope

a. Areas to Be Inspected

At a minimum, the following shall be evaluated during each inspection for evidence of, or the potential for, pollutants leaving the construction site boundaries; entering the stormwater drainage system; or discharging to State waters (e.g., City of Grand Junction MS4, Colorado River):

1) construction site perimeter;
2) all disturbed areas;
3) locations of installed control measures;
4) designated haul routes;
5) material and waste storage areas exposed to precipitation;
6) locations where stormwater has the potential to discharge offsite; and
7) locations where vehicles exit the site.

All erosion and sediment control measures identified in the SWMP shall be evaluated to ensure that they are maintained and operating correctly.

b. Inspection Requirements

1) Visually verify whether all implemented control measures (CMs) are in effective operational condition and are working as designed in their specifications to minimize pollutant discharges.

2) Determine if there are new potential sources of pollutants.

3) Assess the adequacy of CMs at the site to identify areas requiring new or modified control measures to minimize pollutant discharges.

4) Identify all areas of non–compliance with the Permit requirements and, if necessary, implement corrective action in accordance with Part I.B.1.c.

6. Inspection Reports

Inspection reports can be found in Tab 9 of this SWMP. Inspection reports shall identify any incidents of non-compliance with the terms and conditions of the Permit and will be signed and dated accordingly. Inspection records shall be kept along with the SWMP for a period of three years following termination of the Permit.

At a minimum the inspection report shall include the following:

a. the inspection date;
b. name(s) and title(s) of personnel making the inspection;
c. weather and soil conditions (e.g., saturated, dry, snow cover, etc.) at the time of inspection;
d. phase of construction at the time of inspection;
e. estimated acreage of disturbance at the time of inspection;
f. location(s) and identification of CMs requiring routine maintenance;
g. location(s) and identification of discharges of sediment or other pollutants from the site;
h. location(s) and identification of inadequate control measures;
i. location(s) and identification of additional control measures needed that were not in place at the time of inspection;
j. description of corrective action(s) for items g to i above, dates corrective action(s) were completed, and measures taken to prevent future violations, including requisite changes to the SWMP;
k. description of the minimum inspection frequency utilized when conducting each inspection;
l. deviations from the minimum inspection schedule as required in Part I.D.2 of the Permit;
m. after adequate corrective action(s) has been taken, or where a report does not identify any incidents requiring corrective action, the report shall contain a signed statement indicating the site is in compliance with the Permit to the best of the signer's knowledge and belief.

7. Corrective Actions

Where site inspections note the need for CM maintenance activities, CMs shall be maintained in accordance with the SWMP and Part I.B.1 of the Permit.

Repair, replacement, or installation of new CMs determined necessary during site inspections to address ineffective or inadequate CMs shall be conducted in accordance with the Permit. CM repairs/changes and/or modification shall occur as soon as possible, immediately in most cases. When an inadequate control measure is identified, the following corrective action requirements will be applied.

a. Grand Junction Fire and TBD shall take all necessary steps to minimize or prevent the discharge of pollutants from the permitted area and manage any stormwater run-on to the site until a CM is

implemented and made operational and/or an inadequate control measure is replaced or corrected and returned to effective operating condition. If it is infeasible to install or repair a CM immediately after discovering the deficiency, the following will be documented in the SWMP and kept on record in accordance with the recordkeeping requirements in Part II of the Permit.

1) Description of why it is infeasible to initiate the installation or repair immediately; and

2) A schedule for installing or repairing the control measure and returning it to an effective operating condition as soon as possible will be provided.

If applicable, Grand Junction Fire and TBD will remove and properly dispose of any unauthorized release or discharge (e.g., discharge of non-stormwater, spill, leak, or untreated stormwater not authorized by the Permit) within and from the permitted area The Permittees must also clean up any contaminated surfaces, if feasible, to minimize discharges of the material in subsequent storm events, including water remaining from the response that contains pollutants after active emergency firefighting responses are complete. The SWMP will be updated/noted accordingly to document the methods used to remove and properly dispose of any unauthorized release or discharge of pollutants.

B. Inadequate Control Measures (definition):

"Any control measure that is not designed or implemented in accordance with the requirements of the Permit and/or any control measure that is not implemented to operate in accordance with its design. See also Control Measure Requiring Routine Maintenance."

1. Control Measures Maintenance

Grand Junction Fire and TBD will ensure that all CMs remain in effective operating condition and are protected from activities that would reduce their effectiveness. CMs shall be maintained in accordance with good engineering, hydrologic, and pollution control practices. Observations leading to the required maintenance of CMs may be made during a site inspection, or during general observations of site conditions. The necessary repairs or modifications to a CM requiring routine maintenance, as defined in Part I.E of the Permit, must be conducted to maintain an effective operating condition.

C. Control Measure Requiring Maintenance (definition):

"Any control measure that is still operating in accordance with its design and the requirements of this permit, but requires maintenance to prevent a breach of the control measure. See also inadequate control measure."

1. Replacement and Failed Control Measures

Adequate site assessment shall be performed as part of comprehensive Inspection and Maintenance procedures to assess the adequacy of CMs at the site, and the necessity of changes to those CMs to ensure continued effective performance. Where site assessment results in the determination that new or

replacement CMs are necessary, the control measures shall be installed to ensure on-going implementation of control measures as defined in Part I.B of the State Permit.

Where CMs have failed, resulting in non-compliance with Part I.B.1 of the Permit, they shall be addressed as soon as possible, immediately in most cases, to minimize the discharge of pollutants. When new control measures are installed, or CMs are replaced, the SWMP shall be updated accordingly.

D. Terms and Conditions

1. Reporting (§II.L)

The Colorado Department of Public Health and Environment (CDPHE) reserves the right to request reporting for a given site. Terms and conditions are at the discretion of the CDPHE.

2. SWMP Availability (§I.C.4)

A copy of the stormwater management plan (SWMP) shall be retained on-site unless another location, specified by the Permittees, is approved by the Division. The Permit provides flexibility in allowing on-site SWMPs to be retained in an electronic or hardcopy format.

The SWMP for this project will be located (TBD at time of project commencement):

Location (e.g., construction trailer)	Address	Contact Information

A copy of the SWMP shall be provided upon request to the EPA, CDPHE, Mesa County, City of Grand Junction, or any agency in charge of approving sediment and erosion control plans, grading plans, or stormwater management plans, and within a time frame specified in the request. If the SWMP is required to be submitted to any of these entities it shall include a signed certification in accordance with Part I.A.3.b of the Permit, certifying that the SWMP is complete and meets all Permit requirements.

3. SWMP Review and Revisions (§I.C.3)

Changes to the SWMP shall be made prior to changes in site conditions except as indicated below. Examples of SWMP revisions may include but are not limited to potential pollutant source identification, selection of appropriate CMs for site conditions, CM maintenance procedures, and interim and final stabilization practices. The SWMP changes may include a schedule for further control measure design and implementation, provided that, if any interim CMs are needed to comply with the Permit, they are also included in the SWMP and implemented during the interim period.

The SWMP shall be amended when:

a. There is a change in design, construction, operation, or maintenance of the site which would require the implementation of new or revised CMs; or

b. The SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity; or

c. CMs identified in the SWMP are no longer necessary and are removed; or

d. When corrective actions are taken on-site that result in a change to the SWMP.

e. The site or areas of the site qualifying for reduced frequency inspections.

For SWMP revisions made prior to or following change(s) on-site, including revisions to sections addressing site conditions and CMs, a notation shall be included in the SWMP that identifies the date of the site change, the CM removed, or modified, the location(s) of those CMs, and any changes to the control measure(s). Grand Junction Fire and TBD will ensure the site changes are reflected in the SWMP and will be considered noncompliant with the Permit until the SWMP revisions have been made.

A SWMP amendment log is available in Appendix D (Tab 13) of this SWMP to track SWMP changes. The use of the amendment log is optional, and changes may also be made directly in the SWMP and site maps.

4. Responsive SWMP Changes

SWMP changes addressing CM installation and/or implementation are often required to be made in response to changing conditions, or when current CMs are determined ineffective. The majority of SWMP revisions to address these changes can be made immediately with quick in-the-field revisions to the SWMP. In the less common scenario where more complex development of materials to modify the SWMP is necessary, SWMP revisions shall be made in accordance with the following requirements:

a. shall be revised as soon as practicable, but in no case more than 72 hours after the change(s) in CM installation and/or implementation occur at the site; and

b. A notation shall be included in the SWMP prior to the site change(s) that includes the time and date of the change(s) in the field, an identification of the CM(s) removed or added, and the location(s) of those CMs.

5. Proper Operation and Maintenance (§II.E)

Grand Junction Fire and TBD (Permittees) will at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used to achieve compliance with the conditions of the Permit. As needed, proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures.

TAB 10

APPENDIX A: CONTROL MEASURE DETAILS/INSTALLATION SPECIFICATIONS

Erosion Control Measures

- EC-1 Surface Roughening (SR)
- EC-2 Temporary and Permanent Seeding (TS/PS)
- EC-4 Mulching (MU)
- EC-10 Earth Dikes and Drainage Swales (ED/DS)
- EC-14 Wind Erosion/Dust Control (DC)

Sediment Control Measures

- SC-1 Silt Fence (SF)
- SC-2 Sediment Control Log (SCL)
- SC-5 Rock Sock (RS)
- SC-6 Inlet Protection (IP)
- SC-7 Sediment Basin (SB)

Site Management

- SM-1 Construction Phasing/Sequencing (CP)
- SM-4 Vehicle Tracking Control (VTC)
- SM-6 Stabilized Staging Area (SSA)
- SM-7 Street Sweeping (SS)

Materials Management

- MM-1 Concrete Washout Area (CWA)
- MM-2 Stockpile Management (SM)
- MM-3 Good Housekeeping Practices (GH)

Surface Roughening (SR) EC-1

Description

Surface roughening is an erosion control practice that involves tracking, scarifying, imprinting, or tilling a disturbed area to provide temporary stabilization of disturbed areas. Surface roughening creates variations in the soil surface that help to minimize wind and water erosion. Depending on the technique used, surface roughening may also help establish conditions favorable to establishment of vegetation.



Photograph SR-1. Surface roughening via imprinting for temporary stabilization.

Appropriate Uses

Surface roughening can be used to provide temporary stabilization of disturbed areas, such as when revegetation cannot be immediately established due to seasonal planting limitations. Surface roughening is not a stand-alone BMP, and should be used in conjunction with other erosion and sediment controls.

Surface roughening is often implemented in conjunction with grading and is typically performed using heavy construction equipment to track the surface. Be aware that tracking with heavy equipment will also compact soils, which is not desirable in areas that will be revegetated. Scarifying, tilling, or ripping are better surface roughening techniques in locations where revegetation is planned. Roughening is not effective in very sandy soils and cannot be effectively performed in rocky soil.

Design and Installation

Typical design details for surfacing roughening on steep and mild slopes are provided in Details SR-1 and SR-2, respectively.

Surface roughening should be performed either after final grading or to temporarily stabilize an area during active construction that may be inactive for a short time period. Surface roughening should create depressions 2 to 6 inches deep and approximately 6 inches apart. The surface of exposed soil can be roughened by a number of techniques and equipment. Horizontal grooves (running parallel to the contours of the land) can be made using tracks from equipment treads, stair-step grading, ripping, or tilling.

Fill slopes can be constructed with a roughened surface. Cut slopes that have been smooth graded can be roughened as a subsequent operation. Roughening should follow along the contours of the slope. The tracks left by truck mounted equipment working perpendicular to the contour can leave acceptable horizontal depressions; however, the equipment will also compact the soil.

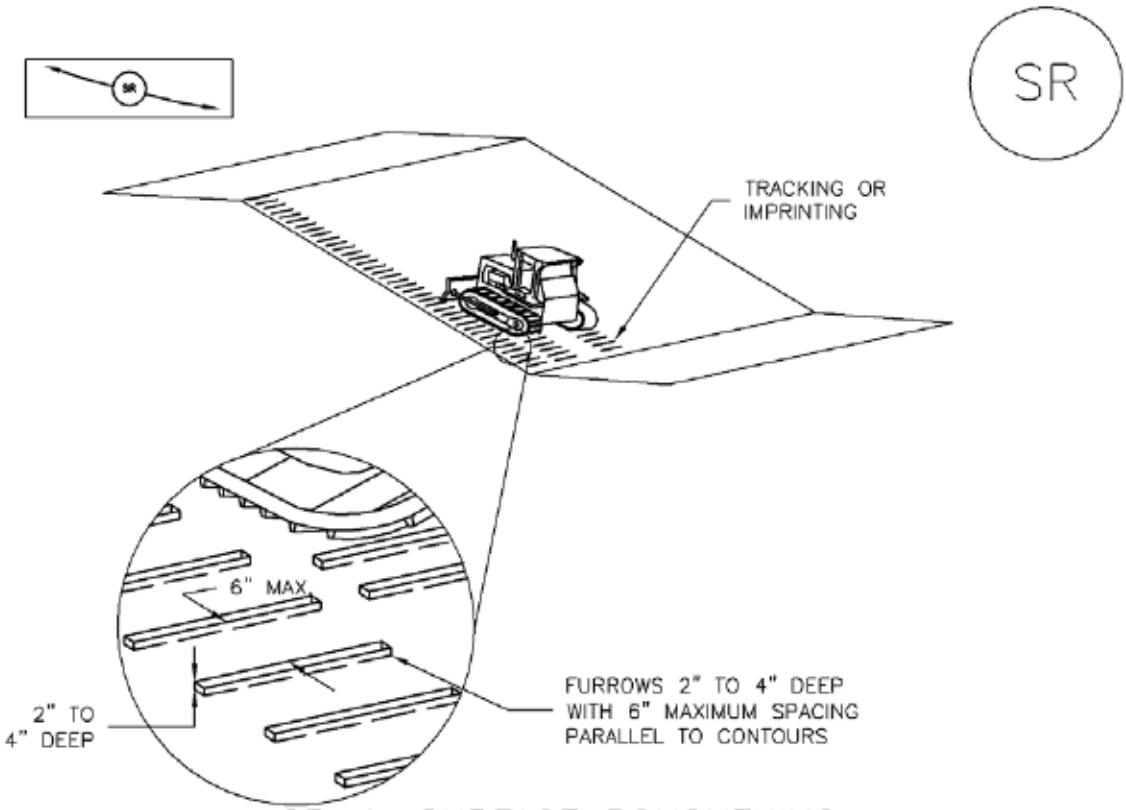
Surface Roughening	
Functions	
Erosion Control	Yes
Sediment Control	No
Site/Material Management	No

Maintenance and Removal

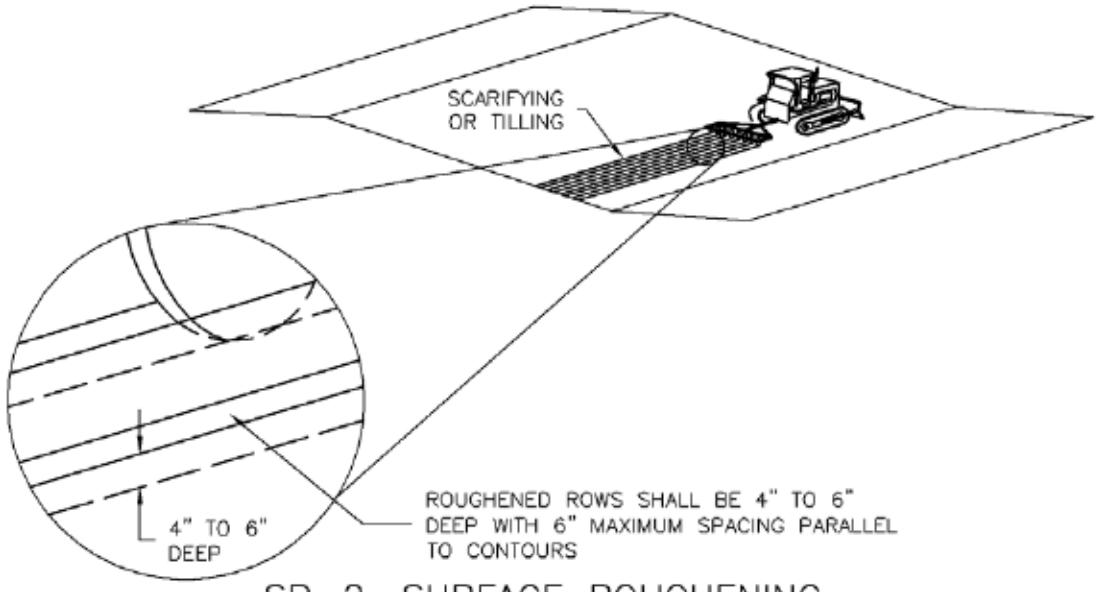
Care should be taken not to drive vehicles or equipment over areas that have been surface roughened. Tire tracks will smooth the roughened surface and may cause runoff to collect into rills and gullies.

Because surface roughening is only a temporary control, additional treatments may be necessary to maintain the soil surface in a roughened condition.

Areas should be inspected for signs of erosion. Surface roughening is a temporary measure, and will not provide long-term erosion control.



SR–1. SURFACE ROUGHENING
FOR STEEP SLOPES (3:1 OR STEEPER)



SR–2. SURFACE ROUGHENING
FOR LOW SLOPES (LESS THAN 3:1)

SURFACE ROUGHENING INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -LOCATION(S) OF SURFACE ROUGHENING.

2. SURFACE ROUGHENING SHALL BE PROVIDED PROMPTLY AFTER COMPLETION OF FINISHED GRADING (FOR AREAS NOT RECEIVING TOPSOIL) OR PRIOR TO TOPSOIL PLACEMENT OR ANY FORECASTED RAIN EVENT.

3. AREAS WHERE BUILDING FOUNDATIONS, PAVEMENT, OR SOD WILL BE PLACED WITHOUT DELAY IN THE CONSTRUCTION SEQUENCE, SURFACE ROUGHENING IS NOT REQUIRED.

4. DISTURBED SURFACES SHALL BE ROUGHENED USING RIPPING OR TILLING EQUIPMENT ON THE CONTOUR OR TRACKING UP AND DOWN A SLOPE USING EQUIPMENT TREADS.

5. A FARMING DISK SHALL NOT BE USED FOR SURFACE ROUGHENING.

SURFACE ROUGHENING MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACE UPON DISCOVERY OF THE FAILURE.

4. VEHICLES AND EQUIPMENT SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SURFACE ROUGHENED.

5. IN NON-TURF GRASS FINISHED AREAS, SEEDING AND MULCHING SHALL TAKE PLACE DIRECTLY OVER SURFACE ROUGHENED AREAS WITHOUT FIRST SMOOTHING OUT THE SURFACE.

6. IN AREAS NOT SEEDED AND MULCHED AFTER SURFACE ROUGHENING, SURFACES SHALL BE RE-ROUGHENED AS NECESSARY TO MAINTAIN GROOVE DEPTH AND SMOOTH OVER RILL EROSION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

Temporary and Permanent Seeding (TS/PS) EC-2

Description

Temporary seeding can be used to stabilize disturbed areas that will be inactive for an extended period. Permanent seeding should be used to stabilize areas at final grade that will not be otherwise stabilized. Effective seeding includes preparation of a seedbed, selection of an appropriate seed mixture, proper planting techniques, and protection of the seeded area with mulch, geotextiles, or other appropriate measures.



Photograph TS/PS -1. Equipment used to drill seed. Photo courtesy of Douglas County.

Appropriate Uses

When the soil surface is disturbed and will remain inactive for an extended period (typically 30 days or longer), proactive stabilization measures should be implemented. If the inactive period is short-lived (on the order of two weeks), techniques such as surface roughening may be appropriate. For longer periods of inactivity, temporary seeding and mulching can provide effective erosion control. Permanent seeding should be used on finished areas that have not been otherwise stabilized.

Typically, local governments have their own seed mixes and timelines for seeding. Check jurisdictional requirements for seeding and temporary stabilization.

Design and Installation

Effective seeding requires proper seedbed preparation, selection of an appropriate seed mixture, use of appropriate seeding equipment to ensure proper coverage and density, and protection with mulch or fabric until plants are established.

The USDCM Volume 2 *Revegetation* Chapter contains detailed seed mix, soil preparations, and seeding and mulching recommendations that may be referenced to supplement this Fact Sheet.

Drill seeding is the preferred seeding method. Hydroseeding is not recommended except in areas where steep slopes prevent use of drill seeding equipment, and even in these instances it is preferable to hand seed and mulch. Some jurisdictions do not allow hydroseeding or hydromulching.

Seedbed Preparation

Prior to seeding, ensure that areas to be revegetated have soil conditions capable of supporting vegetation. Overlot grading can result in loss of topsoil, resulting in poor quality subsoils at the ground surface that have low nutrient value, little organic matter content, few soil microorganisms, rooting restrictions, and conditions less conducive to infiltration of precipitation. As a result, it is typically necessary to provide stockpiled topsoil, compost, or other

Temporary and Permanent Seeding	
Functions	
Erosion Control	Yes
Sediment Control	No
Site/Material Management	No

soil amendments and rototill them into the soil to a depth of 6 inches or more.

Topsoil should be salvaged during grading operations for use and spread on areas to be revegetated later. Topsoil should be viewed as an important resource to be utilized for vegetation establishment, due to its water-holding capacity, structure, texture, organic matter content, biological activity, and nutrient content. The rooting depth of most native grasses in the semi-arid Denver metropolitan area is 6 to 18 inches. At a minimum, the upper 6 inches of topsoil should be stripped, stockpiled, and ultimately respread across areas that will be revegetated.

Where topsoil is not available, subsoils should be amended to provide an appropriate plant-growth medium. Organic matter, such as well digested compost, can be added to improve soil characteristics conducive to plant growth. Other treatments can be used to adjust soil pH conditions when needed. Soil testing, which is typically inexpensive, should be completed to determine and optimize the types and amounts of amendments that are required.

If the disturbed ground surface is compacted, rip or rototill the surface prior to placing topsoil. If adding compost to the existing soil surface, rototilling is necessary. Surface roughening will assist in placement of a stable topsoil layer on steeper slopes, and allow infiltration and root penetration to greater depth.

Prior to seeding, the soil surface should be rough and the seedbed should be firm, but neither too loose nor compacted. The upper layer of soil should be in a condition suitable for seeding at the proper depth and conducive to plant growth. Seed-to-soil contact is the key to good germination.

Seed Mix for Temporary Vegetation

To provide temporary vegetative cover on disturbed areas which will not be paved, built upon, or fully landscaped or worked for an extended period (typically 30 days or more), plant an annual grass appropriate for the time of planting and mulch the planted areas. Annual grasses suitable for the Denver metropolitan area are listed in Table TS/PS-1. These are to be considered only as general recommendations when specific design guidance for a particular site is not available. Local governments typically specify seed mixes appropriate for their jurisdiction.

Seed Mix for Permanent Revegetation

To provide vegetative cover on disturbed areas that have reached final grade, a perennial grass mix should be established. Permanent seeding should be performed promptly (typically within 14 days) after reaching final grade. Each site will have different characteristics and a landscape professional or the local jurisdiction should be contacted to determine the most suitable seed mix for a specific site. In lieu of a specific recommendation, one of the perennial grass mixes appropriate for site conditions and growth season listed in Table TS/PS-2 can be used. The pure live seed (PLS) rates of application recommended in these tables are considered to be absolute minimum rates for seed applied using proper drill-seeding equipment.

If desired for wildlife habitat or landscape diversity, shrubs such as rubber rabbitbrush (*Chrysothamnus nauseosus*), fourwing saltbush (*Atriplex canescens*) and skunkbrush sumac (*Rhus trilobata*) could be added to the upland seedmixes at 0.25, 0.5 and 1 pound PLS/acre, respectively. In riparian zones, planting root stock of such species as American plum (*Prunus americana*), woods rose (*Rosa woodsii*), plains cottonwood (*Populus sargentii*), and willow (*Populus spp.*) may be considered. On non-topsoiled upland sites, a legume such as Ladak alfalfa at 1 pound PLS/acre can be included as a source of nitrogen for perennial grasses.

Seeding dates for the highest success probability of perennial species along the Front Range are generally in the spring from April through early May and in the fall after the first of September until the ground freezes. If the area is irrigated, seeding may occur in summer months, as well. See Table TS/PS-3 for appropriate seeding dates.

Table TS/PS-1. Minimum Drill Seeding Rates for Various Temporary Annual Grasses

Species[a] (Common name)	Growth Season[b]	Pounds of Pure Live Seed (PLS)/acre[c]	Planting Depth (inches)
1. Oats	Cool	35 - 50	1 - 2
2. Spring wheat	Cool	25 - 35	1 - 2
3. Spring barley	Cool	25 - 35	1 - 2
4. Annual ryegrass	Cool	10 - 15	½
5. Millet	Warm	3 - 15	½ - ¾
6. Sudangrass	Warm	5–10	½ - ¾
7. Sorghum	Warm	5–10	½ - ¾
8. Winter wheat	Cool	20–35	1 - 2
9. Winter barley	Cool	20–35	1 - 2
10. Winter rye	Cool	20–35	1 - 2
11. Triticale	Cool	25–40	1 - 2

[a] Successful seeding of annual grass resulting in adequate plant growth will usually produce enough dead-plant residue to provide protection from wind and water erosion for an additional year. This assumes that the cover is not disturbed or mowed closer than 8 inches.

Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1 or where access limitations exist. When hydraulic seeding is used, hydraulic mulching should be applied as a separate operation, when practical, to prevent the seeds from being encapsulated in the mulch.

[b] See Table TS/PS-3 for seeding dates. Irrigation, if consistently applied, may extend the use of cool season species during the summer months.

[c] Seeding rates should be doubled if seed is broadcast, or increased by 50 percent if done using a Brillion Drill or by hydraulic seeding.

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses

Common[a] Name	Botanical Name	Growth Season[b]	Growth Form	Seeds/ Pound	Pounds of PLS/acre
Alakali Soil Seed Mix					
Alkali sacaton	*Sporobolus airoides*	Cool	Bunch	1,750,000	0.25
Basin wildrye	*Elymus cinereus*	Cool	Bunch	165,000	2.5
Sodar streambank wheatgrass	*Agropyron riparium 'Sodar'*	Cool	Sod	170,000	2.5
Jose tall wheatgrass	*Agropyron elongatum 'Jose'*	Cool	Bunch	79,000	7.0
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	5.5
Total					**17.75**
Fertile Loamy Soil Seed Mix					
Ephriam crested wheatgrass	*Agropyron cristatum 'Ephriam'*	Cool	Sod	175,000	2.0
Dural hard fescue	*Festuca ovina 'duriuscula'*	Cool	Bunch	565,000	1.0
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Sodar streambank wheatgrass	*Agropyron riparium 'Sodar'*	Cool	Sod	170,000	2.5
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	7.0
Total					**15.5**
High Water Table Soil Seed Mix					
Meadow foxtail	*Alopecurus pratensis*	Cool	Sod	900,000	0.5
Redtop	*Agrostis alba*	Warm	Open sod	5,000,000	0.25
Reed canarygrass	*Phalaris arundinacea*	Cool	Sod	68,000	0.5
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Pathfinder switchgrass	*Panicum virgatum 'Pathfinder'*	Warm	Sod	389,000	1.0
Alkar tall wheatgrass	*Agropyron elongatum 'Alkar'*	Cool	Bunch	79,000	5.5
Total					**10.75**
Transition Turf Seed Mix[c]					
Ruebens Canadian bluegrass	*Poa compressa 'Ruebens'*	Cool	Sod	2,500,000	0.5
Dural hard fescue	*Festuca ovina 'duriuscula'*	Cool	Bunch	565,000	1.0
Citation perennial ryegrass	*Lolium perenne 'Citation'*	Cool	Sod	247,000	3.0
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Total					**7.5**

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses (cont.)

Common Name	Botanical Name	Growth Season[b]	Growth Form	Seeds/ Pound	Pounds of PLS/acre
Sandy Soil Seed Mix					
Blue grama	*Bouteloua gracilis*	Warm	Sod-forming bunchgrass	825,000	0.5
Camper little bluestem	*Schizachyrium scoparium 'Camper'*	Warm	Bunch	240,000	1.0
Prairie sandreed	*Calamovilfa longifolia*	Warm	Open sod	274,000	1.0
Sand dropseed	*Sporobolus cryptandrus*	Cool	Bunch	5,298,000	0.25
Vaughn sideoats grama	*Bouteloua curtipendula 'Vaughn'*	Warm	Sod	191,000	2.0
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	5.5
Total					**10.25**
Heavy Clay, Rocky Foothill Seed Mix					
Ephriam crested wheatgrass[d]	*Agropyron cristatum 'Ephriam'*	Cool	Sod	175,000	1.5
Oahe Intermediate wheatgrass	*Agropyron intermedium 'Oahe'*	Cool	Sod	115,000	5.5
Vaughn sideoats grama[e]	*Bouteloua curtipendula 'Vaughn'*	Warm	Sod	191,000	2.0
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	5.5
Total					**17.5**

[a] All of the above seeding mixes and rates are based on drill seeding followed by crimped straw mulch. These rates should be doubled if seed is broadcast and should be increased by 50 percent if the seeding is done using a Brillion Drill or is applied through hydraulic seeding. Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1. If hydraulic seeding is used, hydraulic mulching should be done as a separate operation.

[b] See Table TS/PS-3 for seeding dates.

[c] If site is to be irrigated, the transition turf seed rates should be doubled.

[d] Crested wheatgrass should not be used on slopes steeper than 6H to 1V.

[e] Can substitute 0.5 lbs PLS of blue grama for the 2.0 lbs PLS of Vaughn sideoats grama.

Table TS/PS-3. Seeding Dates for Annual and Perennial Grasses

	Annual Grasses (Numbers in table reference species in Table TS/PS-1)		Perennial Grasses	
Seeding Dates	**Warm**	**Cool**	**Warm**	**Cool**
January 1–March 15			✓	✓
March 16–April 30	4	1,2,3	✓	✓
May 1–May 15	4		✓	
May 16–June 30	4,5,6,7			
July 1–July 15	5,6,7			
July 16–August 31				
September 1–September 30		8,9,10,11		
October 1–December 31			✓	✓

Mulch

Cover seeded areas with mulch or an appropriate rolled erosion control product to promote establishment of vegetation. Anchor mulch by crimping, netting or use of a non-toxic tackifier. See the Mulching BMP Fact Sheet for additional guidance.

