AGENDA
CITY OF GLENWOOD SPRINGS
REGULAR CITY COUNCIL MEETING
JUNE 18, 2026
101 W. 8TH STREET
6:15 p.m.

The agenda is subject to *change, including the addition of items 24 hours in advance or the deletion of items at any time. The order and times of agenda items listed are approximate and intended as a guideline for the City Council.*

ATTENTION: To ensure your written comments are included in the City Council packet, public comments must be received by 4 p.m. on the day before City Council meetings. Comments may be submitted to ryan.muse@cogs.us. Written comments may be submitted after this deadline and will be shared via email to City Council but are not guaranteed to make it into the meeting packet. Submit comments at any time directly to City Council via email at citycouncil@cogs.us. The City of Glenwood Springs ensures meaningful access to City programs, services, and activities to comply with the Americans with Disabilities Act (ADA) and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids, and services. To request these services, email ADAteam@cogs.us or call 970-384-6441. Please submit requests as soon as possible but no later than three business days (Monday-Thursday, excludes holidays) before scheduled events.

TIME	ITEM	**WORK SESSION**	ACTION
3:00		Fire and EMS Department Update	Information/Discussion
3:30		Discussion of Safety Concerns in Public Spaces	Information/Discussion
4:00		Ride Glenwood On-Demand Update	Information/Discussion
4:30		Bear Proof Trash Cans	Information/Discussion
5:00		Landfill Regulation 31 - Commercial Organics Diversion Ordinance	Information/Discussion
5:15		Break to Get Dinner	
5:30		Decorating the City	Information/Discussion

ZOOM INSTRUCTIONS

When: Jun 18, 2026 06:15 PM Mountain Time (US and Canada)
Join from PC, Mac, iPad, or Android: https://us02web.zoom.us/j/84177031085?pwd=4a3ySYZMJaPzuROBjz1RL4w7NxatTr.1
Passcode:324567
Join via audio: +1 719 359 4580 US
Webinar ID: 841 7703 1085

REGULAR SESSION

1. Roll Call
2. Disclosure of Any Councilor Conflict of Interest
3. Agenda Changes
4. Citizens Appearing Before Council and Council Response (For Items Not on the Agenda, Comments Limited to 3 Minutes please.
5. Council Announcements
6. Consent Agenda — Discussion and/or Action
   - A. June 4, 2026 Council Minutes
   - B. Grant Proposal for Work Force Housing Impact Report
   - C. Award Request for Proposal (RFP) 2026-15P Glenwood Park Redesign
   - D. Award Request for Proposal (RFP) 2026-14P Ballistic Glass Installation and Wall Hardening Improvements

E. Resolution 2026-12; Adoption of the 2026 Procurement and Contracts Handbook

F. Resolution 2026-13; Remote Participation Addition to the Council Handbook

G. Resolution 2026-15; Letter of Support for a C3 Grant Application

H. Ordinance 2026-12; An Ordinance Of The City Of Glenwood Springs, Colorado, Repealing And Replacing Section 080.010.060 Of The Glenwood Springs Municipal Code Regarding Utility Disconnection Notices. Second Reading

ACTIONS AND/OR PRESENTATIONS

7.	Update on the Paradise Creek Fire	Information/Discussion
8.	Update from the Glenwood Springs Botanical Garden	Discussion and/or Action
9.	Ordinance 2026-11; AN ORDINANCE OF THE CITY OF GLENWOOD SPRINGS, COLORADO, Amending Sections 080.030.030, 080.040.060, and 100.010.100 of the Glenwood Springs Municipal Code Regarding Enforcement by the Neighborhood Services Specialist	Discussion and/or Action
10.	Resolution 2026-14; Adoption of Updated Engineering Standards	Discussion and/or Action
11.	Resolution 2026-11; Right of Way Acquisition for South Bridge	Discussion and/or Action
12.	Council Comments	
13.	Report from City Administration	
	A. City Manager	
	B. City Attorney	
	C. Correspondence Incoming/Outgoing	
14.	Social Event Announcement	Information Only
15.	Adjournment	

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item:	Fire and EMS Department Update
Action Requested:	NA
Department:	City Administration
Presented By:	Steve Boyd
Strategic Goals:	Ensure Public Safety
Background Info:	Update on fire EMS department's activities and funding. Staff is considering ways to close or narrow a funding gap in the department and will present an overview to Council.
Issues:	None at this time.
Fiscal Impact:	Unknown at this time.
Legal Review:	NA
Staff Recommendation:	NA

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item:	Discussion of Safety Concerns in Public Spaces
Action Requested:	Discussion
Department:	City Administration
Presented By:	Steve Boyd
Strategic Goals:	Ensure Public Safety
Background Info:	Council has asked staff to prepare an action plan to address public space safety and encampment areas.
Issues:	We are seeing an increasing number of homeless encampments and interactions with unhoused individuals. The attached file is not intended to a recommendation from staff. It is intended to support a robust conversation about the options available to the City.
Fiscal Impact:	Unknown at this time,
Legal Review:	Legal will draft any code changes and confirm the legality of activities within the plan.
Staff Recommendation:	This is a discussion for staff to obtain input, a recommendation will be forthcoming in a future meeting.

Public Space Safety and Encampment Response Plan

Summary

Potential Approach for Discussion: Adopt a compassionate but firm public-space strategy that protects trails, parks, river corridors, downtown, and neighborhoods; offers help to unhoused individuals; enforces unsafe or illegal conduct; cleans up encampments; and communicates clearly with residents and visitors.

Legal and Policy Guardrails

- Focus enforcement on conduct, location, obstruction, fire risk, litter, trespass, public safety, and environmental impacts - not on homelessness itself.
- Emphasize traffic safety, obstruction, aggressive conduct, and public education about better ways to help.
- Use clear notice, documentation, service offers, cleanup procedures, and property-handling rules. Emergency threats may require immediate action.

Core Program Elements

Element	Recommended Action	Purpose
Public Space Safety Team	Standing team with stakeholders that might include police, fire, parks, public works, code enforcement, communications, legal, and service partners.	Coordinate outreach, enforcement, cleanup, data, and messaging.
Targeted Patrol Presence	Use a mix of police, rangers/community service officers, ambassadors, and limited private security where appropriate.	Increase visibility, deterrence, reporting, and public confidence without relying only on sworn officers.
Encampment Protocol	Design a process for intake, site assessment, outreach, notice, cleanup, property handling, and follow-up checks. ECOS on monthly retainer for immediate response.	Make the response consistent, lawful, explainable, and repeatable.
Fire and River Risk Reduction	Prioritize brush, trail, bridge, riverbank, park, and downtown areas. Consider of expansion of agreement with Daly to provide more frequent and targeted clean up activities.	Reduce wildfire, water-quality, safety, and visual impacts.
Service Connection	Bring service providers into planned outreach and cleanup days, while recognizing that many individuals may decline help.	Offer help without making public-space safety dependent on voluntary service acceptance.
Private Property Response	Use trespass authorization, nuisance/property maintenance notices, cleanup deadlines, and abatement/cost recovery where allowed.	Prevent private encampments from becoming unmanaged public safety problems.
Public Communication and Engagement	Launch signs, FAQ, social posts, press releases, business guidance, and reporting tools. Consider resident neighborhood ambassadors for training for clean-up, reporting and presence purposes.	Set realistic expectations and redirect community help to effective local services.

Code Changes to Evaluate

Targeted ordinance amendments that improve enforcement while remaining conduct-based and legally defensible. Possible areas include:

- Unauthorized camping and encampment expansion including emergency removal authority.
- Sensitive-area restrictions for parks, trails, sidewalks, bridges, underpasses, river corridors, brush areas, public buildings, schools, and emergency access routes.
- Obstruction rules for sidewalks, trails, ADA routes, entrances, stairs, bridges, and emergency access.
- Fire-prevention rules in high-risk public spaces.
- Hazardous materials, riverbank damage and vegetation damage.
- Aggressive conduct and traffic-safety rules related to solicitation, without banning peaceful panhandling.
- Private-property nuisance abatement tools for unsafe or unsanitary encampments.

Public Communication Strategy

Core message: The City will offer help, enforce conduct, clean up public spaces, protect trails and rivers, and reduce fire risk. The City cannot arrest people simply for being unhoused, but it can and will respond to unsafe, illegal, or harmful behavior.

Tool	Use
Signs	Traffic-safety signs, river/trail protection signs, and QR codes for reporting and local donation options.
FAQ/Webpage	Explain what the City can and cannot enforce, how to report concerns, and where to direct help.
Press/Social Media	Regular updates on cleanups, fire-risk reduction, service coordination, and measurable outcomes.
Business Toolkit	Guidance on reporting, trespass authorization, de-escalation, and avoiding unsafe handouts from vehicles.

Budgeted Activities may Include

- Full-time position titled something like “Public Space Safety and Encampment Coordinator”.
- 1-4 full time positions as “ambassadors” or “rangers”.
- Monthly minimum spend on haz mat clean-up (ECOS)
- Signage.
- Additional court costs and provision of defense attorneys for some offenders.
- Cost to lodge people in the Garfield County Jail.
- Possibility of vehicle(s), bikes, uniforms, tools and equipment.
- Training, tools, uniforms, safety equipment for volunteer ambassadors.
- Temporary housing for individuals needing shelter.

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item:	Ride Glenwood On-Demand Update
Action Requested:	NA
Department:	Engineering
Presented By:	Lee Barger
Strategic Goals:	Protect and Preserve our Quality of Life
Background Info:	The service has been operational for a year. Staff will share results and metrics associated with the program.
Issues:	NA
Fiscal Impact:	Unknown at this Time
Legal Review:	NA
Staff Recommendation:	NA

Ride Glenwood On-Demand Transit

Year 1 Recap and Fare Update

Lee Barger, Transportation Engineer
Mike Fisher, Via Transportation

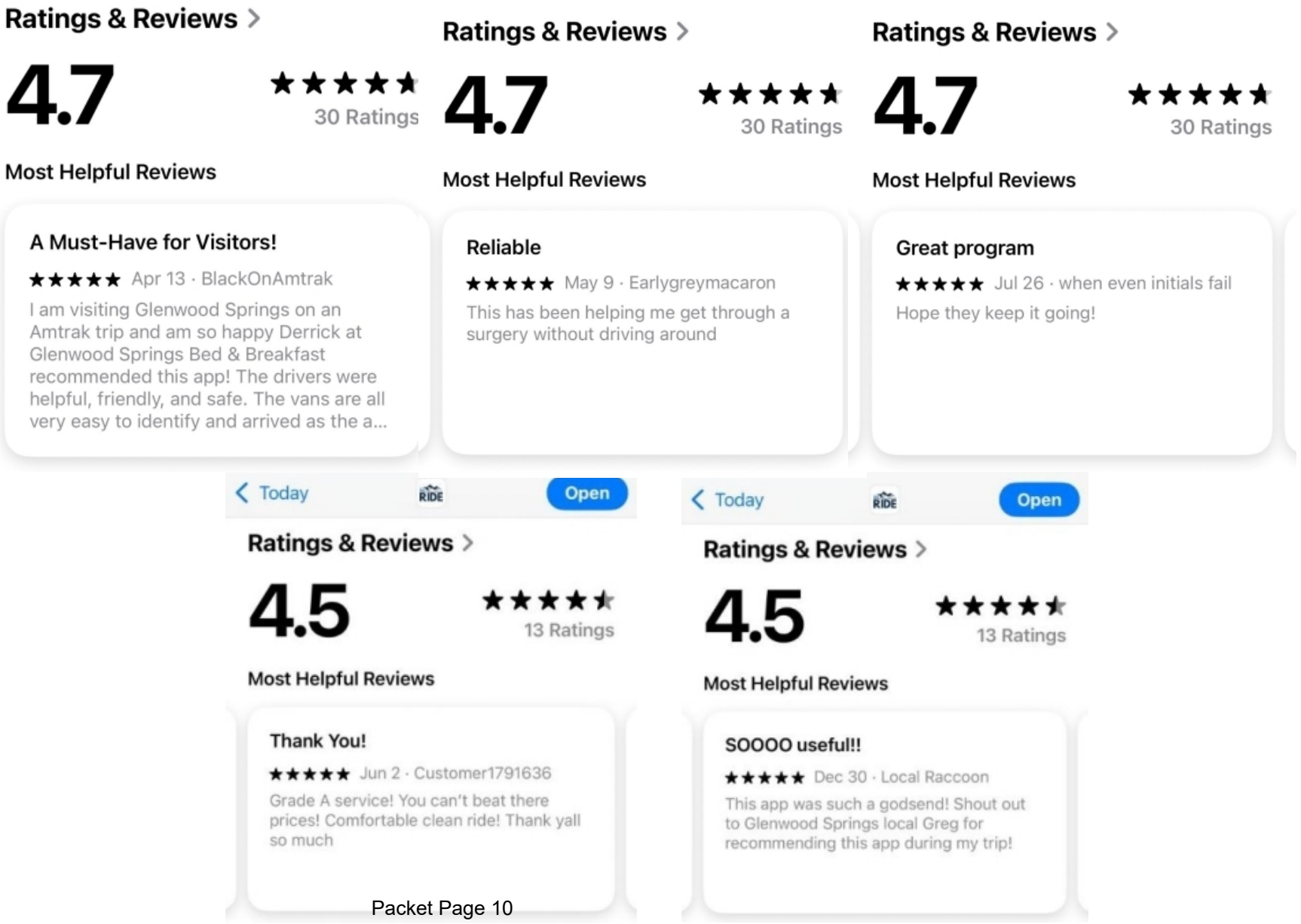
June 18, 2026

CITY OF GLENWOOD SPRINGS COLORADO

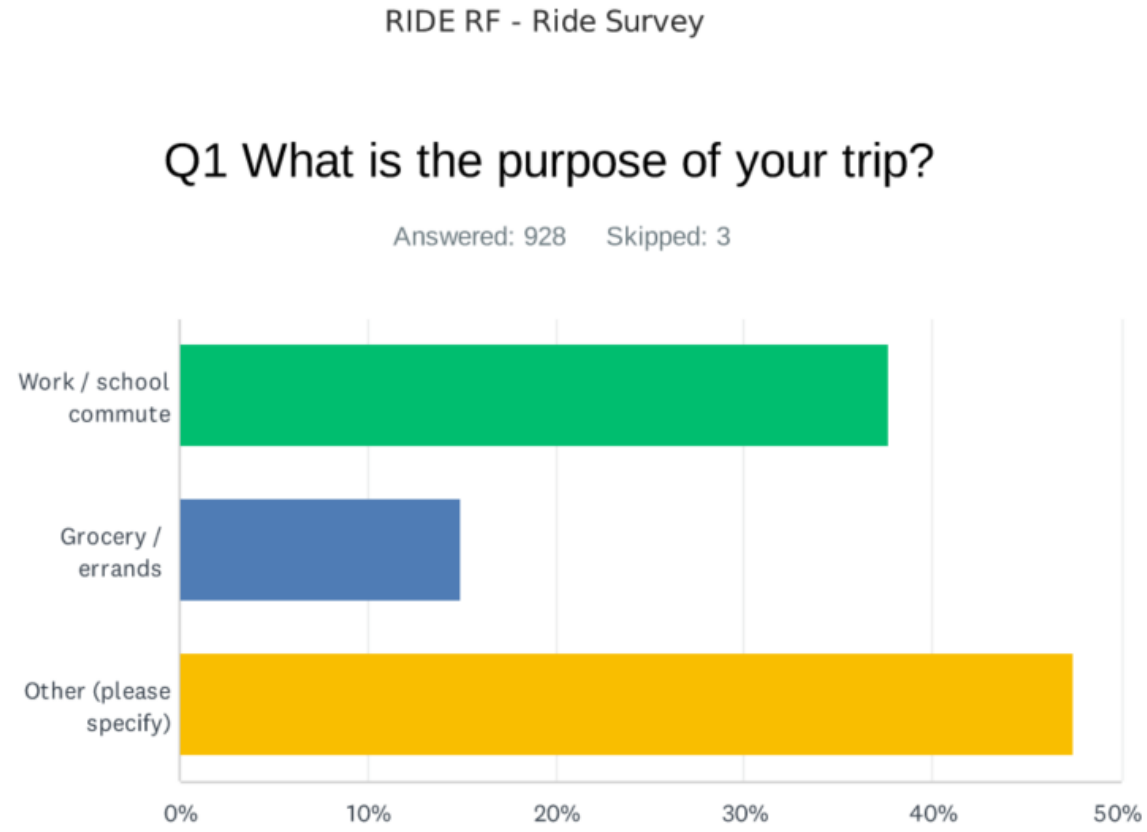
CITY OF GLENWOOD SPRINGS COLORADO

Year 1 Recap

Testimonials

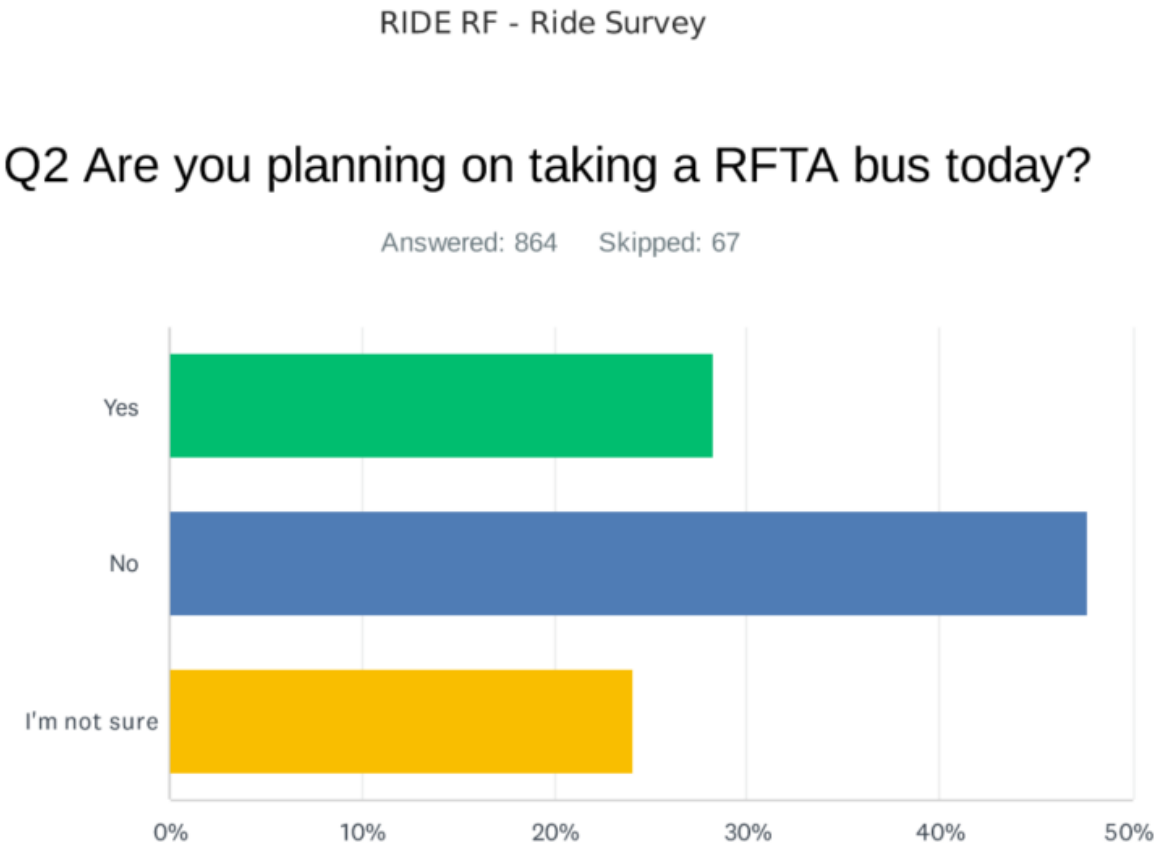


Survey Results



ANSWER CHOICES	RESPONSES	
Work / school commute	37.61%	349
Grocery / errands	14.98%	139
Other (please specify)	47.41%	440
TOTAL		928

Survey Results



ANSWER CHOICES	RESPONSES	
Yes	28.24%	244
No	47.69%	412
I'm not sure	24.07%	208
TOTAL		864

Ridership vs. Wait times

Proposed Fare Increase

Current Fare Revenue for May 2025 – April 2026

= $77,464

- Pays for about one month of service
- $1 increase is nominal compared to a fare for a private taxi or app based ride.
- Uber from City Hall to Walmart costs $12-$16

2026 And Beyond

Continue gathering data to improve service

- Fare increase to $2 July 15
- Considering distance relative to fare
- Partner with large local employers for sponsorships
- Explore other funding opportunities

Questions/Comments?

Ride Glenwood On-Demand

Year 1 Ridership Report

May 1, 2025 – April 30, 2026

Powered by Via Transportation · Ride Glenwood / RFTA

Year 1 at a Glance · May 2025 – April 2026

TOTAL RIDES

61,844

May 2025 – Apr 2026

PASSENGERS SERVED

85,829

May 2025 – Apr 2026

AVG WAIT TIME

24.2 min

From request

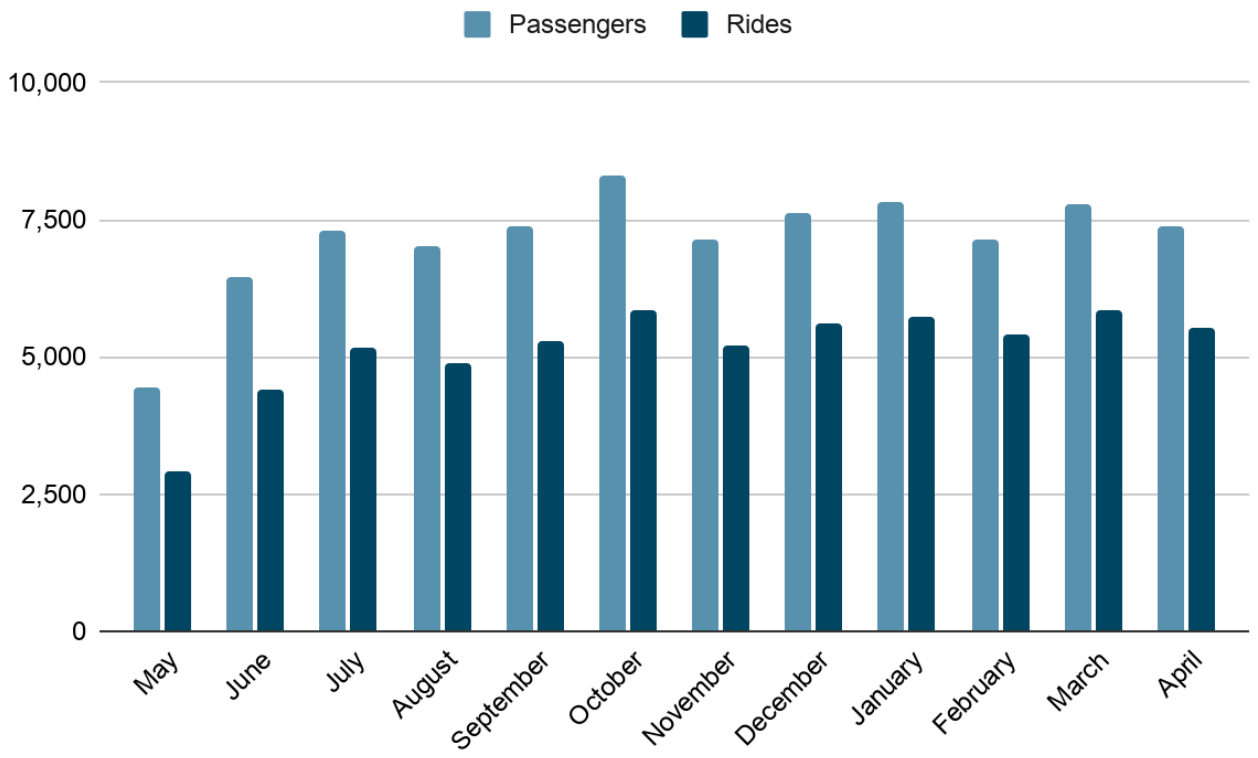
AVG RIDER RATING

4.88 ★

All rated rides

Avg Ride Distance **2.3 mi**	Avg Ride Duration **10 min**	WAV / ADA Rides **847**	App Bookings **87.4%**
% of Rides Shared **45%**	% of Rides Booked in Spanish **14%**	Fares Collected **$77,464**	

Monthly Ridership · May 2025 – April 2026



Top Locations · May 2025 – April 2026

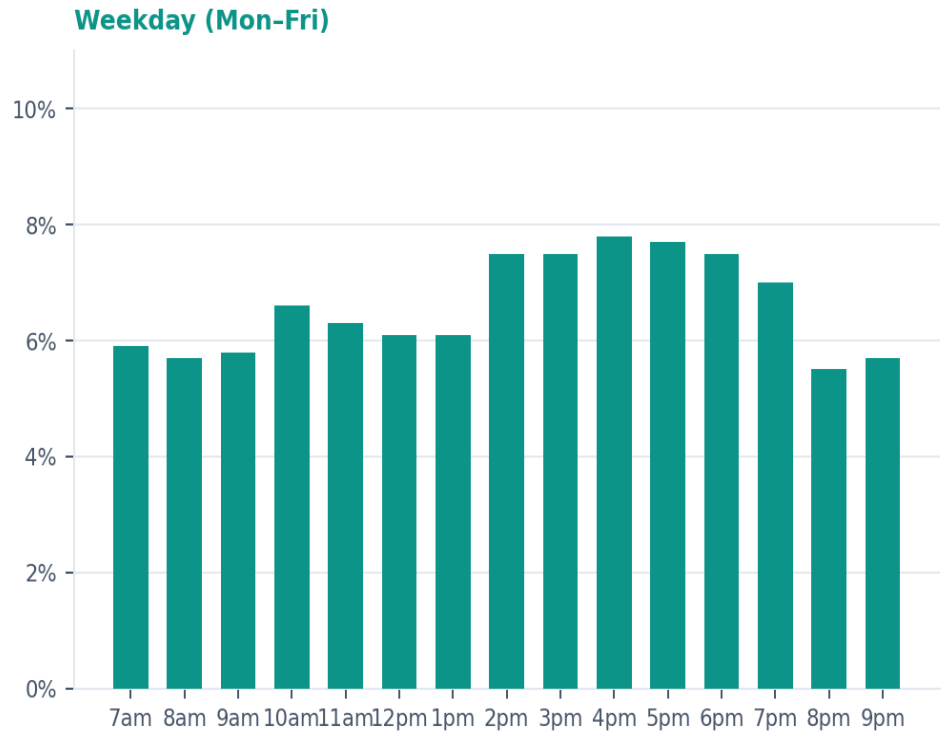
TOP 10 LOCATIONS — PASSENGERS (PICKUPS + DROPOFFS COMBINED)

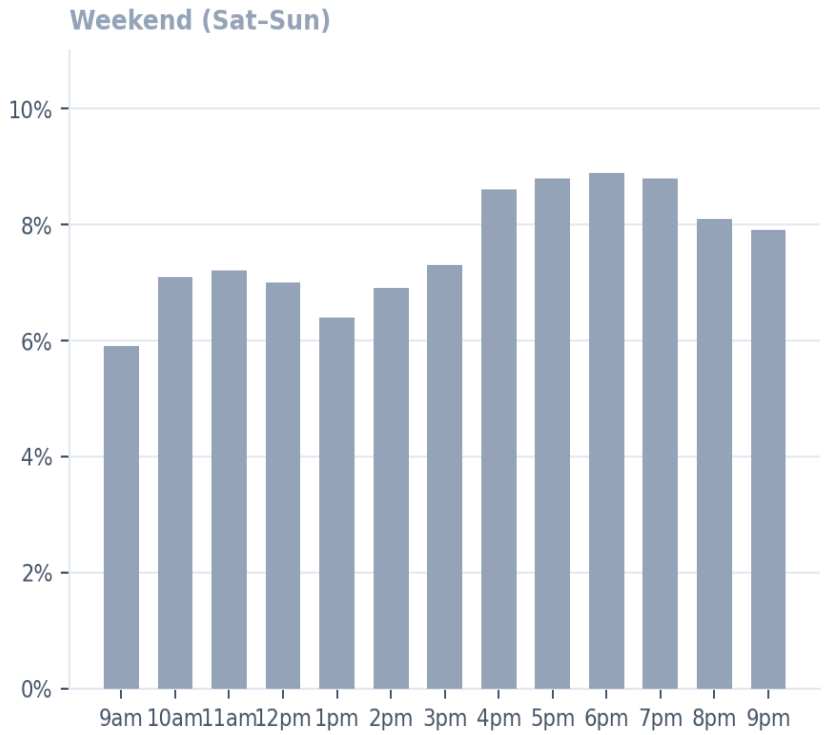
		PICKUPS	DROPOFFS	TOTAL
1	**City Market**	5,316	4,153	**9,469**
2	**Glenwood Park & Ride (27th St)**	3,840	4,365	**8,205**
3	**Walmart**	2,536	2,133	**4,669**
4	Iron Mountain Hot Springs	1,552	1,951	3,503
5	Target	1,595	1,500	3,095
6	The Pullman / E 7th St	1,357	1,555	2,912
7	Valley View Hospital	941	964	1,905
8	Amtrak Station	635	1,224	1,859
9	Glenwood Hot Springs	846	947	1,793

Passengers to/from all RFTA stops: 9,908 (12% of total)