Maintenance and Removal

Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. Reseed and mulch these areas, as needed.

An area that has been permanently seeded should have a good stand of vegetation within one growing season if irrigated and within three growing seasons without irrigation in Colorado. Reseed portions of the site that fail to germinate or remain bare after the first growing season.

Seeded areas may require irrigation, particularly during extended dry periods. Targeted weed control may also be necessary.

Protect seeded areas from construction equipment and vehicle access.

Description

Mulching consists of evenly applying straw, hay, shredded wood mulch, rock, bark or compost to disturbed soils and securing the mulch by crimping, tackifiers, netting or other measures. Mulching helps reduce erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff. Although often applied in conjunction with temporary or permanent seeding, it can also be used for temporary stabilization of areas that cannot be reseeded due to seasonal constraints.

Mulch can be applied either using standard mechanical dry application methods or using hydromulching equipment that hydraulically applies a slurry of water, wood fiber mulch, and often a tackifier.



Photograph MU-1. An area that was recently seeded, mulched, and crimped.

Appropriate Uses

Use mulch in conjunction with seeding to help protect the seedbed and stabilize the soil. Mulch can also be used as a temporary cover on low to mild slopes to help temporarily stabilize disturbed areas where growing season constraints prevent effective reseeding. Disturbed areas should be properly mulched and tacked, or seeded, mulched and tacked promptly after final grade is reached (typically within no longer than 14 days) on portions of the site not otherwise permanently stabilized.

Standard dry mulching is encouraged in most jurisdictions; however, hydromulching may not be allowed in certain jurisdictions or may not be allowed near waterways.

Do not apply mulch during windy conditions.

Design and Installation

Prior to mulching, surface-roughen areas by rolling with a crimping or punching type roller or by track walking. Track walking should only be used where other methods are impractical because track walking with heavy equipment typically compacts the soil.

A variety of mulches can be used effectively at construction sites. Consider the following:

Mulch	
Functions	
Erosion Control	Yes
Sediment Control	Moderate
Site/Material Management	No

- Clean, weed-free and seed-free cereal grain straw should be applied evenly at a rate of 2 tons per acre and must be tacked or fastened by a method suitable for the condition of the site. Straw mulch must be anchored (and not merely placed) on the surface. This can be accomplished mechanically by crimping or with the aid of tackifiers or nets. Anchoring with a crimping implement is preferred, and is the recommended method for areas flatter than 3:1. Mechanical crimpers must be capable of tucking the long mulch fibers into the soil to a depth of 3 inches without cutting them. An agricultural disk, while not an ideal substitute, may work if the disk blades are dull or blunted and set vertically; however, the frame may have to be weighted to afford proper soil penetration.

- Grass hay may be used in place of straw; however, because hay is comprised of the entire plant including seed, mulching with hay may seed the site with non-native grass species which might in turn out-compete the native seed. Alternatively, native species of grass hay may be purchased, but can be difficult to find and are more expensive than straw. Purchasing and utilizing a certified weed-free straw is an easier and less costly mulching method. When using grass hay, follow the same guidelines as for straw (provided above).

- On small areas sheltered from the wind and heavy runoff, spraying a tackifier on the mulch is satisfactory for holding it in place. For steep slopes and special situations where greater control is needed, erosion control blankets anchored with stakes should be used instead of mulch.

- Hydraulic mulching consists of wood cellulose fibers mixed with water and a tackifying agent and should be applied at a rate of no less than 1,500 pounds per acre (1,425 lbs of fibers mixed with at least 75 lbs of tackifier) with a hydraulic mulcher. For steeper slopes, up to 2000 pounds per acre may be required for effective hydroseeding. Hydromulch typically requires up to 24 hours to dry; therefore, it should not be applied immediately prior to inclement weather. Application to roads, waterways and existing vegetation should be avoided.

- Erosion control mats, blankets, or nets are recommended to help stabilize steep slopes (generally 3:1 and steeper) and waterways. Depending on the product, these may be used alone or in conjunction with grass or straw mulch. Normally, use of these products will be restricted to relatively small areas. Biodegradable mats made of straw and jute, straw-coconut, coconut fiber, or excelsior can be used instead of mulch. (See the ECM/TRM BMP for more information.)

- Some tackifiers or binders may be used to anchor mulch. Check with the local jurisdiction for allowed tackifiers. Manufacturer's recommendations should be followed at all times. (See the Soil Binder BMP for more information on general types of tackifiers.)

- Rock can also be used as mulch. It provides protection of exposed soils to wind and water erosion and allows infiltration of precipitation. An aggregate base course can be spread on disturbed areas for temporary or permanent stabilization. The rock mulch layer should be thick enough to provide full coverage of exposed soil on the area it is applied.

Maintenance and Removal

After mulching, the bare ground surface should not be more than 10 percent exposed. Reapply mulch, as needed, to cover bare areas.

Earth Dikes and Drainage Swales (ED/DS) EC-10

Description

Earth dikes and drainage swales are temporary storm conveyance channels constructed either to divert runoff around slopes or to convey runoff to additional sediment control BMPs prior to discharge of runoff from a site. Drainage swales may be lined or unlined, but if an unlined swale is used, it must be well compacted and capable of resisting erosive velocities.



Photograph ED/DS-1. Example of an earth dike used to divert flows at a construction site. Photo courtesy of CDOT.

Appropriate Uses

Earth dikes and drainage swales are typically used to control the flow path of runoff at a construction site by diverting runoff around areas prone to erosion, such as steep slopes. Earth dikes and drainage swales may also be constructed as temporary conveyance features. This will direct runoff to additional sediment control treatment BMPs, such as sediment traps or basins.

Design and Installation

When earth dikes are used to divert water for slope protection, the earth dike typically consists of a horizontal ridge of soil placed perpendicular to the slope and angled slightly to provide drainage along the contour. The dike is used in conjunction with a swale or a small channel upslope of the berm to convey the diverted water. Temporary diversion dikes can be constructed by excavation of a V-shaped trench or ditch and placement of the fill on the downslope side of the cut. There are two types of placement for temporary slope diversion dikes:

- A dike located at the top of a slope to divert upland runoff away from the disturbed area and convey it in a temporary or permanent channel.
- A diversion dike located at the base or mid-slope of a disturbed area to intercept runoff and reduce the effective slope length.

Depending on the project, either an earth dike or drainage swale may be more appropriate. If there is a need for cut on the project, then an excavated drainage swale may be better suited. When the project is primarily fill, then a conveyance constructed using a berm may be the better option.

All dikes or swales receiving runoff from a disturbed area should direct stormwater to a sediment control BMP such as a sediment trap or basin.

Earth Dikes and Drainage Swales	
Functions	
Erosion Control	Yes
Sediment Control	Moderate
Site/Material Management	No

Unlined dikes or swales should only be used for intercepting sheet flow runoff and are not intended for diversion of concentrated flows.

Details with notes are provided for several design variations, including:

ED-1. Unlined Earth Dike formed by Berm

DS-1. Unlined Excavated Swale

DS-2. Unlined Swale Formed by Cut and Fill

DS-3. ECB-lined Swale

DS-4. Synthetic-lined Swale

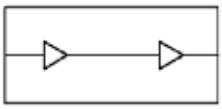
DS-5. Riprap-lined Swale

The details also include guidance on permissible velocities for cohesive channels if unlined approaches will be used.

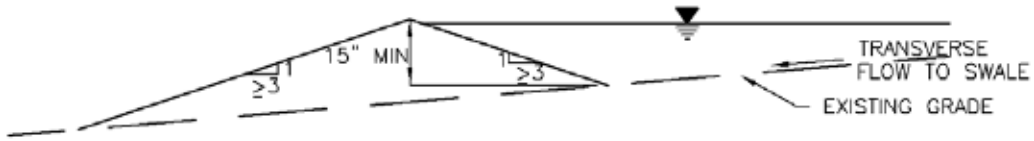
Maintenance and Removal

Inspect earth dikes for stability, compaction, and signs of erosion and repair. Inspect side slopes for erosion and damage to erosion control fabric. Stabilize slopes and repair fabric as necessary. If there is reoccurring extensive damage, consider installing rock check dams or lining the channel with riprap.

If drainage swales are not permanent, remove dikes and fill channels when the upstream area is stabilized. Stabilize the fill or disturbed area immediately following removal by revegetation or other permanent stabilization method approved by the local jurisdiction.



ED/DS



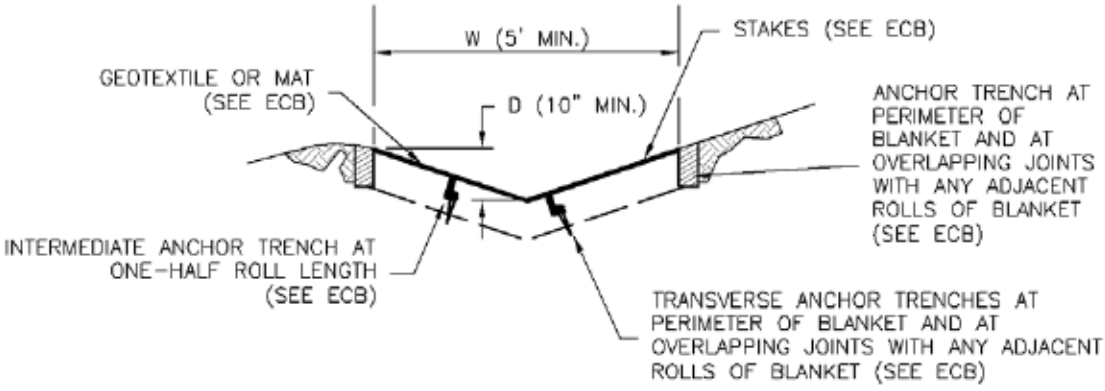
ED–1. COMPACTED UNLINED EARTH DIKE FORMED BY BERM



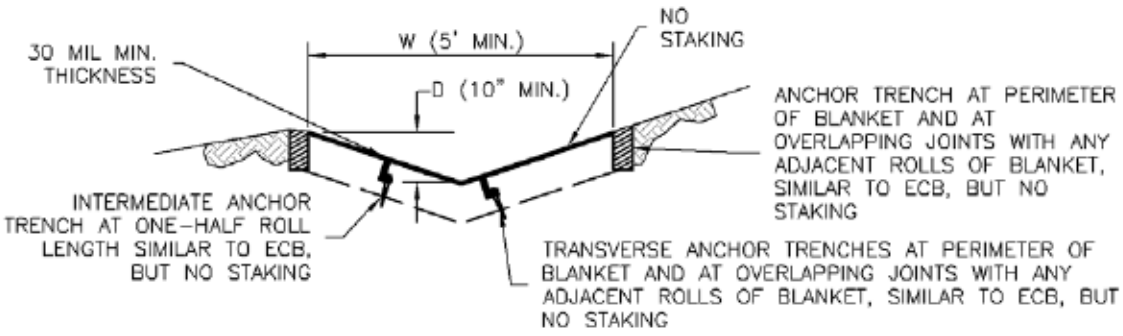
DS–1. COMPACTED UNLINED EXCACATED SWALE



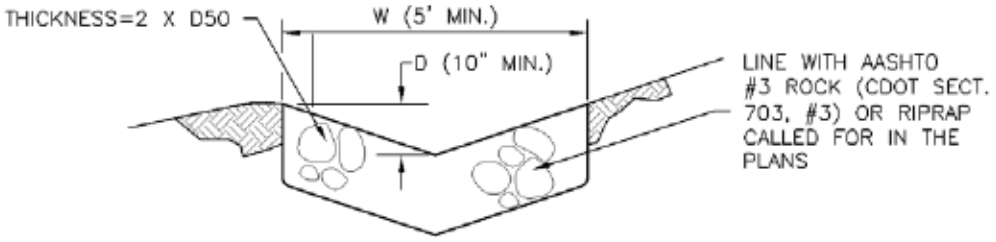
DS–2. COMPACTED UNLINED SWALE FORMED BY CUT AND FILL



DS–3. ECB LINED SWALE (CUT AND FILL OR BERM)



DS-4. SYNTHETIC LINED SWALE



DS-5. RIPRAP LINED SWALE

EARTH DIKE AND DRAINAGE SWALE INSTALLATION NOTES

1. SEE SITE PLAN FOR:
   - LOCATION OF DIVERSION SWALE
   - TYPE OF SWALE (UNLINED, COMPACTED AND/OR LINED).
   - LENGTH OF EACH SWALE.
   - DEPTH, D, AND WIDTH, W DIMENSIONS.
   - FOR ECB/TRM LINED DITCH, SEE ECB DETAIL.
   - FOR RIPRAP LINED DITCH, SIZE OF RIPRAP, D50.

2. SEE DRAINAGE PLANS FOR DETAILS OF PERMANENT CONVEYANCE FACILITIES AND/OR DIVERSION SWALES EXCEEDING 2-YEAR FLOW RATE OR 10 CFS.

3. EARTH DIKES AND SWALES INDICATED ON SWMP PLAN SHALL BE INSTALLED PRIOR TO LAND-DISTURBING ACTIVITIES IN PROXIMITY.

4. EMBANKMENT IS TO BE COMPACTED TO 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D698.

5. SWALES ARE TO DRAIN TO A SEDIMENT CONTROL BMP.

6. FOR LINED DITCHES, INSTALLATION OF ECB/TRM SHALL CONFORM TO THE REQUIREMENTS OF THE ECB DETAIL.

7. WHEN CONSTRUCTION TRAFFIC MUST CROSS A DIVERSION SWALE, INSTALL A TEMPORARY CULVERT WITH A MINIMUM DIAMETER OF 12 INCHES.

EARTH DIKE AND DRAINAGE SWALE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SWALES SHALL REMAIN IN PLACE UNTIL THE END OF CONSTRUCTION; IF APPROVED BY LOCAL JURISDICTION, SWALES MAY BE LEFT IN PLACE.

5. WHEN A SWALE IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF COLORADO SPRINGS, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

Wind Erosion/Dust Control (DC) EC-14

Description

Wind erosion and dust control BMPs help to keep soil particles from entering the air as a result of land disturbing construction activities. These BMPs include a variety of practices generally focused on either graded disturbed areas or construction roadways. For graded areas, practices such as seeding and mulching, use of soil binders, site watering, or other practices that provide prompt surface cover should be used. For construction roadways, road watering and stabilized surfaces should be considered.



Photograph DC-1. Water truck used for dust suppression. Photo courtesy of Douglas County.

Appropriate Uses

Dust control measures should be used on any site where dust poses a problem to air quality. Dust control is important to control for the health of construction workers and surrounding waterbodies.

Design and Installation

The following construction BMPs can be used for dust control:

- An irrigation/sprinkler system can be used to wet the top layer of disturbed soil to help keep dry soil particles from becoming airborne.
- Seeding and mulching can be used to stabilize disturbed surfaces and reduce dust emissions.
- Protecting existing vegetation can help to slow wind velocities across the ground surface, thereby limiting the likelihood of soil particles to become airborne.
- Spray-on soil binders form a bond between soil particles keeping them grounded. Chemical treatments may require additional permitting requirements. Potential impacts to surrounding waterways and habitat must be considered prior to use.
- Placing rock on construction roadways and entrances will help keep dust to a minimum across the construction site.
- Wind fences can be installed on site to reduce wind speeds. Install fences perpendicular to the prevailing wind direction for maximum effectiveness.

Wind Erosion Control/ Dust Control	
Functions	
Erosion Control	Yes
Sediment Control	No
Site/Material Management	Moderate

Maintenance and Removal

When using an irrigation/sprinkler control system to aid in dust control, be careful not to overwater. Overwatering will cause construction vehicles to track mud off-site.

Silt Fence (SF) SC-1

Description

A silt fence is a woven geotextile fabric attached to wooden posts and trenched into the ground. It is designed as a sediment barrier to intercept sheet flow runoff from disturbed areas.



Photograph SF-1. Silt fence creates a sediment barrier, forcing sheet flow runoff to evaporate or infiltrate.

Appropriate Uses

A silt fence can be used where runoff is conveyed from a disturbed area as sheet flow. Silt fence is not designed to receive concentrated flow or to be used as a filter fabric. Typical uses include:

- Down slope of a disturbed area to accept sheet flow.
- Along the perimeter of a receiving water such as a stream, pond or wetland.
- At the perimeter of a construction site.

Design and Installation

Silt fence should be installed along the contour of slopes so that it intercepts sheet flow. The maximum recommended tributary drainage area per 100 lineal feet of silt fence, installed along the contour, is approximately 0.25 acres with a disturbed slope length of up to 150 feet and a tributary slope gradient no steeper than 3:1. Longer and steeper slopes require additional measures. This recommendation only applies to silt fence installed along the contour. Silt fence installed for other uses, such as perimeter control, should be installed in a way that will not produce concentrated flows. For example, a "J-hook" installation may be appropriate to force runoff to pond and evaporate or infiltrate in multiple areas rather than concentrate and cause erosive conditions parallel to the silt fence.

See Detail SF-1 for proper silt fence installation, which involves proper trenching, staking, securing the fabric to the stakes, and backfilling the silt fence. Properly installed silt fence should not be easily pulled out by hand and there should be no gaps between the ground and the fabric.

Silt fence must meet the minimum allowable strength requirements, depth of installation requirement, and other specifications in the design details. Improper installation of silt fence is a common reason for silt fence failure; however, when properly installed and used for the appropriate purposes, it can be highly effective.

Silt Fence	
Functions	
Erosion Control	No
Sediment Control	Yes
Site/Material Management	No

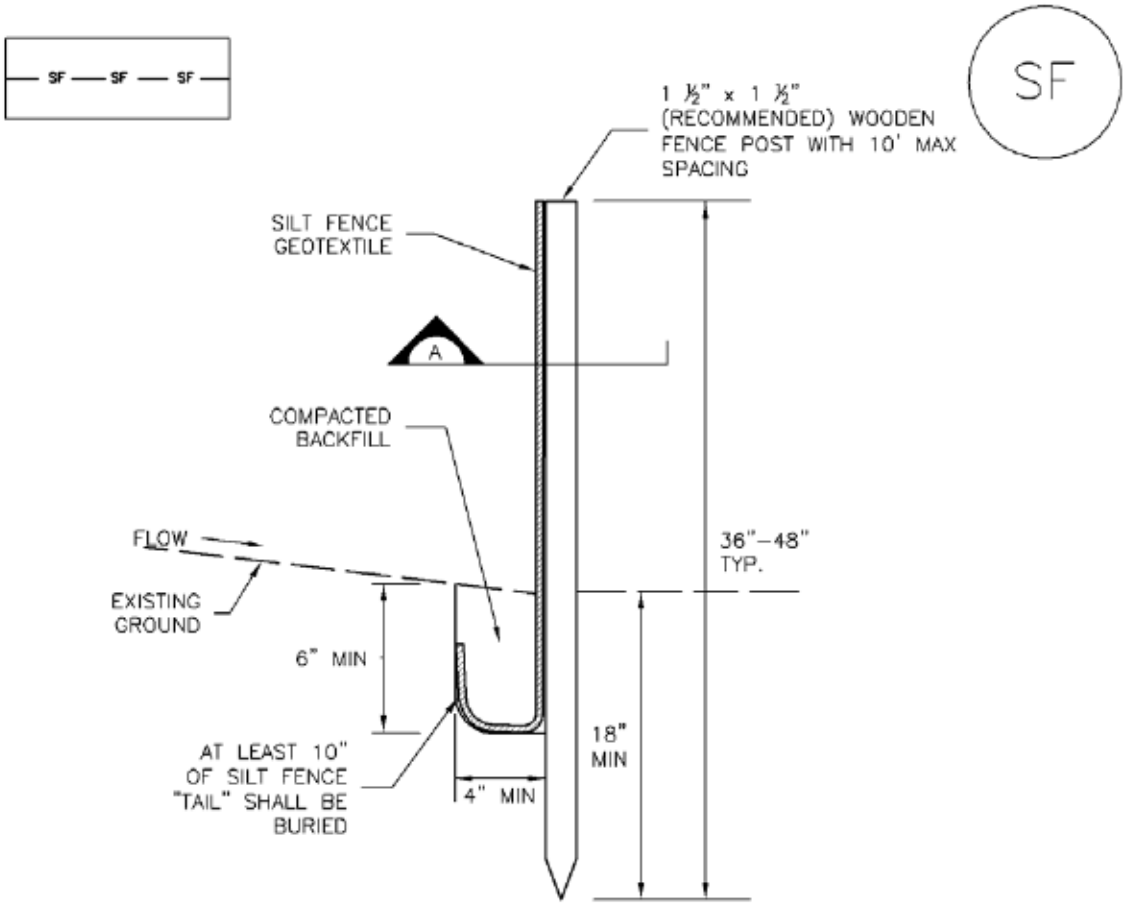
Maintenance and Removal

Inspection of silt fence includes observing the material for tears or holes and checking for slumping fence and undercut areas bypassing flows. Repair of silt fence typically involves replacing the damaged section with a new section. Sediment accumulated behind silt fence should be removed, as needed to maintain BMP effectiveness, typically before it reaches a depth of 6 inches.

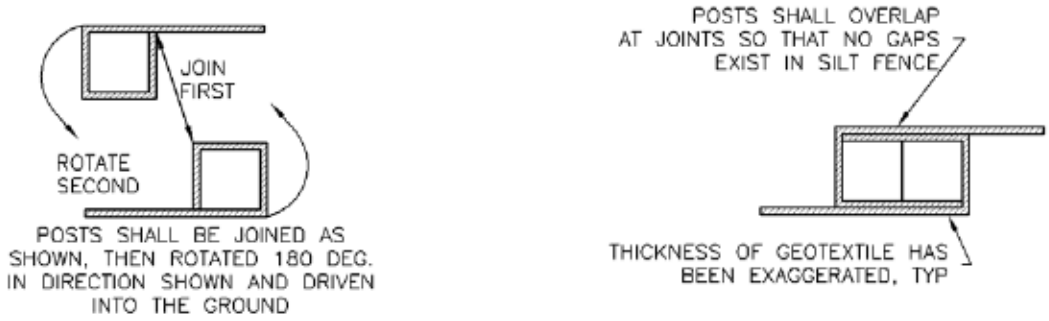
Silt fence may be removed when the upstream area has reached final stabilization.



Photograph SF-2. When silt fence is not installed along the contour, a "J-hook" installation may be appropriate to ensure that the BMP does not create concentrated flow parallel to the silt fence. Photo courtesy of Tom Gore.



SILT FENCE



SECTION A

SF–1. SILT FENCE

SILT FENCE INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2–5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.

2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.

3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.

4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.

5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.

6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J–HOOK." THE "J–HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' – 20').

7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".

5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.

6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.

7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

Sediment Control Log (SCL) SC-2

Description

A sediment control log is a linear roll made of natural materials such as straw, coconut fiber, or compost. The most common type of sediment control log has straw filling and is often referred to as a "straw wattle." All sediment control logs are used as a sediment barrier to intercept sheet flow runoff from disturbed areas.





Photographs SCL-1 and SCL-2. Sediment control logs used as 1) a perimeter control around a soil stockpile; and, 2) as a "J-hook" perimeter control at the corner of a construction site.

Appropriate Uses

Sediment control logs can be used in the following applications to trap sediment:

- As perimeter control for stockpiles and the site.
- As part of inlet protection designs.
- As check dams in small drainage ditches. (Sediment control logs are not intended for use in channels with high flow velocities.)
- On disturbed slopes to shorten flow lengths (as an erosion control).
- As part of multi-layered perimeter control along a receiving water such as a stream, pond or wetland.

Sediment control logs work well in combination with other layers of erosion and sediment controls.

Design and Installation

Sediment control logs should be installed along the contour to avoid concentrating flows. The maximum allowable tributary drainage area per 100 lineal feet of sediment control log, installed along the contour, is approximately 0.25 acres with a disturbed slope length of up to 150 feet and a tributary slope gradient no steeper than 3:1. Longer and steeper slopes require additional measures. This recommendation only applies to sediment control logs installed along the contour. When installed for other uses, such as perimeter control, it should be installed in a way that will not produce concentrated flows. For example, a "J-hook" installation may be appropriate to force runoff to pond and evaporate or infiltrate in multiple areas rather than concentrate and cause erosive conditions parallel to the BMP.

Sediment Control Log	
Functions	
Erosion Control	Moderate
Sediment Control	Yes
Site/Material Management	No

Although sediment control logs initially allow runoff to flow through the BMP, they can quickly become a barrier and should be installed as if they are impermeable.

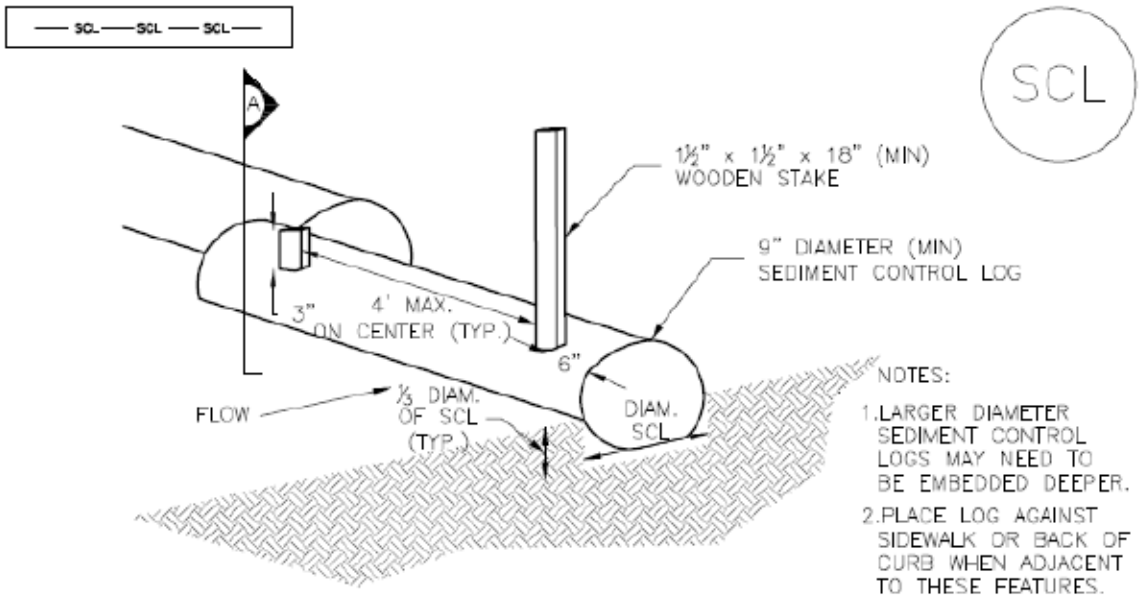
Design details and notes for sediment control logs are provided in the following details. Sediment logs must be properly installed per the detail to prevent undercutting, bypassing and displacement. When installed on slopes, sediment control logs should be installed along the contours (i.e., perpendicular to flow).

Improper installation can lead to poor performance. Be sure that sediment control logs are properly trenched (if lighter than 8 lb/foot), anchored and tightly jointed.

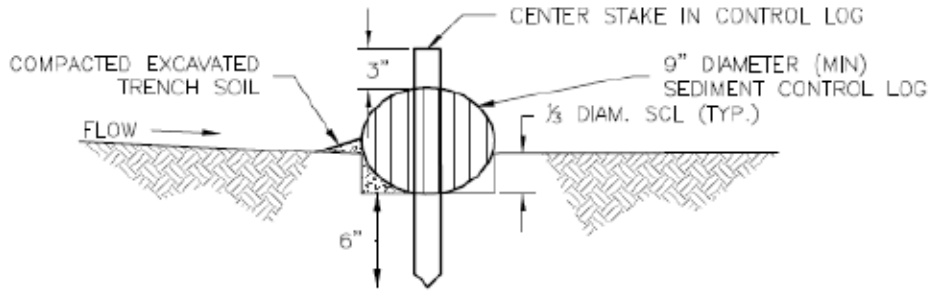
Maintenance and Removal

Be aware that sediment control logs will eventually degrade. Remove accumulated sediment before the depth is one-half the height of the sediment log and repair damage to the sediment log, typically by replacing the damaged section.

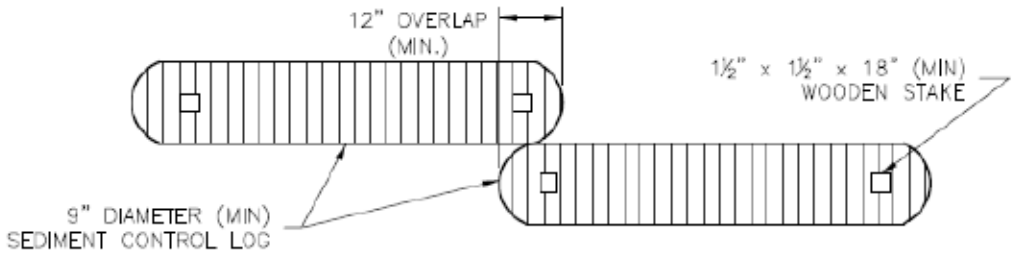
Once the upstream area is stabilized, remove and properly dispose of the logs. Areas disturbed beneath the logs may need to be seeded and mulched. Sediment control logs that are biodegradable may occasionally be left in place (e.g., when logs are used in conjunction with erosion control blankets as permanent slope breaks). However, removal of sediment control logs after final stabilization is typically appropriate when used in perimeter control, inlet protection and check dam applications. Compost from compost sediment control logs may be spread over the area and seeded as long as this does not cover newly established vegetation.



TRENCHED SEDIMENT CONTROL LOG

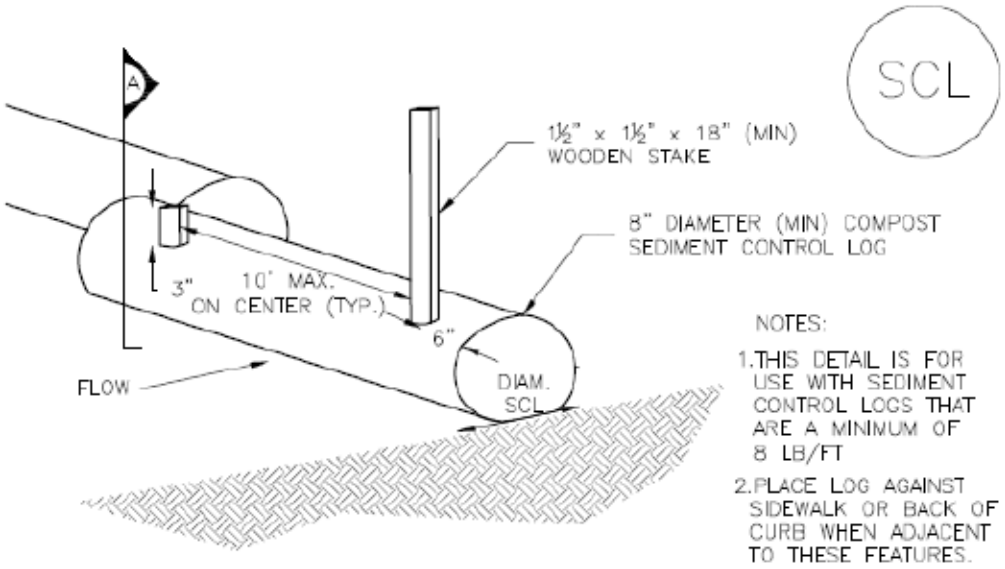


SECTION (A)
TRENCHED SEDIMENT CONTROL LOG

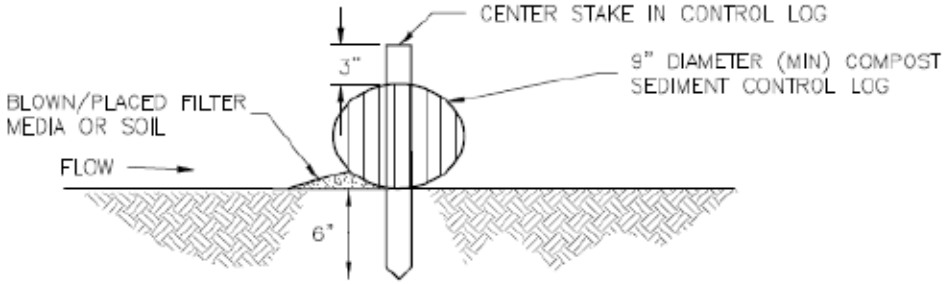


LOG JOINTS

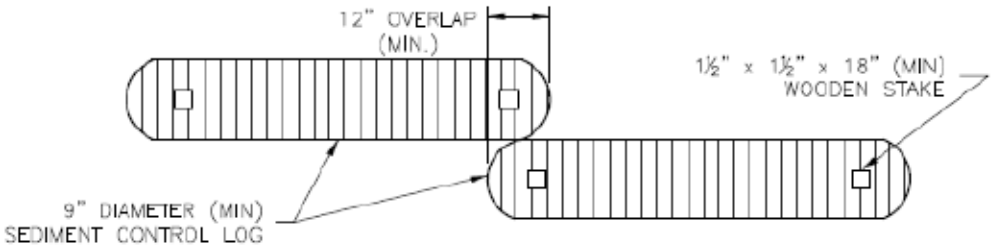
SCL–1. TRENCHED SEDIMENT CONTROL LOG



COMPOST SEDIMENT CONTROL LOG (WEIGHTED)

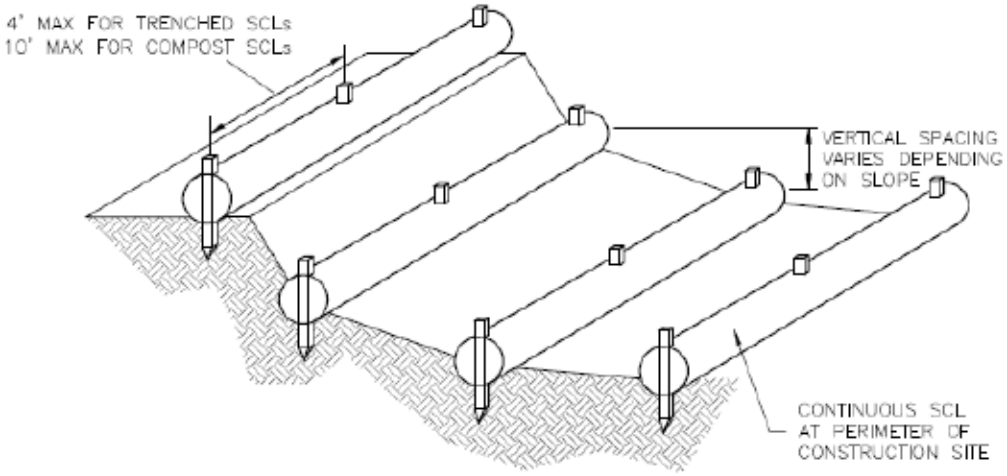


SECTION (A)
COMPOST SEDIMENT CONTROL LOG



LOG JOINTS

SCL–2. COMPOST SEDIMENT CONTROL LOG (WEIGHTED)



SCL-3. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

SEDIMENT CONTROL LOG INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.

2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND-DISTURBING ACTIVITIES.

3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.

4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS.

5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY ⅓ OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING. COMPOST LOGS THAT ARE 8 LB/FT DO NOT NEED TO BE TRENCHED.

6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL OR FILTER MATERIAL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER OR BLOWN IN PLACE.

7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED. COMPOST LOGS SHOULD BE STAKED 10' ON CENTER.

SEDIMENT CONTROL LOG MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.

5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION.COMPOST FROM COMPOST LOGS MAY BE LEFT IN PLACE AS LONG AS BAGS ARE REMOVED AND THE AREA SEEDED. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, JEFFERSON COUNTY, COLORADO, DOUGLAS COUNTY, COLORADO, AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

Rock Sock (RS) SC-5

Description

A rock sock is constructed of gravel that has been wrapped by wire mesh or a geotextile to form an elongated cylindrical filter. Rock socks are typically used either as a perimeter control or as part of inlet protection. When placed at angles in the curb line, rock socks are typically referred to as curb socks. Rock socks are intended to trap sediment from stormwater runoff that flows onto roadways as a result of construction activities.



Photograph RS-1. Rock socks placed at regular intervals in a curb line can help reduce sediment loading to storm sewer inlets. Rock socks can also be used as perimeter controls.

Appropriate Uses

Rock socks can be used at the perimeter of a disturbed area to control localized sediment loading. A benefit of rock socks as opposed to other perimeter controls is that they do not have to be trenched or staked into the ground; therefore, they are often used on roadway construction projects where paved surfaces are present.

Use rock socks in inlet protection applications when the construction of a roadway is substantially complete and the roadway has been directly connected to a receiving storm system.

Design and Installation

When rock socks are used as perimeter controls, the maximum recommended tributary drainage area per 100 lineal feet of rock socks is approximately 0.25 acres with disturbed slope length of up to 150 feet and a tributary slope gradient no steeper than 3:1. A rock sock design detail and notes are provided in Detail RS-1. Also see the Inlet Protection Fact Sheet for design and installation guidance when rock socks are used for inlet protection and in the curb line.

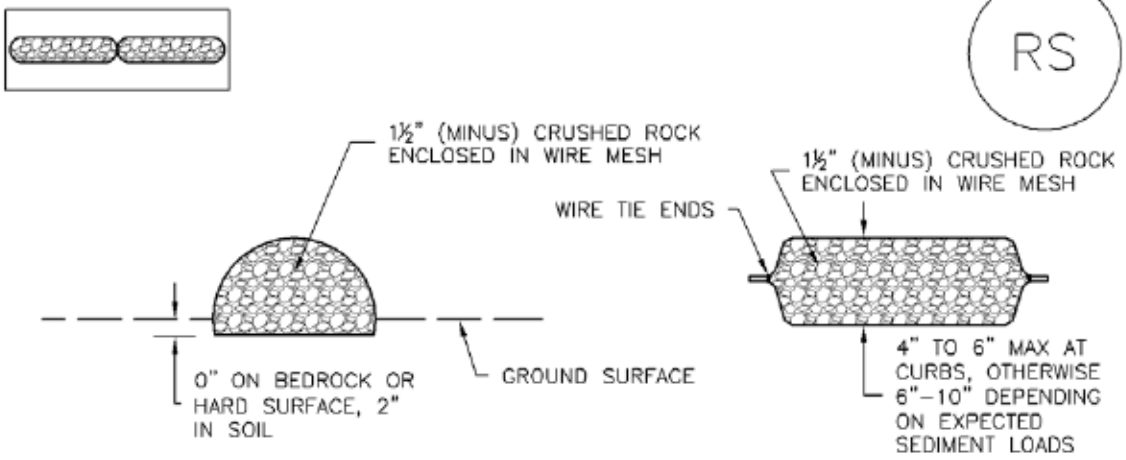
When placed in the gutter adjacent to a curb, rock socks should protrude no more than two feet from the curb in order for traffic to pass safely. If located in a high traffic area, place construction markers to alert drivers and street maintenance workers of their presence.

Maintenance and Removal

Rock socks are susceptible to displacement and breaking due to vehicle traffic. Inspect rock socks for damage and repair or replace as necessary. Remove sediment by sweeping or vacuuming as needed to maintain the functionality of the BMP, typically when sediment has accumulated behind the rock sock to one-half of the sock's height.

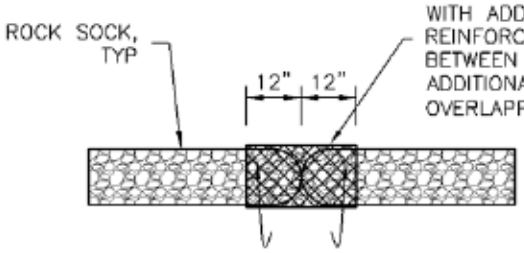
Once upstream stabilization is complete, rock socks and accumulated sediment should be removed and properly disposed.

Rock Sock	
Functions	
Erosion Control	No
Sediment Control	Yes
Site/Material Management	No



ROCK SOCK SECTION

ROCK SOCK PLAN



ROCK SOCK JOINTING

ANY GAP AT JOINT SHALL BE FILLED WITH AN ADEQUATE AMOUNT OF 1½" (MINUS) CRUSHED ROCK AND WRAPPED WITH ADDITIONAL WIRE MESH SECURED TO ENDS OF ROCK REINFORCED SOCK. AS AN ALTERNATIVE TO FILLING JOINTS BETWEEN ADJOINING ROCK SOCKS WITH CRUSHED ROCK AND ADDITIONAL WIRE WRAPPING, ROCK SOCKS CAN BE OVERLAPPED (TYPICALLY 12–INCH OVERLAP) TO AVOID GAPS.

GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1½"	90 – 100
1"	20 – 55
¾"	0 – 15
⅜"	0 – 5
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.	

ROCK SOCK INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION(S) OF ROCK SOCKS.

2. CRUSHED ROCK SHALL BE 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1½" MINUS).

3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF ½", RECOMMENDED MINIMUM ROLL WIDTH OF 48"

4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS–1. ROCK SOCK PERIMETER CONTROL

ROCK SOCK MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.

5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE ROCK SOCK.

6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR PROPRIETARY PRODUCTS ON THE MARKET. UDFCD NEITHER NDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

Inlet Protection (IP) SC-6

Description

Inlet protection consists of permeable barriers installed around an inlet to filter runoff and remove sediment prior to entering a storm drain inlet. Inlet protection can be constructed from rock socks, sediment control logs, silt fence, block and rock socks, or other materials approved by the local jurisdiction. Area inlets can also be protected by over-excavating around the inlet to form a sediment trap.



Photograph IP-1. Inlet protection for a curb opening inlet.

Appropriate Uses

Install protection at storm sewer inlets that are operable during construction. Consider the potential for tracked-out sediment or temporary stockpile areas to contribute sediment to inlets when determining which inlets must be protected. This may include inlets in the general proximity of the construction area, not limited to downgradient inlets. Inlet protection is not a stand-alone BMP and should be used in conjunction with other upgradient BMPs.

Design and Installation

To function effectively, inlet protection measures must be installed to ensure that flows do not bypass the inlet protection and enter the storm drain without treatment. However, designs must also enable the inlet to function without completely blocking flows into the inlet in a manner that causes localized flooding. When selecting the type of inlet protection, consider factors such as type of inlet (e.g., curb or area, sump or on-grade conditions), traffic, anticipated flows, ability to secure the BMP properly, safety and other site-specific conditions. For example, block and rock socks will be better suited to a curb and gutter along a roadway, as opposed to silt fence or sediment control logs, which cannot be properly secured in a curb and gutter setting, but are effective area inlet protection measures.

Several inlet protection designs are provided in the Design Details. Additionally, a variety of proprietary products are available for inlet protection that may be approved for use by local governments. If proprietary products are used, design details and installation procedures from the manufacturer must be followed. Regardless of the type of inlet protection selected, inlet protection is most effective when combined with other BMPs such as curb socks and check dams. Inlet protection is often the last barrier before runoff enters the storm sewer or receiving water.

Design details with notes are provided for these forms of inlet protection:

IP-1. Block and Rock Sock Inlet Protection for Sump or On-grade Inlets

IP-2. Curb (Rock) Socks Upstream of Inlet Protection, On-grade Inlets

Inlet Protection (various forms)	
Functions	
Erosion Control	No
Sediment Control	Yes
Site/Material Management	No

IP-3. Rock Sock Inlet Protection for Sump/Area Inlet

IP-4. Silt Fence Inlet Protection for Sump/Area Inlet

IP-5. Over-excavation Inlet Protection

IP-6. Straw Bale Inlet Protection for Sump/Area Inlet

CIP-1. Culvert Inlet Protection

Propriety inlet protection devices should be installed in accordance with manufacturer specifications.

More information is provided below on selecting inlet protection for sump and on-grade locations.

Inlets Located in a Sump

When applying inlet protection in sump conditions, it is important that the inlet continue to function during larger runoff events. For curb inlets, the maximum height of the protective barrier should be lower than the top of the curb opening to allow overflow into the inlet during larger storms without excessive localized flooding. If the inlet protection height is greater than the curb elevation, particularly if the filter becomes clogged with sediment, runoff will not enter the inlet and may bypass it, possibly causing localized flooding, public safety issues, and downstream erosion and damage from bypassed flows.

Area inlets located in a sump setting can be protected through the use of silt fence, concrete block and rock socks (on paved surfaces), sediment control logs/straw wattles embedded in the adjacent soil and stacked around the area inlet (on pervious surfaces), over-excavation around the inlet, and proprietary products providing equivalent functions.

Inlets Located on a Slope

For curb and gutter inlets on paved sloping streets, block and rock sock inlet protection is recommended in conjunction with curb socks in the gutter leading to the inlet. For inlets located along unpaved roads, also see the Check Dam Fact Sheet.

Maintenance and Removal

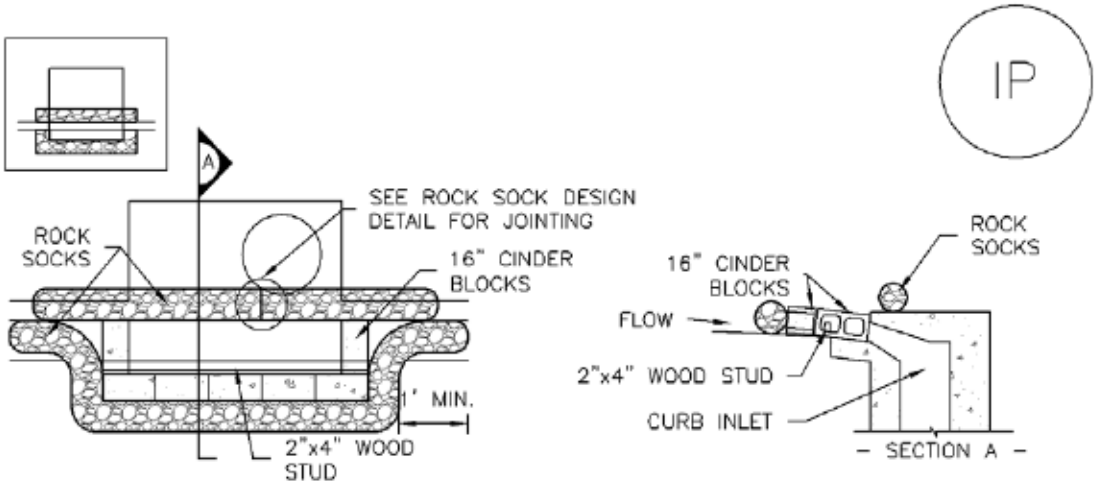
Inspect inlet protection frequently. Inspection and maintenance guidance includes:

- Inspect for tears that can result in sediment directly entering the inlet, as well as result in the contents of the BMP (e.g., gravel) washing into the inlet.
- Check for improper installation resulting in untreated flows bypassing the BMP and directly entering the inlet or bypassing to an unprotected downstream inlet. For example, silt fence that has not been properly trenched around the inlet can result in flows under the silt fence and directly into the inlet.
- Look for displaced BMPs that are no longer protecting the inlet. Displacement may occur following larger storm events that wash away or reposition the inlet protection. Traffic or equipment may also crush or displace the BMP.
- Monitor sediment accumulation upgradient of the inlet protection.

- Remove sediment accumulation from the area upstream of the inlet protection, as needed to maintain BMP effectiveness, typically when it reaches no more than half the storage capacity of the inlet protection. For silt fence, remove sediment when it accumulates to a depth of no more than 6 inches. Remove sediment accumulation from the area upstream of the inlet protection as needed to maintain the functionality of the BMP.

- Propriety inlet protection devices should be inspected and maintained in accordance with manufacturer specifications. If proprietary inlet insert devices are used, sediment should be removed in a timely manner to prevent devices from breaking and spilling sediment into the storm drain.

Inlet protection must be removed and properly disposed of when the drainage area for the inlet has reached final stabilization.



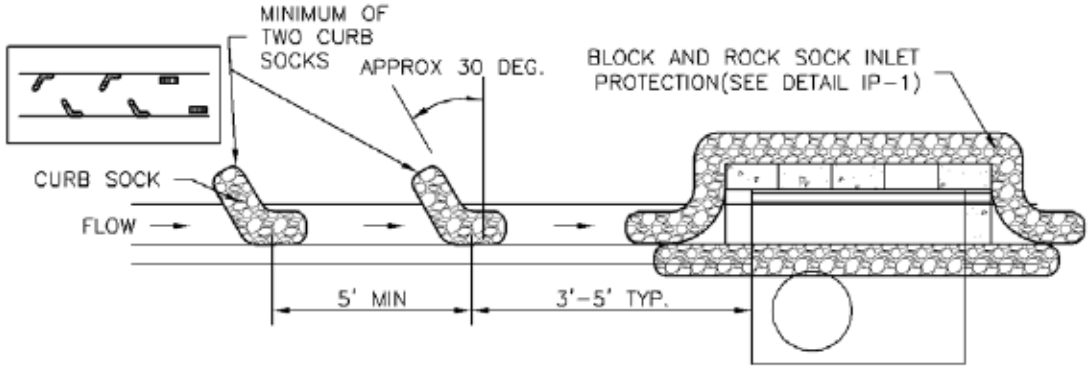
IP–1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.

3. GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINTED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.



IP–2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

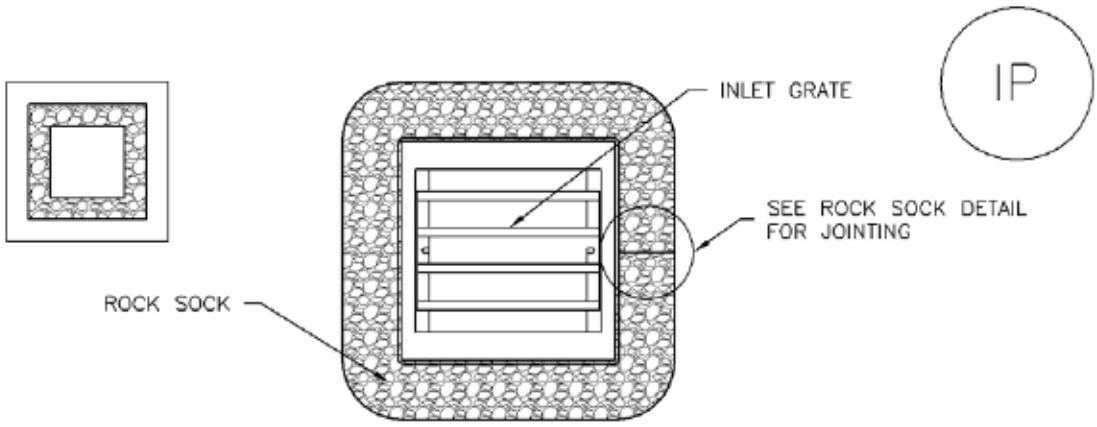
CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.

2. PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.

3. SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART.

4. AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON–GRADE INLETS.

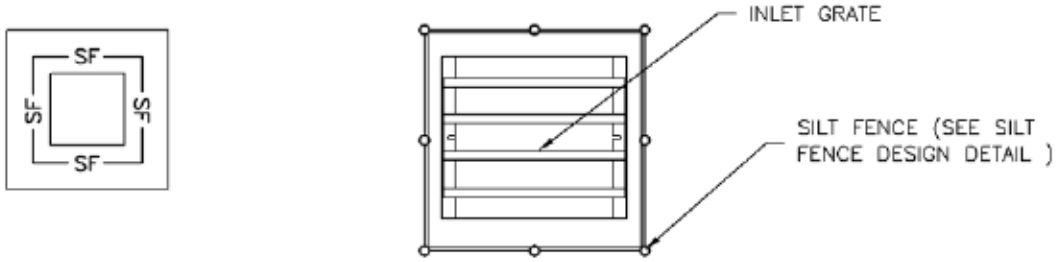


IP–3. ROCK SOCK SUMP/AREA INLET PROTECTION

ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



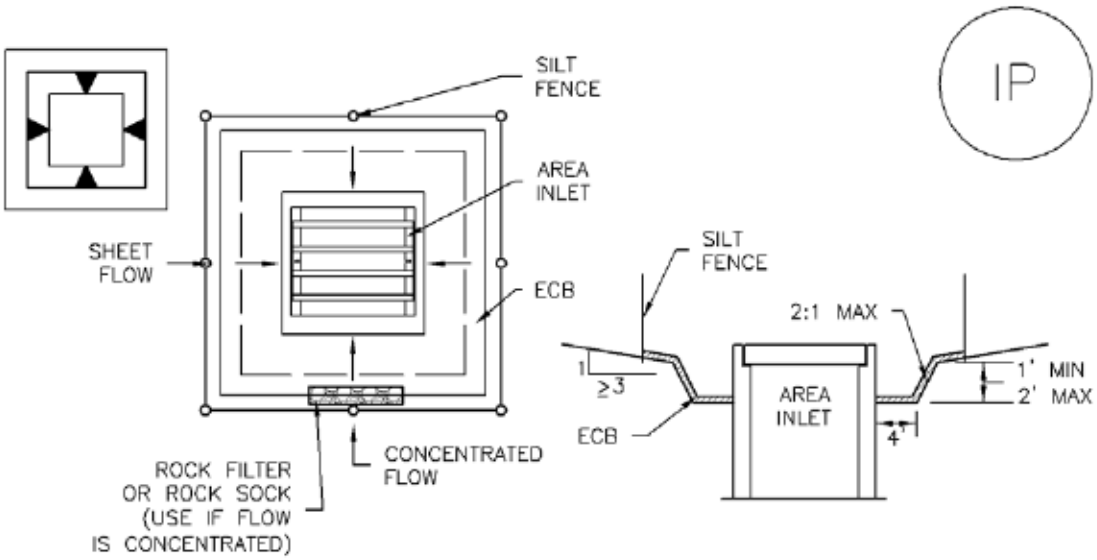
IP–4. SILT FENCE FOR SUMP INLET PROTECTION

SILT FENCE INLET PROTECTION INSTALLATION NOTES

1. SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.

3. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



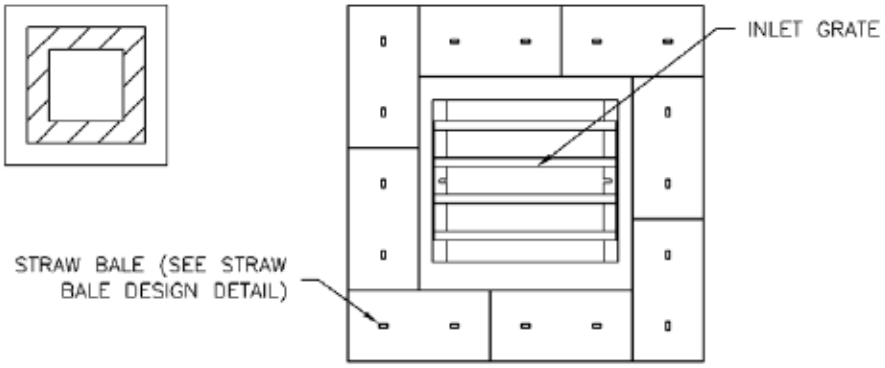
IP–5. OVEREXCAVATION INLET PROTECTION

OVEREXCAVATION INLET PROTECTION INSTALLATION NOTES

1. THIS FORM OF INLET PROTECTION IS PRIMARILY APPLICABLE FOR SITES THAT HAVE NOT YET REACHED FINAL GRADE AND SHOULD BE USED ONLY FOR INLETS WITH A RELATIVELY SMALL CONTRIBUTING DRAINAGE AREA.

2. WHEN USING FOR CONCENTRATED FLOWS, SHAPE BASIN IN 2:1 RATIO WITH LENGTH ORIENTED TOWARDS DIRECTION OF FLOW.

3. SEDIMENT MUST BE PERIODICALLY REMOVED FROM THE OVEREXCAVATED AREA.

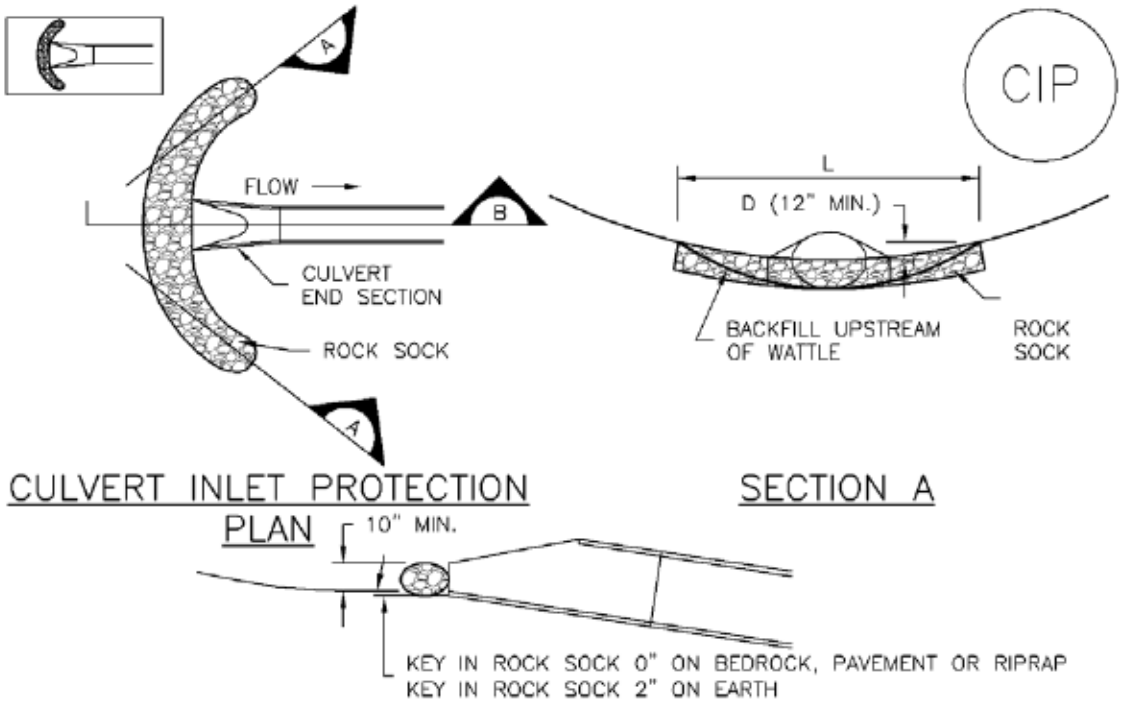


IP–6. STRAW BALE FOR SUMP INLET PROTECTION

STRAW BALE BARRIER INLET PROTECTION INSTALLATION NOTES

1. SEE STRAW BALE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. BALES SHALL BE PLACED IN A SINGLE ROW AROUND THE INLET WITH ENDS OF BALES TIGHTLY ABUTTING ONE ANOTHER.



CIP–1. CULVERT INLET PROTECTION

CULVERT INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –LOCATION OF CULVERT INLET PROTECTION.

2. SEE ROCK SOCK DESIGN DETAIL FOR ROCK GRADATION REQUIREMENTS AND JOINTING DETAIL.

CULVERT INLET PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS ½ THE HEIGHT OF THE ROCK SOCK.

5. CULVERT INLET PROTECTION SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

GENERAL INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -LOCATION OF INLET PROTECTION.
   -TYPE OF INLET PROTECTION (IP.1, IP.2, IP.3, IP.4, IP.5, IP.6)

2. INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.

3. MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

INLET PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES 50% OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR ¼ OF THE HEIGHT FOR STRAW BALES.

5. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.

6. WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF INLET PROTECTION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY PROPRIETARY INLET PROTECTION METHODS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY INLET PROTECTION; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

NOTE: SOME MUNICIPALITIES DISCOURAGE OR PROHIBIT THE USE OF STRAW BALES FOR INLET PROTECTION. CHECK WITH LOCAL JURISDICTION TO DETERMINE IF STRAW BALE INLET PROTECTION IS ACCEPTABLE.

Description

A sediment basin is a temporary pond built on a construction site to capture eroded or disturbed soil transported in storm runoff prior to discharge from the site. Sediment basins are designed to capture site runoff and slowly release it to allow time for settling of sediment prior to discharge. Sediment basins are often constructed in locations that will later be modified to serve as post-construction stormwater basins.



Photograph SB-1. Sediment basin at the toe of a slope. Photo courtesy of WWE.