Passengers by Hour of Day · May 2025 – April 2026

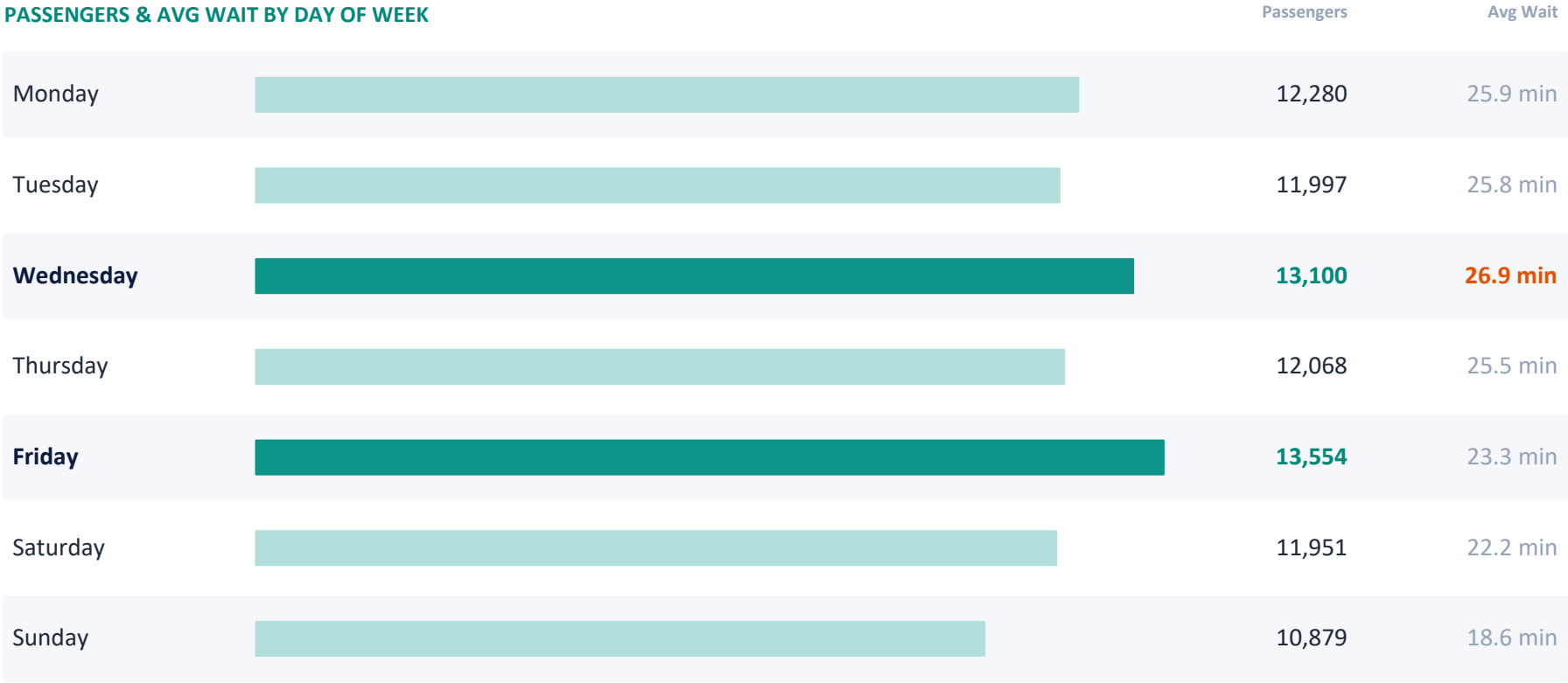
% of total passengers by hour · each series normalized independently





47% of weekday rides between 7am - 9am are shared, 56% of weekday rides between 3pm - 6pm are shared

Passengers by Day of Week · May 2025 – April 2026



City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item:	Ride Glenwood On-Demand Annual Review
Action Requested:	Discussion.
Presented By:	Lee Barger, Transportation Engineer Mike Fisher, Downtowner/Via
Background Info:	The City has benefited from this on-demand microtransit service over the past year. Beginning May 1, 2025, the service has provided 61,845 rides to 86,010 passengers, averaging around 7,200 riders per month. The cost per rider for this service equates to about $12/ride, whereas our fixed route bus service that transports about 20,000 riders per month has a cost of about $6 per rider. The service is funded 50% by the RFTA First/Last Mile Mobility Fund (FLMM) which we will be reapplying for in August. About 10-12% of the rides taken have an origin or destination at a RFTA bus stop. The City launched the service at $1 per ride for anywhere within City Limits. Engineering proposes raising this nominal fee for door-to-door service to $2 per ride, with the goal of providing equitable mobility to all residents and visitors. When compared to ordering a private Uber or High Mountain Taxi service, the cost to get from one end of town to the other is roughly $12-$16. We will continue to monitor the program to determine if ridership and average wait times are affected by this fare increase. We will also continue using ridership data and origin-destination data to support future decisions regarding the Ride Glenwood fixed-route service.
Issues:	None.
Action Alternatives:	None.
Staff Recommendation:	Approve a fair increase to $2 per ride beginning July 15.

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item: Bear Proof Trash Cans

Action Requested: None at this time.

Department: Public Works

Presented By: Matthew Langhorst

Strategic Goals:

Background Info: The City implemented a Pay as you Throw (PAYT) program back in 2024. This program allows people to sign up for a standard trash and recycle containers that are either 32 gallons, 64 gallons or 96 gallons. If the resident does not have a way to store the container in an enclosed space until their trash day, we also have provisions to provide residents with the same size containers in a wildlife-resistant (WL) version. Staff has also started a test program in the downtown core where we provided wildlife-resistant, easy-to-use, straps to keep lids closed. Staff installed approximately 50 sets of these straps in the bear prominent area of the downtown core. This project was completed approximately 1 month ago, and so far the results are looking positive. Staff will let this test program run all summer and provide more specific data to council once bear season winds down.

The discussion of moving all PAYT trash containers to the wildlife-resistant versions is a financial discussion in part. All existing containers that were distributed during the PAYT program role out were accounted for within the contract duration and fees. If we change the cans to all WL containers, that would be another fee. With the current mix of containers that are not WL, we would be looking at around $385,000 to buy new cans and another fee to collect and re-distribute containers. All the while, residents are still paying for the first round of cans. This does not include changing out recycle containers to WL containers, which would roughly double the $385,000 number.

Turning the discussion to the bear trash locks, these 4 strap systems retailed for $44.95 in 2025. The larger 96 gallon cans should have the 4 straps installed, but the smaller 64 and 32 gallon containers could use a 2 strap system to deter the bears. This would mean that for trash containers, the city would need to purchase 1059 - 4 strap systems, for the 1907 trash containers we have in the city, at a cost of approximately $38,085. You would once again roughly double that if recycling containers were to be included in the discussion.

Issues: None at this time

Fiscal Impact: Substantial impacts depending on direction of discussion.

Legal Review: None at this time.

Staff Recommendation: Staff is here to present and answer questions.

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item: Landfill Regulation 31 - Commercial Organics Diversion Ordinance

Action Requested: Provide input to staff on budgetary options and on whether to bring the commercial organics diversion ordinance to a regular meeting.

Department: Public Works

Presented By: Elizabeth Mauro, Matthew Langhorst

Strategic Goals: Preserve and Improve Infrastructure
Protect and Preserve our Quality of Life
Generate Sustainable Economic Development

Background Info: Council will discuss landfill direction on Regulation 31 compliance and commercial organics diversion.

Issues: 36 % of landfilled waste at the South Canyon Landfill is material that could have been composted. The city has goals, detailed in the ECAP (Environment and Climate Action Plan), which include increasing diversion of recyclable and compostable materials away from landfill disposal. To increase diversion, city council can consider imposing requirements. Ways to divert organics into composting or other diversion methods already exist but are opt-in only.

Fiscal Impact: Waste diversion will save the city money in the long-term by delaying necessary landfill expansion work and conserving existing space. Complying with Regulation 31 will increase reporting, engineering, and infrastructure costs in the Landfill Enterprise Fund.

Legal Review: Legal will review any code changes.

Staff Recommendation:

City of Glenwood Springs
Landfill budget & waste diversion

presented by Liz Mauro, Matt Langhorst
June 18, 2026

1. Commercial Organics Diversion Requirement Ordinance

2. Landfill 2027 budget and options for Regulation 31

Commercial Organics Diversion Requirement

- Draft ordinance and code language is ready
- **Goals:**

-reduce organic material being landfilled

-increase food donation for human use and food donation or sale for animal feed

-increase food waste composting

-meet ECAP goals

-increase soil organic matter through compost sales

Commercial Organics Diversion Requirement

- Background: 2023 USDA grant outreach to restaurants
- All restaurants were contacted
- Had opportunity for 3-6 months free hauling plus supplies and training
- Only 2 participated (5 already composting) out of about 75

Commercial Organics Diversion Requirement

Phase 1 1/1/2027: Restaurants

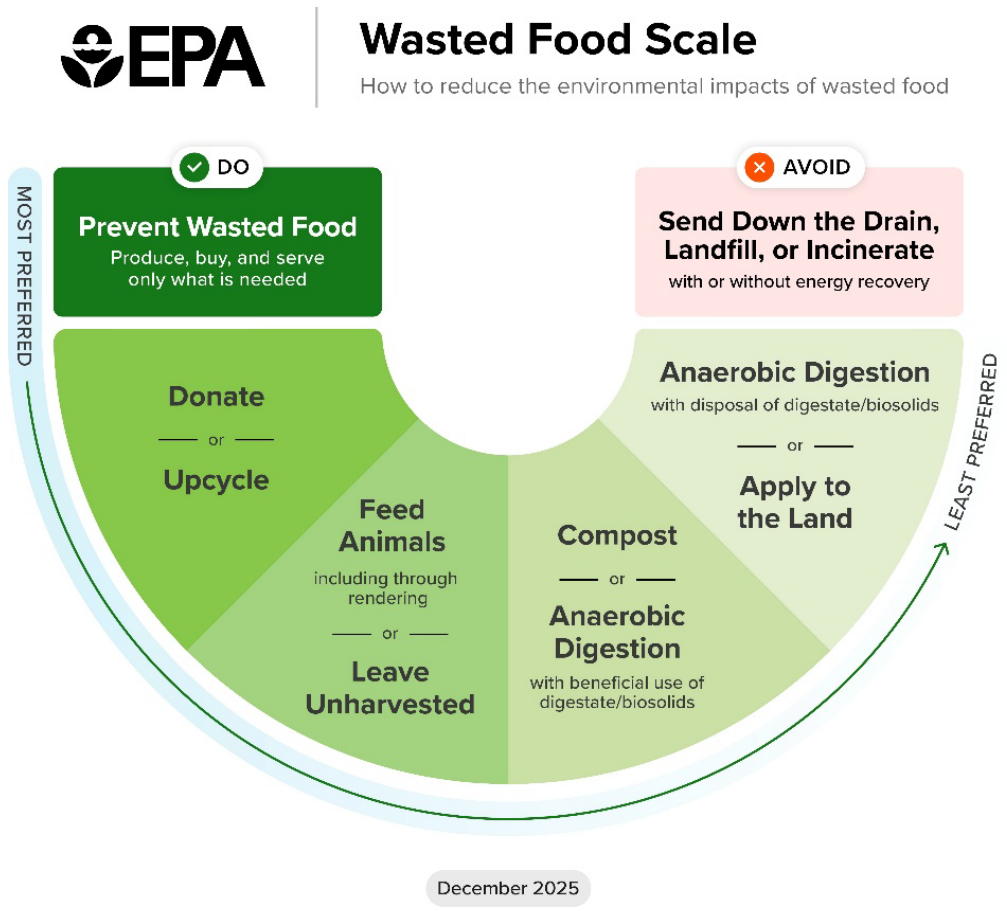
Phase 2 1/1/2028: Stores that sell food

Phase 3 1/1/2029: Apartment buildings

The diversion requirement can be met by any activity that diverts organics from trash, not just composting.

SB20-090 and other Colorado laws protect people and organizations from liability when donating food.

For restaurants using the downtown compactors the city will add compost to this service and will manage the billing the same as the trash.



2027 Landfill Budget

- Last payment on Bomag 773 compactor
- Aggregate processing
- EPR funding for recycling still being finalized
- No new services
- No new employees
- 30% tipping fee increase to cover basic budget
- Should we include new regulation 31 costs?

2027 Landfill Budget

What is Regulation 31?

- Regulation 31 was approved by the Air Quality Control Commission (AQCC) in December 2025
- Makes Colorado methane regulations for landfills much more stringent than federal levels
  - More reporting
  - More work required of our engineering consultant AEC
  - Changes to intermediate cover requirements
  - Quarterly surface emissions (SEM) testing
  - Likely gas collection system requirement

2027 Landfill Budget

Option to fund Regulation 31 compliance

- Extra reporting, testing, and cover design changes
- If we are required to install gas collection that would cost about $3M plus more annually for maintenance and additional reporting
- If Council would like to pay for this from the landfill fund, an additional fee can be collected on each ton of landfilled trash

Options for landfill budget and future compliance:

- Keep prices and budget at 2026 level ($3M)
  - Reduce services and/or hours
- 30% increase on incoming loads and budget ($3.9M)
  - Maintain services and hours
- 30% increase plus Reg. 31 fee to proactively fund compliance
  - Maintain services and hours
  - Prepare to comply with Reg. 31
  - Pay for gas collection infrastructure from landfill fund

Commercial Organics Diversion Requirement Ordinance

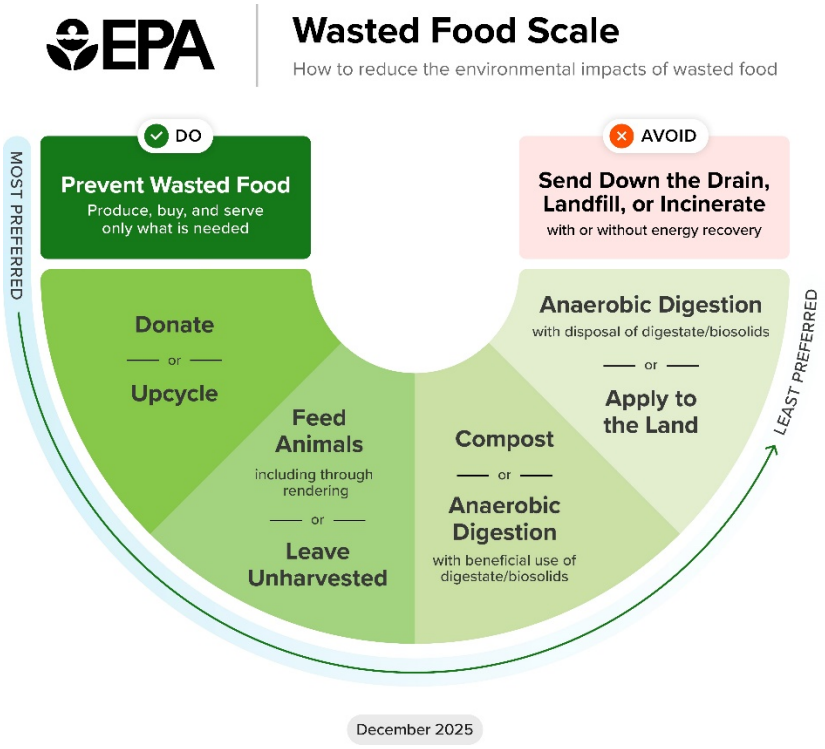
Goals

-reduce organic material being landfilled
-increase food donation for human use and food donation or sale for animal feed
-increase food waste composting
-meet ECAP goals

The diversion requirement can be met by any activity that diverts food waste from trash, not just composting.

SB20-090 and other Colorado laws protect people and organizations from liability when donating food.

For restaurants using the downtown compactors the city will add compost to this service and will manage the billing the same as the trash.



Phase 1: Beginning 1/1/2027 "Restaurant" and "Restaurant, *with Drive-Through"* facilities as defined by 070.070.020 may not dispose of organics in their landfilled solid waste. This may be accomplished by reducing waste overall, donating food for human consumption, donating or selling food for animal feed, by composting, or a combination of these activities.

Phase 2: Beginning 1/1/2028 facilities defined as "Grocery Store", "Food Processing and Packing Plant", "Convenience Store", and "Retail, General" as defined by 070.070.020 may not dispose of organics in their landfilled solid waste. This may be accomplished by reducing waste overall, donating food for human consumption, donating or selling food for animal feed, by composting, or a combination of these activities.

Phase 3: Beginning 1/1/2029 "Dwelling, Multifamily" residences as defined by 070.070.020, which are **not** serviced by the City's PAYT waste removal program, may not dispose of organics in their landfilled solid waste. This may be accomplished by reducing waste overall, donating food for human consumption, donating or selling food for animal feed, by composting, or a combination of these activities.

<u>Definitions</u>
This ordinance uses definitions that already exist in 070.070.020
"Restaurant"
"Restaurant, *with Drive-Through*"
"Grocery Store"
"Food Processing and Packing Plant"
"Convenience Store"
"Retail, General"
"Dwelling, Multifamily"

Definitions that will be added as part of this ordinance:

Organics means carbon-based material that can biodegrade into stable, odorless materials such as compost or mulch, and may include but is not limited to food waste, compostable paper and certified compostable products, yard waste, clean wood and some sludges.

Food Waste means all edible materials which are intended for consumption by humans or animals, including those materials which are no longer edible due to spoilage.

Responsible Party is the individual or entity that controls, manages, or directs the business or dwelling. For the purpose of a multifamily property where living units are individually owned, the responsible party is the property manages or housing authority which controls, managers, or directs the campus.

ORDINANCE NO.
2026-XX

AN ORDINANCE OF THE CITY OF GLENWOOD SPRINGS, COLORADO, AMENDING SECTION 100.010.060 and 100.010.020 OF THE MUNICIPAL CODE.

WHEREAS, City Council may enact changes to the municipal code; and

WHEREAS, the municipal code regulates the collection and hauling of solid waste and recyclables; and

WHEREAS, best practices for the collection and management of solid waste can be improved; and

WHEREAS, the City should take steps to ensure that food waste and organics are not landfilled; and

WHEREAS, food waste and organics are valuable materials which should be managed in ways that align with the EPA's Wasted Food Scale and current best practices; and

WHEREAS, the Landfill should not use valuable airspace to bury organics which can be reused; and

WHEREAS, City staff recommends that the City adopt the code changes as set forth on Exhibit A, Exhibit B, and Exhibit C; and

WHEREAS, City staff recommends, and City Council agrees, that adopting the code changes in Exhibits A, B, and C takes into account the needs of the community, the City, and the operational needs of the Landfill Enterprise and other area landfills;

WHEREAS, City Council wishes to implement the code changes in Exhibit A finding that they are necessary and appropriate and the City Charter of the City of Glenwood Springs requires that an ordinance be enacted to effectuate the amendments.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, ORDAINS:

Section 1. The foregoing recitals are incorporated herein as if set forth in full.

Section 2. Title 100.010.060 and 100.010.020 of the Glenwood Springs Municipal Code is hereby amended as set forth in Exhibit A, B, and C attached hereto.

INTRODUCED, READ ON FIRST READING, PASSED AND ORDERED PUBLISHED BY TITLE ONLY THIS 19th DAY OF SEPTEMBER 2026.

CITY OF GLENWOOD SPRINGS, COLORADO

_____
Marco Dehm, Mayor

ATTEST:

_____
Ryan Muse, City Clerk

INTRODUCED, READ ON SECOND READING, AND ORDERED PUBLISHED BY TITLE ONLY TO BE EFFECTIVE TEN DAYS FOLLOWING THE DATE OF SECOND PUBLICATION THIS _____ DAY OF _____, 2026.

CITY OF GLENWOOD SPRINGS, COLORADO

_____
Marco Dehm, Mayor

ATTEST:

_____
Ryan Muse, City Clerk

Exhibit A

Ordinance 26-XX

Commercial Organics Diversion Requirement

The following definitions will be added to Section100.010.020 Definitions.

Organics means carbon-based material that can biodegrade into stable, odorless materials such as compost or mulch, and may include but is not limited to food waste, compostable paper and certified compostable products, yard waste, clean wood and some sludges.

Food Waste means all edible materials which are intended for consumption by humans or animals, including those materials which are no longer edible due to spoilage.

Responsible Party is the individual or entity that controls, manages, or directs the business or dwelling. For the purpose of a multifamily property where living units are individually owned, the responsible party is the property manages or housing authority which controls, managers, or directs the campus.

Exhibit B

Ordinance 26-XX

Commercial Organics Diversion Requirement

Changes to Code Section 100.010.060, Redline version

TITLE 100 – PUBLIC HEALTH

ARTICLE 100.010 GENERAL PROVISIONS

100.010.060 - Solid waste collection.

(a)

Removal. It shall be the responsibility of the residential customer including the homeowner, property manager and/or resident to remove solid waste, furniture, appliances, dirt, rocks, or construction debris from their property. All diverted materials shall be owned by and be the responsibility of the residential customer until collected, and then shall become the property and responsibility of the collector. Except for purposes of inspection to assess compliance, no person or party other than the customer or collector shall take possession of any materials placed for collection. Each violation shall constitute a separate and distinct offense that is punishable as provided in this article.

(1) Effective January 1, 2027 Restaurant and Restaurant, *with Drive-Through* facilities as defined by Section 070.070.020 shall separate organics from substances designated for trash (solid waste) disposal. All organic materials (organics, food waste) must be collected and disposed of through a recoverable management practice such as, but not limited to, donation, animal feed, composting, or any other recoverable management practice approved by City of Glenwood Springs staff. No organic materials (organics, food waste) shall be disposed of as landfilled trash (solid waste). The responsible party for the commercial business shall ensure all employees have access to an organic materials collection container for the purposes of disposal separate from trash.

(2) Effective January 1, 2028 Grocery Store, Food Processing and Packing Plant, Convenience Store, or Retail, General facilities as defined by 070.070.020 shall separate organics from substances designated for trash (solid waste) disposal. All organic materials (organics, food waste) must be collected and disposed of through a recoverable management practice such as, but not limited to, donation, animal feed, composting, or any other recoverable management practice approved by City

of Glenwood Springs staff. No organic materials (organics, food waste) shall be disposed of as landfilled trash (solid waste). The responsible party for the commercial business shall ensure all employees have access to an organic materials collection container for the purposes of disposal separate from trash.

(3) Effective January 1, 2029 Dwelling, Multifamily residences as defined by 070.070.020 which are not serviced by the city's Pay-As-You-Throw waste program shall separate organics from substances designated for trash (solid waste) disposal. All organic materials (organics, food waste) must be collected and disposed of through a recoverable management practice such as, but not limited to, donation, animal feed, composting, or any other recoverable management practice approved by City of Glenwood Springs staff. No organic materials (organics, food waste) shall be disposed of as landfilled trash (solid waste). The responsible party for the property shall ensure all residents, maintenance workers, contractors, and cleaning staff have access to an organic materials collection container for the purposes of disposal separate from trash.

(4) All responsible parties for businesses or residences which are required to divert organics will provide proof of diversion activities to city staff when requested, will provide training to staff and residents on correct diversion practices, will allow city staff to provide additional organics diversion training to staff and residents if deemed necessary by city staff due to contamination, and will allow all solid waste containers used by the business or residents to be inspected by city staff.

(5) Providing organics diversion containers without providing adequate training to staff and residents to avoid contamination is a violation of this Section.

(6) All outdoor receptacles used for the purpose of organics collection must be labeled with the name of the business, establishment, or person utilizing the container. Labeling a receptacle with only an address does not meet the standards of this Section.

(b)

Collection vehicles generally. All vehicles used in collecting refuse, solid waste shall be equipped with a tight box or tank which shall be constructed entirely of metal and shall have a cover so as to prevent the escape of substances and foul odors from substances after being placed therein. All such vehicles shall be kept thoroughly clean.

(c)

Placement of containers for collection. All solid waste shall be placed and kept in containers suitable to not attract or to be edible by animals or wildlife, near the alley

abutting the premises or, if there is no alley, in some accessible place where it can be removed by the collector.

(d)

Collection and removal. All solid waste shall be collected and removed by the owner or occupant of the premises generating the same, by employees of the City acting in furtherance of the City's solid waste disposal system, by persons under contract with the City for such purpose or by persons holding a certificate of public convenience and necessity issued by the Public Utilities Commission of the State. No other person shall collect such materials within the City or convey them over or upon any of the streets, alleys or rights-of-way of the City.

(e)

Contract for collection service. The City Council may enter into a contract or agreement with any person for the collection and disposal of garbage, refuse, trash and waste materials, or any portion thereof, throughout the City, or it may do such collecting and disposal with its own employees.

(f)

Collection schedule.

(1)

No owner of any vacant land; residential occupant or owner; owner, manager or operator of any multi-family residence or private club; or owner, operator or employee of any commercial or industrial establishment shall fail to have solid waste containers and recyclables of sufficient size and number to contain the accumulation of solid waste and recyclables or to have it collected frequently enough that container lids remain closed and solid waste and recyclables materials do not overflow their separate containers. Recyclables shall be collected and hauled separately from other solid waste and may only be disposed of into a permitted recycling transfer facility or materials recovery facility for recycling.

(2)

All collections shall be made between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday. No Sunday collections shall be allowed except for limited collection during City-wide special events. If a regularly scheduled collection day falls on a legal holiday, such collections may be made on the following day.

(g)

Closed vehicles or receptacles required. It shall be unlawful for any person to convey or cause to be conveyed through the streets of the City any garbage, refuse, trash or other loose material of any description except in tight receptacles or truck bodies equipped with covers which prevent the escape of any material contained therein.

(h)

Penalty. Properties found to be in violation of this section are subject to the penalties as defined in this article.

(Code 1962 § 19.2, 4, 5, 7 § 21.12; Code 1971 § 7-3, 4, 6, 8, 9, 10, 11; 32-99 § 1; 3-05, § 1; 5-08 § 2; 12-08 § 2; Ord. No. 8-2015, § 2(Exh. A), 4-16-2015; Ord. No. 13-2016, § 2(Exh. A), 6-16-2016; Ord. No. 5-2023, § 2(Exh. A), 6-15-2023; Ord. No. 18-2024, § 2(Exh. A), 10-3-2024)

Exhibit C

Ordinance 26-XX

Commercial Organics Diversion Requirement

Changes to Code section 100.010.060

TITLE 100 – PUBLIC HEALTH

ARTICLE 100.010 GENERAL PROVISIONS

100.010.060 - Solid waste collection.

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(c)

Placement of containers for collection. All solid waste shall be placed and kept in containers suitable to not attract or to be edible by animals or wildlife, near the alley abutting the premises or, if there is no alley, in some accessible place where it can be removed by the collector.

(d)

Collection and removal. All solid waste shall be collected and removed by the owner or occupant of the premises generating the same, by employees of the City acting in furtherance of the City's solid waste disposal system, by persons under contract with the City for such purpose or by persons holding a certificate of public convenience and necessity issued by the Public Utilities Commission of the State. No other person shall collect such materials within the City or convey them over or upon any of the streets, alleys or rights-of-way of the City.

(e)

Contract for collection service. The City Council may enter into a contract or agreement with any person for the collection and disposal of garbage, refuse, trash and waste materials, or any portion thereof, throughout the City, or it may do such collecting and disposal with its own employees.

(f)

Collection schedule.

(1)

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Penalty. Properties found to be in violation of this section are subject to the penalties as defined in this article.

(Code 1962 § 19.2, 4, 5, 7 § 21.12; Code 1971 § 7-3, 4, 6, 8, 9, 10, 11; 32-99 § 1; 3-05, § 1; 5-08 § 2; 12-08 § 2; Ord. No. 8-2015, § 2(Exh. A), 4-16-2015; Ord. No. 13-2016, § 2(Exh. A), 6-16-2016; Ord. No. 5-2023, § 2(Exh. A), 6-15-2023; Ord. No. 18-2024, § 2(Exh. A), 10-3-2024)

LANDFILL BUDGET 2027

LEVEL 1 OBJECT	LEVEL 2 DEPARTMENT	LEVEL 3 LOCATION/ SECTION	LEVEL 4 ASSET/ PROGRAM	DEFAULT GL OBJ	2025 Budget LANDFILL	NOTES 2025
Regular Employees	29610	29610		51110	$ 1,100,000.00	
Part Time Employees	29610	29610		51120	$ -	
Overtime	29610	29610		51140	$ 35,000.00	
Standby and Callback Pay	29610	29610		51150	$ -	
Health Insurance Premiums	29610	29610		51210	$ 275,000.00	
Long Term Disability	29610	29610		51220	$ 1,918.00	
Basic Life Insurance	29610	29610		51230	$ 1,982.00	
FICA Contributions	29610	29610		51250	$ 56,087.00	
Retirement Contributions	29610	29610		51260	$ 51,322.00	
Unemployment Compensation	29610	29610		51270	$ 640.00	
Workers Compensation	29610	29610		51280	$ 24,000.00	
Liability and Causality Insurance	29610	29610		53520	$ 35,000.00	
Interfund Cost of Service	29610	29610		54310	$ 200,000.00	
Depreciation	29610	29610			$ 125,000.00	
Interfund Billing	29610	29610		54320	$ 5,000.00	
LANDFILL CLOSURE COSTS	29610	29610		55360	$ 65,000.00	
LANDFILL POSTCLOSURE COSTS	29610	29610		55370	$ 35,000.00	
TRANSFER TO FLEET	29610	29610		55910	$ 2,000.00	
ERP TRANSFER	29610	29610			$ -	ERP
		GL Codes Only				
BAD DEPT	29610	LANDFILL	BAD DEBT		$ 3,000.00	
EMPLOYEMENT ONBOARDING	29610	LANDFILL	ONBOARDING	51360	$ 400.00	
EMPLOYEMENT POSTING	29610	LANDFILL	POSTINGS	52120	$ 150.00	
PUBLIC NOTICES	29610	LANDFILL	PUBLIC NOTICES	52110	$ 1,000.00	
PROFDUES	29610	LANDFILL	PROFESSIONAL DUES	52410	$ 3,000.00	SWANA MEMBERSHIPS, CCWP RENEWALS
ORGNDUES	29610	LANDFILL	ORGANIZATIONAL DUES	52420	$ 5,000.00	STA, USCC
TECHNOLOGY	29610	LANDFILL	TECHNOLOGY	52610	$ 10,000.00	
HOUSEHOLD HAZARDOUS WASTE	29610	LANDFILL	HAZARDOUS WASTE DAY	55510	$ -	MOVED TO TRASH FUND
PROFDVLPMT	29610	LANDFILL	TRAINING/CEUS FOR CERTIFICATION MAINTENANCE	52210	$ 15,000.00	MOLO, CREF, CCWP, SAFETY TRAININGS
RECYCLING PROGRAM	29610	LANDFILL	RECYCLING PROGRAM	55390	$ 90,000.00	
WEED CONTROL	29610	LANDFILL	WEED CONTROL	55380	$ 6,000.00	
SEPTIC AND CARWASH	29610	LANDFILL	SEPTIC AND CARWASH	55320	$ 3,500.00	VACTRUCK FUNDS
CRUSHING	29610	LANDFILL	AGGREGATE RECYCLING CONTRACTOR	55350	$ 230,000.00	
TIRE DISPOSAL	29610	LANDFILL	TIRE RECYCLING	55340	$ 60,000.00	OVERTON/other
		PROJECT STRINGS				
MISCTRAVEL	LANDFILL	LANDFILL	AIR	52310	$ 1,000.00	
MISCTRAVEL	LANDFILL	LANDFILL	GROUND	52310	$ 1,400.00	
MISCTRAVEL	LANDFILL	LANDFILL	HOTEL	52310	$ 3,000.00	
MTNCREPR	LANDFILL	LANDFILL	BUILDING	51810	$ 2,000.00	
MTNCREPR	LANDFILL	LANDFILL	FIRE MITIGATION	51810	$ 10,000.00	
MTNCREPR	LANDFILL	LANDFILL	EQUIPMENT	51810	$ 5,000.00	small eqip
MTNCREPR	LANDFILL	LANDFILL	FUEL	51810	$ 325,000.00	FUEL FOR ALL EQUIPMENT AND DEF
MTNCREPR	LANDFILL	LANDFILL	HARDWARE	51810	$ 5,000.00	
MTNCREPR	LANDFILL	LANDFILL	SUPPLIES	51810	$ 5,000.00	
MTNCREPR	LANDFILL	LANDFILL	VEHICLE	51810	$ 10,000.00	ROUTINE AND MAINTENCE COMBINED
MTNCREPR	LANDFILL	LANDFILL	HEAVY EQUIPMENT	51810	$ 200,000.00	HEAVY EQUIPMENT REPAIRS, LUBE, PARTS, ETC.
MTNCREPR	LANDFILL	LANDFILL	LANDSCAPING	51810	$ 12,000.00	LITTER PICKERS
MTNCREPR	LANDFILL	LANDFILL	PARTS	51810	$ 40,000.00	
MTNCREPR	LANDFILL	LANDFILL	SIGNS	51810	$ 2,000.00	
PROFSERVICES	LANDFILL	LANDFILL	CDL/RANDOM/TOWING	51710	$ 3,000.00	
PROFSERVICES	LANDFILL	LANDFILL	CONSULTING	51710	$ 6,000.00	Wasteworks software tech support
PROFSERVICES	LANDFILL	LANDFILL	ENGINEERING	51710	$ 110,000.00	ALL ENGINEERING SERVICES INCL GROUNDWATER
PROFSERVICES	LANDFILL	LANDFILL	LEGAL, PERMIT FEES	51710	$ 45,000.00	APEN FEES, WQCD PERMIT FEES, expansion review
PROFSERVICES	LANDFILL	LANDFILL	E-WASTE RECYCLING	51710	$ 30,000.00	EWASTE REMOVAL & RECYCLING
PROFSERVICES	LANDFILL	LANDFILL	REQUIRED TESTING	51710	$ 40,210.00	COMPOST, SEPTIC, POND, STORMWATER TESTING
SUPPLIES	LANDFILL	LANDFILL	JANITORIAL	51610	$ 2,500.00	
SUPPLIES	LANDFILL	LANDFILL	MISC MATERIALS	51610	$ 45,000.00	buy water
SUPPLIES	LANDFILL	LANDFILL	OFFICE SUPPLY	51610	$ 2,500.00	
SUPPLIES	LANDFILL	LANDFILL	POSTAGE	51610	$ 3,200.00	ship samples, UPS geotech equipment
SUPPLIES	LANDFILL	LANDFILL	PPE	51610	$ 2,500.00	
SUPPLIES	LANDFILL	LANDFILL	SMALL TOOLS	51610	$ 2,000.00	
SUPPLIES	LANDFILL	LANDFILL	PRINTING	51610	$ 2,000.00	
SUPPLIES	LANDFILL	LANDFILL	UNIFORMS	51610	$ 4,000.00	
UTILITIES	LANDFILL	LANDFILL	ELECTRIC	51410	$ 16,000.00	
UTILITIES	LANDFILL	LANDFILL	NATURAL GAS	51410	$ -	none
UTILITIES	LANDFILL	LANDFILL	COMMUNICATIONS	51410	$ 20,000.00	telephones and radios, internet
UTILITIES	LANDFILL	LANDFILL	WTRSWR	51410	$ 7,000.00	includes portapotty at landfill
RENT/LEASE EQUIPMENT	LANDFILL	GEM5000	RENTAL	51920	$ 3,000.00	methane testing equipment
RENT/LEASE EQUIPMENT	LANDFILL	950MLOADER (2026)	CAPITAL	51920	$ 75,000.00	5 YEAR LEASE 2026-2031
RENT/LEASE EQUIPMENT	LANDFILL	950MLOADER (2024)	CAPITAL	51920	$ 97,000.00	5 YEAR LEASE 2024-2029
RENT/LEASE EQUIPMENT	LANDFILL	Shredder	CAPITAL	51920	$ 135,000.00	

295060000	**LANDFILL**	**Wind fence**	**CAPITAL**	**60000**	**$ 50,000.00**	
295060000	**LANDFILL**	**COMPACTOR payment**	**CAPITAL**	**60000**	**$ 140,000.00**	**last payment on BOMAG**
					$ -	
				EXPENDITURES	**$ 3,902,309.00**	
			REVENUE:	**DISPOSAL FEES (SOLID WASTE)**	**$ 2,600,000.00**	
				DISPOSAL FEES (LIQUID WASTE)	**$ 455,000.00**	
				DISPOSAL FEES (ORGANICS)	**$ 234,000.00**	
				DISPOSAL FEES (EWASTE)	**$ 78,000.00**	
				DISPOSAL FEES (AGGREGATE)	**$ 225,000.00**	
				DISPOSAL FEES (TIRES)	**$ 23,000.00**	
				PRODUCT SALES	**$ 200,000.00**	
				RECYCLE CENTER FEES	**$ 20,000.00**	
				EPR funds	**$ -**	**Unknown possible EPR funding**
				TOTAL REVENUE	**$ 3,835,000.00**	

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item: Decorating the City

Action Requested: Direction from Council on electrical improvements on the 900 and 1000 blocks of Grand Ave and Centennial Park for tree lighting and other electric needs.

Department: Parks & Recreation

Presented By: Tim Bergman

Strategic Goals: Preserve and Improve Infrastructure
Generate Sustainable Economic Development
Ensure Public Safety

Background Info: Lighting of trees on Grand Ave is an annual tradition and there are historic challenges with electric conduit on the 900 and 1000 Blocks making tree lighting a challenge. Staff would like to discuss ideas for lighting on Grand Ave and Centennial Park improvements.

Issues: There is a lack of consistent conduits on the 900 and 1000 Blocks of Grand Ave and many of the outlets are broken or damaged. Outlets can be replaced. However, without proper conduits the outlets are ineffective. There is a mishmash of conduits on the 900 Block and Centennial Park that causes outages and some trees not being lit. In addition, trees can be powered from the lampposts, but staff daisy chains from lamppost to tree and then tree to tree. The daisy chains are approximately 10 feet high with the potential to be pulled down by the public, causing a hazard and more staff time to fix the broken daisy chain. Upgrading the electric system will be costly for the sole purpose of lighting trees.

Fiscal Impact: Staff will discuss estimated costs

Legal Review: Legal will review any vendor contracts if needed.

Staff Recommendation: Staff would like guidance from Council on lighting and Cenntenial Park.

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item: June 4, 2026 Council Minutes

Action Requested: June 4, 2026 City Council Minutes

Department: City Clerk

Presented By:

Strategic Goals:

Background Info:

Issues:

Fiscal Impact:

Legal Review:

Staff Recommendation:

MINUTES
CITY OF GLENWOOD SPRINGS
CITY COUNCIL MEETING
JUNE 4, 2026
6:15 PM

Note: Official meeting minutes are located on the City website via YouTube video at the following link: https://www.youtube.com/user/GlenwoodSprings1885/videos. The times in agenda items indicate approximately where the item can be found on the YouTube video timeline.

REGULAR SESSION

Item 1. 6:25 Roll Call

Present: Councilor Smith, Councilor Schachter, Councilor Weimer, Mayor Dehm, Mayor Pro Tem Zalinski, Councilor Schmahl, and Councilor Townsley.

Staff Present: Also present were City Manager Steve Boyd, City Clerk Ryan Muse, City Attorney Karl Hanlon, Chief of Public Safety Joseph Deras, Finance Director Yvette Gustad, Director of Economic and Community Development Trent Hyatt, Director of Operations Tim Bergman, City Engineer Ryan Gordon, Public Works Director Matt Langhorst, and Public Information Officer Bryana Starbuck.

Item 2. 6:41 Agenda Changes

Item C. Adoption of Updated Engineering Standards and Item D. Ordinance 2026-10; Municipal Code 080.040 Water Regulation Updates. Second Reading are being taken off the consent agenda and added to the regular agenda immediately before Item 8.

Item 3. 7:20 Disclosure of Any Councilor Conflicts of Interest

There were none.

Item 4. 7:30 Citizens Appearing Before Council and Council Response (for items not on the agenda - comments limited to 3 minutes)

Glenwood Springs resident Judy Haynes made comments about the Midland Avenue detention center.

Glenwood Springs resident Laurie Chase made comments about North Landing Park.

City Attorney Karl Hanlon responded regarding the Midland Avenue detention center issue.

Mayor Pro Tem Zalinski asked City Manager Steve Boyd a question.

City Manager Steve Boyd responded.

Councilor Schachter and Councilor Smith responded to citizen comments.

Item 5. 16:49 Council Announcements

Councilor Townsley made announcements about the GoPro Games holding kayak events at the whitewater park, Glenwood Springs Pride Fest, and downtown summer events kicking off including the

farmers market, Films Under the Bridge and Music under the Bridge. He also made an announcement about the drone show taking place during Strawberry days.

Councilor Smith made announcements about Historic Preservation Commission budget progress, Transportation Commission traffic patterns and budget conversations, a successful summer kickoff event for youth at the Community Center and free Rec Center passes are still available for middle and high school students. Councilor Smith also announced that he will attend the Colorado Communities for Climate Action annual conference next week.

Item 6. 23:41 Consent Agenda

Councilor Schachter moved to approve the consent agenda as amended.
Mayor Pro Tem Zalinski seconded the motion.

24:48 The motion passed unanimously.

Mayor Pro Tem Zalinski made a comment.

Item 7. 25:31 Proclamation for Sargeant Mike Young

Mayor Dehm presented the proclamation to Sargeant Young.

Consent Agenda Item C. 29:07 Adoption of Updated Engineering Standards

Public Works Director Matt Langhorst requested that this item be continued to the next meeting.

Councilor Schmahl asked a question and made a comment.

32:07 Councilor Schmahl moved, seconded by Councilor Smith, to continue this to the next meeting, June 18th, where Matt is able to provide the information for our review.

32:37 The motion passed unanimously.

Consent Agenda Item D. 33:02 Ordinance 2026-10; Municipal Code 080.040 Water Regulation Updates. Second Reading

City Attorney Karl Hanlon opened the item. This item will be changed to Ordinance 2026-10A due to a numbering error.

33:48 Councilor Schachter moved, seconded by Mayor Pro Tem Zalinski, to approve Ordinance 2026-10A; amending Municipal Code 080.040 regarding Water Regulation.

34:17 The motion passed unanimously.

Item 8. 34:28 Approval of Financial Advisory Board Grant Recommendations

City Manager Steve Boyd opened the item.

Mayor Dehm opened the item for public comment.

There were none.

35:43 Councilor Schmahl moved, seconded by Councilor Townsley, to approve the Financial Advisory Board's recommended grants for the 2026 year.

36:09 The motion passed unanimously.

Item 9. 36:14 Ordinance 2026-12; An Ordinance Of The City Of Glenwood Springs, Colorado, Repealing And Replacing Section 080.010.060 Of The Glenwood Springs Municipal Code Regarding Utility Disconnection Notices.

City Attorney Karl Hanlon and Public Works Director Matt Langhorst opened the item.

Councilor Schmahl, Councilor Townsley, and Councilor Weimer asked questions.

Mayor Dehm opened the item for public comment.

City resident Laurie Chase made a comment.

46:50 Councilor Schachter moved, seconded by Mayor Pro Tem Zalinski, to approve Ordinance 2026-12; An Ordinance Of The City Of Glenwood Springs, Colorado, Repealing And Replacing Section 080.010.060 Of The Municipal Code Regarding Utility Disconnection Notices.

47:21 The motion passed unanimously.

Item 10. 47:30 Water Service Agreement for 50235 Highway 6 and 24

Public Works Director Matt Langhorst and Director of Economic and Community Development Trent Hyatt presented on the item.

Councilor Schmahl, Councilor Weimer, Councilor Townsley, Councilor Schachter, Mayor Pro Tem Zalinski, and Councilor Smith asked questions.

Applicant Neil Scotter presented on the item.

Councilor Smith and Mayor Pro Tem Zalinski asked questions.

Mayor Dehm opened the item for public comment.

Applicant's real estate agent Gary Hubbell made a comment.

1:35:18 Councilor Schachter moved, seconded by Mayor Pro Tem Zalinski, to approve the Mayor to sign a Water Service Agreement for 50235 Highway 6 and 24.

Councilor Schachter, Mayor Pro Tem Zalinski, Councilor Weimer, Councilor Schmahl, Councilor Townsley, Councilor Smith, and Mayor Dehm made comments.

1:59:36 The motion passed 5:2 with Councilor Schmahl and Councilor Townsley voting against.

Item 11. 2:12:05 Resolution 2026-10; Approval of Sole Source Purchase of Axon Equipment

Chief of Public Safety Joseph Deras opened the item.

Councilor Schachter, Councilor Townsley, Councilor Schmahl, Councilor Smith, and Mayor Pro Tem Zalinski asked questions.

Mayor Dehm opened the item for public comment.

City resident John Houghton made a comment.

Mayor Pro Tem Zalinski asked a question.

2:40:28 Mayor Pro Tem Zalinski moved, seconded by Councilor Weimer, to approve Resolution 2026-10; Approval of Sole Source Purchase of Axon Equipment

2:41:53 The motion passed unanimously.

Item 12. 2:42:01 Council Comments

Councilor Smith made comments about the Charter Review Commission related to the spring election, a letter complimenting encampment pickup, and the City's Washington D.C. trip.

Councilor Schachter requested that housing items be included on future agendas and commented about a possible statement regarding the ICE facility.

City Manager Steve Boyd, City Attorney Karl Hanlon, Mayor Dehm, Mayor Pro Tem Zalinski, Councilor Townsley, and Councilor Smith responded to Councilor Schachter.

Mayor Pro Tem Zalinski made comments about a bear crossing sign and a missing pedestrian stop sign.

Mayor Dehm asked for support for a work session on the unhoused.

Mayor Pro Tem Zalinski responded to Mayor Dehm.

Item 13. 3:01:45 Report from City Administration

City Manager Steve Booyd made comments about the unhoused work session, the drone show, the welcome to Glenwood sign, a job offer to a new K9 officer, and the lease with the Cardiff Glenn Community Garden.

Councilor Townsley asked a question about the Habitat project. Economic and Community Director Trent Hyatt said an employee has purchased one of the houses. City Attorney Karl Hanlon responded about the timeline.

City Clerk Ryan Muse made point of the correspondence.

Item 14. 3:06:27 Social Event Announcement

Tonight's social event will take place at Doc Holiday's following the Council meeting.

Item 15. 3:06:52 Adjournment

3:06:52 Councilor Schacher moved to adjourn. Mayor Pro Tem Zalinski seconded.

3:06:57 The motion passed unanimously.

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item: Grant Proposal for Work Force Housing Impact Report

Action Requested: Consideration of approval for the Mayor to sign a letter of authorization for a supplementary grant request.

Department: Economic and Community Development

Presented By: Watkins Fulk-Gray

Strategic Goals: Provide Efficient and Responsive City Government

Background Info: On December 4, 2025, City Council approved Resolution 2025-29, which fulfilled the City's Proposition 123 requirement to follow the State's expedited review standards. For taking care of this matter before the end of 2025, the City was awarded the opportunity to apply for a match-free $50,000 grant under the umbrella of the State's "Local Planning Capacity" grant program. This application is due June 30th.

Issues: Staff proposes to use the $50,000 from the State to pay for the creation of an impact report evaluating the impact of Workforce Housing Fund spending since Measure 2C was approved in 2022. If approved, the City would seek to contract with a consultant firm to help prepare the impact report, which may become an annual report describing how Workforce Housing Funds have been spent and the impact of that spending, whether positive or negative. Staff decided to use the grant to create an impact report after the May 7th worksession, in which several councilors expressed interest in an in-depth evaluation of affordable housing spending. Three examples of impact reports were included in the May 7th agenda packet.

Fiscal Impact: The grant does not require a match, so no City funds are required for this project.

Legal Review: N/A

Staff Recommendation: Approve the request by motion and authorize the Mayor's signature on a letter of authorization for the grant application.

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item: Award Request for Proposal (RFP) 2026-15P Glenwood Park Redesign

Action Requested: Council approval to award Request for Proposal 2026-15P Glenwood Park Redesign to V3 for $257,034.

Department: Engineering

Presented By: Ryan Gordon

Strategic Goals: Provide Efficient and Responsive City Government
Preserve and Improve Infrastructure
Protect and Preserve our Quality of Life
Generate Sustainable Economic Development
Ensure Public Safety

Background Info: The Glenwood Park neighborhood was originally designed and built in the early 1980's and the roadways, curb/gutter and sidewalks are all generally failing and need to be replaced. The neighborhood lacks adequate biking and pedestrian connectivity between Brush Creek Mountain Park, Sullivan Park and the multi-use paths at Midland Ave/Mt Sopris Dr and the Conservancy Trail at the end of Mountain Dr. The neighborhood generally lacks proper drainage and stormwater treatment which will need to be addressed. The pick-up and drop-off area in front of Sopris Elementary School needs to be addressed to improve safety and circulation as well as parking at Sullivan Field.

Issues: None

Fiscal Impact: The City received 8 bids ranging from $257,034 to $1,056,990. The city budgeted $350,000 for this design effort from the Street Tax Fund.

Legal Review: Legal will review all contracts.

Staff Recommendation: Staff recommends to award Request for Proposal 2026-15P Glenwood Park Redesign to V3 for $257,034. Staff has worked with V3 on a previous project with positive outcomes.

Response to RFP# 2026-15P

Submitted June 9th, 2026

City of Glenwood Springs

Glenwood Park Reconstruction Design

2026

V3 COMPANIES

931 Santa Fe Drive, Suite 200

Denver, CO 80204

1 • Cover Letter

June 9th, 2026

City of Glenwood Springs
Procurement Department
101 West 8th Street
Glenwood Springs, CO 81601

RE: Glenwood Park Reconstruction Design – RFP 2026 15P

Dear Selection Committee,

Glenwood Park requires a design partner who understands aging pavement infrastructure, drainage challenges, neighborhood sensitivity, and the urgency of delivering plans before **December 4** to support spring construction. V3 understands these challenges and has the experience and qualifications to address them with care, clarity, and resolve.

The City currently intends to construct the project in **multiple phases** which elevates the importance of access, phasing, and disruption mitigation. In some cases portions of the roadways are in dire need of replacement. V3 treats these issues as core design responsibilities. We plan for constructability early, maintain driveway and emergency access, and document phasing clearly so the City and residents are protected throughout construction.

V3's team is purpose built for this effort:

- **Noah Nemmers**, Project Manager, will serve as the City's single point of contact and guardian of schedule and coordination.
- **Matt Kwiatkowski**, Survey Lead, will ensure accurate control and field verification where necessary.
- **Peter Kiley**, Designer, will lead the advancement the City's concept into clear, buildable plans with phasing in mind.
- **Grace Wolf**, Drainage Engineer, will address runoff, erosion, storm sewer design, and water quality.
- **Aimme Muro**, Lighting Designer, will improve safety and visibility.
- **David Powlen**, Landscape Architect, will support restoration, and preserving neighborhood character.
- **Andrew Regnery** (optional) if desired will evaluate raw water delivery opportunities that leverage the City's existing water rights. This is a value add option that would include evaluating a functional raw water delivery approach beyond a simple stub out.

Though not in the base scope V3 will also fly the site to provide updated orthorectified imagery to support neighborhood meetings and clearly communicate improvements on a current aerial overlay. V3 is prepared to move forward immediately following City Council approval and Notice to Proceed on or around June 20. We are committed to disciplined milestones, meaningful review periods, and delivering bid ready plans that support successful spring construction. Thank you for the opportunity to submit our proposal. V3 would be honored to serve the City of Glenwood Springs on another successful project and champion the future of the Glenwood Park neighborhood.

Respectfully,
V3 Companies, Ltd.

Noah Nemmers, PE
Colorado Regional Manager

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CONTACT PERSON

Noah Nemmers,PE

931 Santa Fe Drive, Suite 200, Denver, CO 80204

303-482-7712

nnemmers@v3co.com

2 • Project Approach & Understanding

Project Approach

V3 approaches the Glenwood Park Reconstruction Design as a community-driven infrastructure effort that must solve today's deficiencies while positioning the neighborhood for long-term success. Aging infrastructure, drainage challenges, mobility, safety, parking, and neighborhood access guide every design decision we make.

GROUND THE DESIGN IN REAL CONDITIONS

We begin by confirming existing conditions through survey verification, performing a geotechnical investigation, and utility record research. This early work establishes a reliable foundation for roadway, drainage, trail, and access design without introducing unnecessary disruption. Our team will rely on facts from the field, not assumptions.

LEAD WITH DRAINAGE, MS4 COMPLIANCE & RESILIENT INFRASTRUCTURE

Drainage is a defining constraint and opportunity within Glenwood Park. V3 leads with early drainage analysis to guide roadway layout, reduce future conflicts, and ensure compliance with the City's future MS4 requirements.

We will incorporate low impact development (LID) best management practices directly into the design to reduce runoff volume and improve water quality. Strategies may include minimizing directly connected impervious areas, enhancing infiltration where feasible, and integrating features such as vegetated swales, amended soils, or other context-sensitive BMPs directly within the right-of-way.

Preliminary drainage layouts will be developed early and concept will be closely coordinated with Town staff allowing phasing to focus Year 1 construction on critical infrastructure and areas of greatest deterioration while advancing water quality enhancements that provide long-term benefit to the community.

OPTIMIZE PAVEMENT DESIGN THROUGH FULL-DEPTH RECLAMATION

V3 proposes to evaluate and advance a full-depth reclamation (FDR) approach to maximize reuse of existing materials and improve constructability. FDR is an in-place pavement rehabilitation process that pulverizes the existing asphalt surface and underlying base materials, blends them together, and recompacts the mixture to create a new, uniform base layer for the roadway. Our team has implemented this on similar existing residential street rehab projects in collaboration with our geotech and believes that this is an ideal candidate.

Reclaimed asphalt pavement (RAP) and underlying base are processed in place to form a consistent, reconditioned base, significantly reducing the need for off-site export and import of new aggregate.

From a practical standpoint, FDR simplifies construction operations by keeping materials on-site—reducing trucking, limiting haul routes through the neighborhood, and minimizing disruption to residents. The process is typically completed using reclaiming equipment in a single pass, allowing roadway segments to be rebuilt efficiently and reopened sooner than traditional full removal-and-replace methods.

FDR also helps address variability in older streets by blending existing materials into a more uniform structural section. Where needed, stabilizing agents such as cement or asphalt emulsion can be incorporated to improve strength and durability and support long-term pavement performance but the need for these

would be determined through our Geotechnical Investigation.

By reducing material handling, shortening construction duration, and improving consistency in the pavement structure, FDR supports a more efficient, cost-effective, and community-sensitive delivery of the project.

DESIGN MOBILITY, TRAILS & SAFETY TOGETHER

Mobility and safety are addressed as an integrated system, not isolated elements. V3 will evaluate:

- A 10-foot multi-use trail to strengthen pedestrian and bicycle connectivity
- Trail improvements at Brush Creek Mountain Park that provide a more gradual alignment while preserving neighborhood-supported uses such as sledding
- Speed tables at trail crossings with clear warnings to calm traffic and improve safety
- These elements are designed together to create a coherent, buildable solution.

ADDRESS PARKING & SCHOOL ACCESS INTENTIONALLY

Parking and circulation near Sullivan Park and Sopris Elementary School affect daily life. V3 will evaluate opportunities for additional parking and expanded drop-off lanes to improve safety, circulation, and functionality.

These improvements are coordinated with roadway geometry, drainage, and phasing to ensure they are practical and achievable.

DESIGN FOR PHASING & NEIGHBORHOOD ACCESS

Construction is anticipated to occur in multiple phases. V3 designs with phasing in mind from day one, treating driveway access, emergency access, and neighborhood circulation as design requirements—not construction afterthoughts.

This approach reduces disruption and protects community trust.

COMMUNICATE CLEARLY & FINISH STRONG

V3 supports the City with clear graphics, updated orthorectified imagery, and visuals that help residents understand proposed improvements during neighborhood meetings.

We finish with fully coordinated, bid-ready plans delivered by December 4, protecting the City's spring construction window.

WHY THIS APPROACH WORKS

V3 leads with purpose. We integrate MS4-compliant drainage solutions with practical, cost-effective construction strategies like FDR—balancing infrastructure needs, water quality, safety, and community values while holding the line on schedule and quality. This approach delivers more than plans—it delivers confidence and momentum for the City of Glenwood Springs.

2.1 Challenges & Creative Solutions

V3 has evaluated the Glenwood Park project through field observation, review of the City's concept, and an understanding of neighborhood conditions. Several key areas require deliberate attention to protect schedule, budget, and community trust. The following page includes V3's solutions to your project challenges.

Aging infrastructure & drainage deficiencies:
Roadways, curb and gutter, and sidewalks within Glenwood Park show signs of widespread deterioration, compounded by inadequate storm drainage. Uncontrolled runoff, erosion, and limited water quality treatment present risks to both infrastructure performance and adjacent trails, while also creating future MS4 compliance challenges.

We will lead with drainage analysis and resilient infrastructure solutions that align with the City's future MS4 requirements. Low impact development (LID) best management practices will be integrated into the design to reduce runoff, improve water quality, and address erosion and conveyance issues.

Drainage layout will guide roadway design to ensure the system functions as a coordinated whole and delivers long-term performance.

Utility conflicts & investigation efficiency:
The presence of buried utilities introduces risk if investigations are performed too early or without a defined layout, leading to unnecessary potholing, cost, and disruption to the neighborhood.

We will complete preliminary drainage and roadway layout prior to targeted potholing. This focused approach reduces cost, limits neighborhood impacts, and confirms utilities only where conflicts are likely—supporting efficient design and minimizing rework. This provides the City with the Right Amount of Subsurface Utility Engineering that is targeted and purposeful.

Neighborhood access & construction disruption:
Maintaining driveway access, emergency access, and daily circulation is critical in a residential neighborhood. Poorly planned sequencing or heavy material hauling could create extended disruptions, safety concerns, and community frustration.

Access and phasing are treated as design requirements. We will embed driveway continuity, emergency access, and temporary traffic considerations into the plans, with construction anticipated in two phases over two years.

We will also evaluate full-depth reclamation (FDR) strategies to minimize hauling, keep materials on-site, and reduce neighborhood impacts—supporting a more efficient and less disruptive construction process.

School & park circulation safety:
The areas around Sopris Elementary School and Sullivan Park experience competing demands for parking, drop-off, and pedestrian movement, creating safety and congestion concerns.

We will evaluate expanded school drop-off lanes and opportunities for additional parking at Sullivan Park, coordinating these improvements with roadway geometry, drainage design, and pedestrian safety features to create a balanced and practical solution.

Trail usability & community expectations:
The Brush Creek Mountain Park trail is steep and erosion-prone, yet it also supports valued neighborhood uses such as sledding and informal recreation.

We will evaluate trail improvements that provide a more gradual, sustainable alignment that reduces erosion while exploring opportunities to preserve or accommodate neighborhood-supported uses where feasible.

Schedule certainty & constructability:
The City's goal to complete plans by December 4 following City Council approval and Notice to Proceed places pressure on coordination, reviews, and decision making. Construction approaches that rely on extensive import/export of materials could introduce additional schedule and cost risk.

We commit to fixed milestones, disciplined coordination, and full three-week review periods at each design stage. We will also advance practical construction strategies, including FDR where appropriate, to reduce material handling, streamline construction operations, and support schedule certainty.

We defend the schedule so the City can bid with confidence and construct in the spring.