Appropriate Uses

Most large construction sites (typically greater than 2 acres) will require one or more sediment basins for effective management of construction site runoff. On linear construction projects, sediment basins may be impractical; instead, sediment traps or other combinations of BMPs may be more appropriate.

Sediment basins should not be used as stand-alone sediment controls. Erosion and other sediment controls should also be implemented upstream.

When feasible, the sediment basin should be installed in the same location where a permanent post-construction detention pond will be located.

Design and Installation

The design procedure for a sediment basin includes these steps:

- **Basin Storage Volume**: Provide a storage volume of at least 3,600 cubic feet per acre of drainage area. To the extent practical, undisturbed and/or off-site areas should be diverted around sediment basins to prevent "clean" runoff from mixing with runoff from disturbed areas. For undisturbed areas (both on-site and off-site) that cannot be diverted around the sediment basin, provide a minimum of 500 ft^3/acre of storage for undeveloped (but stable) off-site areas in addition to the 3,600 ft^3/acre for disturbed areas. For stable, developed areas that cannot be diverted around the sediment basin, storage volume requirements are summarized in Table SB-1.

- **Basin Geometry:** Design basin with a minimum length-to-width ratio of 2:1 (L:W). If this cannot be achieved because of site space constraints, baffling may be required to extend the effective distance between the inflow point(s) and the outlet to minimize short-circuiting.

- **Dam Embankment**: It is recommended that embankment slopes be 4:1 (H:V) or flatter and no steeper than 3:1 (H:V) in any location.

Sediment Basins	
Functions	
Erosion Control	No
Sediment Control	Yes
Site/Material Management	No

- **Inflow Structure**: For concentrated flow entering the basin, provide energy dissipation at the point of inflow.

Table SB-1. Additional Volume Requirements for Undisturbed and Developed Tributary Areas Draining through Sediment Basins

Imperviousness (%)	Additional Storage Volume (ft^3) Per Acre of Tributary Area
Undeveloped	500
10	800
20	1230
30	1600
40	2030
50	2470
60	2980
70	3560
80	4360
90	5300
100	6460

- **Outlet Works**: The outlet pipe shall extend through the embankment at a minimum slope of 0.5 percent. Outlet works can be designed using one of the following approaches:
  - **Riser Pipe (Simplified Detail):** Detail SB-1 provides a simplified design for basins treating no more than 15 acres.
  - **Orifice Plate or Riser Pipe**: Follow the design criteria for Full Spectrum Detention outlets in the EDB Fact Sheet provided in Chapter 4 of this manual for sizing of outlet perforations with an emptying time of approximately 72 hours. In lieu of the trash rack, pack uniformly sized 1½ - to 2-inch gravel in front of the plate or surrounding the riser pipe. This gravel will need to be cleaned out frequently during the construction period as sediment accumulates within it. The gravel pack will need to be removed and disposed of following construction to reclaim the basin for use as a permanent detention facility. If the basin will be used as a permanent extended detention basin for the site, a trash rack will need to be installed once contributing drainage areas have been stabilized and the gravel pack and accumulated sediment have been removed.
  - **Floating Skimmer**: If a floating skimmer is used, install it using manufacturer's recommendations. Illustration SB-1 provides an illustration of a Faircloth Skimmer Floating Outlet™, one of the more commonly used floating skimmer outlets. A skimmer should be designed to release the design volume in no less than 48 hours. The use of a floating skimmer outlet can increase the sediment capture efficiency of a basin significantly. A floating outlet continually decants cleanest water off the surface of the pond and releases cleaner water than would discharge from a perforated riser pipe or plate.

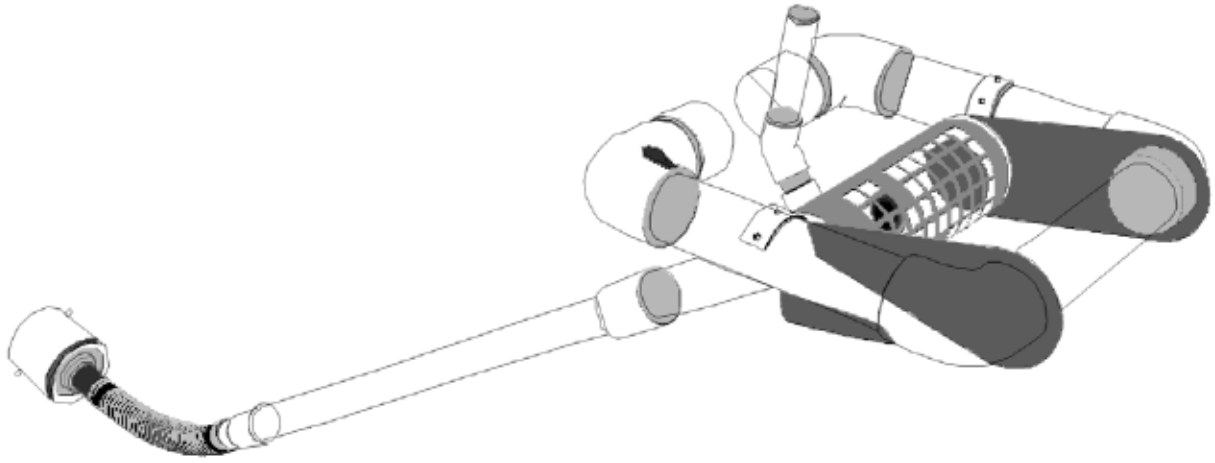


Illustration SB-1. Outlet structure for a temporary sediment basin - Faircloth Skimmer Floating Outlet. Illustration courtesy of J. W. Faircloth & Sons, Inc., FairclothSkimmer.com.

- **Outlet Protection and Spillway:** Consider all flow paths for runoff leaving the basin, including protection at the typical point of discharge as well as overtopping.
  - **Outlet Protection:** Outlet protection should be provided where the velocity of flow will exceed the maximum permissible velocity of the material of the waterway into which discharge occurs. This may require the use of a riprap apron at the outlet location and/or other measures to keep the waterway from eroding.
  - **Emergency Spillway:** Provide a stabilized emergency overflow spillway for rainstorms that exceed the capacity of the sediment basin volume and its outlet. Protect basin embankments from erosion and overtopping. If the sediment basin will be converted to a permanent detention basin, design and construct the emergency spillway(s) as required for the permanent facility. If the sediment basin will not become a permanent detention basin, it may be possible to substitute a heavy polyvinyl membrane or properly bedded rock cover to line the spillway and downstream embankment, depending on the height, slope, and width of the embankments.

Maintenance and Removal

Maintenance activities include the following:

- Dredge sediment from the basin, as needed to maintain BMP effectiveness, typically when the design storage volume is no more than one-third filled with sediment.
- Inspect the sediment basin embankments for stability and seepage.
- Inspect the inlet and outlet of the basin, repair damage, and remove debris. Remove, clean and replace the gravel around the outlet on a regular basis to remove the accumulated sediment within it and keep the outlet functioning.
- Be aware that removal of a sediment basin may require dewatering and associated permit requirements.
- Do not remove a sediment basin until the upstream area has been stabilized with vegetation.

Final disposition of the sediment basin depends on whether the basin will be converted to a permanent post-construction stormwater basin or whether the basin area will be returned to grade. For basins being converted to permanent detention basins, remove accumulated sediment and reconfigure the basin and outlet to meet the requirements of the final design for the detention facility. If the sediment basin is not to be used as a permanent detention facility, fill the excavated area with soil and stabilize with vegetation.

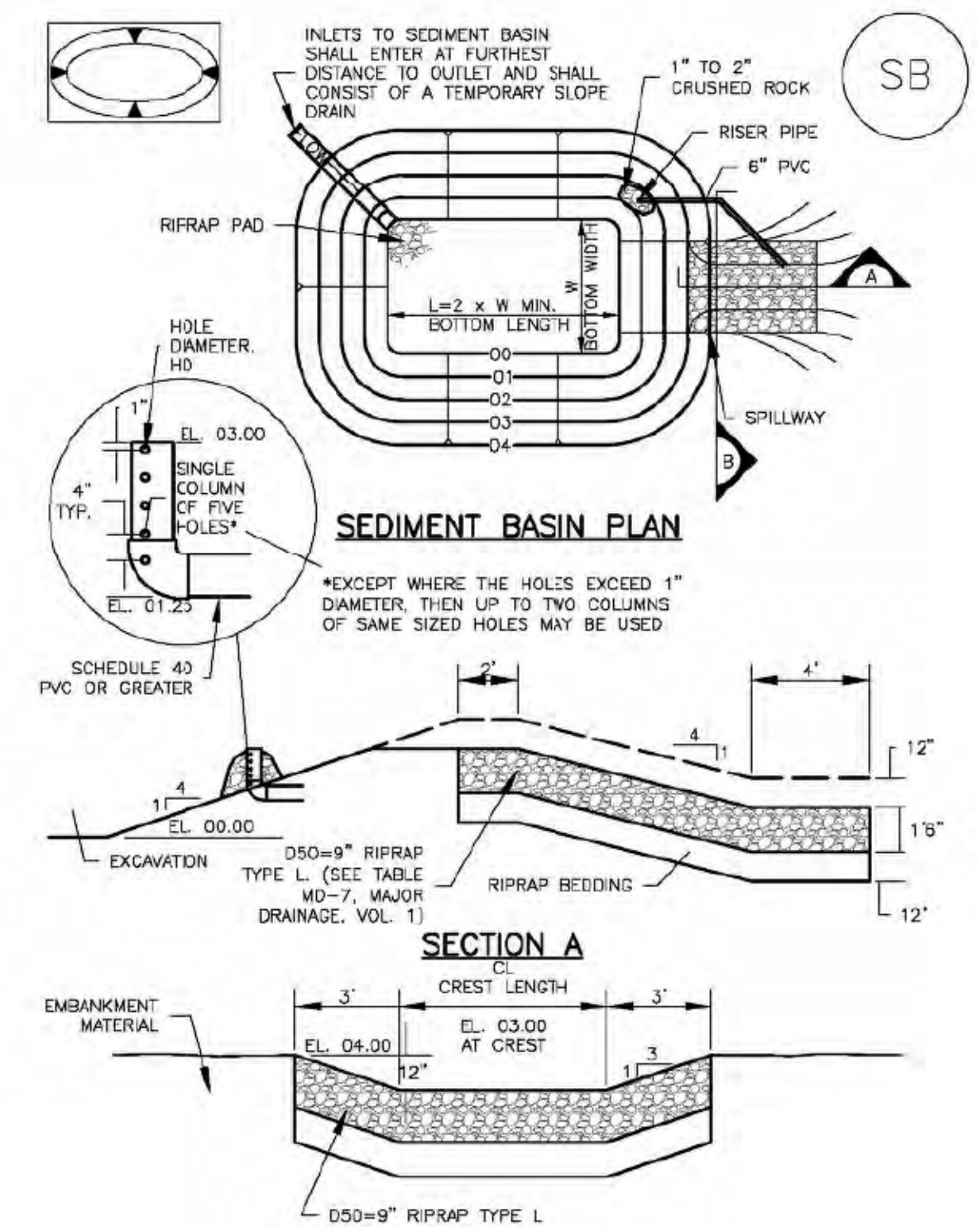

INLETS TO SEDIMENT BASIN SHALL ENTER AT FURTHEST DISTANCE TO OUTLET AND SHALL CONSIST OF A TEMPORARY SLOPE DRAIN
1" TO 2" CRUSHED ROCK
SB
RISER PIPE
6" PVC
RIPRAP PAD
W
BOTTOM WIDTH
L=2 x W MIN.
BOTTOM LENGTH
00
01
02
03
04
A
B
SPILLWAY
HOLE DIAMETER, HD
1"
EL. 03.00
SINGLE COLUMN OF FIVE HOLES*
4" TYP.
EL. 01.25
SEDIMENT BASIN PLAN
*EXCEPT WHERE THE HOLES EXCEED 1" DIAMETER, THEN UP TO TWO COLUMNS OF SAME SIZED HOLES MAY BE USED
SCHEDULE 40 PVC OR GREATER
2'
4'
4
1
12"
4
1
EL. 00.00
EXCAVATION
D50=9" RIPRAP TYPE L. (SEE TABLE MD-7, MAJOR DRAINAGE, VOL. 1)
RIPRAP BEDDING
1'6"
12"
SECTION A
CL
CREST LENGTH
3'
3'
EMBANKMENT MATERIAL
EL. 04.00
EL. 03.00 AT CREST
12"
3
1
D50=9" RIPRAP TYPE L

TABLE SB–1. SIZING INFORMATION FOR STANDARD SEDIMENT BASIN			
Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom Width (W), (ft)	Spillway Crest Length (CL), (ft)	Hole Diameter (HD), (in)
1	12 ½	2	9/32
2	21	3	13/16
3	28	5	½
4	33 ½	6	9/16
5	38 ½	8	21/32
6	43	9	21/32
7	47 ¼	11	25/32
8	51	12	27/32
9	55	13	⅞
10	58 ¼	15	15/16
11	61	16	31/32
12	64	18	1
13	67 ½	19	1 1/16
14	70 ½	21	1 ⅛
15	73 ¼	22	1 3/16

SEDIMENT BASIN INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - –LOCATION OF SEDIMENT BASIN.
   - –TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN).
   - –FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH CL, AND HOLE DIAMETER, HD.
   - –FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HD AND PIPE DIAMETER D.

2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.

3. SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND–DISTURBING ACTIVITY THAT RELIES ON ON BASINS AS AS A STORMWATER CONTROL.

4. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.

5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.

6. PIPE SCH 40 OR GREATER SHALL BE USED.

7. THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES.

SEDIMENT BASIN MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E., TWO FEET BELOW THE SPILLWAY CREST).

5. SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS ACCEPTED BY THE LOCAL JURISDICTION.

6. WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

Construction Phasing/Sequencing (CP) SM-1

Description



Photograph CP-1. Construction phasing to avoid disturbing the entire area at one time. Photo courtesy of WWE.

Effective construction site management to minimize erosion and sediment transport includes attention to construction phasing, scheduling, and sequencing of land disturbing activities. On most construction projects, erosion and sediment controls will need to be adjusted as the project progresses and should be documented in the SWMP.

Construction phasing refers to disturbing only part of a site at a time to limit the potential for erosion from dormant parts of a site. Grading activities and construction are completed and soils are effectively stabilized on one part of a site before grading and construction begins on another portion of the site.

Construction sequencing or scheduling refers to a specified work schedule that coordinates the timing of land disturbing activities and the installation of erosion and sediment control practices.

Appropriate Uses

All construction projects can benefit from upfront planning to phase and sequence construction activities to minimize the extent and duration of disturbance. Larger projects and linear construction projects may benefit most from construction sequencing or phasing, but even small projects can benefit from construction sequencing that minimizes the duration of disturbance.

Typically, erosion and sediment controls needed at a site will change as a site progresses through the major phases of construction. Erosion and sediment control practices corresponding to each phase of construction must be documented in the SWMP.

Design and Installation

BMPs appropriate to the major phases of development should be identified on construction drawings. In some cases, it will be necessary to provide several drawings showing construction-phase BMPs placed according to stages of development (e.g., clearing and grading, utility installation, active construction, final stabilization). Some municipalities in the Denver area set maximum sizes for disturbed area associated with phases of a construction project. Additionally, requirements for phased construction drawings vary among local governments within the UDFCD boundary. Some local governments require separate erosion and sediment control drawings for initial BMPs, interim conditions (in active construction), and final stabilization.

Construction Scheduling	
Functions	
Erosion Control	Moderate
Sediment Control	Moderate
Site/Material Management	Yes

Typical construction phasing BMPs include:

- Limit the amount of disturbed area at any given time on a site to the extent practical. For example, a 100-acre subdivision might be constructed in five phases of 20 acres each.
- If there is carryover of stockpiled material from one phase to the next, position carryover material in a location easily accessible for the pending phase that will not require disturbance of stabilized areas to access the stockpile. Particularly with regard to efforts to balance cut and fill at a site, careful planning for location of stockpiles is important.

Typical construction sequencing BMPs include:

- Sequence construction activities to minimize duration of soil disturbance and exposure. For example, when multiple utilities will occupy the same trench, schedule installation so that the trench does not have to be closed and opened multiple times.
- Schedule site stabilization activities (e.g., landscaping, seeding and mulching, installation of erosion control blankets) as soon as feasible following grading.
- Install initial erosion and sediment control practices before construction begins. Promptly install additional BMPs for inlet protection, stabilization, etc., as construction activities are completed.

Table CP-1 provides typical sequencing of construction activities and associated BMPs.

Maintenance and Removal

When the construction schedule is altered, erosion and sediment control measures in the SWMP and construction drawings should be appropriately adjusted to reflect actual "on the ground" conditions at the construction site. Be aware that changes in construction schedules can have significant implications for site stabilization, particularly with regard to establishment of vegetative cover.

Table CP-1. Typical Phased BMP Installation for Construction Projects

Project Phase	BMPs
Pre-disturbance, Site Access	▪ Install sediment controls downgradient of access point (on paved streets this may consist of inlet protection). ▪ Establish vehicle tracking control at entrances to paved streets. Fence as needed. ▪ Use construction fencing to define the boundaries of the project and limit access to areas of the site that are not to be disturbed. **Note: it may be necessary to protect inlets in the general vicinity of the site, even if not downgradient, if there is a possibility that sediment tracked from the site could contribute to the inlets.**
Site Clearing and Grubbing	▪ Install perimeter controls as needed on downgradient perimeter of site (silt fence, wattles, etc). ▪ Limit disturbance to those areas planned for disturbance and protect undisturbed areas within the site (construction fence, flagging, etc). ▪ Preserve vegetative buffer at site perimeter. ▪ Create stabilized staging area. ▪ Locate portable toilets on flat surfaces away from drainage paths. Stake in areas susceptible to high winds. ▪ Construct concrete washout area and provide signage. ▪ Establish waste disposal areas. ▪ Install sediment basins. ▪ Create dirt perimeter berms and/or brush barriers during grubbing and clearing. ▪ Separate and stockpile topsoil, leave roughened and/or cover. ▪ Protect stockpiles with perimeter control BMPs. Stockpiles should be located away from drainage paths and should be accessed from the upgradient side so that perimeter controls can remain in place on the downgradient side. Use erosion control blankets, temporary seeding, and/or mulch for stockpiles that will be inactive for an extended period. ▪ Leave disturbed area of site in a roughened condition to limit erosion. Consider temporary revegetation for areas of the site that have been disturbed but that will be inactive for an extended period. ▪ Water to minimize dust but not to the point that watering creates runoff.

Project Phase	BMPs
Utility And Infrastructure Installation	**In Addition to the Above BMPs:** ▪ Close trench as soon as possible (generally at the end of the day). ▪ Use rough-cut street control or apply road base for streets that will not be promptly paved. ▪ Provide inlet protection as streets are paved and inlets are constructed. ▪ Protect and repair BMPs, as necessary. ▪ Perform street sweeping as needed.
Building Construction	**In Addition to the Above BMPs:** ▪ Implement materials management and good housekeeping practices for home building activities. ▪ Use perimeter controls for temporary stockpiles from foundation excavations. ▪ For lots adjacent to streets, lot-line perimeter controls may be necessary at the back of curb.
Final Grading	**In Addition to the Above BMPs:** ▪ Remove excess or waste materials. ▪ Remove stored materials.
Final Stabilization	**In Addition to the Above BMPs:** ▪ Seed and mulch/tackify. ▪ Seed and install blankets on steep slopes. ▪ Remove all temporary BMPs when site has reached final stabilization.

Vehicle Tracking Control (VTC) SM-4

Description

Vehicle tracking controls provide stabilized construction site access where vehicles exit the site onto paved public roads. An effective vehicle tracking control helps remove sediment (mud or dirt) from vehicles, reducing tracking onto the paved surface.



Photograph VTC-1. A vehicle tracking control pad constructed with properly sized rock reduces off-site sediment tracking.

Appropriate Uses

Implement a stabilized construction entrance or vehicle tracking control where frequent heavy vehicle traffic exits the construction site onto a paved roadway. An effective vehicle tracking control is particularly important during the following conditions:

- Wet weather periods when mud is easily tracked off site.
- During dry weather periods where dust is a concern.
- When poorly drained, clayey soils are present on site.

Although wheel washes are not required in designs of vehicle tracking controls, they may be needed at particularly muddy sites.

Design and Installation

Construct the vehicle tracking control on a level surface. Where feasible, grade the tracking control towards the construction site to reduce off-site runoff. Place signage, as needed, to direct construction vehicles to the designated exit through the vehicle tracking control. There are several different types of stabilized construction entrances including:

VTC-1. Aggregate Vehicle Tracking Control. This is a coarse-aggregate surfaced pad underlain by a geotextile. This is the most common vehicle tracking control, and when properly maintained can be effective at removing sediment from vehicle tires.

VTC-2. Vehicle Tracking Control with Construction Mat or Turf Reinforcement Mat. This type of control may be appropriate for site access at very small construction sites with low traffic volume over vegetated areas. Although this application does not typically remove sediment from vehicles, it helps protect existing vegetation and provides a stabilized entrance.

Vehicle Tracking Control	
Functions	
Erosion Control	Moderate
Sediment Control	Yes
Site/Material Management	Yes

VTC-3. Stabilized Construction Entrance/Exit with Wheel Wash. This is an aggregate pad, similar to VTC-1, but includes equipment for tire washing. The wheel wash equipment may be as simple as hand-held power washing equipment to more advance proprietary systems. When a wheel wash is provided, it is important to direct wash water to a sediment trap prior to discharge from the site.

Vehicle tracking controls are sometimes installed in combination with a sediment trap to treat runoff.

Maintenance and Removal

Inspect the area for degradation and replace aggregate or material used for a stabilized entrance/exit as needed. If the area becomes clogged and ponds water, remove and dispose of excess sediment or replace material with a fresh layer of aggregate as necessary.

With aggregate vehicle tracking controls, ensure rock and debris from this area do not enter the public right-of-way.

Remove sediment that is tracked onto the public right of way daily or more frequently as needed. Excess sediment in the roadway indicates that the stabilized construction entrance needs maintenance.

Ensure that drainage ditches at the entrance/exit area remain clear.

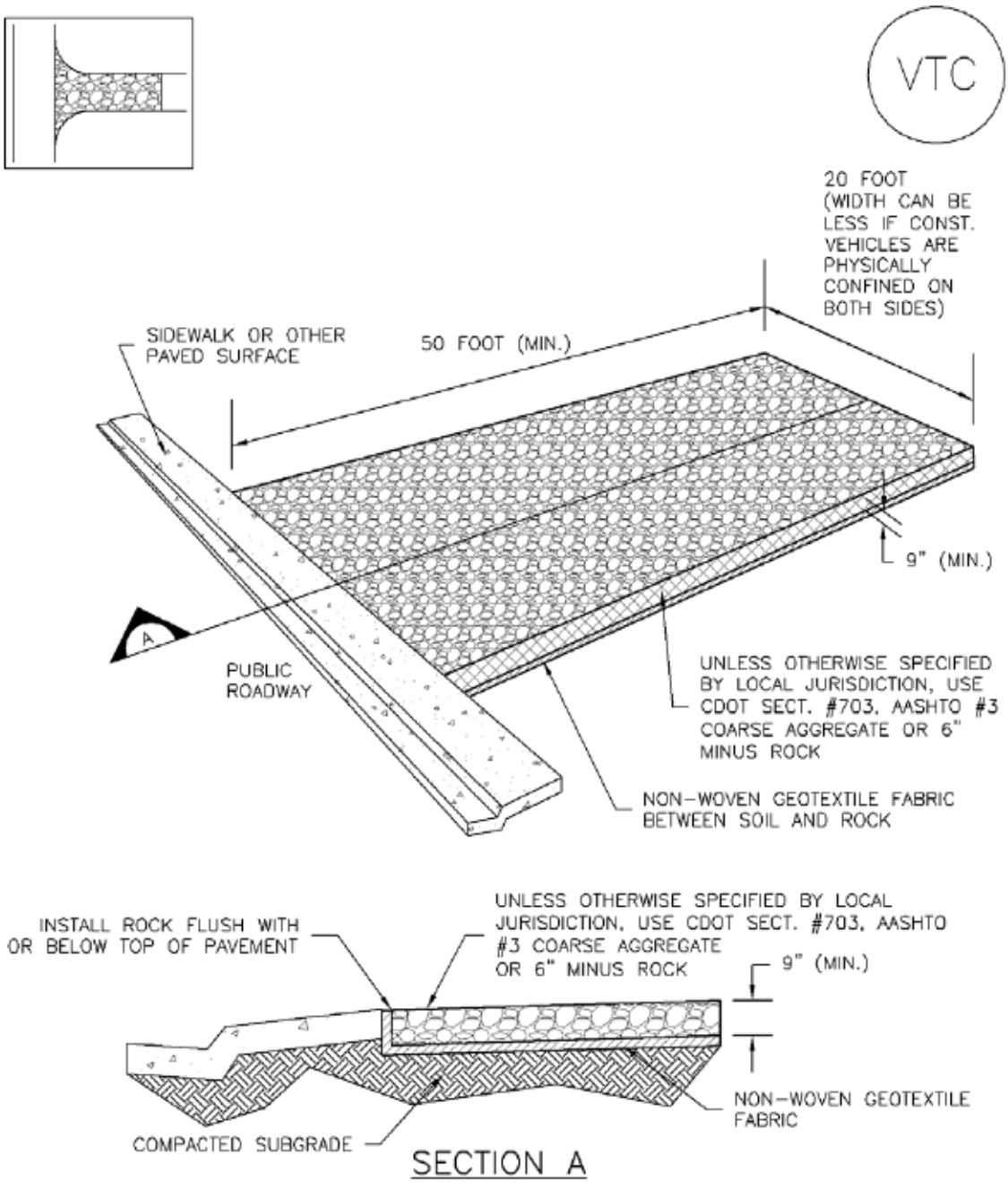


Photograph VTC-2. A vehicle tracking control pad with wheel wash facility. Photo courtesy of Tom Gore.

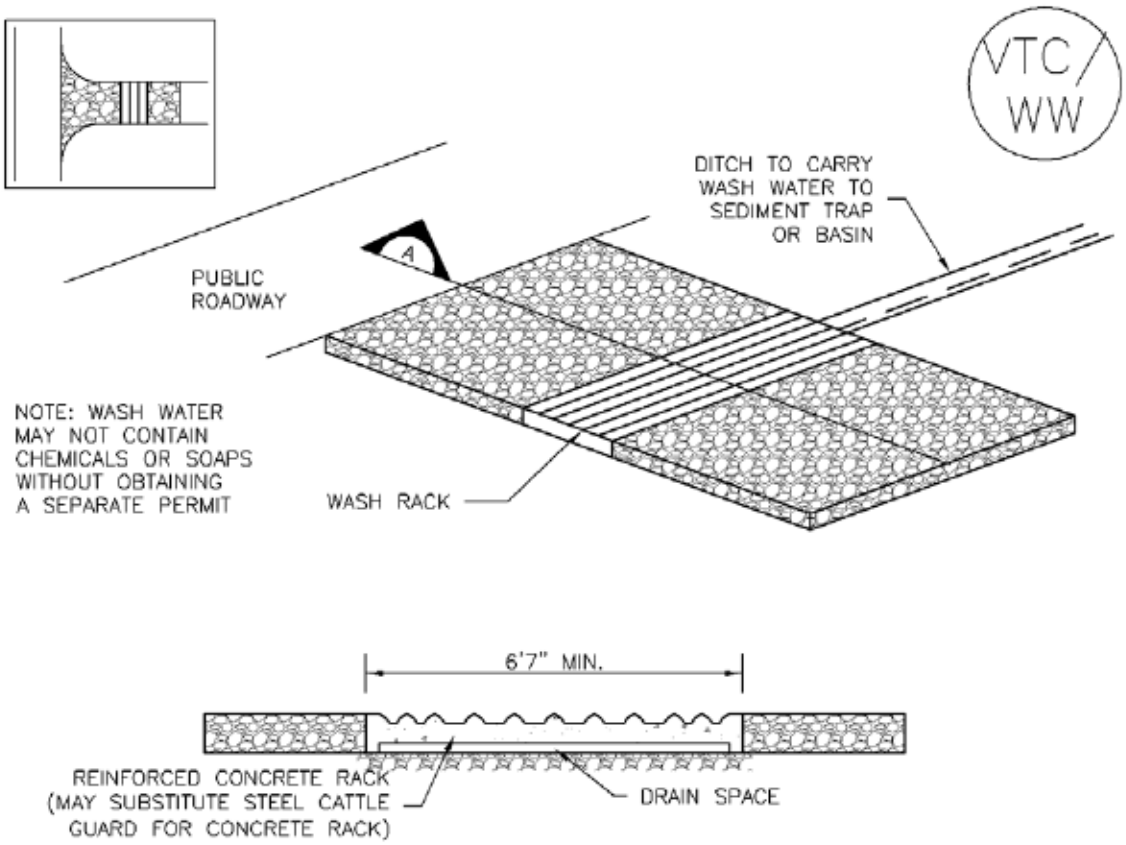
A stabilized entrance should be removed only when there is no longer the potential for vehicle tracking to occur. This is typically after the site has been stabilized.

When wheel wash equipment is used, be sure that the wash water is discharged to a sediment trap prior to discharge. Also inspect channels conveying the water from the wash area to the sediment trap and stabilize areas that may be eroding.