Why this matters

These concerns are not obstacles—they are the reason V3 is here. We confront risk early, integrate MS4-compliant drainage solutions with practical construction strategies, and design with the neighborhood in mind. That is how our team protects public investment and delivers infrastructure that lasts.

2.2 Innovative Ideas

Targeted raw water delivery readiness (optional design additive)

The City's concept anticipates stubbing a six-inch raw water line; however, the City's existing water rights create an opportunity to plan beyond a placeholder. V3 has experts that can evaluate feasible raw water delivery methods, routing, and termination strategies that align with City standards and operations.

As an optional add-on service, V3 can advance conceptual or preliminary design to improve system readiness—helping the City understand implementation requirements, operational considerations, and integration with future irrigation or non-potable demands. This approach minimizes future rework, protects long-term investment, and positions the City to activate the system when timing and funding align.

Phasing-first infrastructure strategy

Rather than designing first and phasing later, V3 proposes a phasing-driven design approach. Year 1 construction will prioritize critical underground infrastructure, drainage deficiencies, and areas of highest deterioration. Year 2 construction will focus on surface improvements and enhancements.

This strategy aligns with MS4 priorities and allows early implementation of drainage and water quality improvements while reducing neighborhood disruption, limiting rework, and maintaining flexibility if funding or timing adjustments occur.

MS4-ready low impact stormwater toolkit

V3 proposes implementing a toolkit of low impact development (LID) stormwater solutions that directly support future MS4 requirements. Strategies may include low-impact conveyance, infiltration, detention, and water quality treatment measures that reduce runoff volume, improve pollutant removal, and address erosion concerns.

These tools will be applied strategically based on site conditions rather than uniformly, allowing the City to balance performance, constructability, maintenance, and right-of-way constraints while advancing long-term regulatory compliance and system resilience.

Full-depth reclamation (FDR) for constructability & schedule

V3 proposes evaluating full-depth reclamation (FDR) as a key construction strategy. FDR reconstructs the pavement section in place by pulverizing existing asphalt and base materials, blending them, and recompacting them into a new, uniform base layer.

This approach minimizes export of materials and reduces the need for imported aggregate, lowering haul traffic through the neighborhood and reducing construction impacts. It also accelerates construction by simplifying operations and allowing roadway segments to be rebuilt efficiently.

Where appropriate, stabilizing agents can be incorporated to meet strength and durability requirements. This results in a cost-effective, constructible solution that supports schedule certainty and reduces disruption to residents.

Trail redesign that balances function & community use

At Brush Creek Mountain Park, V3 proposes evaluating a more gradual, erosion-resistant trail alignment while exploring opportunities to preserve a sledding hill or other neighborhood-supported uses where feasible. This approach integrates technical performance with community expectations, reinforcing long-term usability and trust. The drainage outfall at Brush Creek Park also provides an optimal opportunity to provide water quality to meet the majority of the project needs.

Neighborhood-scale mobility & safety upgrades

V3 proposes integrating a 10-foot multi-use trail through the neighborhood to strengthen pedestrian and bicycle connectivity. Trail crossings will be reinforced with speed tables (or other acceptable methods) and advance crossing warnings to calm traffic and improve safety without relying solely on signage.

These elements are designed as part of the roadway and drainage system to ensure cohesive performance.

School & park circulation optimization

V3 will evaluate opportunities for additional parking at Sullivan Park and expanded drop-off lanes at Sopris Elementary School. These improvements are coordinated with roadway geometry, drainage design, and safety features to improve daily operations, reduce congestion, and enhance peak period safety.

Visual tools for neighborhood engagement

V3 proposes using updated orthorectified imagery and clear graphics during neighborhood meetings to help residents understand proposed improvements. Accurate visuals reduce confusion, improve dialogue, and support informed decision-making—especially for a phased project.

Why these ideas matter

These ideas are not extras. They are practical, achievable strategies that align with MS4 compliance, improve constructability through approaches like FDR, and position the City for future infrastructure readiness. V3 brings them forward because champions do not stop at minimum requirements—we anticipate what's next and lead with purpose.

3 • Staffing Resources

V3 has assembled a focused team of champions with the experience and resolve to deliver the Glenwood Park Reconstruction Design on schedule while protecting neighborhood access. Each team member has a defined role and a proven record of delivering complex municipal projects.

Noah Nemmers, PE – Project Manager

Noah will serve as the City's single point of contact and lead the project from Notice to Proceed through final bid documents. He is responsible for schedule control, coordination across disciplines, quality control, and City communication, with a firm commitment to meeting the December 4 completion date. Noah brings extensive experience leading neighborhood reconstruction projects and is known for steady leadership, clear decision making, and defending both schedule and quality.

Matt Kwiatkowski, PLS – Survey Lead

Matt will lead survey verification, aerial photography, supplemental field work, and coordination of base mapping to support roadway, drainage, trail, and access design. He brings deep experience supporting municipal infrastructure projects and understands the importance of accurate data in reducing risk. Matt's disciplined approach ensures the design team is working from reliable information that supports constructability and minimizes surprises during construction.

Peter Kiley – Lead Designer

Peter will advance the City's conceptual plans into coordinated, buildable construction documents. He will focus on roadway layout, grading, driveway access, and integrating phasing to support two year construction. Peter is an experienced civil designer with a strong track record delivering clear, practical plans. He is valued for his constructability mindset and ability to translate complex constraints into straightforward solutions.

Grace Wolf, EI – Drainage Engineer

Grace will lead hydrologic and hydraulic analysis, drainage reporting, and stormwater quality design. She will coordinate closely with roadway, trail, and phasing decisions to ensure systems perform as intended and protect downstream resources. Grace brings focused expertise in municipal drainage and water quality and is a trusted defender of resilient, standards based solutions that stand the test of time.

David Powlen, PLA, LEED, BD+C, ASLA – Landscape Architect

David will support trail design, landscape restoration, and streetscape elements that reinforce neighborhood character. He will also assist with graphics and visuals used during neighborhood meetings to clearly communicate proposed improvements. David brings a strong ability to bridge technical design and public understanding, helping residents visualize change while ensuring designs are practical and durable.

Aimme Muro – Lighting Designer

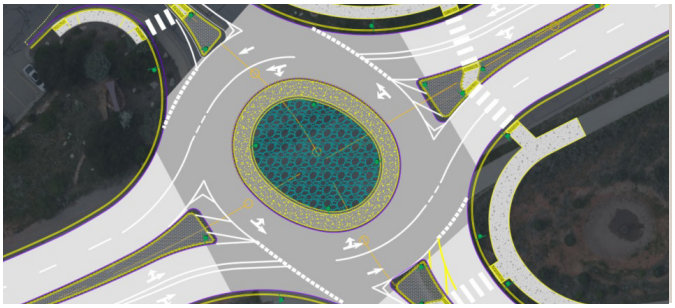
Aimme will design intersection and pedestrian lighting that improves safety, visibility, and neighborhood comfort while meeting City standards. She understands how lighting influences both function and perception in residential settings. Aimme brings a thoughtful, disciplined approach to lighting design, balancing performance, efficiency, and community character to support safe movement throughout the neighborhood.

Andrew Regnery, PE – Optional Irrigation Delivery Design

Andrew will provide optional support evaluating raw water delivery methods that leverage the City's existing water rights, beyond a simple pipeline stub. He brings extensive experience in water resources and irrigation systems and offers strategic insight to help the City protect long term investment. Andrew's involvement is focused on foresight, flexibility, and positioning the City for future implementation.

4 • Relevant Project Experience (References)

V3 has delivered roadway, drainage, and multimodal projects similar in scale and complexity to the Glenwood Park Reconstruction Design. Representative references include the following:



City of Glenwood Springs

Midland Avenue & Wulfsohn Road Improvements | Glenwood Springs, Colorado

V3 role: V3 served as lead designer for roundabout, drainage, and multimodal improvements within a constrained urban corridor. Responsibilities included survey coordination, geotechnical pavement design, drainage analysis and design (including water quality), roadway reconstruction, intersection improvements, pedestrian and bicycle facilities, and coordination with existing utilities.

V3 led development of drainage solutions to address conveyance limitations and integrate system performance with roadway design, supporting long-term resilience and regulatory compliance. The team also supported phasing, and preparation of bid-ready plans aligned with the City's schedule and community expectations.

Project Manager: Noah Nemmers, PE
Contact: Ryan Gordon, City Engineer
Phone: 970-384-6413
Email: ryan.gordon@cogs.us

Town of Berthoud

2nd Street Full Depth Reclamation (FDR) and Drainage Improvements | Berthoud, Colorado

V3 role: Project Manager Noah Nemmers, provided design and construction support services for roadway reconstruction utilizing full-depth reclamation (FDR) along with targeted drainage improvements. Responsibilities included pavement evaluation, development of FDR design recommendations, coordination with geotechnical input, drainage analysis and design, and preparation of construction documents.

V3 advanced the use of FDR to reconstruct the pavement section in place, minimizing export of materials and reducing import of new aggregate, while improving constructability and schedule efficiency. Drainage improvements were integrated with roadway design to address runoff, improve system performance, and support long-term maintenance. During construction, Noah supported the contractor and Town with coordination, design clarifications, and field adjustments to maintain schedule and ensure successful implementation of both FDR and drainage components.

Contact: Jeremy Olinger, CPRP, Deputy Town Administrator
Phone: 970.344.5824
Email: jolinger@berthoud.org

City of Golden

South Golden Road & West 12th Avenue Improvements | Golden, Colorado

V3 role: Project Manager Noah Nemmers, provided roadway reconstruction and corridor improvement design within a high-traffic urban environment. While the project included intersection improvements, the primary focus was on rehabilitating an aging roadway corridor, upgrading drainage infrastructure, and improving multimodal functionality and safety.

Subsurface utility engineering (SUE) was implemented to identify and manage complex existing utilities, supporting efficient design and minimizing construction conflicts. Drainage design addressed localized flooding challenges by improving storm sewer capacity, integrating detention and water quality where needed, and tying into an adjacent regional drainageway to manage both on-site and off-site runoff conditions.

The project also included lighting and streetscape-related improvements to enhance corridor safety, visibility, and usability for all modes. Design solutions were developed to meet current multimodal standards while maintaining constructability within a constrained corridor carrying approximately 16,000 vehicles per day.

Full construction documents were prepared and coordinated with both City of Golden and Jefferson County. The team worked closely with the client and stakeholders to deliver a practical, buildable solution that balanced infrastructure needs, drainage performance, and traffic operations.

Project Manager: Noah Nemmers, PE
Contact: Don Guerra – Project Manager (Reva Development)
Phone: 303.263.2105
Email: don.guerra@revadevelopment.com

5 • Project Schedule & Delivery

V3 will deliver the Glenwood Park Reconstruction Design using fixed milestones, clear sequencing, and disciplined review periods. The schedule reflects logical design progression and minimizes unnecessary potholing by aligning utility investigations with the finalized drainage layout.

AUTHORIZATION & KICKOFF

- City Council approval & Notice to Proceed: June 20
- Project kickoff meeting: June 24

SURVEY & INITIAL FIELD INVESTIGATIONS

- Existing survey review and supplemental field verification complete: July 9
- Initial SUE utility designation (records and surface features): July 9
- Geotechnical borings complete: July 26

This work establishes base conditions without premature potholing.

SOILS REPORTS & PAVEMENT DESIGN

- Draft geotechnical report and pavement section recommendations: August 2
- Final soils report incorporated into design: August 17

DRAINAGE ANALYSIS & PRELIMINARY DESIGN

- Preliminary drainage analysis and storm layout complete: August 9
- Draft drainage report submitted with 50% plans: September 3

Drainage layout is established prior to targeted potholing to reduce conflicts and rework.

50% PRELIMINARY CONSTRUCTION DRAWINGS, SPECIFICATIONS & ESTIMATE

- 50% submittal: September 3
- City review period: September 3 – September 24 (3 weeks)

The 50% milestone confirms roadway layout, drainage concepts, access strategy, and construction phasing.

TARGETED POTHOLING & SUE REFINEMENT

- Utility potholing complete: September 24

Potholing is limited to confirmed conflict areas based on the approved drainage layout, reducing cost and disruption.

90% CONSTRUCTION DRAWINGS, SPECIFICATIONS & ESTIMATE

- 90% submittal: November 6
- City review period: November 6 – November 20 (3 weeks)

The 90% milestone reflects verified utilities, finalized drainage, and coordinated phasing.

FINAL CONSTRUCTION DRAWINGS, SPECIFICATIONS & ESTIMATE

- Final bid ready plans complete: December 4

All City comments are incorporated, and plans are coordinated, stamped, and ready for bidding.

SCHEDULE INTEGRITY

This schedule reflects how strong neighborhood projects are delivered—**design first, investigate smartly, and confirm utilities only when it matters.** It protects review time, reduces risk, and delivers certainty for spring construction.

2026-15P

Glenwood Park Reconstruction Design Project start: Thu, 6/18/2026

V3 Companies

TASK	Responsible Party	PROGRESS	START	END
Programming and Conceptual Design				
Kick-off Meeting with City & Stakeholders	V3	0%	6/18/26	6/22/26
Survey/SUE Data Collection and Processing	V3	0%	6/18/26	7/9/26
Prelim Drainage/Detention Evaluation	V3	0%	6/29/26	7/5/26
Geotech and Pavement Design	Ninyo	0%	6/27/26	8/17/26
50% Preliminary Design Development				
Weekly Meetings and Management	V3	0%	6/22/26	9/3/26
Development of 50% Plan Set	V3	0%	7/5/26	9/3/26
Engineer's Estimate	V3	0%	8/31/26	9/3/26
Preliminary Drainage Report	V3	0%	7/5/26	9/3/26
Submit for Review and Coordinate	V3	0%	9/3/26	9/24/26
90% Final Design Development				
Weekly Meetings and Management	V3	0%	9/3/26	11/5/26
SUE Test Holes	Badger	0%	9/3/26	9/24/26
Final Design Development Plan Set	V3	0%	9/24/26	11/5/26
Engineer's Estimate	V3	0%	10/31/26	11/5/26
Final Drainage Report	V3	0%	10/6/26	11/5/26
Project Specs	V3	0%	10/6/26	11/5/26
Design Review Meeting and Revisions	V3	0%	11/6/26	11/20/26
Final Bid Documents				
Weekly Meetings and Management	V3	0%	11/20/26	12/4/26
Finalization of Plans and Specs	V3	0%	11/20/26	12/4/26
Final Estimate and Bid Form	V3	0%	11/30/26	12/4/26
Bid and Construction Admin		**0%**	**12/4/26**	
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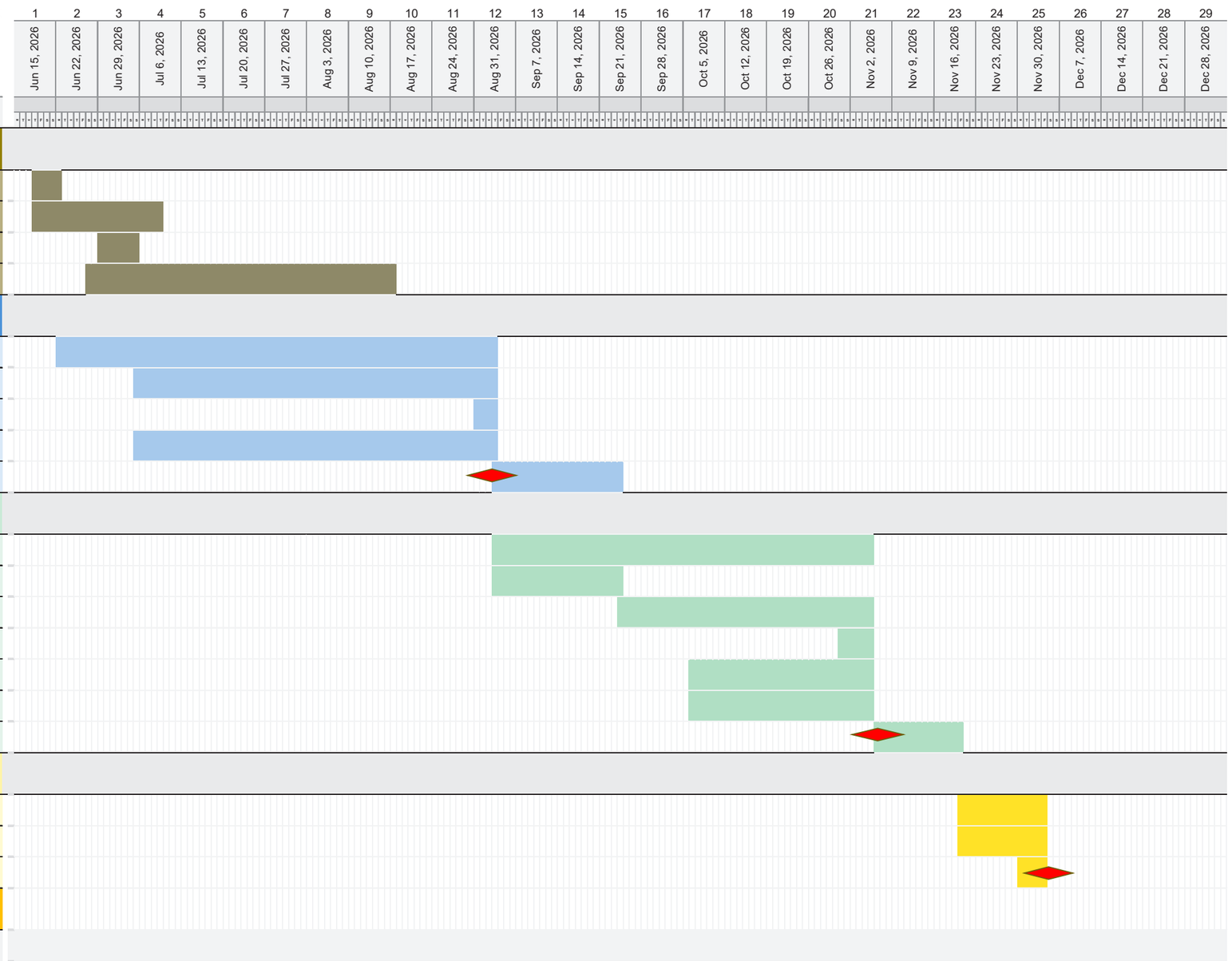

6 • Project Scope & Deliverables

Project Scope & Deliverables

V3 will advance the City's conceptual vision for the Glenwood Park neighborhood into coordinated, construction ready bid documents. The scope is structured to deliver durable infrastructure, improve safety and connectivity, and support phased construction while protecting neighborhood access.

DATA COLLECTION & FIELD INVESTIGATIONS

The design will be grounded in verified existing conditions. V3 will utilize the City provided survey as the foundation and perform supplemental field verification as needed to support final design.

This effort includes review of topography, utilities, right of way, easements, encumbrances, and monumentation, along with coordination of geotechnical investigations and utility record research to reduce risk and inform design decisions.

ROADWAY, MULTIMODAL & TRAFFIC CALMING DESIGN

V3 will design roadway improvements that remain within the existing neighborhood footprint while improving function, accessibility, and safety.

Design elements include:

- Demolition and Removals
- Roadway sections consisting of sidewalk, curb and gutter, parking, and travel lanes
- Sidewalks generally six feet wide, 11 foot travel lanes, and 10 foot multi use paths where applicable
- Roadway Profiles
- Erosion Control Plans and Landscape restoration
- Traffic calming features, signage, and striping to support safe neighborhood circulation

TRAIL & PARK IMPROVEMENTS

The Brush Creek Mountain Park trail will be redesigned to address steep grades, erosion, and stormwater impacts while improving long term usability.

Trail improvements will be coordinated with drainage and water quality design and support neighborhood connectivity and park access.

DRAINAGE ANALYSIS & WATER QUALITY DESIGN

V3 will prepare comprehensive drainage analyses and reports to support storm drainage and water quality improvements throughout the neighborhood.

Deliverables include:

- Preliminary drainage analysis and draft drainage report submitted with the 50% plans
- Final drainage analysis and report submitted with final construction documents
- Design of storm drainage facilities and evaluation of water quality treatment measures consistent with City standards
- Storm Plan and Profiles

SOILS REPORT & PAVEMENT DESIGN

A detailed geotechnical investigation and pavement design will be completed to support long-term roadway performance. This effort includes preparation of a soils report evaluating

subsurface conditions and providing pavement section recommendations based on current and projected traffic loading. Eight borings will be coordinated as part of the design.

The soils report will also document existing pavement thickness and native subgrade conditions to assess the feasibility of full-depth reclamation (FDR) using existing asphalt millings as base material. This approach aims to minimize off-site export, reduce imported base material, and potentially decrease the required asphalt pavement thickness.

RAW WATER INFRASTRUCTURE DESIGN

V3 will design a six-inch raw water pipeline based on City-provided information, including existing facilities and identified future connection points. The design will define appropriate termination points for future use and will be coordinated with the proposed roadway and drainage improvements. Connections to irrigation systems are not included in the base scope.

As a supplemental service, V3 can provide evaluation and conceptual design of a broader raw water delivery system. This may include assessment of a river intake, raw water storage and settling components, and evaluation of potential connections to support park and school irrigation systems.

LIGHTING DESIGN

V3 will design lighting systems that improve safety and visibility while meeting City standards.

Lighting design includes overhead street lighting at intersections, pedestrian crossing elements, and bollard lighting where applicable along multi use paths, coordinated with roadway and trail improvements.

PARKING & SCHOOL ACCESS EVALUATION

As part of the overall design, V3 will evaluate:

- Parking conditions and opportunities at Sullivan Field
- Pick up and drop off operations at Sopris Elementary School

These improvements will be coordinated with roadway geometry, drainage, and safety considerations.

DESIGN MILESTONES, BID DOCUMENTS & SUPPORT

V3 will advance the City's conceptual plans through defined milestones, including 50%, 90%, and final construction documents. Deliverables include plans, reports, specifications, and engineer's estimates in PDF and AutoCAD formats.

V3 will also support the City during bidding by responding to bidder questions and assisting with addenda as needed.

8 • Applicable Warranty Information

V3 provides professional services consistent with the standard of care ordinarily exercised by qualified professionals performing similar work under similar circumstances. No additional warranties or guarantees are proposed beyond those required by the City.

9 • Exceptions (if applicable)

V3 takes no exceptions to the requirements outlined in the Request for Proposals.

Our firm has viewed and understands each addendum.

Signature

Noah J. Nemmers
Colorado Regional Leader

Appendix A

10 • Resumes

Noah Nemmers, P.E.

COLORADO REGIONAL LEADER

Years of Experience

V3: 12 | Total: 26

Education

Bachelor of Science, Civil Engineering, Southern Illinois University Carbondale

Continuing Education

ACEC Subsurface Utility Engineering for Governmental Agencies

Registrations

Professional Engineer

- *Colorado, #PE.39820, 2005*

Noah is an innovator in sustainable infrastructure and urban development. As Colorado's Regional Leader, he manages multidisciplinary teams delivering transportation, energy, and land development projects across Colorado. His expertise in civil engineering, regulatory compliance, and stakeholder coordination brings strategic leadership and innovative design to complex public and private initiatives. Noah's extensive expertise in municipal and private land development ensures tailored, high-impact solutions that align with community goals and client visions.

Wulfson Road & Midland Avenue Roundabout, City of Glenwood Springs – *Glenwood Springs, Colorado* | Project Manager for the improvements at the intersection of Wulfson Road and Midland Avenue to enhance traffic flow, safety, and long-term infrastructure resilience. Project included survey mapping, roundabout design, and drainage engineering for this critical gateway.

Waggener Farm Park Recreation Center, Town of Berthoud – *Berthoud, Colorado* | Team Member providing owner's representative services for the construction of Berthoud's $30-million recreation center. Responsibilities included plan review, bidding, construction documentation, and field observation. Collaborated with Town staff to resolve issues and ensure project success. Utilized drone flights for site documentation and professional photography for hidden systems.*

2nd Street Reconstruction, Town of Berthoud – *Berthoud, Colorado* | Project Manager for the project revitalizing 1,600+ feet of roadway. Addressed poor drainage and road deterioration through full-depth milling and reclamation which minimized cost and allowed for a new cross section. The new design includes roll curbs, gutters, and sidewalks to improve drainage, pedestrian access, and reduce impervious surfaces. Phased construction minimized disruption, with proactive communication to local homeowners. Provided survey, design, drainage analysis, and construction management.*

Town Of Berthoud On-Call Engineering, Town of Berthoud – *Berthoud, Colorado* | Project Manager for general engineering services including private development plan reviews, design guideline updates, and public infrastructure construction oversight. Acted as the owner's representative for multiple projects, including the Town's Bike Park, Wagoner Farm Recreation Center, and Town Park Rehabilitation. Other key projects include the Berthoud Parkway Trails, where Noah handled full design and construction oversight for trail extensions, as well as Safe Routes to School, administering CDOT grants, and ensuring ADA-compliant sidewalk improvements. The Main Street Roundabout project involved redevelopment to enhance ADA accessibility and landscaping. Additionally, hydraulic modeling and sewer capacity evaluations were conducted for future developments as part of the 1st Street East Sewer Analysis.*

**Work performed at previous firm*

Matt Kwiatkowski, PLS

SURVEY LEAD

Years of Experience

V3: 20 | Total: 36

Education

Civil Engineering, Illinois Institute of Technology

Civil Engineering, Northern Arizona University

Registrations

Professional Land Surveyor

- *Colorado, #38488, 2015*
- *Wisconsin, #2523, 2003*

Matt is a champion in precision surveying. As Denver Survey Group Leader, he leads boundary, topographic, and construction surveying efforts across public and private sector projects. Matt's experience in field crew management, quality control, and advanced survey technologies brings dependable accuracy and regulatory alignment to infrastructure and development initiatives.

Thunderbird Well Survey, JHL Constructors – *Sedalia, Colorado* | Survey Project berManager for the construction survey to establish the site control network and centerline alignment staking for a new access road and well pad in Sedalia. The control network and staking services were performed using Global Navigation Satellite System receivers.

Mead Salvage Survey Services, DTI Trucks – *Mead, Colorado* | Survey Project Manager for the ALTA/NSPS land title survey and topographic survey of a parcel of land at 4199 County Road 28, in Mead. The boundary and topographic survey was performed using a total station, Global Navigation Satellite System receiver, an unmanned aerial vehicle, or drone, with a photogrammetry camera, and an automatic level.

Quandry Loop Survey Services, JC Warren Enterprises, Inc. – *Broomfield, Colorado* | Survey Project Manager for the improvement survey plat of 15965 Quandary Loop in Broomfield. The improvement survey plat was performed using a total station and Global Navigation Satellite System receivers.

Flying Horse Substation Survey, City of Colorado Springs – *Colorado Springs, Colorado* | Survey Project Manager for the subsurface utility engineering and topographic survey of Flying Horse Substation, located at the southeast corner of Old North Gate Road and Roller Coaster Road. The survey was performed using a total station, Global Navigation Satellite System receiver, and an unmanned aerial vehicle, or drone, with a photogrammetry camera.

Bijou Valley Land Survey Services, Kelly Law Partners, LLC – *Colorado Springs, Colorado* | Survey Project Manager for the land survey plat of Lot 2 of Bijou Valley Estates in Colorado Springs. The work was performed using a total station, a Global Navigation Satellite System receiver, and an unmanned aerial vehicle, or drone, with a photogrammetry camera.

Classrooms Expansion, Deer Trail Elementary School – *Deer Trail Colorado* | Survey Project Manager for all boundary and topographic surveying work performed for the expansion of classrooms for Deer Trail Elementary School. Work included ordering and reviewing title reports and exception documents for the property, boundary analysis, topographic surveying, and underground utility location coordination for the school.*

Classrooms Expansion, Lotus School for Excellence – *Aurora, Colorado* | Survey Project Manager for all boundary and topographic surveying work performed for the expansion of classrooms for an elementary school. Work included ordering and reviewing title reports and exception documents for the property, boundary analysis, topographic surveying, and underground utility location coordination for the school.*

Peter Kiley

LEAD DESIGNER

Years of Experience

V3: 2 | Total: 5

Education

Bachelor of Science, Civil Engineering, University of Illinois at Urbana-Champaign

Peter is a standout in construction engineering and infrastructure permitting. As Civil Designer II, he leads field engineering on major transportation projects, manages complex permitting processes, and mentors new inspectors. His experience in transportation design, utility permitting, and CAD coordination brings precision and foresight to infrastructure development projects. Top interests include construction oversight, environmental compliance, and stakeholder coordination.

Wulfson Road & Midland Avenue Roundabout, City of Glenwood Springs – *Glenwood Springs, Colorado* | Civil Designer for the proposed roundabout for an existing uncontrolled intersection.

Various Projects, SQN Associates, LLC – *Chicago, Illinois* | Civil Designer working in the Transportation Division. Representative projects include:

- *Served as Construction Inspector ensuring strict adherence to IDOT Standard Specifications and plan details on IDOT roadway and bridge contracts—including an $11-million, full bridge replacement and the $28-million I-55/I-80 interchange reconstruction. Inspected and documented daily contractor operations which included verifying approved materials and installation techniques, resolving constructability and design issues, performing field measurements, and preparing daily activity and payment reports. Performed daily traffic control checks, ensuring safety for both the vehicle traffic and field personnel. Inspected erosion control measures and prepare weekly reports ensuring compliance with environmental regulations. Discovered critical rebar-design conflicts in bridge and retaining-wall plans before fabrication, avoiding multi-week schedule slip and costly change-order. Audited contractor invoices, flagging quantity and rate errors.*
- *Oversaw construction of two 25-foot-tall MSE retaining walls. Perform plan reviews and quantity take-offs, familiarizing myself with all aspects of transportation design and construction. Act as daily liaison among multiple IDOT departments and prime/sub-contractors to resolve on site issues, keeping work on schedule.**

Various Projects, Primera Engineers – *Chicago, Illinois* | Permit Analyst working in the Utilities Division. Recognized as Primera's permitting expert on projects with complex scope such as large fiber optic links, railroads, upgrades of entire distribution systems, and projects with major civil/underground scope. Created and delivered a training presentation to internal project managers demonstrating how to utilize client software to engage the client's real estate team when real estate research is required for a project. Managed the permitting, participated in real estate discussions, and helped sequence construction for the client's high profile fiber optic cable installation program, a multi-million-dollar program with multiple separate "links" spanning over 50 miles across Lake County, an area requiring heavy permitting. Efficiently managed the permitting of 15-25 projects across different programs.*

Various Projects, Village of Downers Grove – *Downers Grove, Illinois* | Civil Designer that *reviewed construction and legal documents included with stormwater permit applications for driveways, parking lots, additions, and accessory structures to ensure compliance with Village ordinances. Utilized effective communication to work with homeowners and contractors throughout the permitting process, which reduced the average review time for driveway applications.**

**Work performed at previous firm*

Grace Wolf, EI

DRAINAGE ENGINEER

Years of Experience

V3: 2 | Total: 3

Education

Bachelor of Bioproducts and Biosystems Engineering, Environmental & Ecological Engineering, University of Minnesota Twin Cities

Registrations

Engineering Intern

- *Colorado, #0079399, 2023*

Grace is an up-and-comer in civil and environmental engineering. As a Civil Designer, she has completed watershed analysis and hydraulic modeling to develop drainage solutions and designed stormwater infrastructure for diverse land development projects. Grace's experience in stormwater compliance, hydraulic modeling, and sustainable drainage systems brings innovative value to infrastructure and environmental service line projects.

Wulfson Road & Midland Avenue Roundabout, City of Glenwood Springs – *Glenwood Springs, Colorado* | Civil Designer for the stormwater infrastructure and water quality facility serving the proposed roundabout for an existing uncontrolled intersection. The drainage design allows for runoff to be captured by the proposed storm network, which convey flows to a proposed bioretention for infiltrative treatment. This project required special design considerations in order to maintain the functionality of an existing stormwater facility adjacent to the intersection. The scope of work includes preparation of construction documents and technical reports for the proposed roundabout design and associated drainage improvements. Grace conducted hydrologic calculations and hydraulic analysis in Hydraflow Storm Sewers to ensure the proposed storm system has conveyance capacity for major and minor design storms.

Republican River Water Conservation District Pipeline Expansion, Republican River Water Conservation District – *Wray, Colorado* | Project Engineer for design of seven new wells and pump houses, installation of approximately 2,000hp of additional pumping capacity and design of approximately 12 miles of 12-inch to 24-inch transmission main to connect the new wells to the pipeline. Project also included designed of new access roads and power supply to the new well sites. Hydraulic modelling was conducted of the existing and expanded pipeline network to ensure hydraulic capacity and suitability of existing infrastructure for expansion.

Mustang Run Stream Restoration, REDLAND – *Thornton, Colorado* | Civil Designer for the design of a naturalized, high-function, low-maintenance stream to restore, expand, and improve a flood corridor for an industrial development. The project included a conditional letter of map revision and formal map revision submittals for alterations of floodway/floodplain. Grace utilized HEC-RAS to model the stream under a variety of flow conditions in order to ensure a comprehensive design and floodplain analysis. The scope of work includes a conditional letter of map revision and formal map revisions for the proposed alterations of the effective floodplain.

Industrial Stormwater Compliance, Cemstone – *Mendota Heights, Minnesota* | Intern for Cemstone's environmental and engineering department, Grace ensured stormwater compliance for ready-mix concrete plants and non-metallic mining sites across Minnesota and Wisconsin. She performed stormwater site inspections and coordinated with site supervisors to maintain compliance with state pollution regulations. Grace produced and revised stormwater pollution prevention plans as well as other environmental permits and assisted the engineering team in implementing sustainable solutions for industrial wastewater management.*

Aimme Muro

LIGHTING DESIGNER

Years of Experience

V3: 6 | Total: 6

Education

Bachelor of Science, Civil Engineering, University of Illinois at Chicago

Launguages

English

Spanish

Aimme is a rising star in civil engineering. As a Civil Designer, she specializes in roadway design, infrastructure improvements, and utility design and coordination. Her experience in traffic signal design, lighting design, intersection improvements, and pedestrian safety enhancements brings valuable expertise to transportation projects. Aimme's portfolio includes notable projects such as 153rd & Ravinia, Theodore Street, and the Naperville Road Improvements.

City of Lockport Downtown Revitalization, City of Lockport – *Lockport, Illinois* | Civil Designer providing feasibility, planning, design, and construction management support services for streetscape improvements along State Street in downtown historic Lockport. Enhancements included various hardscape and streetscape elements, including brick paver sidewalks, limestone outcroppings and planters, bicycle racks and benches, ADA design, and rehabilitation of existing pedestrian lighting. Project was designed and permitted by IDOT, and construction of the streetscape elements were coordinated with an ongoing IDOT roadway rehabilitation project along IL Route 171 and IL Route 7. Project was awarded the APWA Public Works 2020 Project of the Year: Southwest Branch for transportation projects in the $5- to $25-million range. Aimme was responsible for site grading plans of 9th and State Street as well as contract quantities.

Blackhawk Drive Four-way-stop Study, Village of Park Forest – *Park Foresglendwt, Illinois* | Civil Designer for the assessment of bicycle and pedestrian operations at the intersections of Blackhawk Drive with Miami Street and Suwannee Street. To improve walkability, it was recommended to install striped crosswalks in all directions at both intersections and to implement four-way stop controls for safe pedestrian crossings.

Wenmoth Road Intersection Improvements, Kane County DOT – *Geneva & Romeoville, Illinois* | Civil Designer for Phase II Civil Designering services for roadway and intersection improvements on Wenmoth Road at Fabyan Parkway and Main Street. The project included milling and resurfacing, new turn lanes at each intersection, a new traffic signal installation at the intersection of Wenmoth Road and Fabyan Parkway, drainage improvements, utility coordination, and right-of-way acquisition. A feasibility report and design report were prepared to determine the recommended improvements at each intersection, wetland and environmental impacts, and an intersection design study.

1237 West Division Street, Logistics Property Company – *Chicago, Illinois* | Civil Designer for this multi-level, speculative distribution facility with multi-story truck docks on an 11-acre site. V3 performed a traffic study and prepared a traffic signal modification plan. Detention was provided in multiple StormTrap systems, and discharge was sent to two different City streets. Grading for the various ramps to get to the different levels was critical to maintain clear head heights, and close proximity to the UP railroad along the property line resulted in the design of a retaining wall. The project is seeking LEED certification. Aimme was responsible for traffic signal requirement plans and assisted with CDOT coordination.

**Work performed at previous firm*

David Powlen, PLA, LEED, BD+C, ASLA

LANDSCAPE ARCHITECT

Years of Experience

V3: 2 | Total: 38

Education

Bachelor of Science, Landscape Architecture, Pennsylvania State University

Registrations

Registered Landscape Architect

- *Maryland, #2068, 1995*
- *Virginia, #610, 1995*
- *Pennsylvania, #1394, 1996*
- *North Carolina, #885, 1996*
- *South Carolina, #765, 2000*
- *Colorado, #951, 2012*
- *Tennessee, #983, 2013*
- *Mississippi, #623, 2013*
- *Texas, #3445, 2019*
- *Ohio, #1664, 2023*

Associations

ASLA

CLARB

David is a Senior Project Manager with 37 years of experience in landscape architecture. He specializes in both public and private projects from streetscapes and athletic fields to public, private, and charter schools. He also has extensive experience in the retail and corporate campus realms and is well versed in consensus building and permitting processes. His expertise brings valuable insights and innovative solutions to land development and landscape architecture projects.

Parks & Recreation*

- *Shelby City Park Parking Lot & Playground, City of Shelby Parks & Recreation, Shelby, North Carolina*
- *Heavenly Waters Park Master Plan, Harford County Parks & Recreation, Bel Air Maryland*
- *Willows Road Park Master Plan & Construction Documents, St. Mary's County Parks & Recreation, Lexington Park, Maryland*
- *Nicolet Park Master Plan, St. Mary's County Parks & Recreation, Lexington Park, Maryland*
- *Laurel Grove Park Master Plan & Construction Documents, St. Mary's County Parks & Recreation, Laurel Grove, Maryland*

Streetscape Improvements*

- *Streetscape Improvements, City of Moundsville, Moundsville, West Virginia*
- *Streetscape Improvements/ Urban Plaza Development, University of Maryland at Baltimore, Baltimore, Maryland*
- *Streetscape Improvements, City of Clarksburg, Glen Elk, West Virginia*
- *Streetscape Improvements, Town of Princess Anne, Princess Anne, Maryland*
- *Streetscape Improvements, Baltimore County Department of Public Works, Arbutus, Maryland*

Sugaw Creek Park Improvements, Mecklenburg County Park and Recreation Department – *Charlotte, North Carolina* | Project Manager for the park improvements that include a new splash pad with pump house and underground storage tank, new tennis courts, new pickleball courts, and a bike polo/special use court. Design also includes new multi-use path and new ADA accessible sidewalks with new plazas and waiting areas for use of the courts.

City of Light Campus, Inspiration Network – *Indian Land, South Carolina* | Project Manager for this 100-acre corporate campus that included two buildings, creation of a five-acre lake, multiple amenity spaces including a prayer garden and boardwalk, multiple water features including a reflecting pool adjacent to the main building that included a baptismal pool, and an arrival fountain. David also oversaw the design of the storm water and utility systems and required internal road network and parking lots. The extensive landscaping throughout the site includes more than 50 10-inch caliper willow oak trees.*

Headquarters Campus, Adventist Health West – *Roseville, California* | Project Manager for the site design that included a 200,000-square-foot building with multiple gardens that stressed mind, body, and spirit. The campus also includes a community walking trail, community gardens, parking for 500 cars, and a public bus stop. One of David's many roles on this project was to secure all the entitlements for the campus including rezoning and environmental permits.*

Andrew Regnery, P.E.

OPTIONAL IRRIGATION DELIVERY DESIGN

Andrew is a leader in water and wastewater infrastructure. As a Project Manager, he oversees planning, design, and construction of civil and environmental systems across domestic and international projects. His expertise spans hydraulic modeling, drainage design, and permitting, enhanced by advanced geospatial analysis and the use of machine learning. Andrew brings innovative approaches to infrastructure and sustainability initiatives through data-driven insights.

Years of Experience

V3: 7 | Total: 11

Education

Bachelor of Science, Environmental Engineering, Northwestern University

Continuing Education

Red Vector HEC-RAS

PSMJ: Project Manager Bootcamp

Imagery Analysis in ArcGIS Pro

Registrations

Professional Engineer

- *Colorado, #PE.0062652, 2023*
- *Illinois, #062-072270, 2020*
- *Iowa, #P29568, 2020*

Volunteer Work

Evans Scholars Foundation

Engineers Without Borders

Languages

English

French

Spanish

Republican River Water Conservation District Pipeline Expansion, Republican River bertWater Conservation District – *Wray, Colorado* | Project Manager for design of seven new wells and pump houses, installation of approximately 2,000hp of additional pumping capacity and design of approximately 12 miles of 12-inch to 24-inch transmission main to connect the new wells to the pipeline. Project also included designed of new access roads and power supply to the new well sites. Hydraulic modelling was conducted of the existing and expanded pipeline network to ensure hydraulic capacity and suitability of existing infrastructure for expansion.

Town of Monument Stormwater Master Plan, Town of Monument – *Monument, Colorado* | Project Manager for the comprehensive stormwater management plan to enhance infrastructure and address current and future stormwater challenges through a collaborative approach that prioritizes stakeholder engagement and compliance with state and El Paso County standards. The technical work includes developing runoff hydrographs, routing them through Monument's subwatersheds, and identifying infrastructure upgrade locations while ensuring MS4 permit compliance and water quality enhancement through best management practices.

Mary Jane Lane Storm Sewer Relief, City of Wood Dale – *Wood Dale, Illinois* | Project Manager for the detailed field survey and localized drainage study to evaluate the causes of flooding along Mary Jane Lane. The study revealed that the existing storm sewer system lacked sufficient capacity to manage peak storm events. Rather than pursuing a costly full replacement of the storm sewer, a cost-effective overflow solution allows for excess stormwater to temporarily back up into the new detention pond during heavy rainfall and then drain back into the downstream system once capacity is restored.

Hebron Water System Model, Village of Hebron – *Hebron, Ohio* | Project Manager for the development of a water model to allow the Village to better manage their existing water assets and plan for future expansion needs. The model will allow for in-depth analyses for expansion alternatives, fire-flow capacity checks throughout the area, and better management of capital improvements. V3 also reviewed and updated the existing GIS data for the elements relevant to the water model.

Maple Meadows Golf Preserve Improvements, Forest Preserve District of DuPage County – *Wood Dale, Illinois* | Project Manager for the 18-hole renovation to update aging infrastructure that serves the course, modify golf holes to enhance the playing experience, speed up pace of play, and improve the spacing and buffer between golf areas and the adjacent residential community. The project has several wetlands on site that must be protected during the renovation, and we are working to expand the presence of native grasses to reduce the area that must be irrigated.

**Work performed at previous firm*

931 SANTA FE DRIVE, SUITE 200 • DENVER, CO 80204

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item:	Award Request for Proposal (RFP) 2026-14P Ballistic Glass Installation and Wall Hardening Improvements
Action Requested:	Approval of Award Request for Proposal (RFP) 2026-14P
Department:	City Administration
Presented By:	Tim Bergman
Strategic Goals:	Ensure Public Safety Preserve and Improve Infrastructure
Background Info:	City Hall has several key public-facing customer service areas that do not have ballistic glass or wall hardening around the customer service windows. These customer service areas are high traffic and sometimes have agitated constituents. Adding ballistic glass and wall hardening will protect staff in worst case scenarios.
Issues:	Adding ballistic glass and wall hardening will protect staff in worst case scenarios.
Fiscal Impact:	$268,376.61
Legal Review:	Legal will review the contract.
Staff Recommendation:	Staff reccomends awarding the request for proposal 2026-14P to DCPS in the amount of $268,376.61.

CITY OF GLENWOOD SPRINGS | REQUEST FOR PROPOSAL 2026-14P | BALLISTIC GLASS INSTALLATION AND WALL HARDENING IMPROVEMENTS | DCPS FORMAL RESPONSE

DATE OF ISSUE Wednesday, May 13, 2026 – 5:09 PM MDT
DUE DATE Wednesday, June 10, 2026 – 2:00 PM MDT

REQUESTED BY

City of Glenwood Springs (the "City")
Procurement Department
101 West 8th St | Glenwood Springs, CO 81601
Attention: Ryan Muse, City Clerk
Email: ryan.muse@cogs.us | **Phone:** (970) 384-6406

DESCRIPTION

The City of Glenwood Springs is seeking proposals from qualified contractors to furnish and install ballistic resistant glass, document pass through, communication speakers, and undertake wall hardening improvements in designated public facing service areas within City Hall. The purpose of this project is to enhance employee and public safety while maintaining functionality and service access. The selected contractor shall provide all labor, materials, equipment, engineering, and incidentals necessary to complete the project. The selected contractor shall be responsible for any permits necessary for the work.

CONTRACTOR DETAILS

COMPANY NAME: DCPS (the "Contractor")

PRESIDENT: Dale Heims **EMAIL:** dale.heims@dcps.com **PHONE:** (720) 661-4348

RFP CONTACT: Alison Bliss **EMAIL:** alison.bliss@dcps.com **PHONE:** (720) 744-2877

CORPORATE HEADQUARTERS ADDRESS: 4801 E 60th Ave | Commerce City, CO 80022

URL: https://dcps.com **TAX ID# 27-4914857**

SIGNATURE

June 10, 2026
DATE

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COVER LETTER

June 10, 2026

City of Glenwood Springs
Attn: Ryan Muse
101 West 8th Street
Glenwood Springs, CO 81601

Re: RFP 2026-14P – Ballistic Glass Installation and Wall Hardening Improvements

Dear Mr. Muse and Evaluation Committee Members:

DCPS is pleased to submit this proposal for the Ballistic Glass and Security Improvements Project at Glenwood Springs City Hall. As a Colorado-based Class A General Contractor, DCPS brings extensive experience managing complex renovation and specialty construction projects in occupied public, institutional, commercial, hospitality, and multifamily facilities throughout Colorado.

DCPS understands that this project extends beyond the installation of ballistic glazing and wall systems. The work requires careful planning, coordination, and execution within an active municipal facility while maintaining safety, security, and continuity of operations. Our team has significant experience delivering construction projects in occupied environments where minimizing disruption, protecting building occupants, and maintaining operational functionality are critical to project success.

DCPS will serve as the Prime Contractor and single point of accountability for all aspects of project delivery, including permitting, scheduling, subcontractor coordination, quality assurance, safety management, owner communication, and project closeout. Through disciplined project management and oversight, we ensure specialized trades and materials are integrated seamlessly into a complete, functional, and professionally executed security solution.

Our organization has successfully delivered projects for municipalities, public agencies, educational institutions, commercial property owners, hospitality operators, and private-sector clients throughout Colorado. Most notably, DCPS was recently selected by the City of Glenwood Springs for the Parking Garage Repair Project and is currently supporting contract execution and project planning efforts. Our construction teams have also completed facility improvement projects for Colorado Mountain College and Pitkin County and have performed numerous projects for public and institutional clients throughout the Roaring Fork Valley and surrounding mountain communities.

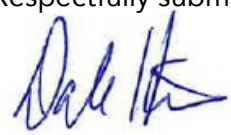
Safety is a core value at DCPS and remains central to every project we undertake. Our Experience Modification Rate (EMR) has improved from 1.17 in 2024 to 0.90 in 2026, reflecting our proactive commitment to risk management, training, and continuous improvement. DCPS has maintained zero OSHA violations during the past five years and employs a comprehensive Environmental Health & Safety program led by Gio Sierra, CSP, CHST, Director of Safety & Risk. Through site-specific safety planning, regular inspections, toolbox talks, and accountability at every level of the organization, we consistently deliver projects safely and efficiently.

The proposed project team combines experienced leadership in construction management, occupied facility renovations, project controls, quality management, and safety oversight. DCPS personnel have successfully managed projects ranging from specialized interior renovations to large-scale capital improvement programs exceeding $30 million in value. This depth of experience allows us to proactively identify challenges, coordinate stakeholders, and maintain schedule and quality expectations throughout construction.

We appreciate the opportunity to submit our qualifications and look forward to partnering with the City of Glenwood Springs on this important security enhancement project. DCPS is committed to delivering a safe, high-quality, and professionally managed project that enhances security for City staff and the public while minimizing disruption to ongoing operations.

Thank you for your consideration.

Respectfully submitted,



Dale Heims, President

MATERIAL DESCRIPTION

Detailed Description of Materials Proposed and Ballistic Ratings

DCPS proposes to furnish and install a complete ballistic protection system designed to enhance employee safety while maintaining functional public service areas within Glenwood Springs City Hall. The proposed system incorporates ballistic glazing, ballistic wall panels, communication devices, transaction trays, framing modifications, gypsum board finishes, and associated construction required to provide a fully integrated security solution.

Ballistic Rating

All ballistic glazing, wall panels, transaction trays, and communication devices will meet or exceed UL 752 Level 3 ballistic resistance requirements, consistent with the City's responses to bidder questions and project requirements.

The proposed system is intended to provide protection against threats associated with UL 752 Level 3 performance standards while maintaining visibility, communication, and operational functionality at public-facing transaction areas.

Ballistic Glazing

DCPS proposes furnishing and installing UL 752 Level 3 ballistic-resistant glazing systems at each designated transaction location. Glazing assemblies will be installed within appropriately rated framing systems and configured to provide clear visibility between staff and visitors while maintaining required security performance.

The glazing system will be selected to provide:

- UL 752 Level 3 ballistic resistance
- Optical clarity suitable for public-facing transactions
- Durable commercial-grade performance
- Compatibility with required communication and transaction devices
- Compliance with applicable building code and accessibility requirements

Manufacturer: U.S. Ballistic Products
Product: USAW400 TRANS/LV3ALL Windows Clear Anodized

Ballistic Wall Panels

Ballistic wall panels will be installed on the employee side of designated service counters and transaction areas from finished floor to the top of the ballistic glazing system as identified in the contract documents. Panels will be concealed behind finished gypsum board assemblies to provide a professional appearance consistent with the City's existing interior finishes while maintaining the required ballistic protection level.

Manufacturer: U.S. Bullet Proofing Inc.
Product: Panels: UL752 Lev5 Ballistic Fiberglass BS Wall Armor

Voice Communication Devices

Each transaction location will be equipped with a UST-1 voice communication device, as identified in the City's written responses. These devices will facilitate clear communication between employees and visitors while maintaining the integrity of the ballistic glazing assembly.

Communication Device: UST-1

Transaction Trays

Each transaction location will be provided with a USDT-100 ballistic-rated pass-through tray to facilitate the secure exchange of documents and small items while maintaining the required level of ballistic protection.

Deal Trays: USDT100-3

Wall and Finish Construction

Ballistic wall systems will be integrated into new and modified wall assemblies as required by the project documents. Ballistic panels will be covered with 5/8-inch gypsum board and finished to match adjacent architectural surfaces. All framing, drywall, trim, painting, and finish work necessary to provide a complete and professional installation will be included.

Quality Assurance

All materials will be installed in accordance with manufacturer recommendations, applicable building codes, project specifications, and industry best practices. Product data sheets, manufacturer certifications, shop drawings, and warranty documentation will be submitted to the City for review prior to installation.

CONSTRUCTION SCHEDULE

DCPS understands that construction activities are restricted to Friday through Sunday work periods and that Glenwood Springs City Hall must remain operational throughout the project. To minimize disruption to City staff and public services, DCPS will utilize a phased construction approach that allows each service area to be completed sequentially while maintaining control of safety, access, and operational continuity.

The project schedule is organized around procurement of long-lead ballistic materials followed by phased construction at each transaction location. This approach minimizes simultaneous impacts to City operations and allows each work area to be fully restored before progressing to the next location.

Phase 1 – Preconstruction and Procurement

Immediately following contract award, DCPS will initiate:

- Contract execution and Notice to Proceed activities
- Site verification and field measurements
- Shop drawing preparation and submittal
- Permit acquisition and coordination
- Procurement of ballistic glazing, ballistic panels, communication devices, and transaction trays
- Construction logistics planning and sequencing coordination with City staff

Because ballistic glazing and specialty security components are long-lead items, procurement activities will begin immediately upon award to maintain schedule certainty.

Phase 2 – Utilities Department Customer Service Counter

Work at the Utilities Department Customer Service Counter will be completed as a dedicated phase consisting of:

- Mobilization, protection measures, and site setup
- Removal of existing countertop, glazing, and affected wall finishes
- Framing modifications as required
- Installation of ballistic glazing assemblies
- Installation of ballistic wall panels
- Countertop reconstruction and associated finish work
- Drywall, painting, sealants, and final restoration
- Cleanup and demobilization

Phase 3 – Municipal Court Clerk Service Counter

Upon completion of the Utilities Counter improvements, DCPS will perform similar work at the Municipal Court Clerk Service Counter, including demolition, framing modifications, ballistic system installation, finish restoration, and closeout activities.

Phase 4 – Police Department Speeding Ticket Window

Work at the Police Department transaction window will include demolition, installation of ballistic glazing, ballistic wall panels, communication devices, transaction trays, finish restoration, and final cleanup.

Phase 5 – Add Alternate (If Authorized)

If accepted by the City, the Community Development Counter Add Alternate will be completed following the base bid work and will include:

- Removal of existing counter and half-height wall
- Construction of a new full-height ballistic-rated wall
- Installation of ballistic glazing, communication devices, and transaction tray
- Ballistic wall panel installation
- Finish restoration, painting, and project closeout

Working Hours

DCPS will perform construction activities during the City's approved Friday through Sunday work windows. Based on the City's published responses to bidder questions, construction activities may occur between 5:00 a.m. and 7:00 p.m. on approved workdays. Coordination with City staff will be maintained throughout the project to minimize disruption to ongoing operations.

Project Duration

The proposed schedule provides for immediate preconstruction activities, procurement of long-lead ballistic materials, and phased installation by service area. This sequencing allows work to be completed safely, efficiently, and with minimal impact to City Hall operations while maintaining compliance with the Friday-through-Sunday construction restriction.

Proposed Timeline

🟦 **Preconstruction & Procurement (Assuming NTP by June 21–July 12)**

Procurement schedule dependent on manufacturer lead time, confirmed timelines to be provided upon contract award.

🟩 **Utilities (Jul 17–19)**

🟩 **Court Clerk (Jul 24–26)**

🟩 **Police (Jul 31–Aug 2)**

🟧 **Add Alternate (Aug 7–9)**

BID SHEET

1. City Hall Utilities Department Customer Service Counter

a. Level 3 Ballistic Resistant Glass
- US Bullet Proofing Level 3 USAW400 Window
- Approximate Size: 120" x 72"
- Clear anodized frame finish

b. Non-Ricochet Ballistic Drop-In Trays
- Two (2) document pass-through trays

c. Communication Speakers and Microphones
- Two (2) UST1 voice communication devices

d. Installation
- Removal of existing glazing system
- Installation of ballistic glazing assembly
- Installation of ballistic wall hardening system
- Countertop replacement
- Drywall, trim, painting, and finish restoration
- Cleanup and demobilization

e. Base Bid: $86,061.42

2. Municipal Court Clerk Counter or Service Area

a. Level 3 Ballistic Resistant Glass
- US Bullet Proofing Level 3 USAW400 Window
- Approximate Size: 40" x 56"
- Clear anodized frame finish

b. Non-Ricochet Ballistic Drop-In Trays
- One (1) document pass-through tray

c. Communication Speakers and Microphones
- One (1) UST1 voice communication device

d. Installation
- Removal of existing glazing system
- Installation of ballistic glazing assembly
- Installation of ballistic wall hardening system
- Countertop replacement
- Drywall, trim, painting, and finish restoration
- Cleanup and demobilization

e. Base Bid: $58,825.65

3. Police Department Speeding Ticket Window Area

a. Level 3 Ballistic Resistant Glass
- US Bullet Proofing Level 3 USAW400 Window
- Approximate Size: 47" x 35"
- Clear anodized frame finish

b. Non-Ricochet Ballistic Drop-In Trays
- One (1) document pass-through tray

c. Communication Speakers and Microphones
- One (1) UST1 voice communication device

d. Installation
- Removal of existing glazing system
- Installation of ballistic glazing assembly
- Installation of ballistic wall hardening system
- New countertop installation
- Drywall, trim, painting, and finish restoration
- Cleanup and demobilization

e. Base Bid: $56,200.68

BASE BID TOTAL | $201,087.75

Base Bid pricing is based upon the simultaneous award and execution of all three (3) Base Bid locations under a single contract. If the City elects to proceed with fewer than all three locations, revised pricing may be required.

Add Alternate – Community Development Service Counter

a. Level 3 Ballistic Resistant Glass
- US Bullet Proofing Level 3 USAW400 Window
- Approximate Size: 72" x 42"
- Clear anodized frame finish

b. Non-Ricochet Ballistic Drop-In Trays
- One (1) document pass-through tray

c. Communication Speakers and Microphones
- One (1) UST1 voice communication device

d. Installation
- Demolition of existing counter and half-height wall
- Construction of new ballistic-rated wall assembly
- Installation of ballistic glazing assembly
- Countertop installation
- Drywall, trim, painting, and finish restoration
- Cleanup and demobilization

e. Add Alternate: $67,288.86

REFERENCES

1. Aurora Medical Office Building – Façade and Air/Water Barrier Replacement
Owner: Healthcare Realty
Location: Aurora, Colorado
Contract Value: Approximately $3,140,000

Reference Contact: Michael Haggard, Associate Director, Project Management
Phone: (602) 315-4456
Email: mhaggard@healthcarerealty.com

Project Description
DCPS completed the removal and replacement of the exterior façade and air/water barrier system for a three-story medical office building while the facility remained fully occupied and operational. The project

required extensive planning, stakeholder coordination, and safety management to maintain uninterrupted tenant access and building operations throughout construction.

Work included demolition and replacement of exterior assemblies, installation of a new air/water barrier system, phased construction sequencing, permitting, inspections, and continuous coordination with ownership, consultants, and facility occupants. Strict site controls, controlled access zones, and safety barriers were implemented to protect tenants and visitors while maintaining project progress.

Relevant Experience
- Occupied facility construction
- Active building operations during construction
- Phased project execution
- Controlled access and safety management
- Multi-trade coordination
- Permit and inspection management
- Complex renovation in a sensitive environment

2. McCoy Lodge – Window Replacement and Building Envelope Restoration
Owner: McCoy Lodge c/o Weatherproofing Technologies, Inc.
Location: Beaver Creek, Colorado
Contract Value: ~$13.8M

Reference Contact: Ray C. White Jr., Regional Business Manager, PNW
Phone: (440) 479-6941
Email: RCwhite@wtiservices.com

Project Description
DCPS provided preconstruction and construction services for a comprehensive window replacement and building envelope restoration project at McCoy Lodge, a fully occupied hospitality facility in Beaver Creek, Colorado. The project included replacement of all exterior windows, associated interior demolition and restoration, exterior envelope repairs, waterproofing improvements, sealant replacement, and finish restoration while maintaining continuous building operations throughout construction.

The project required extensive coordination among ownership, consultants, manufacturers, and specialty trade partners to execute large-scale glazing and exterior renovation activities safely and efficiently within an active occupied environment. DCPS managed constructability reviews, logistics planning, access coordination, phased work sequencing, quality control, safety oversight, and stakeholder communications throughout the project lifecycle.