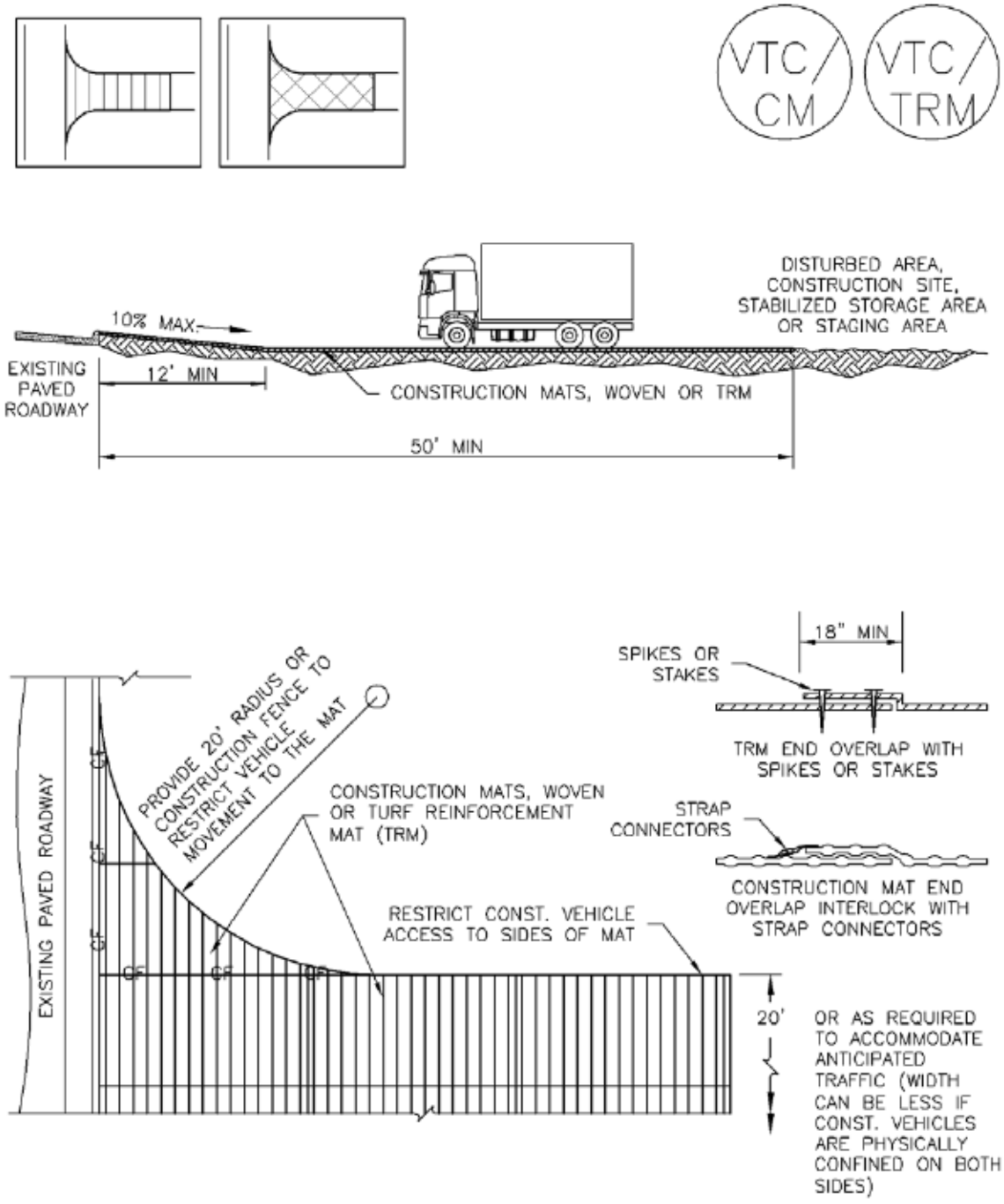
When a construction entrance/exit is removed, excess sediment from the aggregate should be removed and disposed of appropriately. The entrance should be promptly stabilized with a permanent surface following removal, typically by paving.



VTC-1. AGGREGATE VEHICLE TRACKING CONTROL



VTC–2. AGGREGATE VEHICLE TRACKING CONTROL WITH WASH RACK



VTC–3. VEHICLE TRACKING CONTROL W/ CONSTRUCTION MAT OR TURF REINFORCEMENT MAT (TRM)

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   -LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
   -TYPE OF CONSTRUCTION ENTRANCE(S)/EXITS(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).

2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.

3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.

4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

5. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.

6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.

5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)

Stabilized Staging Area (SSA) SM-6

Description

A stabilized staging area is a clearly designated area where construction equipment and vehicles, stockpiles, waste bins, and other construction-related materials are stored. The contractor office trailer may also be located in this area. Depending on the size of the construction site, more than one staging area may be necessary.



Photograph SSA-1. Example of a staging area with a gravel surface to prevent mud tracking and reduce runoff. Photo courtesy of Douglas County.

Appropriate Uses

Most construction sites will require a staging area, which should be clearly designated in SWMP drawings. The layout of the staging area may vary depending on the type of construction activity. Staging areas located in roadways due to space constraints require special measures to avoid materials being washed into storm inlets.

Design and Installation

Stabilized staging areas should be completed prior to other construction activities beginning on the site. Major components of a stabilized staging area include:

- Appropriate space to contain storage and provide for loading/unloading operations, as well as parking if necessary.
- A stabilized surface, either paved or covered, with 3-inch diameter aggregate or larger.
- Perimeter controls such as silt fence, sediment control logs, or other measures.
- Construction fencing to prevent unauthorized access to construction materials.
- Provisions for Good Housekeeping practices related to materials storage and disposal, as described in the Good Housekeeping BMP Fact Sheet.
- A stabilized construction entrance/exit, as described in the Vehicle Tracking Control BMP Fact Sheet, to accommodate traffic associated with material delivery and waste disposal vehicles.

Over-sizing the stabilized staging area may result in disturbance of existing vegetation in excess of that required for the project. This increases costs, as well as requirements for long-term stabilization following the construction period. When designing the stabilized staging area, minimize the area of disturbance to the extent practical.

Stabilized Staging Area	
Functions	
Erosion Control	Yes
Sediment Control	Moderate
Site/Material	Yes

Minimizing Long-Term Stabilization Requirements

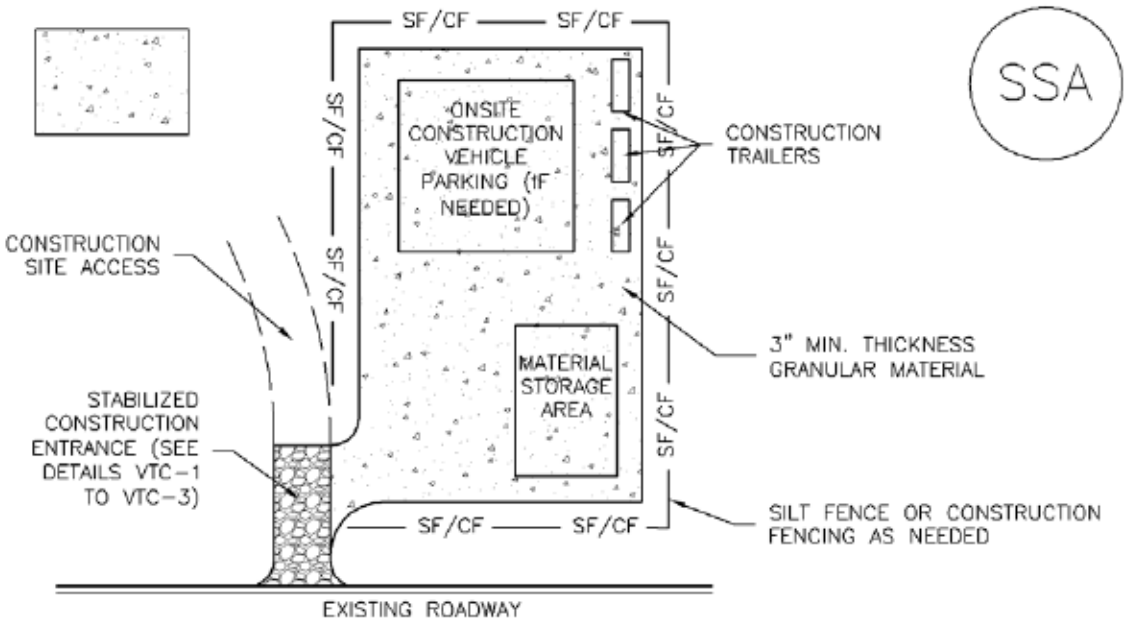
- Utilize off-site parking and restrict vehicle access to the site.
- Use construction mats in lieu of rock when staging is provided in an area that will not be disturbed otherwise.
- Consider use of a bermed contained area for materials and equipment that do not require a stabilized surface.
- Consider phasing of staging areas to avoid disturbance in an area that will not be otherwise disturbed.

See Detail SSA-1 for a typical stabilized staging area and SSA-2 for a stabilized staging area when materials staging in roadways is required.

Maintenance and Removal

Maintenance of stabilized staging areas includes maintaining a stable surface cover of gravel, repairing perimeter controls, and following good housekeeping practices.

When construction is complete, debris, unused stockpiles and materials should be recycled or properly disposed. In some cases, this will require disposal of contaminated soil from equipment leaks in an appropriate landfill. Staging areas should then be permanently stabilized with vegetation or other surface cover planned for the development.



SSA–1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –LOCATION OF STAGING AREA(S).
   –CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

STABILIZED STAGING AREA MAINTENANCE NOTES

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.

6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

Street Sweeping and Vacuuming (SS) SM-7

Description

Street sweeping and vacuuming remove sediment that has been tracked onto roadways to reduce sediment transport into storm drain systems or a surface waterway.



Photograph SS-1. A street sweeper removes sediment and potential pollutants along the curb line at a construction site. Photo courtesy of Tom Gore.

Appropriate Uses

Use this practice at construction sites where vehicles may track sediment offsite onto paved roadways.

Design and Installation

Street sweeping or vacuuming should be conducted when there is noticeable sediment accumulation on roadways adjacent to the construction site. Typically, this will be concentrated at the entrance/exit to the construction site. Well-maintained stabilized construction entrances, vehicle tracking controls and tire wash facilities can help reduce the necessary frequency of street sweeping and vacuuming.

On smaller construction sites, street sweeping can be conducted manually using a shovel and broom. Never wash accumulated sediment on roadways into storm drains.

Maintenance and Removal

- Inspect paved roads around the perimeter of the construction site on a daily basis and more frequently, as needed. Remove accumulated sediment, as needed.
- Following street sweeping, check inlet protection that may have been displaced during street sweeping.
- Inspect area to be swept for materials that may be hazardous prior to beginning sweeping operations.

Street Sweeping/ Vacuuming	
Functions	
Erosion Control	No
Sediment Control	Yes
Site/Material Management	Yes

Concrete Washout Area (CWA) MM-1

Description

Concrete waste management involves designating and properly managing a specific area of the construction site as a concrete washout area. A concrete washout area can be created using one of several approaches designed to receive wash water from washing of tools and concrete mixer chutes, liquid concrete waste from dump trucks, mobile batch mixers, or pump trucks. Three basic approaches are available: excavation of a pit in the ground, use of an above ground storage area, or use of prefabricated haul-away concrete washout containers. Surface discharges of concrete washout water from construction sites are prohibited.



Photograph CWA-1. Example of concrete washout area. Note gravel tracking pad for access and sign.

Appropriate Uses

Concrete washout areas must be designated on all sites that will generate concrete wash water or liquid concrete waste from onsite concrete mixing or concrete delivery.

Because pH is a pollutant of concern for washout activities, when unlined pits are used for concrete washout, the soil must have adequate buffering capacity to result in protection of state groundwater standards; otherwise, a liner/containment must be used. The following management practices are recommended to prevent an impact from unlined pits to groundwater:

- The use of the washout site should be temporary (less than 1 year), and
- The washout site should be not be located in an area where shallow groundwater may be present, such as near natural drainages, springs, or wetlands.

Design and Installation

Concrete washout activities must be conducted in a manner that does not contribute pollutants to surface waters or stormwater runoff. Concrete washout areas may be lined or unlined excavated pits in the ground, commercially manufactured prefabricated washout containers, or aboveground holding areas constructed of berms, sandbags or straw bales with a plastic liner.

Although unlined washout areas may be used, lined pits may be required to protect groundwater under certain conditions.

Do not locate an unlined washout area within 400 feet of any natural drainage pathway or waterbody or within 1,000 feet of any wells or drinking water sources. Even for lined concrete washouts, it is advisable to locate the facility away from waterbodies and drainage paths. If site constraints make these

Concrete Washout Area	
Functions	
Erosion Control	No
Sediment Control	No
Site/Material Management	Yes

setbacks infeasible or if highly permeable soils exist in the area, then the pit must be installed with an impermeable liner (16 mil minimum thickness) or surface storage alternatives using prefabricated concrete washout devices or a lined aboveground storage area should be used.

Design details with notes are provided in Detail CWA-1 for pits and CWA-2 for aboveground storage areas. Pre-fabricated concrete washout container information can be obtained from vendors.

Maintenance and Removal

A key consideration for concrete washout areas is to ensure that adequate signage is in place identifying the location of the washout area. Part of inspecting and maintaining washout areas is ensuring that adequate signage is provided and in good repair and that the washout area is being used, as opposed to washout in non-designated areas of the site.

Remove concrete waste in the washout area, as needed to maintain BMP function (typically when filled to about two-thirds of its capacity). Collect concrete waste and deliver offsite to a designated disposal location.

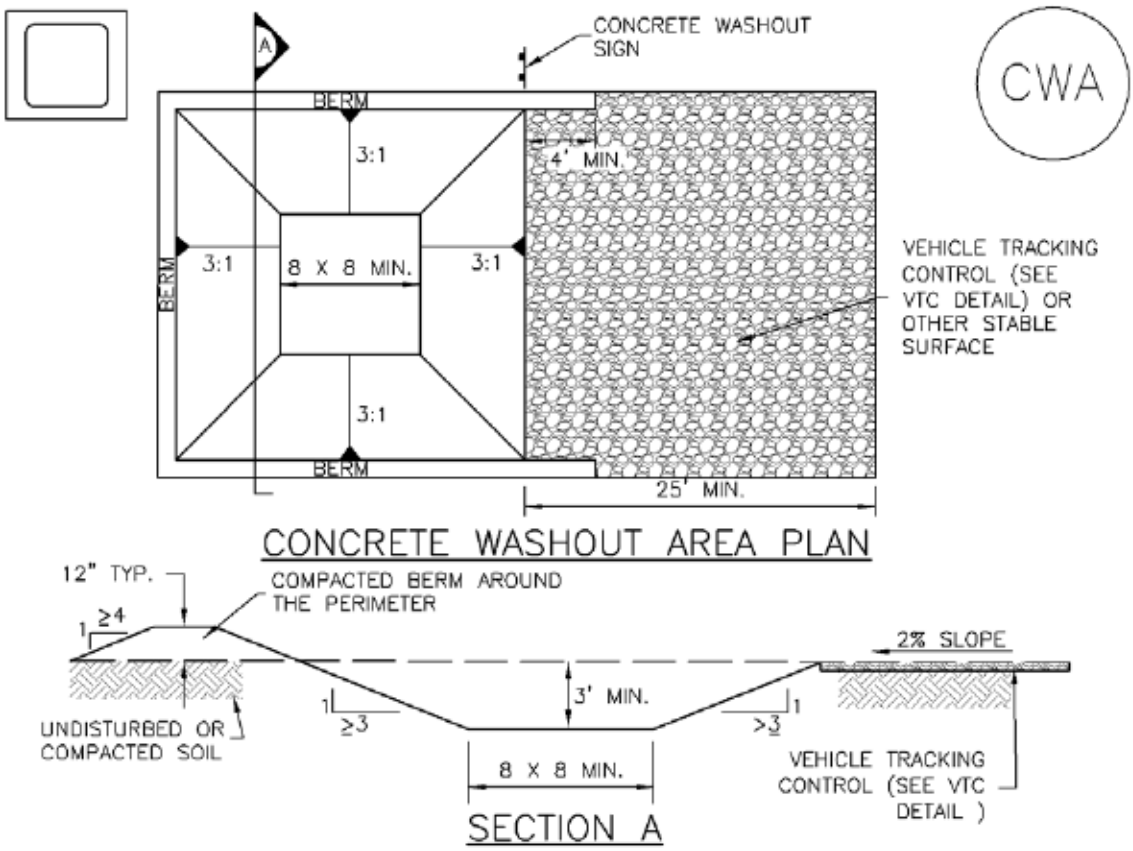
Upon termination of use of the washout site, accumulated solid waste, including concrete waste and any contaminated soils, must be removed from the site to prevent on-site disposal of solid waste. If the wash water is allowed to evaporate and the concrete hardens, it may be recycled.



Photograph CWA-2. Prefabricated concrete washout. Photo courtesy of CDOT.



Photograph CWA-3. Earthen concrete washout. Photo courtesy of CDOT.



CWA–1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –CWA INSTALLATION LOCATION.

2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.

4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.

5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.

6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.

7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

CWA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.

5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER–TIGHT CONTAINER AND DISPOSED OF PROPERLY.

6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.

7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD).

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

Stockpile Management (SP) MM-2

Description

Stockpile management includes measures to minimize erosion and sediment transport from soil stockpiles.

Appropriate Uses

Stockpile management should be used when soils or other erodible materials are stored at the construction site. Special attention should be given to stockpiles in close proximity to natural or manmade storm systems.



Photograph SP-1. A topsoil stockpile that has been partially revegetated and is protected by silt fence perimeter control.

Design and Installation

Locate stockpiles away from all drainage system components including storm sewer inlets. Where practical, choose stockpile locations that that will remain undisturbed for the longest period of time as the phases of construction progress. Place sediment control BMPs around the perimeter of the stockpile, such as sediment control logs, rock socks, silt fence, straw bales and sand bags. See Detail SP-1 for guidance on proper establishment of perimeter controls around a stockpile. For stockpiles in active use, provide a stabilized designated access point on the upgradient side of the stockpile.

Stabilize the stockpile surface with surface roughening, temporary seeding and mulching, erosion control blankets, or soil binders. Soils stockpiled for an extended period (typically for more than 60 days) should be seeded and mulched with a temporary grass cover once the stockpile is placed (typically within 14 days). Use of mulch only or a soil binder is acceptable if the stockpile will be in place for a more limited time period (typically 30-60 days). Timeframes for stabilization of stockpiles noted in this fact sheet are "typical" guidelines. Check permit requirements for specific federal, state, and/or local requirements that may be more prescriptive.

Stockpiles should not be placed in streets or paved areas unless no other practical alternative exists. See the Stabilized Staging Area Fact Sheet for guidance when staging in roadways is unavoidable due to space or right-of-way constraints. For paved areas, rock socks must be used for perimeter control and all inlets with the potential to receive sediment from the stockpile (even from vehicle tracking) must be protected.

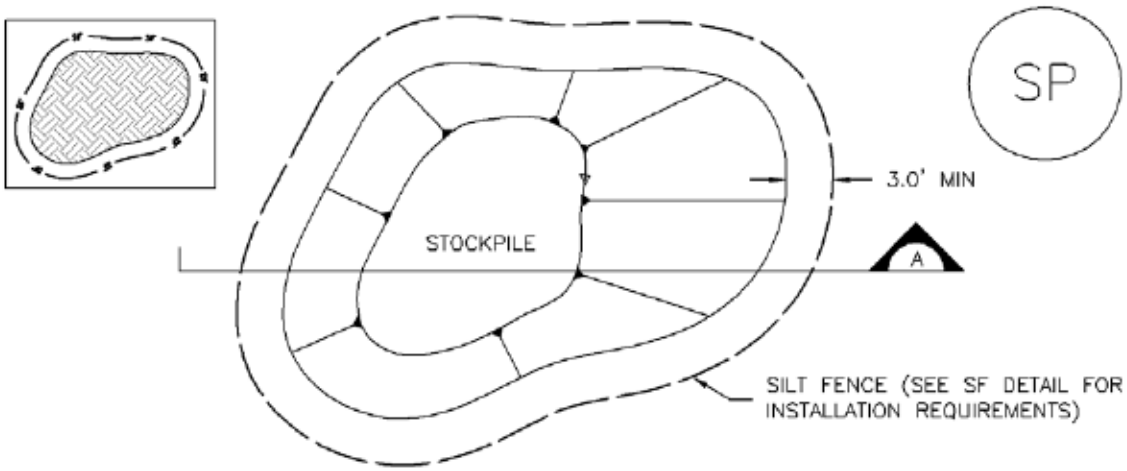
Maintenance and Removal

Inspect perimeter controls and inlet protection in accordance with their respective BMP Fact Sheets. Where seeding, mulch and/or soil binders are used, reseeding or reapplication of soil binder may be necessary.

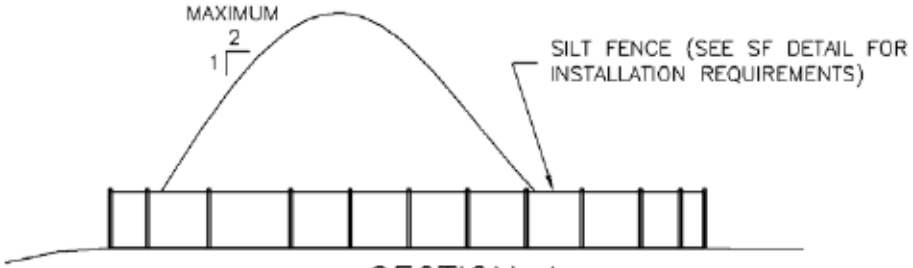
When temporary removal of a perimeter BMP is necessary to access a stockpile, ensure BMPs are reinstalled in accordance with their respective design detail section.

Stockpile Management	
Functions	
Erosion Control	Yes
Sediment Control	Yes
Site/Material Management	Yes

When the stockpile is no longer needed, properly dispose of excess materials and revegetate or otherwise stabilize the ground surface where the stockpile was located.



STOCKPILE PROTECTION PLAN



SECTION A

SP–1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION OF STOCKPILES.
   –TYPE OF STOCKPILE PROTECTION.

2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.

3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30–60 DAYS).

4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

STOCKPILE PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

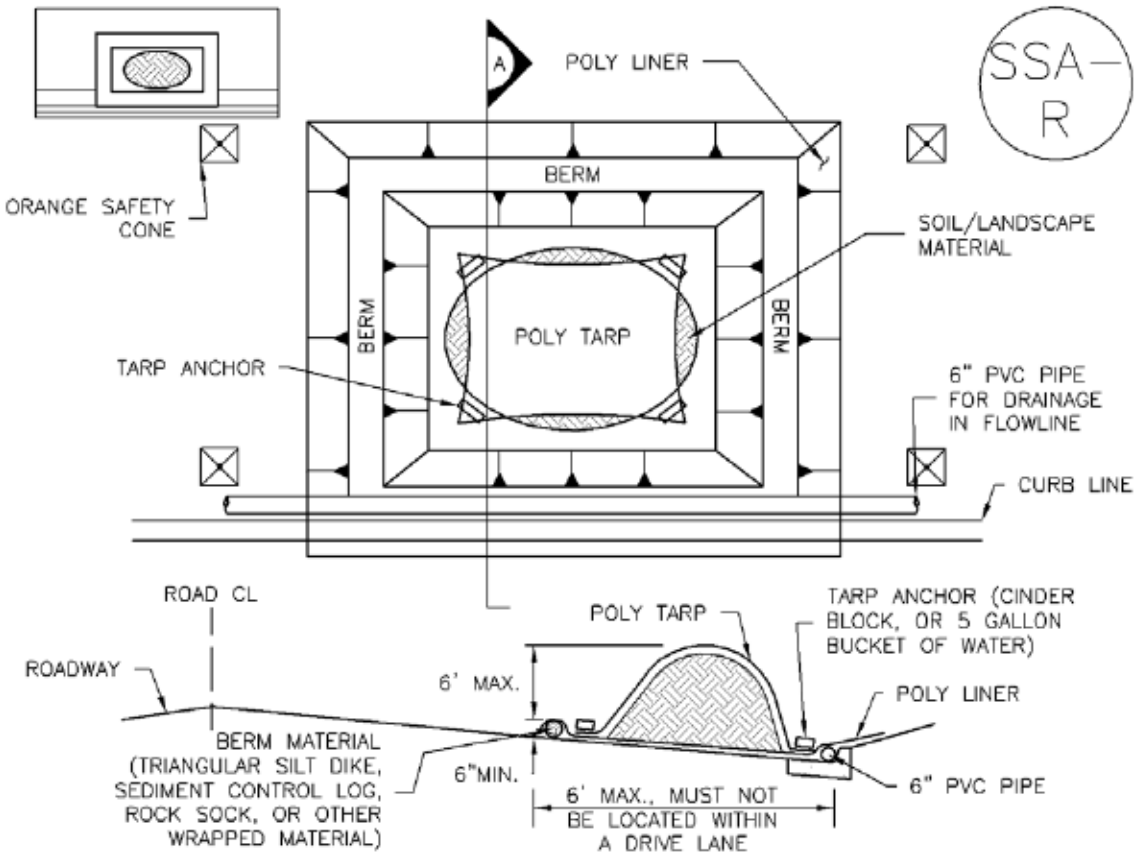
STOCKPILE PROTECTION MAINTENANCE NOTES

4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.

5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.



SP–2. MATERIALS STAGING IN ROADWAY

MATERIALS STAGING IN ROADWAYS INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –LOCATION OF MATERIAL STAGING AREA(S).
   –CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. FEATURE MUST BE INSTALLED PRIOR TO EXCAVATION, EARTHWORK OR DELIVERY OF MATERIALS.

3. MATERIALS MUST BE STATIONED ON THE POLY LINER. ANY INCIDENTAL MATERIALS DEPOSITED ON PAVED SECTION OR ALONG CURB LINE MUST BE CLEANED UP PROMPTLY.

4. POLY LINER AND TARP COVER SHOULD BE OF SIGNIFICANT THICKNESS TO PREVENT DAMAGE OR LOSS OF INTEGRITY.

5. SAND BAGS MAY BE SUBSTITUTED TO ANCHOR THE COVER TARP OR PROVIDE BERMING UNDER THE BASE LINER.

6. FEATURE IS NOT INTENDED FOR USE WITH WET MATERIAL THAT WILL BE DRAINING AND/OR SPREADING OUT ON THE POLY LINER OR FOR DEMOLITION MATERIALS.

7. THIS FEATURE CAN BE USED FOR:
   –UTILITY REPAIRS.
   –WHEN OTHER STAGING LOCATIONS AND OPTIONS ARE LIMITED.
   –OTHER LIMITED APPLICATION AND SHORT DURATION STAGING.

MATERIALS STAGING IN ROADWAY MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. INSPECT PVC PIPE ALONG CURB LINE FOR CLOGGING AND DEBRIS. REMOVE OBSTRUCTIONS PROMPTLY.

5. CLEAN MATERIAL FROM PAVED SURFACES BY SWEEPING OR VACUUMING.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM AURORA, COLORADO)

Good Housekeeping Practices (GH) MM-3

Description

Implement construction site good housekeeping practices to prevent pollution associated with solid, liquid and hazardous construction-related materials and wastes. Stormwater Management Plans (SWMPs) should clearly specify BMPs including these good housekeeping practices:

- Provide for waste management.
- Establish proper building material staging areas.
- Designate paint and concrete washout areas.
- Establish proper equipment/vehicle fueling and maintenance practices.
- Control equipment/vehicle washing and allowable non-stormwater discharges.
- Develop a spill prevention and response plan.

Acknowledgement: This Fact Sheet is based directly on EPA guidance provided in *Developing Your Stormwater Pollution Prevent Plan* (EPA 2007).





Photographs GH-1 and GH-2. Proper materials storage and secondary containment for fuel tanks are important good housekeeping practices. Photos courtesy of CDOT and City of Aurora.

Appropriate Uses

Good housekeeping practices are necessary at all construction sites.

Design and Installation

The following principles and actions should be addressed in SWMPs:

- **Provide for Waste Management.** Implement management procedures and practices to prevent or reduce the exposure and transport of pollutants in stormwater from solid, liquid and sanitary wastes that will be generated at the site. Practices such as trash disposal, recycling, proper material handling, and cleanup measures can reduce the potential for stormwater runoff to pick up construction site wastes and discharge them to surface waters. Implement a comprehensive set of waste-management practices for hazardous or toxic materials, such as paints, solvents, petroleum products, pesticides, wood preservatives, acids, roofing tar, and other materials. Practices should include storage, handling, inventory, and cleanup procedures, in case of spills. Specific practices that should be considered include:

  Solid or Construction Waste

  - Designate trash and bulk waste-collection areas on-site.

Good Housekeeping	
Functions	
Erosion Control	No
Sediment Control	No
Site/Material Management	Yes

- Recycle materials whenever possible (e.g., paper, wood, concrete, oil).
- Segregate and provide proper disposal options for hazardous material wastes.
- Clean up litter and debris from the construction site daily.
- Locate waste-collection areas away from streets, gutters, watercourses, and storm drains. Waste-collection areas (dumpsters, and such) are often best located near construction site entrances to minimize traffic on disturbed soils. Consider secondary containment around waste collection areas to minimize the likelihood of contaminated discharges.
- Empty waste containers before they are full and overflowing.

Sanitary and Septic Waste

- Provide convenient, well-maintained, and properly located toilet facilities on-site.
- Locate toilet facilities away from storm drain inlets and waterways to prevent accidental spills and contamination of stormwater.
- Maintain clean restroom facilities and empty portable toilets regularly.
- Where possible, provide secondary containment pans under portable toilets.
- Provide tie-downs or stake-downs for portable toilets.
- Educate employees, subcontractors, and suppliers on locations of facilities.
- Treat or dispose of sanitary and septic waste in accordance with state or local regulations. Do not discharge or bury wastewater at the construction site.
- Inspect facilities for leaks. If found, repair or replace immediately.
- Special care is necessary during maintenance (pump out) to ensure that waste and/or biocide are not spilled on the ground.

Hazardous Materials and Wastes

- Develop and implement employee and subcontractor education, as needed, on hazardous and toxic waste handling, storage, disposal, and cleanup.
- Designate hazardous waste-collection areas on-site.
- Place all hazardous and toxic material wastes in secondary containment.



Photograph GH-3. Locate portable toilet facilities on level surfaces away from waterways and storm drains. Photo courtesy of WWE.

- Hazardous waste containers should be inspected to ensure that all containers are labeled properly and that no leaks are present.

- **Establish Proper Building Material Handling and Staging Areas**. The SWMP should include comprehensive handling and management procedures for building materials, especially those that are hazardous or toxic. Paints, solvents, pesticides, fuels and oils, other hazardous materials or building materials that have the potential to contaminate stormwater should be stored indoors or under cover whenever possible or in areas with secondary containment. Secondary containment measures prevent a spill from spreading across the site and may include dikes, berms, curbing, or other containment methods. Secondary containment techniques should also ensure the protection of groundwater. Designate staging areas for activities such as fueling vehicles, mixing paints, plaster, mortar, and other potential pollutants. Designated staging areas enable easier monitoring of the use of materials and clean up of spills. Training employees and subcontractors is essential to the success of this pollution prevention principle. Consider the following specific materials handling and staging practices:

  - Train employees and subcontractors in proper handling and storage practices.