Maintaining uninterrupted operations and minimizing occupant disruption were critical project requirements. Through detailed planning, controlled access procedures, phased construction activities, and proactive communication with facility stakeholders, DCPS successfully completed the work while preserving occupant safety and maintaining ongoing building functionality.

Relevant Experience
- Large-scale window and glazing replacement
- Occupied facility renovation and construction
- Active building operations during construction
- Phased construction sequencing and logistics management
- Demolition, restoration, and finish reconstruction
- Multi-trade coordination and project management
- Access control, occupant safety, and disruption mitigation
- Building envelope and weatherproofing improvements
- Schedule-sensitive project execution
- Preconstruction planning and constructability review

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3. Colorado Mountain College – Sopris Hall Interior Painting
Owner: Colorado Mountain College – Spring Valley Campus
Location: Glenwood Springs, Colorado
Contract Value: $46,785.63

Reference Contact: Kristopher Husson, Facilities Manager
Phone: (970) 947-8220
Email: khussong@coloradomtn.edu

Project Description
Awarded through a competitive public procurement process, this project consisted of interior improvements within Sopris Residence Hall at Colorado Mountain College's Spring Valley Campus. Scope included surface

preparation, protection of existing finishes, and repainting of residential units and common bathrooms within an active higher-education environment.

The work was completed during a compressed summer turnover period requiring detailed planning, efficient sequencing, and close coordination with campus facilities personnel. DCPS maintained schedule certainty, site cleanliness, and consistent quality while working within strict occupancy and operational constraints.

Relevant Experience

- Public institutional client
- Competitive procurement project
- Glenwood Springs area project experience
- Occupied facility environment
- Schedule-constrained execution
- Coordination with facility operations staff
- Quality control and turnover management

---

4. Pitkin County – River Park Center Exterior Repaint
Owner: Pitkin County
Location: Basalt, Colorado
Contract Value: Approximately $35,000

Reference Contact: Jodie Grady, Assets and Project Manager
Phone: (970) 618-3717
Email: jodie.grady@pitkincounty.com

Project Description
DCPS completed a comprehensive exterior restoration and repainting project for the River Park Center, a multi-level municipal facility operated by Pitkin County. The project included extensive surface preparation, sealant replacement, and application of high-performance coating systems designed to withstand harsh mountain climate conditions.

The work was performed within an active public facility environment requiring careful coordination around building operations, public access, and occupant safety. DCPS implemented phased work sequencing, controlled material staging, and daily coordination procedures to maintain operational continuity while construction activities were underway.

Relevant Experience

- Municipal government facility
- Occupied public building
- Phased construction sequencing
- Active facility coordination
- Public safety and access management
- Schedule-sensitive project execution
- Mountain-region project delivery

WARRANTY INFORMATION

Warranty Information for Materials and Installation | DCPS stands behind the quality of our workmanship and the performance of the materials incorporated into this project. Upon completion, DCPS will provide a comprehensive warranty package that includes both contractor workmanship warranties and applicable manufacturer warranties for installed products and systems.

Workmanship Warranty | DCPS will provide a one (1) year warranty on all installation and workmanship associated with this project, commencing on the date of Substantial Completion. During the warranty period, DCPS will promptly correct defects resulting from improper installation, workmanship deficiencies, or failure to perform work in accordance with the contract documents.

The workmanship warranty will cover all labor necessary to repair or replace defective work attributable to DCPS or its subcontractors.

Manufacturer Material Warranties

Manufacturer warranties will be provided for all major project components, including:

- Ballistic-resistant glazing systems
- Ballistic wall panel systems
- Ballistic transaction trays
- Voice communication devices
- Framing components and hardware
- Gypsum board and finish materials, where applicable

Manufacturer warranty periods will be provided in accordance with the specific products furnished and installed as part of the project. Copies of all applicable manufacturer warranties will be included in the project closeout documentation.

Warranty Service | DCPS maintains dedicated project management and service resources to respond to warranty requests in a timely manner. Warranty concerns reported during the warranty period will be evaluated promptly and addressed in coordination with the City and applicable manufacturers as necessary.

Warranty Documentation | At project closeout, DCPS will provide a complete warranty package containing:

- Contractor workmanship warranty
- Manufacturer warranty certificates
- Product maintenance information
- Operations and maintenance documentation, where applicable
- Warranty contact information and service procedures

DCPS is committed to delivering a complete, fully functional installation and providing responsive post-construction support to ensure the long-term performance of the completed security improvements.

ADD ALTERNATE

DCPS acknowledges and includes pricing for the Add Alternate identified in the solicitation documents for the Community Development reception area.

The Add Alternate scope includes demolition of the existing service counter and half-height wall, construction of a new full-height ballistic-rated wall assembly extending to the existing drop ceiling, installation of a UL 752 Level 3 ballistic-resistant transaction window, ballistic wall protection, voice communication device, ballistic document pass-through tray, and a new laminate service counter.

Associated work includes drywall installation and finishing, painting, trim and finish restoration, site protection, cleanup, and all labor, materials, equipment, supervision, and coordination necessary to provide a complete and functional installation.

The Add Alternate will be performed following completion of the Base Bid work and will be integrated into the overall phased construction approach to maintain City Hall operations and minimize disruption to staff and the public.

Add Alternate pricing is included on the submitted Bid Sheet.

EXCEPTIONS

DCPS has reviewed the solicitation documents, addenda, drawings, specifications, and published questions and answers. At the time of proposal submission, DCPS has no exceptions to the requirements of the solicitation and has based its proposal on the information provided by the City of Glenwood Springs.

Should clarification of any project requirements become necessary during contract negotiations or project execution, DCPS will work collaboratively with the City to address such matters in a timely and professional manner.

PROPOSAL ASSUMPTIONS & CLARIFICATIONS

The following assumptions were utilized in preparation of this proposal:

- Existing window opening framing is assumed to be suitable for installation of the proposed ballistic glazing systems. Should concealed conditions requiring structural modifications be discovered following demolition, DCPS will review the conditions with the City and provide recommendations for resolution.

- Hazardous material testing, abatement, and remediation are excluded unless specifically identified in the Contract Documents.

- Traffic control planning and implementation are excluded unless specifically required by the City.

- Material and finish selections will be finalized and approved prior to procurement to support timely project delivery.

- The City will provide reasonable access to the work areas during approved construction periods and will assist in coordinating access to affected spaces.

- Existing personal property, furnishings, equipment, and sensitive materials within the work areas will be removed or protected by others unless specifically identified within the project scope.

- Color and finish matching will be performed on a best-efforts basis utilizing commercially available materials and finishes.

APPENDIX A – ADDENDUM ACKNOWLEDGEMENTS

Addendum No. 1 – Published 05/21/2026 01:07 PM MDT

- Sign In Sheet

Addendum No. 2 – 05/28/2026 03:39 PM MDT

- Building Plans

Addendum No. 3 – 06/04/2026 01:17 PM MDT

- Questions and Answers

APPENDIX B – CERTIFICATE OF INSURANCE

The following represents page 1 of 11 and summarizes DCPS's insurance coverage. DCPS maintains comprehensive General Liability, Automobile Liability, Workers' Compensation, Excess Liability, and Pollution Liability coverage consistent with municipal contracting standards. Full Certificates of Insurance and all required endorsements will be provided upon award. DCPS will ensure compliance with all final contract insurance requirements prior to commencement of work.

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 6/5/2026

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Anthony Kifolo
Assured Partners 4582 S. Ulster Street Suite 600 Denver CO 80237	PHONE (A/C, No, Ext): 717-983-0854 FAX (A/C, No): E-MAIL ADDRESS: Anthony.Kifolo@assuredpartners.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Arch Insurance Company	11150
INSURER B : QBE Specialty Insurance Company	11515
INSURER C : Superior Specialty Insurance Company	16551
INSURER D : Admiral Insurance Co	24856
INSURER E :	
INSURER F :	

INSURED: Denver Commercial Property Services, Inc.
4801 E 60th Ave
Commerce City CO 80022
DENVCOM-01

COVERAGES **CERTIFICATE NUMBER:** 916010152 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT X LOC OTHER:	Y	Y	ZAGLB18217 08	7/1/2025	7/1/2026	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ 2,000,000 $ 300,000 $ 10,000 $ 2,000,000 $ 4,000,000 $ 4,000,000 $
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY X HIRED AUTOS ONLY SCHEDULED AUTOS X NON-OWNED AUTOS ONLY	Y	Y	ZACAT1815508	7/1/2025	7/1/2026	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$ 2,000,000 $ $ $
B C D	UMBRELLA LIAB X OCCUR X EXCESS LIAB CLAIMS-MADE DED RETENTION $	Y	Y	140002787 RAJ-2400614 UX000001881-01	7/1/2025 7/1/2025 7/1/2025	7/1/2026 7/1/2026 7/1/2026	EACH OCCURRENCE AGGREGATE See Below	$ 9,000,000 $ 9,000,000 $ Description
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A	Y	ZAWCI18099 08	7/1/2025	7/1/2026	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
To the extent provided by the policy forms and endorsements:
General Liability
CG2404 12 19 Waiver of Transfer of Rights of Recovery Against Others to Us
CG2010 12 19 Additional Insured - Owners Lessees or Contractors
CG2037 12 19 Additional Insured - Owners Lessees or Contractors - Completed Operations
CG2001 12 19 Primary and Noncontributory - Other Insurance Condition
Commercial Auto
00 CA0115 00 10 13 Additional Insured - Blanket
See Attached...

CERTIFICATE HOLDER

City of Glenwood Springs
101 W. 8th Street
Glenwood Springs CO 81601

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
Anthony Kifolo

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APPENDIX C – CERTIFICATE OF GOOD STANDING

OFFICE OF THE SECRETARY OF STATE
OF THE STATE OF COLORADO

CERTIFICATE OF FACT OF GOOD STANDING

I, Jena Griswold, as the Secretary of State of the State of Colorado, hereby certify that, according to the records of this office,

Denver Commercial Property Services, Inc.

is a

Corporation

formed or registered on 02/08/2011 under the law of Colorado, has complied with all applicable requirements of this office, and is in good standing with this office. This entity has been assigned entity identification number 20111081564 .

This certificate reflects facts established or disclosed by documents delivered to this office on paper through 06/02/2026 that have been posted, and by documents delivered to this office electronically through 06/05/2026 @ 07:09:21 .

I have affixed hereto the Great Seal of the State of Colorado and duly generated, executed, and issued this official certificate at Denver, Colorado on 06/05/2026 @ 07:09:21 in accordance with applicable law. This certificate is assigned Confirmation Number 18645349 .

Jena Griswold

Secretary of State of the State of Colorado

**********End of Certificate**********

Notice: A certificate issued electronically from the Colorado Secretary of State's website is fully and immediately valid and effective. However, as an option, the issuance and validity of a certificate obtained electronically may be established by visiting the Validate a Certificate page of the Secretary of State's website, https://www.coloradosos.gov/biz/CertificateSearchCriteria.do entering the certificate's confirmation number displayed on the certificate, and following the instructions displayed. Confirming the issuance of a certificate is merely optional and is not necessary to the valid and effective issuance of a certificate. For more information, visit our website, https://www.coloradosos.gov click "Businesses, trademarks, trade names" and select "Frequently Asked Questions."

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item:	Resolution 2026-12; Adoption of the 2026 Procurement and Contracts Handbook
Action Requested:	Adopt the 2026 Procurement and Contracts Handbook
Department:	City Clerk
Presented By:	Ryan Muse
Strategic Goals:	Provide Efficient and Responsive City Government Generate Sustainable Economic Development
Background Info:	Every year the city modifies its procurement and contracts handbook. There have been no material changes from the previous version. Administrative changes include updating names and titles, fixing small errors, clarifying certain provisions and adding more detailed procedure descriptions where needed.
Issues:	NA
Fiscal Impact:	NA
Legal Review:	NA
Staff Recommendation:	Staff recommends Council approve the Procurement Handbook.

RESOLUTION 2026-12

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, ADOPTING THE 2026 PROCUREMENT AND CONTRACTS HANDBOOK.

WHEREAS, the City of Glenwood Springs ("Glenwood Springs" or the "City") is a home-rule municipality organized under Article XX of the Colorado Constitution and with the authority of the Glenwood Springs Home Rule Charter; and

WHEREAS, each year the Glenwood Springs updates and modifies its Procurement and Contract Handbook (the "Handbook"); and

WHEREAS, City staff involved in amending the Handbook have presented the Handbook to the various departments for training purposes and to receive feedback; and

WHEREAS, the Glenwood Springs City Council finds and believes it is in the best interest of the City to adopt the Handbook attached as **Exhibit A.**

NOW, THEREFORE, IT IS RESOLVED BY THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, THAT:

Section 1. The above recitals are hereby incorporated as findings by the City Council of the City of Glenwood Springs.

Section 2. The City Council of the City of Glenwood Springs hereby adopts 2026 Procurement and Contract Handbook attached as **Exhibit A**.

INTRODUCED, READ AND PASSED THIS 18TH DAY OF JUNE 2026.

CITY OF GLENWOOD SPRINGS, COLORADO

_____

ATTEST: Marco Dehm, Mayor

_____

Ryan Muse, City Clerk

CITY OF GLENWOOD SPRINGS

Procurement and Contracts Handbook

2026

Document Control and Approval

This Handbook is intended to guide City employees in purchasing goods and services, managing contracts, documenting procurement decisions, and protecting public resources. It is an internal administrative policy and does not create contractual rights in any vendor, contractor, employee, or third party.

Item	Detail
Effective date	January 1, 2026, or date approved by the City Manager/City Council, as applicable
Policy owner	City Manager, Finance Director, City Clerk/Procurement Manager, and Director of Operations
Primary users	Employees who purchase goods or services, use P-cards, enter requisitions, manage contracts, approve expenditures, or administer grants
Supersedes	Prior procurement and contracts handbook or policy language, except where superseded by Charter, Code, law, grant terms, or Council action
Council action	Insert resolution or adoption record here if required by City Code or Council direction

Order of control

If the City Charter, Municipal Code, state or federal law, grant terms, or a Council-approved contract conflicts with this Handbook, the stricter or legally controlling requirement applies. Questions should be directed to the City Clerk, Finance Director, Director of Operations, City Manager, or City Attorney as appropriate.

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Summary

The City of Glenwood Springs uses a decentralized procurement model. Buying decisions begin at the department level because the employees closest to the work are often best positioned to identify operational needs and determine practical value. That flexibility comes with responsibility. Employees who initiate purchases act as procurement agents on behalf of the City and must follow the City Charter, Municipal Code, this Handbook, approved budget authority, applicable law, and any applicable grant requirements.

Supervisors and approving officials are accountable for the expenditures they approve. Whether an expense is paid by P-card, purchase order, invoice, reimbursement request, or contract, approval means the expenditure is budgeted, necessary, properly documented, and consistent with City policy.

Core rule

Make buying decisions in the field, but process payment, risk review, competitive solicitations, insurance, and contract signatures centrally. Do not let a vendor begin work, deliver services, access City systems, or enter City property for work until the required purchase order, contract, insurance, and approvals are in place.

Serious procurement violations

The following actions may result in loss of purchasing authority, P-card suspension, repayment, discipline, or other corrective action:

- Making a material procurement mistake. For this Handbook, a mistake over $1,000 is generally considered material.
- Repeated violations. More than two similar violations in a year may be treated as recurring noncompliance.
- Intentional attempts to avoid rules, split purchases, bypass competition, or avoid review.
- Applying for or accepting a grant without prior Finance Department review and approval.
- Signing or accepting a vendor contract, quote, proposal, click-through agreement, or online terms that obligate the City to money, risk, data sharing, indemnification, confidentiality, or future payments without authorized review and signature.
- Permitting a vendor to begin work, deliver services, access City systems, or enter City property before required approvals, insurance, purchase order, or contract are complete.
- Using a P-card for prohibited purchases, including alcohol, marijuana, illegal substances, personal purchases, unauthorized services, or travel meals that should be handled through per diem.
- Failing to reconcile a P-card statement on time.

Chapter 1: Overview

1.1 How to Use this Handbook

This Handbook is searchable and is intended for City staff who travel on City business, use a P-card, enter requisitions or invoices, make buying decisions, place orders, receive goods or services, communicate with vendors, manage contracts, or administer projects that rely on third-party goods or services.

Employees should use this Handbook before contacting a vendor, requesting a quote, issuing a solicitation, submitting a requisition, signing any document, or authorizing work. When in doubt, ask before proceeding.

1.2 Governing Rules and Order of Control

The City's procurement process is governed by the City Charter, Municipal Code, this Handbook, approved City policies, applicable grant requirements, and applicable state and federal law. The Colorado Procurement Code and State Procurement Manual may be used as guidance where not inconsistent with the City Charter, Municipal Code, this Handbook, or applicable funding requirements.

If a requirement in this Handbook conflicts with the City Charter, Municipal Code, applicable state or federal law, grant requirements, or a Council-approved contract, the stricter or legally controlling requirement applies. City staff should consult the City Clerk, Finance Director, Director of Operations, City Manager, or City Attorney when a conflict or ambiguity arises.

1.3 Where to Find Help

Contact	Use when you need help with...
City Clerk / Procurement Manager	Public solicitations, BidNet posting, procurement files, insurance certificates, contract routing, records, and surplus/disposal process.
Finance Director / Controller	Budget availability, account coding, P-card administration, invoice processing, grant financial requirements, and audit documentation.
Director of Operations	Operational review, contract signature as designee, procurement exceptions, project coordination, and risk/insurance coordination.
Information Technology	Software, SaaS, hardware, cybersecurity, vendor access to City systems, data ownership, and technology compatibility.
City Attorney / Special Counsel	Legal sufficiency, indemnification, governmental immunity, construction contracts, unusual vendor terms, disputes, and high-risk agreements.
City Manager	Final administrative authority, policy interpretation, exceptions, and escalation.

1.4 Authority to Purchase and Contract

The City Council budgets and appropriates City funds. The City Manager is responsible for day-to-day administration and may execute budgeted contracts and purchasing actions within the limits established by the Charter, Municipal Code, Council action, and this Handbook. The City Manager may designate staff to perform specific procurement and contract duties.

Only the City Manager, the Director of Operations as designated by the City Manager, or another formally authorized signer may bind the City to a purchase, contract, amendment, renewal, settlement, or assumption of risk. Mayor or Mayor Pro Tem signature and Council approval are required for intergovernmental agreements and for other contracts when required by Charter, Code, Council direction, or this Handbook.

Employees may have apparent authority when communicating with vendors. That means a vendor may reasonably believe an employee can commit the City even when the employee lacks formal authority. Employees must avoid making statements that could be interpreted as authorization to start work, incur costs, access City property, or rely on City payment until all required approvals are complete.

1.5 Choosing the Right Procurement Method

Method	Use for	Key controls
P-card	Routine goods up to the employee's approved limit and generally up to $10,000.	No personal purchases, alcohol, travel meals, unauthorized services, software/hardware outside IT, or split purchases. Reconcile on time with receipts.
Invoice without PO	Goods under $10,000 when a P-card is not feasible or appropriate.	Budget approval required. Not appropriate for high-risk services or purchases requiring a contract, insurance, or technical specifications.

Method	Use for	Key controls
Purchase order	Most services, high-risk work, technical specifications, recurring purchases, and most purchases over $10,000.	PO must be issued before work begins. Attach quotes, scope, insurance, and approvals.
Formal solicitation	Purchases over the Charter/Handbook competitive threshold or when competition is advisable.	Coordinate with City Clerk/Procurement Manager. Use BidNet or other approved posting method. Maintain evaluation and award documentation.
Contract	Services, construction, public works, technology, risk-bearing work, professional services, or any vendor terms requiring signature.	Authorized signature only. Review for insurance, legal risk, budget, scope, term, payment, and public-records issues.

1.6 Procurement File Requirements

Every procurement file should be sufficient to tell the full story of the purchase. Documentation must be retained in Munis, the contract file, the project file, or another approved City recordkeeping location.

- Need or purpose of the purchase.
- Budget account and available appropriation.
- Procurement method selected and rationale.
- Quotes, bids, proposals, or sole-source/emergency justification.
- Evaluation notes, scoring, and selection rationale.
- Conflict-of-interest disclosures from staff and selection committee members.
- Vendor insurance certificate and additional insured endorsement when required.
- Contract, purchase order, amendments, change orders, and approved vendor terms.
- Grant requirements, if any.
- Receipt, acceptance, invoice approval, and closeout documentation.

Chapter 2: Procurement Methods and Competitive Requirements

2.1 Competitive Purchasing Principles

Competition protects public resources, improves pricing and terms, promotes fairness, and supports public confidence. City purchases should introduce competition when required and whenever practical, even when a purchase is below a mandatory threshold.

Employees must not split, phase, divide, or sequence purchases to avoid procurement thresholds, P-card limits, Council approval, insurance review, or contract review. Related purchases that are reasonably part of the same project, need, or contract term must be evaluated together.

2.2 Thresholds

Dollar amount	Minimum process	Approval/signature
$0-$10,000	Department may use P-card, invoice, or PO for routine goods. Shop around when practical. Services require PO or prior approval from the City Clerk, Finance Director, or Director of Operations.	Department approval and budget authority. Vendor agreements may be signed only by authorized signers.
Over $10,000 to $25,000	Purchase order required. Obtain at least three qualified quotes when possible; include at least one local vendor quote when practical. Attach quotes to requisition.	Senior Team or department head approval through workflow. Authorized signer required for any vendor agreement.
Over $25,000 to $100,000	Competitive process required unless an approved exception applies. Most solicitations should be posted through Rocky Mountain BidNet or another approved method.	City Clerk/Procurement Manager coordinates solicitation. City Manager or designated signer may execute budgeted awards within authority.
Over $100,000	Competitive process required unless an approved exception applies. Council approval required before award/signature unless already specifically authorized by Council.	Council approval followed by signature by the Mayor, Mayor Pro Tem, City Manager, or designated signer as required by Charter, Code, Council action, or agreement type.

Budgeted does not always mean authorized

A budget appropriation allows the City to spend funds for an approved purpose. It does not, by itself, waive procurement steps, insurance requirements, Council approval, legal review, or signature authority.

2.3 Public Solicitations

Public requests for bids, proposals, and quotes are generally posted through Rocky Mountain BidNet. The City Clerk/Procurement Manager, City Manager, Director of Operations, or other formally designated staff may post or change public solicitations. Departments should not release public solicitations independently unless authorized.

Departments requesting a solicitation must provide a clear scope of work, specifications, estimated budget or funding source if appropriate, desired schedule, evaluation criteria, required qualifications, known risks, insurance needs, grant requirements, and a proposed selection committee.

2.4 Evaluation and Award

- Use the evaluation criteria stated in the solicitation.
- Maintain evaluation notes, scoring sheets, interview notes, and award rationale.
- Treat vendors fairly and consistently.
- Do not disclose confidential evaluation information during an open procurement.
- Justify awards to other than the lowest responsive and responsible bidder when price is not the only factor or when the lowest bid is not selected.
- Place awards on Council agenda when Council approval is required or when the City Manager determines Council review is appropriate.

2.5 Local Vendors

When practical, departments should include local vendors in quote opportunities. Local participation is encouraged, but the City must still comply with the Charter, Municipal Code, federal/state requirements, grant terms, and fair competition standards. Local preference may be used only when authorized and documented.

2.6 Cooperative Purchasing

The City may use cooperative purchasing, state price agreements, intergovernmental purchasing agreements, or purchasing cooperatives when the arrangement is legally available to the City, the underlying procurement was competitive, the goods or services meet the City's needs, pricing is fair and reasonable, and the purchase is documented. Cooperative purchasing may not be used to avoid Charter, Code, Council approval, grant, insurance, or contract-review requirements.

2.7 Exceptions to Standard Competition

Only the City Manager or Director of Operations may approve a procurement exception unless another approval is required by Charter, Code, Council, grant terms, or law. Failure to plan is not an acceptable reason for an exception.

Exception	When it may be used	Required documentation
Sole source	Only one supplier can provide the required good or service, or the City has formally standardized a product or platform for operational reasons.	Written justification describing the need, scope, market research, why alternatives are not feasible, price reasonableness, and approval.
Emergency purchase	A condition threatens public health, safety, basic City services, City operations, infrastructure, or property and delay would cause harm.	Description of emergency, actions taken, quotes if practical, approval, and after-action documentation.
Professional services	Services requiring specialized education, knowledge, judgment, or licensing, such as legal, auditing, engineering, architecture, construction management, planning, or specialized training.	Selection criteria, qualifications review, scope, fee reasonableness, conflict disclosure, and contract review. Competition or qualifications-based selection should be used when practical.
Compatibility/standardization	A purchase is needed to maintain compatibility with existing City infrastructure, fleet, technology, safety systems, or training investments.	Standardization rationale, operational need, price reasonableness, and approval.

2.8 Protests and Vendor Questions

Vendor questions, concerns, or protests about a solicitation or award must be directed to the City Clerk/Procurement Manager. Staff should not make commitments or give vendors informal assurances outside the approved process. The City Manager may establish a protest process for a specific solicitation when appropriate.

Chapter 3: Contracts and Agreements

3.1 Contract Administration

Contracts are initiated and managed by departments but routed, reviewed, and signed centrally. The department is responsible for the business need, scope of work, budget, vendor performance, receipt of goods or services, and invoice approval. Central reviewers are responsible for process compliance, signature authority, records, risk review, insurance, and legal review when needed.

3.2 Signature Authority

Agreement type/value	Required approval	Authorized signer
Budgeted contracts up to $100,000	City Manager authority, subject to workflow, budget, and required review.	City Manager, Director of Operations as designee, or another formally authorized signer.
Contracts over $100,000	Council approval required unless already specifically authorized by Council.	Mayor, Mayor Pro Tem, City Manager, or designated signer as required by Charter, Code, Council action, or agreement terms.
Intergovernmental agreements	Council approval required.	Mayor or Mayor Pro Tem unless the City Attorney and City Manager confirm another signer is legally authorized.
Vendor quotes, proposals, estimates, online terms, renewals, or amendments	Review required before acceptance if they impose obligations, risk, data terms, payment, renewal, indemnity, confidentiality, or legal terms.	Authorized signer only. Employees may not sign or click accept on behalf of the City unless formally authorized.

3.3 Basic Contract Process

1. Identify the need, funding source, procurement method, and timeline.
2. Prepare scope of work, specifications, deliverables, schedule, payment terms, and performance expectations.
3. Complete required quote, solicitation, exception, or Council process.
4. Route the agreement, proposal, or purchase order through the City Clerk/Procurement Manager and Finance.
5. Obtain insurance certificate and endorsements when required.
6. Obtain City Attorney or special counsel review when required by this Handbook or when requested by a reviewer.
7. Obtain authorized signature before work begins.
8. Administer the contract, document performance, approve invoices only for accepted work, and retain closeout records.

3.4 Vendor Terms Requiring Additional Review

The following provisions require review by the City Clerk/Procurement Manager, Director of Operations, Finance Director, City Manager, City Attorney, IT, or risk reviewer before acceptance:

- Indemnification, duty to defend, hold harmless, waiver, or release provisions.
- Any language waiving Colorado Governmental Immunity Act protections, statutory caps, immunities, defenses, or notice requirements.
- Binding arbitration, jury waiver, class action waiver, out-of-state venue, or non-Colorado governing law.
- Confidentiality provisions that may conflict with CORA, open meetings, records retention, audit, or public accountability obligations.
- Automatic renewals, evergreen terms, cancellation penalties, or multi-year payment commitments.
- Unlimited liability, consequential damages, liquidated damages, or vendor remedies that exceed contract value.
- Terms allowing vendor use, sale, mining, training, or disclosure of City data.
- Cybersecurity, software, SaaS, artificial intelligence, cloud, or data-processing terms.
- Insurance limits below City requirements or vendor refusal to name the City as additional insured.
- Vendor ownership of work product, restrictive licenses, or limitations on City use of deliverables.
- Payment in advance, cost-plus-percentage terms, retainage terms, or unusual billing arrangements.
- Construction, design, repair, maintenance, demolition, excavation, or public works terms.

3.5 Amendments, Renewals, and Change Orders

Amendments, renewals, extensions, price adjustments, and change orders must be reviewed before the City authorizes additional work or payment. The same procurement, budget, insurance, grant, and signature rules that applied to the original agreement also apply to modifications.

City Manager or Director of Operations approval is required for any amendment, change order, or cumulative price adjustment that increases the contract amount, materially changes the scope, extends the term, creates new risk, or causes the project to exceed budget. Council approval is required when a modification causes the total contract value to exceed $100,000 or otherwise requires Council action.

3.6 Technology, Software, SaaS, and Data

No department other than IT may purchase software, SaaS, hardware, subscriptions, artificial-intelligence tools, cybersecurity tools, cloud storage, or technology that connects to City systems without IT review and approval. Review must address compatibility, cybersecurity, public-records retention, data ownership, vendor access, privacy, integrations, licensing, and exit rights.

Chapter 4: Public Works, Construction, and Capital Improvements

Public works, construction, repair, maintenance, demolition, excavation, architectural, engineering, and capital-improvement projects have additional legal, insurance, bonding, retainage, labor, safety, and contract requirements. Departments must consult the City Clerk/Procurement Manager, Finance, Director of Operations, and City Attorney before issuing or executing a public works or construction agreement.

4.1 Public Works Review Trigger

A purchase should be treated as a public works or construction-related procurement if it involves construction, alteration, repair, demolition, excavation, improvement, maintenance, design, engineering, architecture, inspection, or work on land, buildings, roads, utilities, bridges, facilities, or other public improvements.

4.2 Required Controls

Control	When to consider/apply	Responsible reviewer
Payment and performance bonds	Public building, public works, repair, and construction contracts above statutory thresholds, including contracts over $50,000 when applicable.	City Clerk/Procurement Manager, City Attorney, Finance.
Retainage and progress payments	Public construction contracts above applicable statutory thresholds, including contracts over $150,000 when applicable.	Finance, project manager, City Attorney.
Notice of final settlement	Before final payment on applicable public works contracts.	City Clerk/Procurement Manager, project manager, Finance, City Attorney.
Colorado labor requirements	Public works projects financed in whole or part by Colorado state, county, school district, or municipal funds, unless an exception or waiver applies.	Project manager, City Attorney, City Clerk/Procurement Manager.
Davis-Bacon or federal labor standards	Federally funded construction or public works projects when required by the funding source.	Grant manager, Finance, City Attorney.
Construction indemnity limits	Any agreement involving design, construction, repair, maintenance, alteration, demolition, excavation, or work affecting real property.	City Attorney.

4.3 Construction Contract Minimums

- Detailed scope, drawings/specifications, schedule, milestones, and acceptance criteria.
- Contract price or pricing method, retainage terms, progress-payment rules, and change-order process.
- Insurance limits and endorsements appropriate to the work.
- Required bonds and proof of surety when applicable.
- Safety, site control, traffic control, utility coordination, permits, and environmental requirements.
- Wage, labor, and grant requirements when applicable.
- Warranty, correction of work, closeout documents, lien/claim releases where appropriate, and final settlement requirements.
- City Attorney review before signature.

4.4 Contractor Access to City Property

No contractor may begin work on City property until the City has issued the required purchase order or contract, verified insurance, confirmed site access requirements, and completed any required safety, utility, IT, or facility coordination.

Chapter 5: Federal, State, and Grant-Funded Procurement

5.1 Finance Review Before Grant Application or Acceptance

Departments must obtain Finance Department review before applying for, accepting, or expending any grant funds. Grant-funded procurements often impose requirements that are stricter than City policy, including competition, cost reasonableness, disadvantaged business outreach, recordkeeping, contract clauses, audit, reimbursement, and labor standards.

5.2 Stricter Requirement Controls

When a purchase is funded in whole or in part by federal, state, or other grant funds, the stricter of the grant agreement, federal/state procurement requirements, City Charter, Municipal Code, this Handbook, or Council direction controls. The procurement file must clearly identify the funding source and applicable requirements before solicitation or purchase.

5.3 Federal Procurement Standards

For federally funded purchases, staff must comply with 2 C.F.R. Part 200 and any agency-specific requirements. Common requirements include documented procurement procedures, written standards of conduct, full and open competition, responsible-contractor review, cost or price analysis when required, public notice for formal solicitations, stated evaluation criteria for proposals, required contract clauses, and records sufficient to detail the procurement history.

5.4 Grant Procurement File

- Grant agreement and award terms.
- Funding source and project number.
- Procurement method and basis for threshold.
- Conflict-of-interest disclosures.
- Solicitation and public notice documentation.
- Quotes, bids, proposals, evaluation notes, and award rationale.
- Cost or price analysis and independent estimate when required.
- Debarment/suspension check when required.
- Required federal or state contract clauses.
- Invoices, proof of payment, reimbursement documentation, and closeout records.

5.5 For more detailed policy guidelines, please refer to the Procurement Involving Federal Grants Policy Guidelines kept with the City Clerk/Procurement Manager.

Chapter 6: Risk Management and Insurance

6.1 Insurance Requirements

The City must protect public assets and limit liability in its work with third parties. Vendors must be responsible businesses with appropriate licensing, expertise, insurance, and capacity to perform. All service providers must carry insurance appropriate to the work. Higher-risk services require a compliant certificate of insurance naming the City as an additional insured when appropriate.

Common insurance types include commercial general liability, professional liability or errors and omissions when applicable, automobile liability when vehicles are used, cyber/privacy coverage when data or systems are involved, pollution/environmental coverage when applicable, and workers' compensation when the vendor has employees.

6.2 Certificate Process

9. The initiator must inform the City Clerk/Procurement Manager when a purchase order, blanket purchase order, or contract involves services or risk-bearing work.
10. The City Clerk/Procurement Manager or designated risk reviewer confirms whether a certificate of insurance is required.
11. The vendor's insurance agent should send the certificate directly to the City.
12. The certificate must meet City requirements before work begins unless an authorized reviewer approves a written exception.
13. Any request to reduce or waive insurance requirements must be approved by the City Clerk/Procurement Manager, Director of Operations, City Manager, or City Attorney as appropriate.

6.3 Additional Insured

When required, the vendor must name the City of Glenwood Springs, its elected officials, officers, employees, agents, and volunteers as additional insureds for the work. The certificate alone may not be sufficient; an endorsement may be required depending on the risk and contract type.

6.4 No Work Before Risk Review

A vendor may not begin work, enter a City worksite, deliver services, or access City systems until the City has completed applicable insurance and risk review. This rule protects the City, the vendor, employees, and the public.

Chapter 7: Ethics, Conflicts, Gifts, and Transparency

7.1 Conflicts of Interest

A conflict of interest exists when an employee, official, family member, friend, business associate, or related organization may gain personally or financially from the City's purchasing power, vendor relationships, or procurement decisions. Even the appearance of a conflict can harm public trust.

Employees must disclose potential conflicts to the City Clerk/Procurement Manager before participating in a procurement decision. Disclosure usually does not automatically disqualify a vendor, but it allows the City to manage the conflict and protect the process.

- A family member or close friend seeking City work.
- An employee or family member owning an interest in a vendor.
- A vendor offering gifts, meals, entertainment, travel, favors, or discounts.
- A former employee or official working for a vendor.
- A selection committee member with a personal or professional relationship with a proposer.
- A vendor helping draft specifications and then competing for the work.

7.2 Vendor Gifts and Gratuities

Employees involved in selecting, awarding, administering, or approving City purchases may not solicit or accept vendor gifts, meals, entertainment, travel, favors, discounts, or anything of value connected to City business. Unsolicited items of nominal value should be reported to a supervisor or the City Clerk/Procurement Manager when connected to a procurement or vendor relationship.

7.3 Selection Committees

Selection committee members must evaluate proposals according to the solicitation criteria, disclose potential conflicts, keep evaluation information confidential during the process, avoid independent vendor communications, and maintain evaluation records.

7.4 Public Records and CORA

Most procurement records are public records. Employees should assume that purchase records, emails, texts, notes, evaluations, bids, purchase orders, invoices, and contracts may be disclosed under the Colorado Open Records Act unless a specific legal basis for withholding applies. Do not promise confidentiality to a vendor without City Attorney review.

7.5 Communications During Open Procurements

During an open solicitation, vendor questions must be directed to the contact identified in the solicitation. Staff should avoid side conversations that could provide an unfair advantage or create inconsistent information. Material clarifications should be issued in writing to all vendors through the approved process.

Chapter 8: P-Cards

A City purchasing card is issued based on an employee's need to purchase business-related goods. It is not an entitlement and does not reflect title or status. A card may be revoked at any time based on assignment, need, compliance, or internal-control concerns.

8.1 Authorized Use

- Use the card only for City business-related purchases.
- The cardholder is the only person authorized to use the card and is responsible for all charges.
- Routine goods up to $10,000 may be purchased by P-card when within the cardholder's approved limit and consistent with this Handbook.
- Services may not be paid by P-card without prior authorization from the Finance Director or other authorized reviewer.
- No software, SaaS, subscriptions, artificial-intelligence tools, cybersecurity tools, or computer hardware may be purchased by P-card by any department other than IT unless IT gives prior written approval.
- Gratuity should be reasonable and may not exceed 20%.
- Cardholders must make a reasonable effort to use the City's sales-tax exemption and document efforts to have sales tax refunded when charged.

8.2 Prohibited Use

- Personal purchases.
- Alcohol, marijuana, illegal substances, tobacco or nicotine products, or other prohibited items.
- Travel meals, except as expressly authorized; travel meals are handled through per diem.
- Splitting purchases to avoid dollar limits, quotes, purchase orders, contract review, or Council approval.
- Services, construction, repairs, or risk-bearing work without prior approval.
- Gift cards or cash equivalents unless approved by Finance and Human Resources for tax and policy compliance.
- Any purchase that requires a contract, insurance review, IT review, or legal review and has not received that review.

8.3 Reconciliation and Controls

- Keep itemized receipts and documentation for every transaction.
- Reconcile the monthly statement by the deadline established by Finance.
- Resolve discrepancies by contacting the vendor or bank promptly.
- Late reconciliation can jeopardize the entire City P-card program and may result in suspension of the cardholder's privileges.
- Improper use may be treated as misappropriation of City funds and may result in disciplinary action, repayment, termination, or referral as appropriate.
- Report a lost or stolen card immediately to UMB Bank Customer Service at (800) 821-5184 and notify the Controller.

8.4 Separation from Employment

A cardholder must surrender the P-card upon termination, retirement, transfer, or loss of authorization and must provide receipts for purchases made before departure. No further use is authorized after separation or revocation.

Chapter 9: Food, Meals, and Employee Appreciation Events

This policy establishes standards for the use of City funds to purchase food, meals, snacks, beverages, or catering for employees, volunteers, elected officials, external participants, and City-related activities. The City is committed to responsible stewardship of public resources and compliance with Colorado constitutional restrictions on public funds being used for primarily private benefit.

As a general rule, the City does not purchase food or meals for employee-only events. Food and meal expenditures are permitted only when they serve a clear municipal public purpose, are reasonable in cost, are properly documented, and fall within an allowable exception.

9.1 Public Purpose Requirement

No food, meal, recognition, or appreciation expenditure may be approved unless the approving manager documents the municipal public purpose, the applicable exception category, and why the expense is reasonable and not primarily a private benefit.

9.2 Definitions

Term	Meaning
Food and meals	Purchased food, beverages, snacks, or catering services. Alcohol is not allowed.
Required meeting	A meeting where attendance is mandatory and the timing or duration reasonably prevents employees from obtaining meals on their own.
Emergency operations	Situations requiring extended work hours or conditions that limit employees' ability to obtain meals, including natural disasters, public safety incidents, infrastructure failures, or declared emergencies.
Employee appreciation	Events intended to recognize employee contributions, service, safety, milestones, or achievements in support of organizational culture, retention, morale, or public service. Only Senior Team members may approve employee appreciation events.

9.3 Prohibited Food and Meal Purchases

- Routine staff meetings.
- Social gatherings or holiday parties without a documented public purpose.
- Employee-only celebrations without a documented public purpose.
- Meals for individual employees as rewards or perks.
- Alcohol purchases.
- Excessive or extravagant meals.
- Purchases lacking itemized receipts or required documentation.

9.4 Allowable Exceptions

Exception	Requirements
Required meetings	Attendance is mandatory; the meeting occurs during a meal period or is long enough that employees cannot reasonably obtain meals on their own; providing food supports continuity or efficiency.
Emergency operations	Employees are responding to emergencies or critical incidents and are required to remain on duty for extended periods or cannot leave the worksite.
Employee appreciation and recognition	The event has a clear public purpose, the expenditure is modest and reasonable, the event is department-wide or City-wide rather than for a single individual, and Senior Team approval is obtained. An employee with 20 or more years of consecutive service may be recognized with up to $250 in City funds for a retirement recognition event if the public purpose is documented.
External participants	The City hosts meetings, workshops, trainings, or events involving external stakeholders, community members, partner agencies, vendors, or elected officials, and food supports the purpose or effectiveness of the event.

9.5 Authorization and Documentation

Department managers may authorize food and meal expenditures under this policy when the expense is reasonable and necessary, the public purpose is documented, the applicable exception applies, and the purchase complies with procurement and P-card rules. Finance may review purchases for compliance. Departments may be required to reimburse the City for purchases that do not meet this policy.

- Description of the event and its purpose.
- Applicable exception category.
- Date, time, and duration.
- Names or general description of attendees.
- Itemized receipts or invoices.
- Approval documentation.

Chapter 10: Travel

10.1 Before You Travel

- Obtain supervisor or department head approval before travel.
- Use a City vehicle whenever practical and available.
- If no City vehicle is available, choose the lower-cost option between renting a vehicle and mileage reimbursement for a personal vehicle.
- If requesting advance per diem, submit an expense claim at least 14 business days before travel.
- Book airfare at the lowest logical fare. Airfare should be paid with a City P-card, not a personal credit card, unless Finance approves an exception.

10.2 Lodging

- Use a City P-card for hotel reservations and payment.
- Provide the hotel with the City's tax-exempt certificate when applicable. Book directly with the hotel when tax exemption is important, because online booking sites may not honor tax exemption. Out-of-state hotels may not honor Colorado tax-exempt status.
- Use government, conference, or reasonable standard rates when available.
- Lodging upgrades, resort fees, entertainment charges, room service, minibar charges, and personal expenses are not reimbursable.

10.3 Meals and Per Diem

Travel meals are reimbursed only through per diem using CONUS/GSA rates based on the destination location. Do not buy travel meals directly with municipal funds or a City P-card unless Finance approves an exception. Do not claim per diem for any meal provided by a conference, training, hotel, airline, host, or event.

Travel day	Time	Eligible meals
Departure day	Before 6:00 a.m.	Breakfast, lunch, dinner
Departure day	6:00 a.m.-12:00 p.m.	Lunch, dinner
Departure day	After 12:00 p.m.	Dinner only
Return day	After 6:00 p.m.	Breakfast, lunch, dinner
Return day	1:00 p.m.-6:00 p.m.	Breakfast, lunch
Return day	Before 1:00 p.m.	Breakfast only

10.4 Transportation Rules

- Use a City vehicle first when available and practical.
- If a City vehicle is unavailable, choose the lower-cost option of rental vehicle or mileage reimbursement.
- Personal vehicle use is discouraged and mileage reimbursement is allowed only when a City vehicle is unavailable or impractical and supervisor approval is obtained.
- Decline rental car insurance unless Finance or risk management instructs otherwise; the City's insurance generally covers authorized rentals.
- Keep mileage logs and rental receipts.

10.5 Non-Reimbursable Expenses

- Alcohol.
- Room service, minibar, entertainment, movies, games, or personal subscriptions.
- Travel upgrades for airline, hotel, or rental car.
- Meals purchased directly with City funds instead of per diem.
- Expenses for family members, guests, or personal detours.
- Traffic fines, parking tickets, or other violations.

10.6 Documentation

Submit travel reconciliation to Finance within 10 business days after travel. Required documentation includes:

- Travel approval.
- Itemized receipts except meals covered by per diem.
- Conference agenda or schedule.

- Mileage log if using a personal vehicle.
- Proof of tax-exempt lodging efforts when applicable.
- Explanation for unusual or exception-based expenses.

Chapter 11: Surplus Property and Disposal

City materials, supplies, equipment, vehicles, technology, furniture, and other property may be disposed of only through an approved surplus process. Departments may not give away, sell, trade, donate, discard, or personally acquire City property without approval.

11.1 Declaring Property Surplus or Obsolete

A department requesting disposal must identify the item, condition, estimated value, asset tag or serial number if applicable, funding restrictions, grant restrictions, data/security concerns, and proposed disposal method. The City Clerk/Procurement Manager, Finance, IT, and department leadership must review as appropriate.

11.2 Approved Disposal Methods

- Public auction or online auction.
- Competitive sale or sealed bid.
- Trade-in when documented as part of a purchase and approved.
- Transfer to another City department.
- Donation or transfer to another public entity or nonprofit when legally authorized and approved.
- Recycling or disposal when the item has no practical value or contains sensitive components.
- Secure destruction for technology, records, data storage, or regulated materials.

11.3 Restrictions

- Employees may not purchase or receive City property except through a public process open on equal terms to the public and approved by the City Manager or designee.
- Grant-funded property may have additional disposal restrictions.
- Technology equipment must be reviewed by IT before disposal to remove data, credentials, licenses, and storage media.
- Hazardous, regulated, or sensitive property must be disposed of according to law and City procedure.
- Surplus records must document approval, method, recipient/buyer, price or disposal rationale, and final disposition.

Appendix A: Quick Reference Matrix

Question	Default answer
Can I sign a vendor quote, proposal, estimate, online terms, or agreement?	No, unless you are an authorized signer and the document has completed required review.
Can a vendor start work before a PO or contract?	No. Work must not begin until required PO/contract, insurance, budget, and approvals are complete.
Can I use a P-card for services?	Not without prior authorization from Finance or another authorized reviewer.
Can I buy software or hardware with my P-card?	Only IT may do so, unless IT gives prior written approval.
What if the purchase is under budget?	Budget availability does not waive procurement, contract, insurance, grant, or approval requirements.
What if only one vendor can do the work?	Use the sole-source process and obtain approval before purchase.
What if there is an emergency?	Protect health, safety, operations, and property, but document the emergency, seek approval as soon as practical, and complete after-the-fact documentation.
What if the vendor wants the City to indemnify them?	Do not accept. Route for legal review.
What if the purchase uses grant funds?	Contact Finance before solicitation or purchase. The stricter requirement controls.
What if I am unsure?	Ask the City Clerk/Procurement Manager, Finance Director, Director of Operations, City Manager, or City Attorney before proceeding.

Appendix B: Contract Review Checklist

Use this checklist before routing a contract, proposal, estimate, or vendor agreement for signature.

- [ ] Budget and account confirmed.
- [ ] Procurement method and threshold documented.
- [ ] Scope of work, deliverables, schedule, and acceptance criteria are clear.
- [ ] Pricing, payment terms, reimbursables, and not-to-exceed amount are clear.
- [ ] Term, renewal, and termination provisions are clear.
- [ ] Insurance certificate and endorsements are received or waiver approved.
- [ ] Vendor terms reviewed for indemnity, duty to defend, venue, governing law, arbitration, confidentiality, auto-renewal, data, cybersecurity, and liability issues.
- [ ] IT review completed for software, SaaS, hardware, data, cybersecurity, AI tools, or vendor system access.
- [ ] City Attorney review completed when required.
- [ ] Grant terms and contract clauses included when applicable.
- [ ] Council approval obtained when required.
- [ ] Authorized signer identified.
- [ ] Final signed copy stored in approved records location.

Appendix C: Procurement File Checklist

A complete procurement file should include the following records when applicable:

- [ ] Purchase request, business need, and public purpose.
- [ ] Budget confirmation and funding source.
- [ ] Quote/bid/proposal solicitation documents.
- [ ] Vendor questions and City responses/addenda.
- [ ] Quotes, bids, proposals, and late/no-bid records.
- [ ] Evaluation criteria, scoring sheets, notes, interviews, and selection rationale.
- [ ] Conflict-of-interest disclosures.
- [ ] Sole-source, emergency, standardization, or cooperative purchasing justification.
- [ ] Price reasonableness or cost analysis.
- [ ] Insurance certificate and endorsements.
- [ ] Contract, PO, amendments, change orders, and renewals.
- [ ] Grant terms and required clauses.
- [ ] Council agenda item, resolution, or approval record.
- [ ] Receipt, delivery, inspection, acceptance, and invoice approval.
- [ ] Closeout documentation and final payment.

Appendix D: Exception Documentation Templates

D.1 Sole Source Justification

Requesting department:

Vendor:

Estimated amount:

Description of goods/services:

Reason only this vendor can meet the need:

Market research performed:

Why alternatives are not feasible:

Price reasonableness:

Operational impact if not approved:

Approvals:

D.2 Emergency Purchase Justification

Requesting department:

Date/time emergency identified:

Description of emergency:

Risk to public health, safety, City operations, infrastructure, or property:

Immediate action required:

Vendor selected and reason:

Quotes obtained, if practical:

Estimated amount:

Approvals and after-action documentation:

D.3 Cooperative Purchasing Justification

Cooperative agreement or contract used:

Lead agency or purchasing cooperative:

Evidence underlying procurement was competitive:

Why item/service meets City need:

Price comparison or reasonableness:

Grant/funding restrictions reviewed:

Contract terms reviewed:

Approvals:

Appendix E: Legal Reference List

This list is included as a practical reference. It is not exhaustive. The City Attorney should verify legal requirements before publication and when unusual, high-risk, or grant-funded procurements arise.

- Glenwood Springs Home Rule Charter and Municipal Code, including provisions governing procurement policies, competitive requirements, Council approval, contract authority, and conflicts between City policy and controlling law.
- Colorado Procurement Code, C.R.S. Title 24, Articles 101-112, used as guidance where applicable and not inconsistent with City law and policy.
- Colorado Open Records Act, C.R.S. Title 24, Article 72.
- Colorado Code of Ethics, C.R.S. Title 24, Article 18, and applicable local ethics or gift rules.
- Colorado Constitution Article V, Section 34, and Article XI, Sections 1 and 2, regarding public funds, public purpose, and public credit/donation restrictions.
- Public works bonding and final settlement statutes, including C.R.S. Sections 38-26-105, 38-26-106, and 38-26-107.
- Public construction retainage requirements, including C.R.S. Section 24-91-103.
- Keep Jobs in Colorado Act, C.R.S. Section 8-17-101 et seq., when applicable.
- Colorado construction indemnity limitations, including C.R.S. Section 13-21-111.5(6), when applicable.
- Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, 2 C.F.R. Part 200, including procurement standards in Sections 200.318-200.327.
- Funding-agency grant conditions, federal labor standards, Davis-Bacon requirements, Buy America/Build America requirements, disadvantaged business enterprise requirements, and other special conditions when applicable.

Procurement Involving Federal Grants

The policy applies to all procurements connected with federal grants or awards, including direct and pass-through grants or awards managed by the State of Colorado.

Policy Guidelines

1. Conflict of Interest: City officials, employees, and agents should avoid any actual or perceived conflict of interest while participating in the selection, award, or administration of contracts funded by federal funds. Accepting gratuities, favors, or anything of monetary value from contractors or subcontractors is prohibited.
2. Policy Documentation: The City will document its procurement policies and processes. This includes describing the requirements of the commodities, work, or services to be procured precisely, listing all conditions bidders must meet, and specifying the factors used to evaluate bids.
3. Record Maintenance: The City will keep records of each procurement. This includes documenting the rationale for the procurement method, contract type, contractor selection or rejection, and the contract price justification.
4. Contractual and Administrative Issues: The City will be responsible, in accordance with good administrative practice and sound business judgment, for the settlement of all contractual and administrative issues arising out of procurements.
5. Specification and Documentation Review: The City upon request of the federal agency or pass through entity, will make available procurement documents and technical specifications where the federal agency or pass through entity believes a review is needed.
6. Reasonable and Necessary Costs: The City will reasonably confirm that all costs incurred in procurement operations are appropriate and necessary. City departments should refrain from purchasing duplicative or unnecessary items and consolidate or separate procurements when necessary.
7. Cost and Price Analysis: The City will perform a cost or price analysis for every procurement operation that meets the formal solicitation threshold, including contract modifications.
8. Competition: The City will ensure fair and open competition for all procurement operations. This means that the City will not impose unnecessary qualifications or excessive bonding requirements and will not permit uncompetitive pricing practices or conflicts of interest. Departments may only specify brand-name products if alternatives are allowed.
9. Contractor Selection: The City will proactively solicit minority businesses, women's businesses, and labor surplus area firms as required by the grant.
10. Bonding Requirements: For contracts or subcontracts related to construction or facility

improvement requiring a solicitation, the City will follow specific minimum bonding requirements unless the federal awarding agency or pass-through entity has accepted the City's bonding policy and requirements and determined that the federal interest is adequately safeguarded.

11. Method of Procurement: The City will adopt one of these methods: small purchases, formal solicitations, or sole source.
12. Contract Clauses: The City will incorporate all pertinent provisions listed in the Code of Federal Regulations, Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards in all contracts.
13. Suspension and Debarment: The City will determine that neither the entity nor the principals it plans to transact with is excluded or disqualified from Federal projects or receipt of Federal funds.
14. Contract Administration: The City will require that contractors abide by the terms, conditions, and specifications of their contracts/purchase orders.

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item:	Resolution 2026-13; Remote Participation Addition to the Council Handbook
Action Requested:	Approval of Resolution Adding Remote Participation by Councilors to the Council Handbook.
Department:	City Administration
Presented By:	Steve Boyd
Strategic Goals:	Provide Efficient and Responsive City Government
Background Info:	The June 4th meeting featured a work session on when and why a Councilor can choose to join a meeting via Zoom instead of in person.
Issues:	None at this time.
Fiscal Impact:	NA
Legal Review:	Legal drafted the policy.
Staff Recommendation:	Staff recommends approval.

RESOLUTION 2026-13

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, ADOPTING THE REVISED REMOTE PARTICIPATION POLICY INTO THE CITY COUNCIL HANDBOOK.

WHEREAS, the City of Glenwood Springs ("Glenwood Springs" or the "City") is a home-rule municipality organized under Article XX of the Colorado Constitution and with the authority of the Glenwood Springs Home Rule Charter; and

WHEREAS, City staff has compared current the Remote Participation Policy to other municipalities and has recommended changes to the policy; and

WHEREAS, the City Council agrees that the Remote Participation Policy in Glenwood Springs should be revised; and

WHEREAS, The Glenwood Springs City Council determines that adopting the updated Remote Participation Policy attached as **Exhibit A,** serves the best interests of the City.

NOW, THEREFORE, IT IS RESOLVED BY THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, THAT:

Section 1. The above recitals are hereby incorporated as findings by the City Council of the City of Glenwood Springs.

Section 2. The City Council of the City of Glenwood Springs revokes all prior Remote Participation Policies and Resolutions and adopts the revised policy attached hereto as **Exhibit A** to be incorporated in the Council Handbook.

INTRODUCED, READ AND PASSED THIS 18TH DAY OF JUNE 2026.

CITY OF GLENWOOD SPRINGS, COLORADO

_____

ATTEST: Marco Dehm, Mayor

_____

Ryan Muse, City Clerk

EXHIBIT A.

REMOTE PARTICIPATION POLICY

The City Council may fully participate electronically, unless otherwise restricted by law, in regular and special Council meetings, executive sessions, work sessions and land use hearings in accordance with the following rules:

1. General Rules: The following shall apply to all Council Meetings:

1.1. Requirements for Participation. Electronic participation shall consist of clear, uninterrupted two-way communication via video conferencing or other electronic means that allows the electronically participating Councilmember to hear, speak and see presentations during the Meeting, and allows persons attending the Meeting in-person to hear, speak to, and see the electronically participating Councilmember.

1.2. When Participation Prohibited. Electronic participation may be limited or prohibited in certain instances based upon unforeseen problems with video conferencing equipment, internet limitations, or other technological difficulties that preclude a Councilmember from fully participating in the Meeting. A Councilmember participating electronically is responsible for ensuring that their videoconference equipment and Internet capabilities are current and compatible with the City's videoconference equipment and their software updates are current.

1.3. Power to Terminate Participation. The Mayor or other presiding officer shall have the authority to terminate a Councilmember's electronic participation because the electronic connection is repeatedly lost, the quality of the connection is extremely poor, there is excessive background noise from the remote location, or for other reasons that cause disruption to the Meeting.

1.4. Quorum. Electronic participation shall constitute attendance at a Meeting, and Councilmembers participating electronically shall be considered physically present for all purposes including without limitation, for the determination of the presence of a quorum and for casting votes.

1.5. Emergency Circumstances. Upon a vote of the City Council that emergency circumstances exist justifying an entirely electronic meeting, a meeting may be attended virtually by all Councilmembers.

1.6. Notice of Electronic Attendance. A Councilmember desiring to participate electronically must provide written notice of their intent via City email to the City Manager a minimum of two business days in advance of the Meeting day.

1.7. Reasonable Accommodation. The City shall provide Councilmembers with reasonable accommodations and may waive or alter the provisions of this policy, to provide

disabled persons or individuals who qualify for accommodations under federal or state laws full and equal access to participate in Meetings.

1.8. Illness or Injury. A Councilmember may electronically attend as many meetings as necessary upon, providing notice to the City Manager, in good faith, demonstrating an illness or injury preventing the Councilmember from attending meetings in person.

1.9. Council Vote. If the Council believes a member has provided any notice required under this Policy in bad faith, the council may require, upon a majority vote, that the Councilmember attending electronically attend any meeting in person.

2. Rules for Meetings: The following shall apply to all regular meetings, special meetings, work sessions and executive sessions:

2.1. Electronic Participation. Council members shall endeavor to attend all meetings in person. However, a Councilmember may electronically attend a total of two meetings per year upon presenting the City Manager with the notice required under Section 1.6

2.2. Maximum Electronic Participation. No more than 2 Councilmembers may participate electronically in any single meeting. If more than 2 Councilmembers desire to participate electronically, the first two Councilmembers to provide notice of electronic attendance to the City Manager may do so.

2.3. Executive Session. Councilmembers may electronically participate in executive sessions in accordance with this policy, if steps are taken to ensure that the electronic location does not compromise the confidentiality of the executive session, and the Councilmember participating electronically confirms verbally that no third party is in the Councilmember's presence.

2.4. Temporary Attendance: Upon approval of the entire Council, a Councilmember may electronically attend a portion of a meeting without attending the entire length of the meeting. Such temporary attendance shall count as one meeting for purposes of this policy.

3. Rules for Hearings: The following shall apply to all land-use or quasi-judicial hearings:

3.1. Electronic Participation Issues: If a Councilmember attends a land-use or quasi-judicial hearing electronically and violates Section 1.1, 1.2 or 1.3 of this Policy they shall lose any right to participate electronically in any other land-use or quasi-judicial hearing within the calendar year.

3.2. Voting Electronically in a Quasi-Judicial Hearing: A Councilmember participating remotely in a quasi-judicial or land-use hearing shall affirm, prior to voting on a matter, that such member was able to hear all testimony, presentations, and

deliberations, and see or review all documentary evidence and materials presented at the hearing.