  - Clearly designate site areas for staging and storage with signs and on construction drawings. Staging areas should be located in areas central to the construction site. Segment the staging area into sub-areas designated for vehicles, equipment, or stockpiles. Construction entrances and exits should be clearly marked so that delivery vehicles enter/exit through stabilized areas with vehicle tracking controls (See Vehicle Tracking Control Fact Sheet).

  - Provide storage in accordance with Spill Protection, Control and Countermeasures (SPCC) requirements and plans and provide cover and impermeable perimeter control, as necessary, for hazardous materials and contaminated soils that must be stored on site.

  - Ensure that storage containers are regularly inspected for leaks, corrosion, support or foundation failure, or other signs of deterioration and tested for soundness.

  - Reuse and recycle construction materials when possible.

- **Designate Concrete Washout Areas**. Concrete contractors should be encouraged to use the washout facilities at their own plants or dispatch facilities when feasible; however, concrete washout commonly occurs on construction sites. If it is necessary to provide for concrete washout areas on-site, designate specific washout areas and design facilities to handle anticipated washout water. Washout areas should also be provided for paint and stucco operations. Because washout areas can be a source of pollutants from leaks or spills, care must be taken with regard to their placement and proper use. See the Concrete Washout Area Fact Sheet for detailed guidance.

  Both self-constructed and prefabricated washout containers can fill up quickly when concrete, paint, and stucco work are occurring on large portions of the site. Be sure to check for evidence that contractors are using the washout areas and not dumping materials onto the ground or into drainage facilities. If the washout areas are not being used regularly, consider posting additional signage, relocating the facilities to more convenient locations, or providing training to workers and contractors.

  When concrete, paint, or stucco is part of the construction process, consider these practices which will help prevent contamination of stormwater. Include the locations of these areas and the maintenance and inspection procedures in the SWMP.

- Do not washout concrete trucks or equipment into storm drains, streets, gutters, uncontained areas, or streams. Only use designated washout areas.
- Establish washout areas and advertise their locations with signs. Ensure that signage remains in good repair.
- Provide adequate containment for the amount of wash water that will be used.
- Inspect washout structures daily to detect leaks or tears and to identify when materials need to be removed.
- Dispose of materials properly. The preferred method is to allow the water to evaporate and to recycle the hardened concrete. Full service companies may provide dewatering services and should dispose of wastewater properly. Concrete wash water can be highly polluted. It should not be discharged to any surface water, storm sewer system, or allowed to infiltrate into the ground in the vicinity of waterbodies. Washwater should not be discharged to a sanitary sewer system without first receiving written permission from the system operator.

- **Establish Proper Equipment/Vehicle Fueling and Maintenance Practices**. Create a clearly designated on-site fueling and maintenance area that is clean and dry. The on-site fueling area should have a spill kit, and staff should know how to use it. If possible, conduct vehicle fueling and maintenance activities in a covered area. Consider the following practices to help prevent the discharge of pollutants to stormwater from equipment/vehicle fueling and maintenance. Include the locations of designated fueling and maintenance areas and inspection and maintenance procedures in the SWMP.
  - Train employees and subcontractors in proper fueling procedures (stay with vehicles during fueling, proper use of pumps, emergency shutoff valves, etc.).
  - Inspect on-site vehicles and equipment regularly for leaks, equipment damage, and other service problems.
  - Clearly designate vehicle/equipment service areas away from drainage facilities and watercourses to prevent stormwater run-on and runoff.
  - Use drip pans, drip cloths, or absorbent pads when replacing spent fluids.
  - Collect all spent fluids, store in appropriate labeled containers in the proper storage areas, and recycle fluids whenever possible.
- **Control Equipment/Vehicle Washing and Allowable Non-Stormwater Discharges.** Implement practices to prevent contamination of surface and groundwater from equipment and vehicle wash water. Representative practices include:
  - Educate employees and subcontractors on proper washing procedures.
  - Use off-site washing facilities, when available.
  - Clearly mark the washing areas and inform workers that all washing must occur in this area.
  - Contain wash water and treat it using BMPs. Infiltrate washwater when possible, but maintain separation from drainage paths and waterbodies.

- Use high-pressure water spray at vehicle washing facilities without detergents. Water alone can remove most dirt adequately.
- Do not conduct other activities, such as vehicle repairs, in the wash area.
- Include the location of the washing facilities and the inspection and maintenance procedures in the SWMP.

- **Develop a Spill Prevention and Response Plan.** Spill prevention and response procedures must be identified in the SWMP. Representative procedures include identifying ways to reduce the chance of spills, stop the source of spills, contain and clean up spills, dispose of materials contaminated by spills, and train personnel responsible for spill prevention and response. The plan should also specify material handling procedures and storage requirements and ensure that clear and concise spill cleanup procedures are provided and posted for areas in which spills may potentially occur. When developing a spill prevention plan, include the following:
  - Note the locations of chemical storage areas, storm drains, tributary drainage areas, surface waterbodies on or near the site, and measures to stop spills from leaving the site.
  - Provide proper handling and safety procedures for each type of waste. Keep Material Safety Data Sheets (MSDSs) for chemical used on site with the SWMP.
  - Establish an education program for employees and subcontractors on the potential hazards to humans and the environment from spills and leaks.
  - Specify how to notify appropriate authorities, such as police and fire departments, hospitals, or municipal sewage treatment facilities to request assistance. Emergency procedures and contact numbers should be provided in the SWMP and posted at storage locations.
  - Describe the procedures, equipment and materials for immediate cleanup of spills and proper disposal.
  - Identify personnel responsible for implementing the plan in the event of a spill. Update the spill prevention plan and clean up materials as changes occur to the types of chemicals stored and used at the facility.

Spill Prevention, Control, and Countermeasure (SPCC) Plan

Construction sites may be subject to 40 CFR Part 112 regulations that require the preparation and implementation of a SPCC Plan to prevent oil spills from aboveground and underground storage tanks. The facility is subject to this rule if it is a non-transportation-related facility that:

- Has a total storage capacity greater than 1,320 gallons or a completely buried storage capacity greater than 42,000 gallons.
- Could reasonably be expected to discharge oil in quantities that may be harmful to navigable waters of the United States and adjoining shorelines.

Furthermore, if the facility is subject to 40 CFR Part 112, the SWMP should reference the SPCC Plan. To find out more about SPCC Plans, see EPA's website on SPPC at www.epa.gov/oilspill/spcc.htm.

Reporting Oil Spills

In the event of an oil spill, contact the National Response Center toll free at 1-800-424- 8802 for assistance, or for more details, visit their website: www.nrc.uscg.mil.

Maintenance and Removal

Effective implementation of good housekeeping practices is dependent on clear designation of personnel responsible for supervising and implementing good housekeeping programs, such as site cleanup and disposal of trash and debris, hazardous material management and disposal, vehicle and equipment maintenance, and other practices. Emergency response "drills" may aid in emergency preparedness.

Checklists may be helpful in good housekeeping efforts.

Staging and storage areas require permanent stabilization when the areas are no longer being used for construction-related activities.

Construction-related materials, debris and waste must be removed from the construction site once construction is complete.

Design Details

See the following Fact Sheets for related Design Details:

MM-1 Concrete Washout Area

MM-2 Stockpile Management

SM-4 Vehicle Tracking Control

Design details are not necessary for other good housekeeping practices; however, be sure to designate where specific practices will occur on the appropriate construction drawings.

TAB 11

APPENDIX B: PERMITS, APPLICATIONS, FORMS

STATE OF COLORADO

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Water Quality Control Division

CDPS GENERAL PERMIT STORMWATER DISCHARGES ASSOCIATED WITH

CONSTRUCTION ACTIVITY AUTHORIZATION TO DISCHARGE UNDER THE COLORADO DISCHARGE PERMIT SYSTEM (CDPS)

COR400000

In compliance with the provisions of the Colorado Water Quality Control Act, (25-8-101 et seq., CRS, 1973 as amended) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.; the "Act"), this permit authorizes the discharge of stormwater associated with construction activities (and specific allowable non-stormwater discharges in accordance with Part I.A.1. of the permit) certified under this permit, from those locations specified throughout the State of Colorado to specified waters of the State.

Such discharges shall be in accordance with the conditions of this permit. This permit specifically authorizes the facility listed on the certification to discharge in accordance with permit requirements and conditions set forth in Parts I and II hereof. All discharges authorized herein shall be consistent with the terms and conditions of this permit.

This permit becomes effective on April 1, 2019, and shall expire at midnight March 31, 2024.

Issued and signed this 30th day of December, 2020.

Meg Parish

Meg Parish, Permits Section Manager Water Quality Control Division

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Permit History
Modification Issued December 31, 2020 Effective February 1, 2021
Originally signed and issued October 31, 2018; effective April 1, 2019.

Table of Contents

PART I 3
A. COVERAGE UNDER THIS PERMIT 3
1. Authorized Discharges 3
2. Limitations on Coverage 3
3. Permit Certification and Submittal Procedures 4
B. EFFLUENT LIMITATIONS 8
1. Requirements for Control Measures Used to Meet Effluent Limitations 8
2. Discharges to an Impaired Waterbody 11
3. General Requirements 12
C. STORMWATER MANAGEMENT PLAN (SWMP) REQUIREMENTS 12
1. SWMP General Requirements 12
2. SWMP Content 13
3. SWMP Review and Revisions 15
4. SWMP Availability 16
D. SITE INSPECTIONS 16
1. Person Responsible for Conducting Inspections 16
2. Inspection Frequency 16
3. Inspection Frequency for Discharges to Outstanding Waters 17
4. Reduced Inspection Frequency 17
5. Inspection Scope 17
E. DEFINITIONS 19
F. MONITORING 22
G. OIL AND GAS CONSTRUCTION 22
PART II: STANDARD PERMIT CONDITIONS 24
A. DUTY TO COMPLY 24
B. DUTY TO REAPPLY 24
C. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE 24
D. DUTY TO MITIGATE 24
E. PROPER OPERATION AND MAINTENANCE 24
F. PERMIT ACTIONS 24
G. PROPERTY RIGHTS 24
H. DUTY TO PROVIDE INFORMATION 25
I. INSPECTION AND ENTRY 25
J. MONITORING AND RECORDS 25
K. SIGNATORY REQUIREMENTS 26
1. Authorization to Sign: 26
2. Electronic Signatures 26

3. Change in Authorization to Sign 26
L. REPORTING REQUIREMENTS 27
1. Planned Changes 27
2. Anticipated Non-Compliance 27
3. Transfer of Ownership or Control 27
4. Monitoring reports 27
5. Compliance Schedules 27
6. Twenty-four Hour Reporting 28
7. Other Non-Compliance 28
8. Other Information 28
M. BYPASS 28
1. Bypass Not Exceeding Limitations 28
2. Notice of Bypass 28
3. Prohibition of Bypass 28
N. UPSET 29
1. Effect of an upset 29
2. Conditions Necessary for Demonstration of an Upset 29
3. Burden of Proof 29
O. RETENTION OF RECORDS 29
1. Post-Expiration or Termination Retention 29
2. On-site Retention 29
P. REOPENER CLAUSE 30
1. Procedures for Modification or Revocation 30
2. Water Quality Protection 30
Q. SEVERABILITY 30
R. NOTIFICATION REQUIREMENTS 30
1. Notification to Parties 30
S. RESPONSIBILITIES 30
1. Reduction, Loss, or Failure of Treatment Facility 30
T. OIL AND HAZARDOUS SUBSTANCE LIABILITY 30
U. EMERGENCY POWERS 31
V. CONFIDENTIALITY 31
W. FEES 31
X. DURATION OF PERMIT 31
Y. SECTION 307 TOXICS 31

Part I

Note: At the first mention of terminology that has a specific connotation for the purposes of this permit, the terminology is electronically linked to the definitions section of the permit in Part I.E.

A. COVERAGE UNDER THIS PERMIT

1. Authorized Discharges

This general permit authorizes permittee(s) to discharge the following to state waters: stormwater associated with construction activity and specified non-stormwater associated with construction activity. The following types of stormwater and non-stormwater discharges are authorized under this permit:

a. Allowable Stormwater Discharges

i. Stormwater discharges associated with construction activity.

ii. Stormwater discharges associated with producing earthen materials, such as soils, sand, and gravel dedicated to providing material to a single contiguous site, or within ¼ mile of a construction site (e.g. borrow or fill areas).

iii. Stormwater discharges associated with dedicated asphalt, concrete batch plants and masonry mixing stations (Coverage under this permit is not required if alternative coverage has been obtained.)

b. Allowable Non-Stormwater Discharges

The following non-stormwater discharges are allowable under this permit if the discharges are identified in the stormwater management plan in accordance with Part I.C and if they have appropriate control measures in accordance with Part I.B.1.

i. Discharges from uncontaminated springs that do not originate from an area of land disturbance.

ii. Discharges to the ground of concrete washout water associated with the washing of concrete tools and concrete mixer chutes. Discharges of concrete washout water must not leave the site as surface runoff or reach receiving waters as defined by this permit. Concrete on-site waste disposal is not authorized by this permit except in accordance with Part I.B.1.a.ii(b).

iii. Discharges of landscape irrigation return flow.

iv. Discharges from diversions of state waters within the permitted site.

c. Emergency Fire Fighting

Discharges resulting from emergency firefighting activities during the active emergency response are authorized by this permit.

2. Limitations on Coverage

Discharges not authorized by this permit include, but are not limited to, the discharges and activities listed below. Permittees may seek individual or alternate general permit coverage for the discharges, as appropriate and available.

a. Discharges of Non-Stormwater

Discharges of non-stormwater, except the authorized non-stormwater discharges listed in Part

I.A.1.b., are not eligible for coverage under this permit.

b. Discharges Currently Covered by another Individual or General Permit

c. Discharges Currently Covered by a Water Quality Control Division (division) Low Risk Guidance Document

3. Permit Certification and Submittal Procedures

a. Duty to Apply

The following activities shall apply for coverage under this permit:

i. Construction activity that will disturb one acre or more; or

ii. Construction activity that is part of a common plan of development or sale; or

iii. Stormwater discharges that are designated by the division as needing a stormwater permit because the discharge:

(a) Contributes to a violation of a water quality standard; or

(b) Is a significant contributor of pollutants to state waters.

b. Application Requirements

To obtain authorization to discharge under this permit, applicants applying for coverage following the effective date of the renewal permit shall meet the following requirements:

i. Owners and operators submitting an application for permit coverage will be co- permittees subject to the same benefits, duties, and obligations under this permit.

ii. Signature requirements: Both the owner and operator (permittee) of the construction site, as defined in Part I.E., must agree to the terms and conditions of the permit and submit a completed application that includes the signature of both the owner and the operator. In cases where the duties of the owner and operator are managed by the owner, both application signatures may be completed by the owner. Both the owner and operator are responsible for ensuring compliance with all terms and conditions of the permit, including implementation of the stormwater management plan.

iii. The applicant(s) must develop a stormwater management plan (SWMP) in accordance with the requirements of Part I.C. The applicant(s) must also certify that the SWMP is complete, or will be complete, prior to commencement of any construction activity.

iv. In order to apply for certification under this general permit, the applicant(s) must submit a complete, accurate, and signed permit application form as provided by the division by electronic delivery at least 10 days prior to the commencement of construction activity, except those construction activities that are in response to a public emergency related site; public emergency related sites shall apply for coverage no later than 14 days after the commencement of construction activities. The provisions of this part in no way remove a violation of the Colorado Water Quality Control Act if a point source discharge occurs prior to the issuance of a CDPS permit.

v. The application in its entirety must be submitted via the division's online permitting system unless a waiver is granted by the division. If a waiver is granted, the application in its entirety, including signatures by both the owner and operator, must be submitted to:

Colorado Department of Public Health and Environment
Water Quality Control Division
Permits Section, WQCD-PS-B2
4300 Cherry Creek Drive South
Denver, CO 80246

vi. The applicant(s) must receive written notification that the division granted permit coverage prior to conducting construction activities except for construction activities that are in response to a public emergency related site.

c. Division Review of Permit Application

Within 10 days of receipt of the application, and following review of the application, the division may:

i. Issue a certification of coverage;

ii. Request additional information necessary to evaluate the discharge;

iii. Delay the authorization to discharge pending further review;

iv. Notify the applicant that additional terms and conditions are necessary; or

v. Deny the authorization to discharge under this general permit.

d. Alternative Permit Coverage

i. Division Required Alternative Permit Coverage:

The division may require an applicant or permittee to apply for an individual permit or an alternative general permit if it determines the discharge does not fall under the scope of this general permit, including if any additional terms and conditions are necessary in order to ensure that discharges authorized by this permit shall not cause, have the reasonable potential to cause, or measurably contribute to an exceedance of any applicable water quality standard, including narrative standards for water quality. In this case, the division will notify the applicant or permittee that an individual permit application is required.

ii. Permittee Request for Alternative Permit Coverage:

A permittee authorized to discharge stormwater under this permit may request to be excluded from coverage under this general permit by applying for an individual permit. In this case, the permittee must submit an individual application, with reasons supporting the request, to the division at least 180 days prior to any discharge. When an individual permit is issued, the permittee's authorization to discharge under this permit is terminated on the effective date of the individual permit.

e. Submittal Signature Requirements

Documents required for submittal to the division in accordance with this permit, including applications for permit coverage and other documents as requested by the division, must include signatures by **both** the owner and the operator, except for instances where the duties of the owner and operator are managed by the owner.

Signatures on all documents submitted to the division as required by this permit must meet the Standard Signatory Requirements in Part II.K of this permit in accordance with 40 C.F.R. 122.41(k).

i. Signature Certification

Any person(s) signing documents required for submittal to the division must make the following

certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

f. Compliance Document Signature Requirements

Documents which are required for compliance with the permit, but for which submittal to the division is not required unless specifically requested by the division, must be signed by the individual(s) designated as the Qualified Stormwater Manager, as defined in Part I.E.

i. Any person(s) signing inspection documents required for compliance with the permit per Part I.D.5.c.xiii must make the following statement and provide the date of the statement:

"I verify that, to the best of my knowledge and belief, that if any corrective action items were identified during the inspection, those corrective actions are complete, and the site is currently in compliance with the permit."

g. Field Wide Permit Coverage for Oil and Gas Construction

At the discretion of the division, a single permit certification may be issued to a single oil and gas permittee to cover construction activity related discharges from an oil and gas field at multiple locations that are not necessarily contiguous.

h. Permit Coverage without Application

Qualifying Local Program: When a small construction site is within the jurisdiction of a qualifying local program, the owner and operator of the construction activity are authorized to discharge stormwater associated with small construction activity under this general permit without the submittal of an application to the division. Sites covered by a qualifying local program are exempt from the following sections of this general permit: Part I.A.3.a.; Part I.A.3.b.; Part I.A.3.c.; Part I.A.3.d.; Part I.A.3.g.; Part I.A.3.i.; Part I.A.3.j.; Part I.A.3.k.

Sites covered by a qualifying local program are subject to the following requirements:

i. Local Agency Authority: This permit does not pre-empt or supersede the authority of local agencies to prohibit, restrict, or control discharges of stormwater to storm drain systems or other water courses within their jurisdiction.

ii. Permit Coverage Termination: When a site under a Qualifying Local Program is finally stabilized, coverage under this permit is automatically terminated.

iii. Compliance with Qualifying Local Program: Qualifying Local Program requirements that are equivalent to the requirements of this permit are incorporated by reference. Permittees authorized to discharge under this permit, must comply with the equivalent requirements of the Qualifying Local Program that has jurisdiction over the site as a condition of this permit.

iv. Compliance with Remaining Permit Conditions. Requirements of this permit that are in addition to or more stringent than the requirements of the Qualifying Local Program apply in addition to the requirements of the Qualifying Local Program.

v. Written Authorization of Coverage: The division or local municipality may require any permittee within the jurisdiction of a Qualifying Local Program covered under this permit to

apply for, and obtain written authorization of coverage under this permit. The permittee must be notified in writing that an application for written authorization of coverage is required.

i. Permittee Initiated Permit Actions

Permittee initiated permit actions, including but not limited to modifications, contact changes, transfers, and terminations, shall be conducted following Part II.L, division guidance and using appropriate division-provided forms.

j. Sale of Residence to Homeowner

Residential construction sites only: The permittee may remove residential lots from permit coverage once the lot meets the following criteria:

i. The residential lot has been sold to the homeowner(s) for private residential use;

ii. A certificate of occupancy, or equivalent, is maintained on-site and is available during division inspections;

iii. The lot is less than one acre of disturbance;

iv. All construction activity conducted on the lot by the permittee is complete;

v. The permittee is not responsible for final stabilization of the lot; and

vi. The SWMP was modified to indicate the lot is no longer part of the construction activity.

If the residential lot meets the criteria listed above then activities occurring on the lot are no longer considered to be construction activities with a duty to apply and maintain permit coverage. Therefore, the permittee is not required to meet the final stabilization requirements and may terminate permit coverage for the lot.

k. Permit Expiration and Continuation of Permit Coverage

Authorization to discharge under this general permit shall expire at midnight on March 31, 2024. While Regulation 61.4 requires a permittee to submit an application for continuing permit coverage 180 days before the permit expires, the division is requiring that permittees desiring continued coverage under this general permit must reapply at least 90 days in advance of this permit expiration. The division will determine if the permittee may continue to discharge stormwater under the terms of the general permit. An individual permit may be required for any facility not reauthorized to discharge under the reissued general permit.

If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued and remain in force and effect. For permittees that have applied for continued permit coverage, discharges authorized under this permit prior to the expiration date will automatically remain covered by this permit until the earliest of:

i. An authorization to discharge under a reissued permit, or a replacement of this permit, following the timely and appropriate submittal of a complete application requesting authorization to discharge under the new permit and compliance with the requirements of the new permit; or

ii. The issuance and effect of a termination issued by the division; or

iii. The issuance or denial of an individual permit for the facility's discharges; or

iv. A formal permit decision by the division not to reissue this general permit, at which time the division will identify a reasonable time period for covered dischargers to seek coverage under

an alternative general permit or an individual permit. Coverage under this permit will cease when coverage under another permit is granted/authorized; or

v. The division has informed the permittee that discharges previously authorized under this permit are no longer covered under this permit.

B. EFFLUENT LIMITATIONS

1. Requirements for Control Measures Used to Meet Effluent Limitations

The permittee must implement control measures to minimize the discharge of pollutants from all potential pollutant sources at the site. Control measures must be installed prior to commencement of construction activities. Control measures must be selected, designed, installed and maintained in accordance with good engineering, hydrologic and pollution control practices. Control measures implemented at the site must be designed to prevent pollution or degradation of state waters.

a. Stormwater Pollution Prevention

The permittee must implement structural and/or nonstructural control measures that effectively minimize erosion, sediment transport, and the release of other pollutants related to construction activity.

i. Control Measures for Erosion and Sediment Control

Control measures for erosion and sediment control may include, but are not limited to, wattles/sediment control logs, silt fences, earthen dikes, drainage swales, sediment traps, subsurface drains, pipe slope drains, inlet protection, outlet protection, gabions, sediment basins, temporary vegetation, permanent vegetation, mulching, geotextiles, sod stabilization, slope roughening, maintaining existing vegetation, protection of trees, and preservation of mature vegetation.

Specific control measures must meet the requirements listed below.

(a) Structural and nonstructural vehicle tracking controls shall be implemented to minimize vehicle tracking of sediment from disturbed areas and may include tracking pads, minimizing site access, wash racks, graveled parking areas, maintaining vehicle traffic to paved areas, street sweeping and sediment control measures.

(b) Stormwater runoff from all disturbed areas and soil storage areas must utilize or flow to one or more control measures to minimize erosion or sediment in the discharge. The control measure(s) must be selected, designed, installed and adequately sized in accordance with good engineering, hydrologic and pollution control practices for the intended application. The control measure(s) must contain or filter flows in order to prevent the bypass of flows without treatment and must be appropriate for stormwater runoff from disturbed areas and for the expected flow rate, duration, and flow conditions (e.g. sheet or concentrated flow).

(c) Selection of control measures should prioritize the use of structural and nonstructural control measures that minimize the potential for erosion (i.e. covering materials). Selection should also prioritize phasing construction activities to minimize the amount of soil disturbance at any point in time throughout the duration of construction.

(d) Outlets that withdraw water from or near the surface shall be installed when discharging from basins and impoundments, unless infeasible.

(e) Maintain pre-existing vegetation or equivalent control measures for areas within 50 horizontal feet of receiving waters as defined by this permit, unless infeasible.

(f) Soil compaction must be minimized for areas where infiltration control measures will occur or where final stabilization will be achieved through vegetative cover.

(g) Unless infeasible, topsoil shall be preserved for those areas of a site that will utilize vegetative final stabilization.

(h) Minimize the amount of soil exposed during construction activity, including the disturbance of steep slopes.

(i) Diversion control measures must minimize soil transport and erosion within the entire diversion, minimize erosion during discharge, and minimize run-on into the diversion. The permittee must minimize the discharge of pollutants throughout the installation, implementation and removal of the diversion. Diversions must meet one or more of the following conditions:

(1) Lined or piped structures that result in no erosion in all flow conditions.

(2) Diversion channels, berms, and coffer dams must be lined or composed of a material that minimizes potential for soil loss in the entire wetted perimeter during anticipated flow conditions (e.g. vegetated swale, non-erosive soil substrate). The entire length of the diversion channel must be designed with all of the following considerations: maximum flow velocity for the type of material(s) exposed to the anticipated flows to ensure that the calculated maximum shear stress of flows in the channel is not expected to result in physical damage to the channel or liner and result in discharge of pollutants. Additionally, the conditions relied on to minimize soil loss must be maintained for the projected life of the diversion (i.e. a vegetated swale must be limited to a period of time that ensures vegetative growth, minimizes erosion and maintains stable conditions).

(3) An alternative diversion criteria, approved by the division prior to implementation. The diversion method must be designed to minimize the discharge of pollutants and to prevent the potential for pollution or degradation to state waters as a result of the diverted flow through the diversion structure. In addition, the alternative diversion method must minimize the discharge of pollutants throughout the installation, implementation and removal of the diversion.

ii. Practices for Other Common Pollutants

(a) Bulk storage, individual containers of 55 gallons or greater, for petroleum products and other liquid chemicals must have secondary containment, or equivalent protection, in order to contain spills and to prevent spilled material from entering state waters.

(b) Control measures designed for concrete washout waste must be implemented. This includes washout waste discharged to the ground as authorized under this permit and washout waste from concrete trucks and masonry operations contained on site. The permittee must ensure the washing activities do not contribute pollutants to stormwater runoff, or receiving waters in accordance Part I.A.1.b.ii. Discharges that may reach groundwater must flow through soil that has buffering capacity prior to reaching groundwater, as necessary to meet the effluent limits in this permit, including Part I.B.3.a. The concrete washout location must not be located in an area where shallow groundwater may be present and would result in buffering capacity not being adequate, such as near natural drainages, springs, or wetlands. This permit authorizes discharges to the ground of concrete washout waste, but does not authorize on-site waste disposal per Part I.B.3.d.

(c) In the event that water remains onsite and contains pollutants either from the

firefighting activities or picked up from the site (i.e. in a gutter, sediment basin, etc.) after active emergency response is complete, the permittee must ensure the remaining water containing pollutants is properly removed and disposed of in order to minimize pollutants from discharging from the site, unless infeasible.

iii. Stabilization Requirements

The following requirements must be implemented for each site.

(a) Temporary stabilization must be implemented for earth disturbing activities on any portion of the site where ground disturbing construction activity has permanently ceased, or temporarily ceased for more than 14 calendar days. Temporary stabilization methods may include, but are not limited to, tarps, soil tackifier, and hydroseed. The permittee may exceed the 14-day schedule when either the function of the specific area of the site requires it to remain disturbed or physical characteristics of the terrain and climate prevent stabilization. The SWMP must document the constraints necessitating the alternative schedule, provide the alternate stabilization schedule, and identify all locations where the alternative schedule is applicable on the site map. Minimum inspection frequency and scope, as directed in Part I.D., must be followed for temporarily stabilized areas.

(b) Final stabilization must be implemented for all construction sites covered under this permit. Final stabilization is reached when (1), (2), and (3) below are complete:

(1) All construction activities are complete.

(2) Permanent stabilization methods are complete. Permanent stabilization methods include, but are not limited to, permanent pavement or concrete, hardscape, xeriscape, stabilized driving surfaces, vegetative cover, or equivalent permanent alternative stabilization methods. The division may approve alternative final stabilization criteria for specific operations. Vegetative cover must meet the following criteria:

a. Evenly distributed perennial vegetation, and

b. Coverage, at a minimum, equal to 70 percent of what would have been provided by native vegetation in a local, undisturbed area or adequate reference site, and

(4) The permittee must ensure all temporary control measures are removed from the construction site once final stabilization is achieved, except when the control measure specifications allow the control measure to be left in place (i.e. bio-degradable control measures).

(d) Final stabilization must be designed and installed as a permanent feature. Final stabilization measures for obtaining a vegetative cover or alternative stabilization methods include, but are not limited to, the following as appropriate:

(1) Seed mix selection and application methods;

(2) Soil preparation and amendments;

(3) Soil stabilization methods to provide adequate protection to minimize erosion (e.g. crimped straw, hydro mulch or rolled erosion control products);

(4) Appropriate sediment control measures as needed until final stabilization is achieved;

(5) Permanent pavement, hardscape, xeriscape, stabilized driving surfaces;

(e) Other alternative stabilization practices as applicable.

b. Maintenance

The permittee must ensure that all control measures remain in effective operating condition and are protected from activities that would reduce their effectiveness. Control measures must be maintained in accordance with good engineering, hydrologic and pollution control practices. Observations leading to the required maintenance of control measures can be made during a site inspection, or during general observations of site conditions. The necessary repairs or modifications to a control measure requiring routine maintenance, as defined in Part I.E., must be conducted to maintain an effective operating condition. This section is not subject to the requirements in Part I.B.1.c below.

c. Corrective Actions

The permittee must assess the adequacy of control measures at the site, and the need for changes to those control measures, to ensure continued effective performance.

When an inadequate control measure, as defined in Part I.E., is identified (i.e., new or replacement control measures become necessary), the following corrective action requirements apply. The permittee is in noncompliance with the permit until the inadequate control measure is replaced or corrected and returned to effective operating condition in compliance with Part I.B.1 and the general requirements in Part I.B.3. If the inadequate control measure results in noncompliance that meets the conditions of Part II.L., the permittee must also meet the requirements of that section.

i. The permittee must take all necessary steps to minimize or prevent the discharge of pollutants from the permitted area and manage any stormwater run-on onto the site until a control measure is implemented and made operational and/or an inadequate control measure is replaced or corrected and returned to effective operating condition. If it is infeasible to install or repair the control measure immediately after discovering the deficiency, the following must be documented in the SWMP in Part I.D.5.c and kept on record in accordance with the recordkeeping requirements in Part II.

(a) Describe why it is infeasible to initiate the installation or repair immediately; and

(b) Provide a schedule for installing or repairing the control measure and returning it to an effective operating condition as soon as possible.

ii. If applicable, the permittee must remove and properly dispose of any unauthorized release or discharge within and from the permitted area (e.g., discharge of non-stormwater, untreated stormwater containing pollutants, spill, or leak not authorized by this permit.) The permittee must also clean up any contaminated surfaces, if feasible, to minimize discharges of the material in subsequent storm events, including water remaining from the response that contains pollutants after active emergency firefighting response is complete.

2. Discharges to an Impaired Waterbody

a. Total Maximum Daily Load (TMDL)

If the discharge from the site of permit coverage flows to or could reasonably be expected to flow to any water body for which a TMDL has been approved, and stormwater discharges associated with construction activity were assigned a pollutant-specific Wasteload Allocation (WLA) under the TMDL, the division may:

i. Ensure the WLA is implemented properly through alternative local requirements, such as by a

municipal stormwater permit; or

ii. Notify the permittee of the WLA and amend the permittee's certification to add specific effluent limits and other requirements, as appropriate. The permittee may be required to do the following:

(a) Under the permittee's SWMP, implement specific control measures based on requirements of the WLA, and evaluate whether the requirements are met through implementation of existing stormwater control measures or if additional control measures are necessary. Document the calculations or other evidence demonstrating that the requirements are expected to be met; and

(b) If the evaluation shows that additional or modified control measures are necessary, describe the type and schedule for the control measure additions or modifications.

iii. Discharge monitoring may also be required. The permittee may maintain coverage under the general permit provided they comply with the applicable requirements outlined above. The division reserves the right to require individual or alternate general permit coverage.

3. General Requirements

a. Discharges authorized by this permit shall not cause, have the reasonable potential to cause, or measurably contribute to an exceedance of any applicable water quality standard, including narrative standards for water quality.

b. The division may require sampling and testing, on a case-by-case basis, in the event that there is reason to suspect that the SWMP is not adequately minimizing pollutants in stormwater or in order to measure the effectiveness of the control measures in removing pollutants in the effluent. Such monitoring may include Whole Effluent Toxicity testing.

c. The permittee must comply with the lawful requirements of federal agencies, municipalities, counties, drainage districts and other local agencies including applicable requirements in Municipal Stormwater Management Programs developed to comply with CDPS permits. The permittee must comply with local stormwater management requirements, policies and guidelines including those for erosion and sediment control.

d. All construction site wastes must be properly managed to prevent potential pollution of state waters. This permit does not authorize on-site waste disposal.

e. This permit does not relieve the permittee of the reporting requirements in 40 CFR 110, 40 CFR 117 or 40 CFR 302. Any discharge of hazardous material must be handled in accordance with the division's Noncompliance Notification Requirements (see Part II.L of the permit).

C. STORMWATER MANAGEMENT PLAN (SWMP) REQUIREMENTS

1. SWMP General Requirements

a. A SWMP shall be developed for each construction site listed under Part I.A.3.a, including but not limited to, construction activity that will disturb one acre or more and/or are part of a common plan of development or sale covered by this permit. The SWMP must be prepared in accordance with good engineering, hydrologic and pollution control practices.

i. For public emergency related sites, a SWMP shall be created no later than 14 days after the commencement of construction activities.

b. The permittee must implement the provisions of the SWMP as written and updated, from commencement of construction activity until final stabilization is complete. The division may review the SWMP.

c. A copy of the SWMP must be retained onsite or be onsite when construction activities are occurring at the site unless the permittee specifies another location and obtains approval from the division.

2. SWMP Content

a. The SWMP, at a minimum, must include the following elements.

i. Qualified Stormwater Manager. The SWMP must list individual(s) by title and name who are designated as responsible for implementing the SWMP in its entirety and meet the definition of a Qualified Stormwater Manager. This role may be filled by more than one individual.

ii. Spill Prevention and Response Plan. The SWMP must have a spill prevention and response plan. The plan may incorporate by reference any part of a Spill Prevention Control and Countermeasure (SPCC) plan under section 311 of the Clean Water Act (CWA) or a Spill Prevention Plan required by a separate CDPS permit. The relevant sections of any referenced plans must be available as part of the SWMP consistent with Part I.C.4.

iii. Other CDPS Permits. The SWMP must list the applicable CDPS permits associated with the permitted site and the activities occurring on the permitted site (e.g. a CDPS Dewatering Permit).

iv. Materials Handling. The SWMP must describe handling procedures of all control measures implemented at the site to minimize impacts from handling significant materials that could contribute pollutants to runoff. These handling procedures can include control measures for pollutants and activities such as, exposed storage of building materials, paints and solvents, landscape materials, fertilizers or chemicals, sanitary waste material, trash and equipment maintenance or fueling procedures.

v. Potential Sources of Pollution. The SWMP must list all potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges associated with construction activity from the site. This may include, but is not limited to, the following pollutant sources:

(a) Disturbed and stored soils;

(b) Vehicle tracking of sediments;

(c) Management of contaminated soils, if known to be present, or if contaminated soils are found during construction;

(d) Loading and unloading operations;

(e) Outdoor storage activities (erodible building materials, fertilizers, chemicals, etc.);

(f) Vehicle and equipment maintenance and fueling;

(g) Significant dust or particulate generating processes (e.g., saw cutting material, including dust);

(h) Routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, oils, etc.;

(i) On-site waste management practices (waste piles, liquid wastes, dumpsters);

(j) Concrete truck/equipment washing, including washing of the concrete truck chute and associated fixtures and equipment;

(k) Dedicated asphalt, concrete batch plants and masonry mixing stations;

(l) Non-industrial waste sources such as worker trash and portable toilets.

vi. Implementation of Control Measures. The SWMP must include design specifications that contain information on the implementation of all the structural and nonstructural control measures in use on the site in accordance with good engineering, hydrologic and pollution control practices; including, as applicable, drawings, dimensions, installation information, materials, implementation processes, control measure-specific inspection expectations, and maintenance requirements.

The SWMP must include a documented use agreement between the permittee and the owner or operator of any control measures located outside of the permitted area, that are utilized by the permittee's construction site for compliance with this permit, but not under the direct control of the permittee. The permittee is responsible for ensuring that all control measures located outside of their permitted area, that are being utilized by the permittee's construction site, are properly maintained and in compliance with all terms and conditions of the permit. The SWMP must include all information required of and relevant to any such control measures located outside the permitted area, including location, installation specifications, design specifications and maintenance requirements.

vii. Site Description. The SWMP must include a site description which includes, at a minimum, the following:

(a) The nature of the construction activity at the site;

(b) The proposed schedule for the sequence for major construction activities and the planned implementation of control measures for each phase. (e.g. clearing, grading, utilities, vertical, etc.);

(c) Estimates of the total acreage of the site, and the acreage expected to be disturbed by clearing, excavation, grading, or any other construction activities;

(d) A summary of any existing data and sources used in the development of the construction site plans or SWMP that describe the soil types found in the permitted area and the erodibility of the identified soil types;

(e) A description of the percent cover of native vegetation on the site if the site is undisturbed, or the percent cover of native vegetation in a similar, local undisturbed area or adequate reference area if the site is disturbed. Include the source or methodology for determining the percentage. If a percent cover is not appropriate for the site location (i.e. arid), describe the technique and justification for the identified cover of native vegetation;

(f) A description of any allowable non-stormwater discharges at the site, including those being discharged under a separate CDPS permit or a division low risk discharge guidance policy, and applicable control measures installed;

(g) A description of the drainage patterns from the site, including a description of the immediate source receiving the discharge and the receiving water(s) of the discharge, if different than the immediate source. If the stormwater discharge is to a municipal separate storm sewer system, include the name of the entity owning that system, the location(s) of the stormwater discharge, and the receiving water(s);

(h) A description of all stream crossings located within the construction site boundary; and

(i) A description of the alternate temporary stabilization schedule, if applicable (Part I.B.1.a.iii(a)).

(j) A description of the alternative diversion criteria as approved by the division, if applicable (Part I.B.1.a.i(i)(3)).

viii. Site Map. The SWMP must include a site map which includes, at a minimum, the following:

(a) Construction site boundaries;

(b) Flow arrows that depict stormwater flow directions on-site and runoff direction;

(c) All areas of ground disturbance including areas of borrow and fill;

(d) Areas used for storage of soil;

(e) Locations of all waste accumulation areas, including areas for liquid, concrete, masonry, and asphalt;

(f) Locations of dedicated asphalt, concrete batch plants and masonry mixing stations;

(g) Locations of all structural control measures;

(h) Locations of all non-structural control measures (e.g. temporary stabilization);

(i) Locations of springs, streams, wetlands, diversions and other state waters, including areas that require pre-existing vegetation be maintained within 50 feet of a receiving water, where determined feasible in accordance with Part I.B.1.a.i(e);

(j) Locations of all stream crossings located within the construction site boundary; and

(k) Locations where alternative temporary stabilization schedules apply.

ix. Temporary Stabilization, Final Stabilization and Long Term Stormwater Management.

(a) The SWMP must document the constraints necessitating an alternative temporary stabilization schedule, as referenced in Part I.B.1.a.iii(a), provide the alternate stabilization schedule, and identify all locations where the alternative schedule is applicable on the site map.

(b) The SWMP must describe and locate the methods used to achieve final stabilization of all disturbed areas at the site, as listed in Part I.B.1.a.iii(b).

(c) The SWMP must describe the measures used to establish final stabilization through vegetative cover or alternative stabilization method, as referenced in Part I.B.1.a.iii(c), and describe and locate any temporary control measures in place during the process of final stabilization.

(d) The SWMP must describe and locate any planned permanent control measures to control pollutants in stormwater discharges that will occur after construction operations are completed, including but not limited to, detention/retention ponds, rain gardens, stormwater vaults, etc.

x. Inspection Reports. The SWMP must include documented inspection reports in accordance with Part I.D.5.c.

3. SWMP Review and Revisions

Permittees must keep a record of SWMP changes made that includes the date and identification of the changes. The SWMP must be amended when the following occurs:

a. A change in design, construction, operation, or maintenance of the site requiring implementation

of new or revised control measures;

b. The SWMP proves ineffective in controlling pollutants in stormwater runoff in compliance with the permit conditions;

c. Control measures identified in the SWMP are no longer necessary and are removed; and

d. Corrective actions are taken onsite that result in a change to the SWMP.

e. The site or areas of the site qualifying for reduced frequency inspections under Part I.D.4.

For SWMP revisions made prior to or following a change(s) onsite, including revisions to sections addressing site conditions and control measures, a notation must be included in the SWMP that identifies the date of the site change, the control measure removed, or modified, the location(s) of those control measures, and any changes to the control measure(s). The permittee must ensure the site changes are reflected in the SWMP. The permittee is noncompliant with the permit until the SWMP revisions have been made.

4. SWMP Availability

A copy of the SWMP must be provided upon request to the division, EPA, and any local agency with authority for approving sediment and erosion plans, grading plans or stormwater management plans within the time frame specified in the request. If the SWMP is required to be submitted to any of these entities, the submission must include a signed certification in accordance with Part I.A.3.e, certifying that the SWMP is complete and compliant with all terms and conditions of the permit.

All SWMPs required under this permit are considered reports that must be available to the public under Section 308(b) of the CWA and Section 61.5(4) of the CDPS regulations. The permittee must make plans available to members of the public upon request. However, the permittee may claim any portion of a SWMP as confidential in accordance with 40 CFR Part 2.

D. SITE INSPECTIONS

Site inspections must be conducted in accordance with the following requirements. The required inspection schedules are a minimum frequency and do not affect the permittee's responsibility to implement control measures in effective operating condition as prescribed in the SWMP, Part I.C.2.a.vi, as proper maintenance of control measures may require more frequent inspections. Site inspections shall start within 7 calendar days of the commencement of construction activities on site.

1. Person Responsible for Conducting Inspections

The person(s) inspecting the site may be on the permittee's staff or a third party hired to conduct stormwater inspections under the direction of the permittee(s). The permittee is responsible for ensuring that the inspector meets the definition of a Qualified Stormwater Manager. The inspector may be different than the individual(s) listed in Part I.C.2.a.i.

2. Inspection Frequency

Permittees must conduct site inspections in accordance with on the following minimum frequencies, unless the site meets the requirements of Part I.D.3. All inspections must be recorded per Part I.D.5.c.

a. At least one inspection every 7 calendar days; or

b. At least one inspection every 14 calendar days, if post-storm event inspections are conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Post-storm inspections may be used to fulfill the 14-day routine inspection requirement.

c. When site conditions make the schedule required in this section impractical, the permittee may

petition the division to grant an alternate inspection schedule. The alternative inspection schedule must not be implemented prior to written approval by the division and incorporation into the SWMP.

3. Inspection Frequency for Discharges to Outstanding Waters

Permittees must conduct site inspections at least once every 7 calendar days for sites that discharge to a water body designated as an Outstanding Water by the Water Quality Control Commission.

4. Reduced Inspection Frequency

The permittee may perform site inspections at the following reduced frequencies when one of the following conditions exists:

a. Post-Storm Inspections at Temporarily Idle Sites

For permittees choosing an inspection frequency pursuant to Part I.D.2.b and if no construction activities will occur following a storm event, post-storm event inspections must be conducted prior to re-commencing construction activities, and no later than 72 hours following the storm event. If the post-storm event inspection qualifies under this section, the inspection delay must be documented in the inspection record per Part I.D.5.c. Routine inspections must still be conducted at least every 14 calendar days.

b. Inspections at Completed Sites/Areas

When the site, or portions of a site, are awaiting establishment of a vegetative ground cover and final stabilization, the permittee must conduct a thorough inspection of the stormwater management system at least once every 30 days. Post-storm event inspections are not required under this schedule. This reduced inspection schedule is allowed if all of the following criteria are met:

i. All construction activities resulting in ground disturbance are complete;

ii. All activities required for final stabilization, in accordance with Part I.B.1.a.iii(b) & (c) and with the SWMP, have been completed, with the exception of the application of seed that has not occurred due to seasonal conditions or the necessity for additional seed application to augment previous efforts; and

iii. The SWMP has been amended to locate those areas to be inspected in accordance with the reduced schedule allowed for in this paragraph.

c. Winter Conditions Inspections Exclusion

Inspections are not required for sites that meet all of the following conditions: construction activities are temporarily halted, snow cover exists over the entire site for an extended period, and melting conditions posing a risk of surface erosion do not exist. This inspection exception is applicable only during the period where melting conditions do not exist, and applies to the routine 7-day, 14-day and monthly inspections, as well as the post-storm-event inspections. When this inspection exclusion is implemented, the following information must be documented in accordance with the requirements in Part I.C.3 and Part I.D.5.c:

i. Dates when snow cover existed;

ii. Date when construction activities ceased; and

iii. Date melting conditions began.

5. Inspection Scope

a. Areas to Be Inspected

When conducting a site inspection the following areas, if applicable, must be inspected for evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system or discharging to state waters:

i. Construction site perimeter;

ii. All disturbed areas;

iii. Locations of installed control measures;

iv. Designated haul routes;

v. Material and waste storage areas exposed to precipitation;

vi. Locations where stormwater has the potential to discharge offsite; and

vii. Locations where vehicles exit the site.

b. Inspection Requirements

i. Visually verify whether all implemented control measures are in effective operational condition and are working as designed in their specifications to minimize pollutant discharges.

ii. Determine if there are new potential sources of pollutants.

iii. Assess the adequacy of control measures at the site to identify areas requiring new or modified control measures to minimize pollutant discharges.

iv. Identify all areas of non-compliance with the permit requirements and, if necessary, implement corrective action(s) in accordance with Part I.B.1.c.

c. Inspection Reports

The permittee must keep a record of all inspections conducted for each permitted site. Inspection reports must identify any incidents of noncompliance with the terms and conditions of this permit. All inspection reports must be signed and dated in accordance with Part I.A.3.f. Inspection records must be retained in accordance with Part II.O. At a minimum, the inspection report must include:

i. The inspection date;

ii. Name(s) and title(s) of personnel conducting the inspection;

iii. Weather conditions at the time of inspection;

iv. Phase of construction at the time of inspection;

v. Estimated acreage of disturbance at the time of inspection;

vi. Location(s) and identification of control measures requiring routine maintenance;

vii. Location(s) and identification of discharges of sediment or other pollutants from the site;

viii. Location(s) and identification of inadequate control measures;

ix. Location(s) and identification of additional control measures needed that were not in place at the time of inspection;

x. Description of corrective action(s) for items vii, viii, ix, above, dates corrective action(s) were completed, including requisite changes to the SWMP, as necessary;

xi. Description of the minimum inspection frequency (either in accordance with Part I.D.2, Part I.D.3 or Part I.D.4.) utilized when conducting each inspection.

xii. Deviations from the minimum inspection schedule as required in Part I.D.2. This would include documentation of division approval for an alternate inspection schedule outlined in Part I.D.2.c;

xiii. After adequate corrective action(s) have been taken, or where a report does not identify any incidents requiring corrective action, the report shall contain a statement as required in Part I.A.3.f.

E. DEFINITIONS

For the purposes of this permit:

(1) Bypass the intentional diversion of waste streams from any portion of a treatment facility in accordance with 40 CFR 122.41(m)(1)(i) and Regulation 61.2(12).

(2) Common Plan of Development or Sale - A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules, but remain related. The division has determined that "contiguous" means construction activities located in close proximity to each other (within ¼ mile). Construction activities are considered to be "related" if they share the same development plan, builder or contractor, equipment, storage areas, etc. "Common plan of development or sale" includes construction activities that are associated with the construction of field wide oil and gas permits for facilities that are related.

(3) Construction Activity - Ground surface disturbing and associated activities (land disturbance), which include, but are not limited to, clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas. Construction does not include routine maintenance to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. Activities to conduct repairs that are not part of routine maintenance or for replacement are construction activities and are not routine maintenance. Repaving activities where underlying and/or surrounding soil is exposed as part of the repaving operation are considered construction activities. Construction activity is from initial ground breaking to final stabilization regardless of ownership of the construction activities.

(4) Control Measure - Any best management practice or other method used to prevent or reduce the discharge of pollutants to state waters. Control measures include, but are not limited to, best management practices. Control measures can include other methods such as the installation, operation, and maintenance of structural controls and treatment devices.

(5) Control Measure Requiring Routine Maintenance - Any control measure that is still operating in accordance with its design and the requirements of this permit, but requires maintenance to prevent a breach of the control measure. See also inadequate control measure.

(6) Dedicated Asphalt, Concrete Batch Plants and Masonry Mixing Stations - Are batch plants or mixing stations located on, or within ¼ mile of, a construction site and that provide materials only to that specific construction site.

(7) Diversion - Discharges of state waters that are temporarily routed through channels or structures (e.g. in-stream, uncontaminated springs, non-pumped groundwater, temporary rerouting of surface waters).

(8) Final Stabilization - The condition reached when construction activities at the site have been

completed, permanent stabilization methods are complete, and temporary control measures are removed. Areas being stabilized with a vegetative cover must have evenly distributed perennial vegetation. The vegetation coverage must be, at a minimum, equal to 70 percent of what would have been provided by native vegetation in a local, undisturbed area or adequate reference site.

(9) Good Engineering, Hydrologic and Pollution Control Practices: are methods, procedures, and practices that:

a. Are based on basic scientific fact(s).

b. Reflect best industry practices and standards.

c. Are appropriate for the conditions and pollutant sources.

d. Provide appropriate solutions to meet the associated permit requirements, including practice based effluent limits.

(10) Inadequate Control Measure - Any control measure that is not designed or implemented in accordance with the requirements of the permit and/or any control measure that is not implemented to operate in accordance with its design. See also Control Measure Requiring Routine Maintenance.

(11) Infeasible – Not technologically possible, or not economically practicable and achievable in light of best industry practices.

(12) Minimize - reduce or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice.

(13) Municipality - A city, town, county, district, association, or other public body created by, or under, State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or a designated and approved management agency under section 208 of CWA (1987).

(14) Municipal Separate Storm Sewer System (MS4) - A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

a. Owned or operated by a State, city, town, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to state waters;

i. Designed or used for collecting or conveying stormwater;

ii. Are not a combined sewer; and

iii. Are not part of a Publicly Owned Treatment Works (POTW). See 5 CCR 1002-61.2(62).

(15) Municipal Stormwater Management Program - A stormwater program operated by a municipality, typically to meet the requirements of the municipalities MS4 discharge certification.

(16) Operator - The party that has operational control over day-to-day activities at a project site which are necessary to ensure compliance with the permit. This party is authorized to direct individuals at a site to carry out activities required by the permit (i.e. the general contractor).

(17) Outstanding Waters - Waters designated as outstanding waters pursuant to Regulation 31, Section 31.8(2)(a). The highest level of water quality protection applies to certain waters that constitute an outstanding state or national resource.

(18) Owner - The party that has overall control of the activities and that has funded the implementation of the construction plans and specifications. This is the party that may have ownership of, a long term lease of, or easements on the property on which the construction activity is occurring (e.g. the developer).

(19) Permittee(s) - The owner and operator named in the discharge certification issued under this permit for the construction site specified in the certification.

(20) Point Source - Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. Point source does not include irrigation return flow. See 5 CCR 102-61.2(75).

(21) Pollutant - Dredged spoil, dirt, slurry, solid waste, incinerator residue, sewage, sewage sludge, garbage, trash, chemical waste, biological nutrient, biological material, radioactive material, heat, wrecked or discarded equipment, rock, sand, or any industrial, municipal or agricultural waste. See 5 CCR 1002-61.2(76).

(22) Presentation of credentials – a government issued form of identification, if in person; or (ii) providing name, position and purpose of inspection if request to enter is made via telephone, email or other form of electronic communication. A Permittee's non-response to a request to enter upon presentation of credentials constitutes a denial to such request, and may result in violation of the Permit.

(23) Process Water - Any water which, during manufacturing or processing, comes into contact with or results from the production of any raw material, intermediate product, finished product, by product or waste product.

(24) Public Emergency Related Site - a project initiated in response to an unanticipated emergency (e.g., mud slides, earthquake, extreme flooding conditions, disruption in essential public services), for which the related work requires immediate authorization to avoid imminent endangerment to human health or the environment, or to reestablish essential public services.

(25) Qualified Stormwater Manager - An individual knowledgeable in the principles and practices of erosion and sediment control and pollution prevention, and with the skills to assess conditions at construction sites that could impact stormwater quality and to assess the effectiveness of stormwater controls implemented to meet the requirements of this permit.

(26) Qualifying Local Program - A municipal program for stormwater discharges associated with small construction activity that was formally approved by the division as a qualifying local program.

(27) Receiving Water - Any classified or unclassified surface water segment (including tributaries) in the State of Colorado into which stormwater associated with construction activities discharges. This definition includes all water courses, even if they are usually dry, such as borrow ditches, arroyos, and other unnamed waterways.

(28) Severe Property Damage - substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. See 40 CFR 122.41(m)(1)(ii).

(29) Significant Materials - Include, but not limited to, raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in

food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the permittee is required to report under section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.

(30) Small Construction Activity - The discharge of stormwater from construction activities that result in land disturbance of equal to, or greater than, one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale, if the larger common plan ultimately disturbs equal to, or greater than, one acre and less than five acres.

(31) Spill - An unintentional release of solid or liquid material which may pollute state waters.

(32) State Waters - means any and all surface and subsurface waters which are contained in or flow in or through this state, but does not include waters in sewage systems, waters in treatment works of disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed.

(33) Steep Slopes: where a local government, or industry technical manual (e.g. stormwater BMP manual) has defined what is to be considered a "steep slope", this permit's definition automatically adopts that definition. Where no such definition exists, steep slopes are automatically defined as those that are 3:1 or greater.

(34) Stormwater - Precipitation runoff, snow melt runoff, and surface runoff and drainage. See 5 CCR 1002-61.2(103).

(35) Total Maximum Daily Loads (TMDLs) -The sum of the individual wasteload allocations (WLA) for point sources and load allocations (LA) for nonpoint sources and natural background. For the purposes of this permit, a TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes WLAs, LAs, and must include a margin of safety (MOS), and account for seasonal variations. See section 303(d) of the CWA and 40 C.F.R. 130.2 and 130.7.

(36) Upset - an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation in accordance with 40 CFR 122.41(n) and Regulation 61.2(114).

F. MONITORING

The division may require sampling and testing, on a case-by-case basis. If the division requires sampling and testing, the division will send a notification to the permittee. Reporting procedures for any monitoring data collected will be included in the notification.

If monitoring is required, the following applies:

1. The thirty (30) day average must be determined by the arithmetic mean of all samples collected during a thirty (30) consecutive-day period; and

2. A grab sample, for monitoring requirements, is a single "dip and take" sample.

G. OIL AND GAS CONSTRUCTION

Stormwater discharges associated with construction activities directly related to oil and gas exploration, production, processing, and treatment operations or transmission facilities are regulated under the Colorado Discharge Permit System Regulations (5 CCR 1002-61), and require coverage under this permit in accordance with that regulation. However, references in this permit to specific authority under the CWA do not apply to

stormwater discharges associated with these oil and gas related construction activities, to the extent that the references are limited by the federal Energy Policy Act of 2005.

Part II: Standard Permit Conditions

A. DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Water Quality Control Act and is grounds for:

1. Enforcement action;

2. Permit termination, revocation and reissuance, or modification; or

3. Denial of a permit renewal application.

B. DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain authorization as required by Part I.A.3.k. of the permit.

C. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. DUTY TO MITIGATE

A permittee must take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. PROPER OPERATION AND MAINTENANCE

A permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit. This requirement can be met by meeting the requirements for Part I.B., I.C., and I.D. above. See also 40 C.F.R. § 122.41(e).

F. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause. The permittee request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. Any request for modification, revocation, reissuance, or termination under this permit must comply with all terms and conditions of Regulation 61.8(8).

G. PROPERTY RIGHTS

In accordance with 40 CFR 122.41(g) and 5 CCR 1002-61, 61.8(9):

1. The issuance of a permit does not convey any property or water rights in either real or personal property, or stream flows or any exclusive privilege.

2. The issuance of a permit does not authorize any injury to person or property or any invasion of personal rights, nor does it authorize the infringement of federal, state, or local laws or regulations.

3. Except for any toxic effluent standard or prohibition imposed under Section 307 of the Federal act or any standard for sewage sludge use or disposal under Section 405(d) of the Federal act, compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Sections 301,

302, 306, 318, 403, and 405(a) and (b) of the Federal act. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in Section 61.8(8) of the Colorado Discharge Permit System Regulations.

H. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the division, within a reasonable time, any information which the division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the division, upon request, copies of records required to be kept by this permit in accordance with 40 CFR 122.41(h) and/or Regulation 61.8(3)(q).

I. INSPECTION AND ENTRY

The permittee shall allow the division and the authorized representative, upon the presentation of credentials as required by law, to allow for inspections to be conducted in accordance with 40 CFR 122.41(i), Regulation 61.8(3), and Regulation 61.8(4):

1. To enter upon the permittee's premises where a regulated facility or activity is located or in which any records are required to be kept under the terms and conditions of this permit;

2. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit;

3. At reasonable times, inspect any monitoring equipment or monitoring method required in the permit; and

4. To enter upon the permittee's premises in a reasonable manner and at a reasonable time to inspect or investigate, any actual, suspected, or potential source of water pollution, or any violation of the Colorado Water Quality Control Act. The investigation may include: sampling of any discharges, stormwater or process water, taking of photographs, interviewing site staff on alleged violations and other matters related to the permit, and assessing any and all facilities or areas within the site that may affect discharges, the permit, or an alleged violation.

   The permittee shall provide access to the division or other authorized representatives upon presentation of proper credentials. A permittee's non-response to a request to enter upon presentation of credentials constitutes a denial of such request, and may result in a violation of the permit.

J. MONITORING AND RECORDS

1. Samples and measurements taken for the purpose of monitoring must be representative of the volume and nature of the monitored activity.

2. The permittee must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date the permit expires or the date the permittee's authorization is terminated. This period may be extended by request of the division at any time.

3. Records of monitoring information must include:

   a. The date, exact place, and time of sampling or measurements;

   b. The individual(s) who performed the sampling or measurements;

   c. The date(s) analyses were performed

d. The individual(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

4. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.

K. SIGNATORY REQUIREMENTS

1. Authorization to Sign:

All documents required to be submitted to the division by the permit must be signed in accordance with the following criteria:

a. For a corporation: by a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means:

i. A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or

ii. The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes

i. The chief executive officer of the agency, or

ii. A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency. (e.g. Regional Administrator of EPA)

2. Electronic Signatures

For persons signing applications for coverage under this permit electronically, in addition to meeting other applicable requirements stated above, such signatures must meet the same signature, authentication, and identity-proofing standards set forth at 40 CFR § 3.2000(b) for electronic reports (including robust second-factor authentication). Compliance with this requirement can be achieved by submitting the application using the Colorado Environmental Online Service (CEOS) system.

3. Change in Authorization to Sign

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the division, prior to the re-authorization, or together with any reports, information, or applications to be signed by an authorized representative.

L. REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall give advance notice to the division, in writing, of any planned physical alterations or additions to the permitted facility in accordance with 40 CFR 122.41(l) and Regulation 61.8(5)(a). Notice is required only when:

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.41(a)(1).

2. Anticipated Non-Compliance

The permittee shall give advance notice to the division, in writing, of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements. The timing of notification requirements differs based on the type of non-compliance as described in subparagraphs 5, 6, 7, and 8 below.

3. Transfer of Ownership or Control

The permittee shall notify the division, in writing, ten (10) calendar days in advance of a proposed transfer of the permit. This permit is not transferable to any person except after notice is given to the division.

a. Where a facility wants to change the name of the permittee, the original permittee (the first owner or operators) must submit a Notice of Termination.

b. The new owner or operator must submit an application. See also signature requirements in Part II.K, above.

c. A permit may be automatically transferred to a new permittee if:

i. The current permittee notifies the division in writing 30 calendar days in advance of the proposed transfer date; and

ii. The notice includes a written agreement between the existing and new permittee(s) containing a specific date for transfer of permit responsibility, coverage and liability between them; and

iii. The division does not notify the existing permittee and the proposed new permittee of its intent to modify, or revoke and reissue the permit.

iv. Fee requirements of the Colorado Discharge Permit System Regulations, Section 61.15, have been met.

4. Monitoring reports

Monitoring results must be reported at the intervals specified in this permit per the requirements of 40 CFR 122.41(l)(4).

5. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule in the permit, shall be submitted on the date listed

in the compliance schedule section. The fourteen (14) calendar day provision in Regulation 61.8(4)(n)(i) has been incorporated into the due date.

6. Twenty-four Hour Reporting

In addition to the reports required elsewhere in this permit, the permittee shall report the following circumstances orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances, and shall mail to the division a written report containing the information requested within five (5) working days after becoming aware of the following circumstances:

a. Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident;

b. Circumstances leading to any unanticipated bypass which exceeds any effluent limitations in the permit;

c. Circumstances leading to any upset which causes an exceedance of any effluent limitation in the permit;

d. Daily maximum violations for any of the pollutants limited by Part I of this permit. This includes any toxic pollutant or hazardous substance or any pollutant specifically identified as the method to control any toxic pollutant or hazardous substance.

e. The division may waive the written report required under subparagraph 6 of this section if the oral report has been received within 24 hours.

7. Other Non-Compliance

A permittee must report all instances of noncompliance at the time monitoring reports are due. If no monitoring reports are required, these reports are due at least annually in accordance with Regulation 61.8(4)(p). The annual report must contain all instances of non-compliance required under either subparagraph 5 or subparagraph 6 of this subsection.

8. Other Information

Where a permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Permitting Authority, it has a duty to promptly submit such facts or information.

M. BYPASS

1. Bypass Not Exceeding Limitations

The permittees may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Part II.M.2 of this permit. See 40 CFR 122.41(m)(2).

2. Notice of Bypass

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, the permittee must submit prior notice, if possible at least ten days before the date of the bypass. ee 40 CFR §122.41(m)(3)(i) and/or Regulation 61.9(5)(c).

b. Unanticipated bypass. The permittee must submit notice of an unanticipated bypass in accordance with Part II.L.6. See 40 CFR §122.41(m)(3)(ii).

3. Prohibition of Bypass

Bypasses are prohibited and the division may take enforcement action against the permittee for bypass, unless:

a. The bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. Proper notices were submitted to the division.

N. UPSET

1. Effect of an upset

An upset constitutes an affirmative defense to an action brought for noncompliance with permit effluent limitations if the requirements of Part II.N.2. of this permit are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review in accordance with Regulation 61.8(3)(j).

2. Conditions Necessary for Demonstration of an Upset

A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and the permittee can identify the specific cause(s) of the upset;

b. The permitted facility was at the time being properly operated and maintained; and

c. The permittee submitted proper notice of the upset as required in Part II.L.6.(24- hour notice); and

d. The permittee complied with any remedial measure necessary to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition to the demonstration required above, a permittee who wishes to establish the affirmative defense of upset for a violation of effluent limitations based upon water quality standards shall also demonstrate through monitoring, modeling or other methods that the relevant standards were achieved in the receiving water.

3. Burden of Proof

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

O. RETENTION OF RECORDS

1. Post-Expiration or Termination Retention

Copies of documentation required by this permit, including records of all data used to complete the application for permit coverage to be covered by this permit, must be retained for at least three years from the date that permit coverage expires or is terminated. This period may be extended by request of EPA at any time.

2. On-site Retention

The permittee must retain an electronic version or hardcopy of the SWMP at the construction site from

the date of the initiation of construction activities to the date of expiration or inactivation of permit coverage; unless another location, specified by the permittee, is approved by the division.

P. REOPENER CLAUSE

1. Procedures for Modification or Revocation

   Permit modification or revocation of this permit or coverage under this permit will be conducted according to Regulation 61.8(8).

2. Water Quality Protection

   If there is evidence indicating that the stormwater discharges authorized by this permit cause, have the reasonable potential to cause or contribute to an excursion above any applicable water quality standard, the permittee may be required to obtain an individual permit, or the permit may be modified to include different limitations and/or requirements.

Q. SEVERABILITY

The provisions of this permit are severable. If any provisions or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances and the application of the remainder of this permit shall not be affected.

R. NOTIFICATION REQUIREMENTS

1. Notification to Parties

   All notification requirements, excluding information submitted using the CEOS portal, shall be directed as follows:

   a. Oral Notifications, during normal business hours shall be to:
      Clean Water Compliance Section
      Water Quality Control Division
      Telephone: (303) 692-3500

   b. Written notification shall be to:
      Clean Water Compliance Section
      Water Quality Control Division
      Colorado Department of Public Health and Environment
      WQCD-WQP-B2
      4300 Cherry Creek Drive South
      Denver, CO 80246-1530

S. RESPONSIBILITIES

1. Reduction, Loss, or Failure of Treatment Facility

   The permittee has the duty to halt or reduce any activity if necessary to maintain compliance with the effluent limitations of the permit. It shall not be a defense for a permittee in an enforcement action that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

T. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 (Oil and Hazardous Substance Liability) of the CWA.

U. EMERGENCY POWERS

Nothing in this permit shall be construed to prevent or limit application of any emergency power of the division.

V. CONFIDENTIALITY

Any information relating to any secret process, method of manufacture or production, or sales or marketing data which has been declared confidential by the permittee, and which may be acquired, ascertained, or discovered, whether in any sampling investigation, emergency investigation, or otherwise, shall not be publicly disclosed by any member, officer, or employee of the Water Quality Control Commission or the division, but shall be kept confidential. Any person seeking to invoke the protection of this section shall bear the burden of proving its applicability. This section shall never be interpreted as preventing full disclosure of effluent data.

W. FEES

The permittee is required to submit payment of an annual fee as set forth in the 2016 amendments to the Water Quality Control Act. Section 25-8-502 (1.1) (b), and the Colorado Discharge Permit System Regulations 5 CCR 1002-61, Section 61.15 as amended. Failure to submit the required fee when due and payable is a violation of the permit and will result in enforcement action pursuant to Section 25-8-601 et. seq., C.R.S.1973 as amended.

X. DURATION OF PERMIT

The duration of a permit shall be for a fixed term and shall not exceed five (5) years. If the permittee desires to continue to discharge, a permit renewal application shall be submitted at least ninety (90) calendar days before this permit expires. Filing of a timely and complete application shall cause the expired permit to continue in force to the effective date of the new permit. The permit's duration may be extended only through administrative extensions and not through interim modifications. If the permittee anticipates there will be no discharge after the expiration date of this permit, the division should be promptly notified so that it can terminate the permit in accordance with Part I.A.3.i.

Y. SECTION 307 TOXICS

If a toxic effluent standard or prohibition, including any applicable schedule of compliance specified, is established by regulation pursuant to Section 307 of the Federal Act for a toxic pollutant which is present in the permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in the discharge permit, the division shall institute proceedings to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition

TAB 12

APPENDIX C: MISCELLANEOUS; DOCUMENTED USE AGREEMENT, DRAINAGE REPORT

TAB 13

APPENDIX D: AMENDMENT LOG



SWMP Amendment Log				
Amendment #	**SWMP Ref. Section**	**Description of Amendment**	**Date of Amendment**	**Prepared by**

TAB 14

APPENDIX E: SITE-SPECIFIC MAPS

TAB 15

APPENDIX F: SOILS REPORT

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Mesa County Area, Colorado

Grand Junction Fire Department Station 3



January 20, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface 2
Soil Map 5
Soil Map 6
Legend 7
Map Unit Legend 8
Map Unit Descriptions 8
Mesa County Area, Colorado 10
Bc—Sagers silty clay loam, 0 to 2 percent slopes 10
Soil Information for All Uses 11
Soil Properties and Qualities 11
Soil Erosion Factors 11
K Factor, Whole Soil 11
Wind Erodibility Group 15
Soil Qualities and Features 19
Hydrologic Soil Group 19
References 23

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



Map Scale: 1:592 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 5 10 20 30

Feet
0 25 50 100 150

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Mesa County Area, Colorado
Survey Area Data: Version 11, Jun 8, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 13, 2010—Aug 8, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Bc	Sagers silty clay loam, 0 to 2 percent slopes	1.4	100.0%
Totals for Area of Interest		1.4	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Mesa County Area, Colorado

Bc—Sagers silty clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: k0bq
Elevation: 4,490 to 5,900 feet
Mean annual precipitation: 6 to 9 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 140 to 180 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Sagers and similar soils: 90 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sagers

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear, concave
Across-slope shape: Linear
Parent material: Cretaceous source alluvium derived from sandstone and shale

Typical profile

Ap - 0 to 12 inches: silty clay loam
C - 12 to 25 inches: silty clay loam
Cy - 25 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.21 to 0.71 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Gypsum, maximum content: 5 percent
Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Available water capacity: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: C
Ecological site: R034BY106UT - Desert Loam (Shadscale)
Hydric soil rating: No

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Erosion Factors

Soil Erosion Factors are soil properties and interpretations used in evaluating the soil for potential erosion. Example soil erosion factors can include K factor for the whole soil or on a rock free basis, T factor, wind erodibility group and wind erodibility index.

K Factor, Whole Soil

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

"Erosion factor Kw (whole soil)" indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.



Map Scale: 1:592 if printed on A portrait (8.5" x 11") sheet.

N

0 5 10 20 30 Meters

0 25 50 100 150 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- .02
- .05
- .10
- .15
- .17
- .20
- .24
- .28
- .32
- .37
- .43
- .49
- .55
- .64
- Not rated or not available

Soil Rating Lines
- .02
- .05
- .10
- .15
- .17
- .20
- .24
- .28
- .32
- .37
- .43
- .49
- .55
- .64
- Not rated or not available

Soil Rating Points
- .02
- .05
- .10
- .15
- .17
- .20
- .24
- .28
- .32
- .37
- .43
- .49
- .55
- .64
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Mesa County Area, Colorado
Survey Area Data: Version 11, Jun 8, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 13, 2010—Aug 8, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—K Factor, Whole Soil

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Bc	Sagers silty clay loam, 0 to 2 percent slopes	.43	1.4	100.0%
Totals for Area of Interest			**1.4**	**100.0%**

Rating Options—K Factor, Whole Soil

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Layer Options (Horizon Aggregation Method): Surface Layer (Not applicable)

For an attribute of a soil horizon, a depth qualification must be specified. In most cases it is probably most appropriate to specify a fixed depth range, either in centimeters or inches. The Bottom Depth must be greater than the Top Depth, and the Top Depth can be greater than zero. The choice of "inches" or "centimeters" only applies to the depth of soil to be evaluated. It has no influence on the units of measure the data are presented in.

When "Surface Layer" is specified as the depth qualifier, only the surface layer or horizon is considered when deriving a value for a component, but keep in mind that the thickness of the surface layer varies from component to component.

When "All Layers" is specified as the depth qualifier, all layers recorded for a component are considered when deriving the value for that component.

Whenever more than one layer or horizon is considered when deriving a value for a component, and the attribute being aggregated is a numeric attribute, a weighted average value is returned, where the weighting factor is the layer or horizon thickness.

Wind Erodibility Group

A wind erodibility group (WEG) consists of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible.



Map Scale: 1:592 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 5 10 20 30

Feet
0 25 50 100 150

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

1
2
3
4
4L
5
6
7
8
Not rated or not available

Soil Rating Lines

1
2
3
4
4L
5
6
7
8
Not rated or not available

Soil Rating Points

1
2
3
4
4L
5
6
7
8
Not rated or not available

Water Features

Streams and Canals

Transportation

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Mesa County Area, Colorado
Survey Area Data: Version 11, Jun 8, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 13, 2010—Aug 8, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Wind Erodibility Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Bc	Sagers silty clay loam, 0 to 2 percent slopes	4L	1.4	100.0%
Totals for Area of Interest			1.4	100.0%

Rating Options—Wind Erodibility Group

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Lower

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.



Map Scale: 1:592 if printed on A portrait (8.5" x 11") sheet.

Meters: 0 5 10 20 30

Feet: 0 25 50 100 150

N

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Mesa County Area, Colorado
Survey Area Data: Version 11, Jun 8, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 13, 2010—Aug 8, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Bc	Sagers silty clay loam, 0 to 2 percent slopes	C	1.4	100.0%
Totals for Area of Interest			1.4	100.0%

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf


FIRE
GRAND JUNCTION
COLORADO
EST. 1889

4. Contractor's Bid Form

Bid Date: 4/1/2021

Project: IFB-4889-21-DH "Grand Junction Fire Department Fire Station #3 Construction"

Bidding Company: FCI Constructors, Inc

Name of Authorized Agent: Shane Haas

Email shaas@fciol.com

Telephone 970-434-9093 **Address** PO Box 1767

City Grand Junction **State** CO **Zip** 81502

The undersigned Bidder, in compliance with the Invitation for Bids, having examined the Instruction to Bidders, General Contract Conditions, Statement of Work, Specifications, and any and all Addenda thereto, having investigated the location of, and conditions affecting the proposed work, hereby proposes to furnish all labor, materials and supplies, and to perform all work for the Project in accordance with Contract Documents, within the time set forth and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the Contract Documents, of which this Contractor's Bid Form is a part.

The undersigned Contractor does hereby declare and stipulate that this offer is made in good faith without collusion or connection to any person(s) providing an offer for the same work, and that it is made in pursuance of, and subject to, all terms and conditions of the Instructions to Bidders, the Specifications, and all other Solicitation Documents, all of which have been examined by the undersigned.

The Contractor also agrees that if awarded the Contract, to provide insurance certificates within ten (10) working days of the date of Notification of Award. Submittal of this offer will be taken by the Owner as a binding covenant that the Contractor will be prepared to complete the project in its entirety.

The Owner reserves the right to make the award on the basis of the offer deemed most favorable, to waive any formalities or technicalities and to reject any or all offers. It is further agreed that this offer may not be withdrawn for a period of sixty (60) calendar days after closing time. Submission of clarifications and revised offers automatically establish a new thirty day (30) period.

Prices in the bid proposal have not knowingly been disclosed with another provider and will not be prior to award.

- Prices in this bid proposal have been arrived at independently, without consultation, communication or agreement for the purpose of restricting competition.
- No attempt has been made nor will be to induce any other person or firm to submit a bid proposal for the purpose of restricting competition.
- The individual signing this bid proposal certifies they are a legal agent of the offeror, authorized to represent the offeror and is legally responsible for the offer with regard to supporting documentation and prices provided.
- Direct purchases by the City of Grand Junction are tax exempt from Colorado Sales or Use Tax. Tax exempt No. 98-03544. The undersigned certifies that no Federal, State, County or Municipal tax will be added to the above quoted prices.
- City of Grand Junction payment terms shall be Net 30 days.
- Prompt payment discount of 0% percent of the net dollar will be offered to the Owner if the invoice is paid within n/a days after the receipt of the invoice. The Owner reserves the right to take into account any such discounts when determining the bid award.

RECEIPT OF ADDENDA: the undersigned Contractor acknowledges receipt of Addenda to the Solicitation, Specifications, and other Contract Documents.

State number of Addenda received: 1, 2, 3, 4, 5, 6, 7, 8

It is the responsibility of the Bidder to ensure all Addenda have been received and acknowledged.

By signing below, the Undersigned agree to comply with all terms and conditions contained herein.

Company: FCI Constructors, Inc

Authorized Signature: 

Title: President

Bid Schedule: Grand Junction Fire Department - Fire Station #3 Construction (Addendum #7)

Item No.	Division No.	Description	Quantity	Units	Unit Price	Total Price
1	01	General Conditions (Bond fees, Permits, Supervision, Sanitary Facility, Construction Surveying, QC Materials Testing, Traffic Control, Etc.)	Lump	Sum	---	$ 549,054.85
2	02	Existing Conditions - Removal of Asphalt	4,700.	SY	$ 3.58	$ 16,826.00
3	02	Existing Conditions - Removal of Concrete Flatwork	310.	SY	$ 9.85	$ 3,053.50
4	02	Existing Conditions - Removal of Concrete Curb & Gutter (On Site)	865.	LF	$ 3.25	$ 2,811.25
5	02	Existing Conditions - Removal of Concrete Curb & Gutter (25 1/2 Road)	155.	LF	$ 5.82	$ 902.10
6	02	Existing Conditions - Removal of Fence	285.	LF	$ 3.36	$ 957.60
7	02	Existing Conditions - Removal of Tree	4.	Each	$ 509.34	$ 2,037.36
8	02	Existing Conditions - Manhole/Utility Rim Adjustments	Lump	Sum	---	$ 375.01
9	03	Concrete	Lump	Sum	---	$ 201,856.55
10	04	Masonry	Lump	Sum	---	$ 281,921.91
11	05	Metals	Lump	Sum	---	$ 289,267.64
12	06	Wood, Plastics, and Composites	Lump	Sum	---	$ 437,554.74
13	07	Thermal and Moisture Protection	Lump	Sum	---	$ 386,647.87
14	08	Openings	Lump	Sum	---	$ 184,962.03
15	09	Finishes	Lump	Sum	---	$ 222,364.69
16	10	Specialties	Lump	Sum	---	$ 14,898.18
17	11	Equipment (Appliances)	Lump	Sum	---	$ 60,013.55
18	12	Furnishings	Lump	Sum	---	$ 16,194.87
19	21	Fire Suppression	Lump	Sum	---	$ 41,978.82
20	22	Plumbing	Lump	Sum	---	$ 165,474.91
21	23	Heating, Ventilating, and Air-Conditioning (HVAC)	Lump	Sum	---	$ 296,650.32
22	26	Electrical	Lump	Sum	---	$ 416,855.27
23	27	Communications	Lump	Sum	---	$ 36,906.66
24	28	Electronic Safety and Security	Lump	Sum	---	$ 29,709.81
25	31	Earthwork - Site Clearing	Lump	Sum	---	$ 3,453.46
26	31	Earthwork - Subgrade Reconditioning (12-inch Depth)	3,110.	SY	$ 13.12	$ 40,803.20
27	31	Earthwork - Subgrade Stabilization (24-inch Over Excavation and Replacement with Pit Run or Approved Equal, includes haul off of unuseable material)	3,110.	SY	$ 48.79	$ 151,736.90
28	31	Earthwork - Geotextile (Tensar BX1200 or Approved Equal, Contractor to consider overlapping)	3,110.	SY	$ 3.58	$ 11,133.80
29	31	Earthwork - Erosion Control (Inlet Protection, Perimeter Control, Vehicle Tracking Pad, Concrete Washout Structure)	Lump	Sum	$ 37,815.64	$ 37,815.64
30	31	Earthwork - Concrete Filled Steel Pipe Piles	Lump	Sum	$ 218,802.00	$ 218,802.00

Bid Schedule: Grand Junction Fire Department - Fire Station #3 Construction (Addendum #7)

Item No.	Division No.	Description	Quantity	Units	Unit Price	Total Price
31	32	Exterior Improvements - 7 inches Class VI Base Under Auto Parking Asphalt (Moisture Conditioned and Compacted)	377.	SY	$ 9.07	$ 3,419.39
32	32	Exterior Improvements - 14 inches Class VI Base Under Truck Traffic Aspahlt Pavement (Mositure Conditioned and Compacted)	1,330.	SY	$ 16.90	$ 22,477.00
33	32	Exterior Improvements - Asphalt Paving (4-inch HMA, GR SX, Binder 64-22, 75 GY)	1,706.	SY	$ 28.22	$ 48,143.32
34	32	Exterior Improvements - Asphalt Patching (25 1/2 Road Asphalt Patch, Per City Standards, Match Existing Conditions & Asphalt Patch Around Trash Enclosure)	140.	SY	$ 124.83	$ 17,476.20
35	32	Exterior Improvements - 4-Inch-Thick Concrete Flatwork, Includes 6 inches Class VI ABC (Portion Includes Turned Down Edge) & Concrete Ramps Along 25 1/2 Road	355.	SY	$ 64.11	$ 22,759.05
36	32	Exterior Improvements - 8-Inch-Thick Concrete Flatwork, Includes 6 inches Class VI ABC & #4 Rebar, 16" Cntrs, E.W. (Includes Dumpster Enclosure Pad)	842.	SY	$ 100.72	$ 84,806.24
37	32	Exterior Improvements - 8-Inch-Thick Concrete Flatwork, Includes 6 inches Class VI ABC & #4 Rebar, 16" Cntrs, E.W. (25 1/2 Road Driveway Aprons)	232.	SY	$ 119.53	$ 27,730.96
38	32	Exterior Improvements - 8-Inch-Thick Concrete Transformer Pad, Includes 6 inches Class VI ABC	8.	SY	$ 132.09	$ 1,056.72
39	32	Exterior Improvements - 6-Inch-Thick Concrete Valley Pan, Includes 6 inches Class VI ABC	21.	SY	$ 136.14	$ 2,858.94
40	32	Exterior Improvements - 1'-6" Concrete Curb and Gutter, Includes 6 inches Class VI ABC (Catch or Spill) (Includes C/G Replacement along 25 1/2 Road Sidewalk)	868.	LF	$ 32.10	$ 27,862.80
41	32	Exterior Improvements - 6"(w) x 18"(h) Ribbon Curb, Includes 6" Class VI ABC	67.	LF	$ 11.77	$ 788.59
42	32	Exterior Improvements - Parking Lot Accessories (Striping, Signs, ADA Detectable Warning Strips, Flag Pole w/ Accessories, Irrigation Sleeving, Water Quality Rip-Rap)	Lump Sum		---	$ 62,152.78
43	32	Exterior Improvements - Landscaping (including irrigation, soil prep, turf, and plants)	Lump Sum		---	$ 106,186.26
44	33	Utilities (Water, Sanitary and Drainage System)	Lump Sum		---	$ 128,825.14
MCR		MINOR CONTRACT REVISIONS	---	---	---	$ 350,000.00

Bid Amount: $ 5,029,563.88

Bid Amount:

FIVE MILLION, TWENTY NINE THOUSAND, FIVE HUNDRED, SIXTY-THREE **dollars** 88/100

Bid Schedule: Grand Junction Fire Department - Fire Station #3 Construction (Bid Alternate #1 - Item #30A)

Item No.	Division No.	Description	Quantity	Units	Unit Price	Total Price
30A	31	Earthwork - Rotary Driven Pipe Piles (Screw Piles)	Lump	Sum	---	$ 247,112.65

NOTE: NOTE: Do not include pricing for this Bid Alternate #1 when calculating your Base Bid total price. This Bid Alternate request is for the option of the City to select an alternate method to Item #30 of the Base Bid Price Schedule. Lowest bidder shall be determined by comparing all Base Bid price proposals received against that of all Bid Alternate #1 price proposals received, and shall be awarded to the overall lowest total bid price.

Bid Alternate #1 Item No. 30A is for Rotary Driven Pipe Piles (Screw Piles), and if selected would replace Item No. 30 Concrete Filled Steel Pipe Piles. Bidders are not required to provide a price for this Bid Alternate #1 line item. However, if so, the Bidder would only be considered for their submitted Base Bid price proposal.

The undersigned Bidder proposes to subcontract the following portion of Work:

Name & address of Sub-Contractor	Description of work to be performed	% of Contract
See attached		

The undersigned Bidder acknowledges the right of the City to reject any and all Bids submitted and to waive informalities and irregularities therein in the City's sole discretion.

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

SUB CONTRACTOR	ADDRESS	DESCRIPTIN OF WORK	% OF CONTACT
POLARIS	3194 MESA AVE GRAND JUNCTION CO	SURVEYING	0.40%
SKYLINE	3191 MESA AVE GRAND JUNCTION CO	EXCAVATION/UTILITIES	10.81%
CO PILING SERVICE	PO BOX 1824 GRAND JUNCTION CO	PIPE PILE	4.74%
DEEP CREEK LANDSCAPING	840 23 1/2 ROAD GRAND JUNCTION CO	LANDSCAPE & IRRIGATION	2.59%
TAYLOR FENCE	823 21 1/2 ROAD GRAND JUNCTION CO	FENCE	1.29%
ASPHLAT SPECIALIST	2462 INDUSTRIAL BLVD GRAND JUNCTION CO	ASPHALT	1.44%
M&M CONCRETE	384 27 1/2 ROAD GRAND JUNCTION CO	CONCRETE	9.01%
LE DANGLER	3147 B ROAD GRAND JUNCTION CO	MASONRY	7.02%
LEACHES INDUSTRIAL	2508 INDUSTRIAL CT GRAND JUNCTION CO	METALS	7.20%
NORTH PEAK CONST	305 MAIN ST GRAND JUNCITON CO	FRAMING AND SIDING	7.69%
WOODSIDE INDUSTRIES	606 DIVISION AVE CAVALIER ND	CASEWORK, MILLWORK AND TOPS	2.23%
ACCURATE INSULATION	2252 COLEX DR GRAND JUNCTION CO	INSULATION	2.53%
SUMMIT SEALANTS	2450 N TOWNSEND AVE MONTROSE CO	SEALANTS	0.36%
PREMIER DOORS	103 N EASTER HILL DR GRAND JUNCTION CO	DOOR AND HARDWARE INSTALL	0.19%
MCKINNEY DOORS & HDW	2700 N FREEWAY PUEBLO CO	DOOR AND HARDWARE SUPPLY	1.30%
BAILEY GARAGE DOOR	PO BOX 211 NEW CASTLE CO	OVERHEAD DOORS	1.12%
ALPINE GLASS	573 CRETE CIR GRAND JUNCTION CO	ALUMINUM STOREFRONT	1.42%
DALYTE	290 E 56TH AVE DENVER CO	TRANSLUCENT PANELS	0.53%
ALL IN ONE DRYWALL	497 CAPSHAW CT CLIFTON CO	DRYWALL & ACT	1.37%
WBS COATINGS	596 23 1/2 ROAD GRAND JUNCTION CO	PAINTING	1.85%
CO FLOORWORKS	2051 W COLLEGE ENGLEWOOD CO	CONCRETE SEALING & POLISHING	0.91%
GALLAGHERS	1100 PITKIN AVE GRAND JUNCTION	FLOORING	1.33%
BUDS SINGS	1040 PITKIN AVE GRAND JUNCTION	SIGNAGE	0.27%
KD FLAGS	2145 APPLE COURT	FLAGPOLE	0.11%
GEAR GRID	670 SW 15TH ST FOREST LAKE MN	FIRE GEAR LOCKERS	0.34%
TRI RIVER APPLIANCES	582 25 1/2 ROAD GRAND JUNCTION CO	APPLIANCES	0.55%
KRUGER ROOFING	1050 KIMBALL AVE GRAND JUNCTION CO	ROOFING AND METAL PANELS	6.40%
AMBASSADOR BLINDS	658 FAIRCLOUD WAY GRAND JUCTION CO	WINDOW COVERINGS	0.40%
AFFORDBLE FIRE PROT	1419 14 ROAD LOMA CO	FIRE SPRINKLERS	1.05%
ROBERTS PLUMBING	2785 RIVERSIDE PARKWAY GRAND JUNCTION CO	PLUMBING	4.12%
AIR TECH	582 COMMERCIAL DR GRAND JUNCTIN CO	HVAC	7.39%
MAGNUM ELEC	650 W GUNNISON CO GRAND JUNCTION CO	ELECTRICAL AND LOW VOLT RI	12.03%

CNA SURETY

Bid Bond

Bond No. Bid Bond

CONTRACTOR:
(Name, legal status and address)

FCI Constructors, Inc.
3070 I-70 B, Building A
Grand Junction, CO 81504

SURETY: Western Surety Company
(Name, legal status and principal place of business)

151 N. Franklin Street
17th Floor
Chicago, IL 60606

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

OWNER:
(Name, legal status and address)

City of Grand Junction
250 North 5th Street
Grand Junction, CO 81501

BOND AMOUNT: 5% Five Percent of Amount Bid

PROJECT:
(Name, location or address, and Project number, if any)

Grand Junction Fire Station #3 - 582 25 1/2 Road - Grand Junction, CO 81505

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 1st day of April, 2021.

(Witness)

(Witness)

FCI Constructors, Inc.
(Principal) *(Seal)*
By:
(Title) Shane M Haas

Western Surety Company
(Surety) *(Seal)*
By:
(Title) Deborah L. Burton, Attorney-in-Fact

Printed in cooperation with the American Institute of Architects (AIA).
The language in this document conforms to the language used in AIA Document A310 - Bid Bond - 2010 Edition.

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Deborah L. Burton , **Individually**

of Greenwood Village, CO its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

Surety Bond No.: Bid Bond
Principal: FCI Constructors, Inc.
Obligee: City of Grand Junction

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 27th day of February, 2018.

WESTERN SURETY COMPANY

Paul T. Bruflat, Vice President

State of South Dakota
County of Minnehaha } ss

On this 27th day of February, 2018, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires
June 23, 2021

J. MOHR
NOTARY PUBLIC
SOUTH DAKOTA

J. Mohr, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 1st day of April, 2021.

WESTERN SURETY COMPANY

L. Nelson, Assistant Secretary

Form F4280-7-2012

Go to www.cnasurety.com > Owner / Obligee Services > Validate Bond Coverage, if you want to verify bond authenticity.

Authorizing By-Law

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.