RESOLUTION 2026-15

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, AUTHORIZING AND SUPPORTING THE APPLICATION FOR A GRANT FROM THE COLORADO CIRCULAR COMMUNITIES C3 GRANT PROGRAM

WHEREAS, the City of Glenwood Springs (the "City") is a political subdivision of the State of Colorado, and therefore an eligible applicant for a grant awarded by the Colorado Circular Communities Enterprise – C3 Grant Program (the "C3 Grant Program"); and

WHEREAS, the City is submitting a Grant Application to the C3 Grant Program for a Single Stream Recycling Transfer Station ("Transfer Station") to be located at the South Canyon Landfill; and

WHEREAS, the City supports the completion of the Transfer Station if a grant is awarded by the C3 Grant Program.

NOW, THEREFORE, IT IS RESOLVED BY THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, THAT:

Section 1. The above recitals are hereby incorporated as findings by the City.

Section 2. The City strongly supports the Grant Application and authorizes the expenditure of funds to meet the terms and obligations of any grant awarded pursuant to a Grant Agreement with the C3 Grant Program.

Section 3. The City Council of the City of Glenwood Springs will authorize the expenditure of funds necessary to meet the terms and obligations of any grant awarded pursuant to a Grant Agreement with the C3 Grant Program.

Section 4. If a grant is awarded, the City of Glenwood Springs hereby authorizes the Mayor or Mayor Pro Tem to sign a Grant Agreement with the C3 Grant Program.

INTRODUCED, READ, AND PASSED THIS 18TH DAY OF JUNE 2026.

CITY OF GLENWOOD SPRINGS, COLORADO

_____
Marco Dehm, Mayor

ATTEST:

_____
Ryan Muse, City Clerk

City Council
City of Glenwood Springs
101 West 8th Street
Glenwood Springs, CO 81601

Colorado Circular Communities
C3 Grant Program
205 Ken Pratt Blvd., Ste. 120, #73
Longmont, CO 80501

June 15, 2026

Dear C3 Board Members,

The City Council of Glenwood Springs is writing this letter in support of our application for a grant to build a single stream recycling transfer station at the South Canyon Landfill. Our organization works to divert and recycle waste in many ways, and we support the efforts of our neighboring communities to do the same.

As we work towards more diversion of recyclable materials in our region, we will need to build capacity in our transportation systems to handle increased volumes. If we are able to build this transfer station at the South Canyon Landfill, it will serve our City and all of our neighboring communities.

We hope that as Extended Producer Responsibility (EPR) begins to offset the costs of recycling we will see a large increase in recyclable materials being recycled rather than landfilled, but without an additional transfer station, our region would not be able to handle this increase.

The Glenwood Springs City Council supports the proposal for a single stream transfer station at the South Canyon Landfill to increase recycling capacity in western Colorado. Please be in touch if you would like any additional information about our recycling needs in the Roaring Fork Valley.

Sincerely,

Marco Dehm
Mayor

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item: Ordinance 2026-12; An Ordinance Of The City Of Glenwood Springs, Colorado, Repealing And Replacing Section 080.010.060 Of The Glenwood Springs Municipal Code Regarding Utility Disconnection Notices. Second Reading

Action Requested: Approval of code change to notify utility customers of impending service shut-offs for non-payment via phone and mailing rather than staff physically hang door tags on each property.

Department: Public Works

Presented By: Steve Boyd, Matthew Langhorst

Strategic Goals: Provide Efficient and Responsive City Government

Background Info: Staff hangs between 50 and 300 door tags in our water and electric utilities each month. Many of these tags are hung monthly at the same residential locations. This is time-consuming for staff and poses a safety threat when people become angry or have dogs on the property that are unpredictable. For these reasons, many jurisdictions have discontinued the physical hanging of notices on doors and our staff would like to implement such a code change.

Issues: While we have assessed a $25 fee to offset the cost of door hanging, it is still an expensive and unnecessary monthly task. The fee was created to provide a non-payment deterrent, but this additional cost has not worked as staff had hoped it would. More importantly, we are seeing an increase in threats to staff safety both in our utilities and other jurisdictions.

Fiscal Impact: This will save staff time and provide a safer working environment.

Legal Review: Legal drafted the ordinance.

Staff Recommendation: Staff is asking for Council to approve this ordinance on second reading.

ORDINANCE NO. 12

Series of 2026

AN ORDINANCE OF THE CITY OF GLENWOOD SPRINGS, COLORADO, REPEALING AND REPLACING SECTION 080.010.060 OF THE GLENWOOD SPRINGS MUNICIPAL CODE REGARDING UTILITY DISCONNECTION NOTICES.

WHEREAS, the City of Glenwood Springs ("Glenwood Springs" or the "City") is a home-rule municipality organized under Article XX of the Colorado Constitution and with the authority of the Glenwood Springs Home Rule Charter; and

WHEREAS, Section 080.010.060 of the Glenwood Springs Municipal Code directs that notice of termination of utility services must be provided by first class mail, or the City may provide notice by certified mail, or posting in a conspicuous place at or near the premises served by the utility service; and

WHEREAS, City Staff has recommended updating Section 080.010.060 as set forth on **Exhibit A** attached hereto; and

WHEREAS, the City Council finds and declares that the Code aments as set forth on **Exhibit A** is in the best interests of the City.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, ORDAINS:

Section 1. Recitals. The foregoing recitals are incorporated herein as if set forth in full.

Section 2. Amendments. Section 080.010.060 of the Glenwood Springs Municipal Code repealed and replaced as set forth in **Exhibit A** attached hereto

INTRODUCED, READ, PASSED, AND ORDERED PUBLISHED BY TITLE ONLY THIS ___ DAY OF JUNE 2026.

CITY OF GLENWOOD SPRINGS, COLORADO

_____

Marco Dehm, Mayor

ATTEST:

_____

Ryan Muse, City Clerk

INTRODUCED, READ ON SECOND READING, PASSED AND ORDERED PUBLISHED BY TITLE ONLY TO BE EFFECTIVE IMMEDIATELY THIS ___ DAY OF _____ 2026.

CITY OF GLENWOOD SPRINGS, COLORADO

_____
Marco Dehm, Mayor

ATTEST:

_____
Ryan Muse, City Clerk

EXHIBIT A

Section 080.010.060 of the Glenwood Springs Municipal Code is hereby repealed and replaced with the following.

TITLE 080 - Utilities

*** * * ***

ARTICLE 080.010 - General Provisions

*** * * ***

080.010.060 - Discontinuance of service.

(a) *Grounds for discontinuance.* If any utility service charges remain unpaid for thirty-one (31) days after their due date, the City may terminate service for the type of utility service for which payment has not been made. In addition, the City may terminate a utility service for violation of any rule or regulation concerning such utility as set forth in this Title.

(b) *Notice of Termination*. In order to terminate any services the City shall provide the following notices prior to termination:

(1) If a utility charge remains unpaid for ten (15) days, the City may place a telephone call to the customer notifying the customer that they are late on payment and may receive a notice of termination if they fail to pay the utility charges within five (5) days.

(2) If the City has placed a telephone call to the customer and five (5) days have elapsed since the telephone call, the City may send a notice of termination by first class mail or by posting in a conspicuous place at or near the main entrance to the premises served by such utility service to the customer listed on the City records and, at the City's option, to the occupant of the premises served and/or the owner of the premises served. The notice shall include information containing the following:

a. The notice shall state as a heading, in bold font and capital letters: THIS IS A FINAL NOTICE OF DISCONTINUANCE OF UTILITY SERVICE AND CONTAINS IMPORTANT INFORMATION ABOUT YOUR LEGAL RIGHTS AND REMEDIES. YOU MUST ACT PROMPTLY TO AVOID UTILITY SHUT OFF.

b. The notice shall advise the customer of all information required to be provided in the notice, as set forth in 4 CCR 923-3-3408(c) and 4 CCR 723 -5-5408(c)

c. The notice shall advise the customer that they are entitled to a hearing in person before termination of service at a reasonable time and place by requesting such hearing within ten (10) days of the date of the notice of discontinuance. The City shall provide a toll-free phone number by which the customer can contact the City and request a hearing.

d. The notice shall advise the customer that if they fail to respond within fifteen (15) days their service will be shut off.

e. The notice shall be provided in both English and Spanish.

f. Notwithstanding subsection (iii) of this Section, if the City knows that the service to be discontinued is used by customers in multi-unit dwellings, in places of business, or in a cluster of dwellings or places of business and the utility service is recorded on a single meter used either directly or indirectly by more than one unit, the notice shall advise the customer that if they fail to respond within (30) days their service will be shut off. The City shall also:

1. Provide written notice to each individual unit, stating that a notice of termination has been sent to the party responsible for the payment of utility bills for the unit and that the occupants of the units may avoid discontinuance by paying the next new bill in full within 30 days of its issuance and successive new bills within 30 days of issuance; and

2. Post the notice in at least one of the common areas of the affected location.

(3) If the City has provided the notice as set forth above, the City shall place a telephone call at least 72 hours before shutting of service which notifies the customer that the notice was sent to them via first class mail, and that service will be shut off if they fail to respond.

(c) *Dispute conference*. Upon the timely request of a recipient of a notice of termination, the Director of Finance shall meet and consult with the recipient of the notice within seven (7) days after receipt of the recipient's request to do so. If the Director of Finance is unavailable, the City Manager shall appoint other City personnel to do so, who shall then have all powers granted herein to the Director of Finance. The Director of Finance shall meet with the recipient and shall be empowered to settle the dispute with regard to utility service charges and violations of rules and regulations of a utility; however, any utility service charges which were not disputed by the recipient pursuant to Section 080.010.050(b) shall not be raised at this time, as such disputes shall have been deemed waived by the recipient. The Director of Finance shall issue a decision on the dispute at such conference and shall inform the recipient that the recipient has the right to appeal the decision of the Director of Finance to the Board of Utilities Service Appeals within three (3) business days of such conference.

(d) *Appeal.* If a recipient files a written notice with the City Clerk to appeal the decision of the Director of Finance rendered pursuant to Subsection (c) above within three (3) business days of such decision, the City Manager shall give notice of not more than five (5) days to the members of the Board of Utility Services Appeal ("Board") and to the appellant of the time and place of a meeting of the Board to review the decision of the Director of Finance. The meeting shall be informal and, at the request of the appellant, will be recorded on the City's electronic magnetic tape system. The City and the appellant may present facts or data relevant to the dispute with or without the swearing of an oath. The Board shall consider the data and evidence before it and shall affirm, modify or reverse the decision of the Director of Finance. The decision of the Board is final. If the decision of the Board is to order discontinuance of utility service, then such discontinuation shall occur unless, on the day of the decision or the following day, the utility service charges are paid or the violation of a rule or regulation is corrected.

(e) *Effective date of discontinuance of service.* The effective date of the discontinuance of utility service shall be the earliest of:

(1) Fifteen (15) days after the mailing by the City of a notice of termination, if no request for hearing before the Director of Finance is made;

(2) Four (4) working days after the decision of the Director of Finance if no appeal of his/her decision is filed with the City Clerk; or

(3) Two (2) days after the decision of the Board of Utility Services Appeal.

(f) *When utility service not discontinued.* Utility service shall not be discontinued:

(1) If all current utility service charges are paid when due and all past due amounts are being amortized by reasonable installment payments not exceeding six (6) equal monthly installments. Current bill means that portion of the bill which is not fifteen (15) days past the due date. The minimum reasonable installment payment is that which pays a current bill in full and is at least one-sixth (⅙) of any past due balance. A reasonable installment payment plan may require that the past due balance be paid in full in no more than six (6) equal installments. The City has the right, in the event there is a breach of the installment agreement, to discontinue service on or after the second day following the mailing or posting of the notice of termination to the customer at the address supplied by the customer and to require, in order for the customer to avoid termination or to be reconnected, payment in full of the current bill and of all past due amounts and the posting of a deposit and a reconnection fee as established by City Council Resolution in order for the customer to be reconnected or for utility service to continue.

(2) Between 12:00 p.m. on Friday and 8:00 a.m. on the following Monday or between 12:00 p.m. on the day prior to and 8:00 a.m. on the day following any federal holiday or City holiday.

(3) During any period when termination of service would be especially dangerous to the health or safety of any residential customer or permanent resident of the customer's household and such customer has established that he/she was unable to pay for the service as regularly billed by the City or is able to pay for such service but only in reasonable installments. Termination of service that would be especially dangerous to the health or safety of the residential customer or a permanent resident of the customer's household means that the termination of service would aggravate an existing medical condition or create a medical emergency for the customer or a permanent resident of the customer's household. Such shall be deemed to be the case when a physician licensed by the State makes a certification thereof in writing and said certification is received by the City. In the event a medical certification is delivered to or received by the City, a nondiscontinuance of service as herein prescribed shall be effective for sixty (60) days from the date of said medical certification. One (1) thirty-day extension on nontermination of service pursuant to this paragraph may be effected by delivery to and receipt by the City of a second medical certification, as defined above, prior to the expiration of the initial sixty-day nontermination. A residential customer may invoke the provisions of this paragraph no more than once during any period of twelve (12) consecutive months. A reasonable

installment is defined as one which pays off at least one-sixth (⅙) of the past due balance and is made no less frequently than once a month.

(4) In the event a customer at any time proffers full payment of any utility bill by cash or bona fide check to the Director of Finance.

(5) If violations of rules or regulations concerning the receipt or use of utility service have ceased.

(g) *Reconnection.* Nothing contained in this section shall preclude the City from charging a reconnection fee as established by City Council Resolution before reconnecting a utility service discontinued pursuant to this section. In addition, prior to reconnection, all charges for that type of utility service must be paid to the City.

(h) *Delivery of notice.* Notwithstanding anything to the contrary in this section, whenever reference is made herein to a notice or other document being mailed or delivered, that phrase shall mean that the notice or other document is either deposited in the United States mail, postage paid, first class or certified mail, return receipt requested, at the City's option, or physically delivered to the addressee, which physical delivery will be accomplished by either handing to someone over eighteen (18) years of age at the premises served or by posting upon the main entrance of the premises served by the utility service in a conspicuous place.

(i) If a customer receives three (3) individual or consecutive notices of termination of service in a one (1) year timeframe, an attempt will be made to contact the account holder by an automated telephone call twenty-four (24) hours prior to services being disconnected, in accordance with the PUC 4 Code of Colorado Regulations (CCR) 723-3 Part 3, Provision 3408(f).

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item: Update on the Paradise Creek Fire

Action Requested: This is an update on the current status of the Paradis Creek fire.

Department: City Administration

Presented By: Steve Boyd, Joseph Deras

Strategic Goals: Provide Efficient and Responsive City Government
Protect and Preserve our Quality of Life

Background Info:

Issues:

Fiscal Impact:

Legal Review:

Staff Recommendation:

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item: Update from the Glenwood Springs Botanical Garden

Action Requested: Unknown at this Time

Department: City Administration

Presented By: Steve Boyd

Strategic Goals: Protect and Preserve our Quality of Life
Generate Sustainable Economic Development

Background Info: The Glenwood Springs Riverside Botanical Gardens Community Group will be Here to Give Council an Update on Progress and Plans

Issues: We have completed a pre-application meeting with the applicant and continue to have concerns about the project.

Fiscal Impact:

Legal Review:

Staff Recommendation:

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item:	Ordinance 2026-11; AN ORDINANCE OF THE CITY OF GLENWOOD SPRINGS, COLORADO, Amending Sections 080.030.030, 080.040.060, and 100.010.100 of the Glenwood Springs Municipal Code Regarding Enforcement by the Neighborhood Services Specialist
Action Requested:	Approval of Ordinance
Department:	Public Works
Presented By:	Matthew Langhorst
Strategic Goals:	Protect and Preserve our Quality of Life
Background Info:	Our Neighborhood Services Specialist is essentially a code enforcement officer. The position needs to be able to educate, warn and issue tickets for watering restriction violations.
Issues:	None at this time.
Fiscal Impact:	NA
Legal Review:	Legal drafted the ordinance.
Staff Recommendation:	Staff is recommending approval.

ORDINANCE NO. 11

Series of 2026

AN ORDINANCE OF THE CITY OF GLENWOOD SPRINGS, COLORADO, AMENDING SECTIONS 080.030.030, 080.040.060, AND 100.010.100 OF THE GLENWOOD SPRINGS MUNICIPAL CODE REGARDING ENFORCEMENT BY THE NEIGHBORHOOD SERVICES SPECIALIST.

WHEREAS, the City of Glenwood Springs ("Glenwood Springs" or the "City") is a home-rule municipality organized under Article XX of the Colorado Constitution and with the authority of the Glenwood Springs Home Rule Charter; and

WHEREAS, Section 080.030.030 of the Glenwood Springs Municipal Code (the "Code") regulates the discharge of waste into the City's wastewater lines and system; and

WHEREAS, Section 080.040.060 of the Code prohibits the wasting of water and imposes a watering schedule for the City; and

WHEREAS, Section 100.010.100 of the Code addresses Public Health violations enumerated in Article 100.010; and

WHEREAS, City Staff has recommended amending Sections 080.030.030, 080.040.060, and 100.010.100 to authorize enforcement of sections 080.030.030, 080.040.060 and 100.010.090 by the City's Neighborhood Services Specialist as set forth on **Exhibit A** attached hereto; and

WHEREAS, the City Council finds and declares that the Code amendments as set forth on **Exhibit A** are in the best interests of the City.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, ORDAINS:

Section 1. Recitals. The foregoing recitals are incorporated herein as if set forth in full.

Section 2. Amendments. Sections 080.030.030, 080.040.060, and 100.010.100 of the Glenwood Springs Municipal Code are amended as set forth in **Exhibit A** attached hereto

INTRODUCED, READ, PASSED, AND ORDERED PUBLISHED BY TITLE ONLY THIS 18TH DAY OF JUNE 2026.

CITY OF GLENWOOD SPRINGS, COLORADO

_____

Marco Dehm, Mayor

ATTEST:

_____
Ryan Muse, City Clerk

INTRODUCED, READ ON SECOND READING, PASSED AND ORDERED PUBLISHED BY TITLE ONLY TO BE EFFECTIVE IMMEDIATELY THIS ___ DAY OF _____ 2026.

CITY OF GLENWOOD SPRINGS, COLORADO

_____
Marco Dehm, Mayor

ATTEST:

_____
Ryan Muse, City Clerk

EXHIBIT A

Sections 080.030.030, 080.040.060, and 100.010.100 of the Glenwood Springs Municipal Code are hereby amended as follows with double underlined text added.

* * * *

TITLE 080 - UTILITIES

* * * *

ARTICLE 080.030 - WASTEWATER REGULATIONS

* * * *

080.030.030 - Waste discharge regulations.

* * * *

(h) In addition to and without limiting the authority of the City to enforce by and through other means, the Neighborhood Services Specialist may be authorized by the City Manager and directed to enforce the provisions of this section.

* * * *

ARTICLE 080.040 - WATER REGULATION

* * * *

080.040.060 - Wasting water, watering schedules, and authority of City Manager to limit use of water during water shortage.

(e) In addition to and without limiting the authority of the City to enforce by and through other means, the Neighborhood Services Specialist may be authorized by the City Manager and directed to enforce the provisions of this section.

* * * *

TITLE 100 - PUBLIC HEALTH

ARTICLE 100.010 - General provisions

* * * *

100.010.100 - Violations.

* * * *

(d) In addition to and without limiting the authority of the City to enforce by and through other means, the Neighborhood Services Specialist may be authorized by the City Manager and directed to enforce the provisions of Section 100.010.090.

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item:	Resolution 2026-14; Adoption of Updated Engineering Standards
Action Requested:	Staff requests council adopt the revised Engineering Standards per Resolution 2026-11
Department:	Engineering
Presented By:	Ryan Gordon
Strategic Goals:	Provide Efficient and Responsive City Government Preserve and Improve Infrastructure Protect and Preserve our Quality of Life Generate Sustainable Economic Development Ensure Public Safety
Background Info:	The Engineering Standards were last revised and adopted back in 2022 and need to be updated to keep up with new materials, concepts and changing regulations. This revision will also clean up disconnected references, minor typos and simplify/clarify how to complete construction in the city.
Issues:	None
Fiscal Impact:	None
Legal Review:	Legal has reviewed the standards and completed resolution language.
Staff Recommendation:	Staff recommends council adopt the revised standards.

RESOLUTION 2026-14

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, ADOPTING THE 2026 PROCUREMENT AND CONTRACTS HANDBOOK.

WHEREAS, the City of Glenwood Springs ("Glenwood Springs" or the "City") is a home-rule municipality organized under Article XX of the Colorado Constitution and with the authority of the Glenwood Springs Home Rule Charter; and

WHEREAS, the City last revised its Engineering Standards in 2026; and

WHEREAS, certain chapters of the Engineering Standards are in need of revision to incorporate new materials, standards, and changing regulations; and

WHEREAS, The Glenwood Springs City Council determines that adopting the updated Engineering Standards, Chapters 2 through 6, attached as **Exhibits A through E**, serves the best interests of the City.

NOW, THEREFORE, IT IS RESOLVED BY THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, THAT:

Section 1. The above recitals are hereby incorporated as findings by the City Council of the City of Glenwood Springs.

Section 2. The City Council of the City of Glenwood Springs hereby adopts the updated Engineering Standards, Chapters 2 through 6, attached as **Exhibits A through E**.

INTRODUCED, READ AND PASSED THIS 18TH DAY OF JUNE 2026.

CITY OF GLENWOOD SPRINGS, COLORADO

_____

ATTEST: Marco Dehm, Mayor

_____

Ryan Muse, City Clerk

Chapter 6

Electrical Standards

City of Glenwood Springs Engineering

Revised 2026

Chapter 6 Electrical Standards

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Chapter 4 Electrical Standards

I. Introduction

These standards are issued by the Glenwood Springs Electric System (GSES) as a guide for obtaining electric service and electric line extensions and put forth the service available, conditions for service, and the standards for material and construction. The standards herein supersede all previous publications of "Electric Service Standards" issued by the Glenwood Springs Electric System prior to this date and are subject to change without notice. These are provided to assist customers, architects, engineers, contractors, developers, wireman and inspectors in planning and installing electric distribution and electric service. It is not intended that any requirements may be unduly restrictive or burdensome, but that these regulations and policies serve to provide safety guidelines and expedite service connection by establishing uniform and equitable standards for electric service. No one rule or instruction covers all conditions. Glenwood Springs Electric System welcomes and encourages all inquiries concerning unusual or special needs and to provide clarification of our requirements and standards.

II. Definitions

A. The term "Customer", when used herein, refers to any person or company applying for, receiving, using or agreeing to take a class of electric service or other services supplied by Glenwood Springs Electric System.

B. The term "National Electric Safety Code" or "NESC", when used herein, refers to the current edition of the National Electric Safety Code as adopted by the City of Glenwood Springs at time of distribution installation.

C. The term "National Electric Code" or "NEC", when used herein, refers to the current edition of the National Electric Code as adopted by the City of Glenwood Springs at time of construction.

D. The City of Glenwood Springs Electric System may be referred to in this text as “GSES”, "local utility", the "Electric Department", or the "City".

III. General Policy Information

A. The standards herein are supplementary to, and are not intended to conflict with, the rules and regulations on file with the City Clerk of the City of Glenwood Springs, applicable to city ordinances, the National Electric Safety Code, and the National Electric Code.

B. The customer will give the duly authorized agents and employees of GSES, when properly identified, full and free access to the premises of the customer at all reasonable hours. This access will be for the purpose of installing, reading, inspecting, adjusting, repairing, maintaining, replacing or removing any of GSES facilities on the premises of the customer or for any other purpose incidental to the electric service supplied by GSES.

C. Employees of GSES may not demand or accept any compensation from a customer for services rendered in the line of duty. The customer will not bypass, tamper with, engage in unauthorized metering, or otherwise interfere with the proper operation of GSES meter or other equipment or in any way interfere with the proper metering registration. No meter socket will be flatted or bypassed without express consent of GSES.

D. For violation of this regulation, service will be disconnected without notice to the customer and will not be reconnected until the customer has corrected such violation in accordance with prevailing electric requirements. The customer may be billed the costs incurred by GSES to resolve the situation as well as the outstanding charges.

E. The customer, at all times, will protect the property of GSES on the premises of the customer and will permit no persons other than the employees and agents of GSES and other persons authorized by law to inspect, work on, open, or otherwise handle the wires, meters or other facilities of GSES. All work within GSES equipment will be in compliance with the National Electric Safety Code. In case of loss or damage to the property of GSES due to carelessness, neglect, or misuse by the customer, his family, agents, servants, or employees, the customer will, at the request of GSES, pay to GSES the cost of any necessary repairs or replacement of such facilities or the value of such facilities.

F. Devices or attachments will not be connected to the GSES facilities in such a manner as to permit the use of un-metered energy without the prior written consent of the GSES.

G. The electric service supplied by GSES is for exclusive use of the customer on the premises to which such service is delivered by GSES. GSES will not supply electric to a customer for resale by the customer. However, a master metered customer may "check meter" tenants, lessees or other person to whom ultimately the electricity if distributed by an allocation procedure, provided the master metered customer does not receive more than necessary to pay the master metered bill. GSES will supply and maintain only one master meter in such an instance.

H. The rates for all types of electric service supplied by GSES are on file with the City Clerk's office at Glenwood Springs City Hall. Upon request, a representative of the City of Glenwood Springs will explain rate schedules and billing.

I. Generally, attachments of any kind to a power pole or street light poles will NOT be permitted. In certain cases, attachments to power poles by other utility entities are granted. A permit is required for Joint Pole Attachment. In certain cases, attachments to street light poles are granted typically for street signage or banners.

J. GSES will use reasonable diligence to supply continuous electric service to the customer but does not guarantee the supply of electric service to the customer against irregularities or interruptions. GSES will not be considered in default of its service agreement with the customer and will not otherwise be liable for any damages incurred by any irregularity or interruption of electric service.

K. GSES will not be considered in default of its service agreement and will not otherwise be

liable due to failure by GSES to perform any obligation if prevented from fulfilling such obligation by reason of delivery delays, breakdowns of or damage to facilities, acts of God, public enemy, strikes, action of civil, military, or governmental authority or any other cause beyond the control of GSES.

L. The customer may be required to provide Utilities Design CAD File (UDCF), Utilities "As Built" drawings or both in support of a service extension request. Details and recommendations of the UDCF and "As Built" drawings are given in Section 7

6.1 CHARACTER OF AVAILABLE SERVICES

A. General Statement

The Glenwood Springs Electric System has on file it's Rate, Rules, Regulations and Extension Policies, copies of which are open for inspection by the public at City Hall or the Electric Department. The following standards are statements of the operating rules and practices, which affect the majority of connections made to the GSES distribution system. Where information not included herein is needed, representatives of the Electric Department will provide assistance.

B. Type of Service

The Electric Department shall be contacted for definite information as to voltage and phase available for any particular service, by upfront consultation and perhaps unnecessary expense may be avoided in obtaining final service connections. Depending upon the location and nature of the load, the following types of services are available.

a. Single phase, 3-wire at a nominal voltage of 120/240 volts.

b. Three phase, 4-wire wye at a nominal voltage of 208/120.

c. Three phase, 4-wire wye at a nominal voltage of 480/277 volts.

The following types of service are available only at the Electric Department's option upon prior written approval. These types of services will generally not be available if the above types of services are more appropriate in the Electric Department's opinion.

a. Single phase, 2-wire at a nominal voltage of 120 volts

b. Three phase, 3-wire delta at a nominal voltage of 240 volts or 480 volts

c. Three phase , 4-wire delta at a nominal voltage of 120/240 volts

d. All other voltages

C. Service and Limitations

a. The Electric Department reserves the right to determine the location and type of service that will be made available at any particular location and therefore should be consulted. Service will be rendered to consumer from the Electric Department's nearest suitable line of sufficient capacity to furnish adequate service at the phase and voltage available.

b. Services must not be used by consumer for purposes other than that specified in the applicable rate. Electrical energy purchased from the City of Glenwood Springs shall not be resold.

c. Services requiring only 120 volt, two-wire, shall not be installed unless it is the only available supply (fed from underground street lighting circuits, etc.), and must have prior written approval from the Electric Department. Existing two-wire services being revamped shall be changed to 240 volt, three wire where possible.

d. Reduced current starting equipment will be required on all three–phase motors larger than 25hp, and all motors larger than 10 hp shall be three-phase. Written exemptions may be granted by the Electric Department for certain installations.

D. Application for Service

Consumers may contact the Electric Department or City Hall in person, by mail, or telephone to secure information related to applications for new electric service connections or changes in existing service. Before electric service can be made available to the consumer's installation, it is necessary that:

a. The consumer makes an application for service at City Hall.

b. The consumer complete and return to the Electric Department the "Request for Load Information Form".

c. The consumer will pay all appropriate fees to City Hall.

d. The Electric Department completes its engineering and construction, if any.

e. The State Electrical Inspector, who has jurisdiction for electrical inspections, has notified the Electric Department of his approval by phone or the presence of a valid approved electrical inspection sticker.

E. Rate Schedule

a. Rate schedules are available upon request.

F. Load Balance

a. Customer shall connect his equipment so that the load at the point of delivery shall be balanced as nearly as practicable.

G. Cogeneration/Photovoltaic Installations

a. It is the policy of GSES to allow qualified small power producers and co-generators to operate in parallel with GSES. Certain requirements are outlined to ensure the safety and reliable operation of such interconnected power sources. Details of each case will be reviewed and coordinated with the City of Glenwood Springs Public Works Director, Finance Director, and the GSES Superintendent and Electrical Engineer upon receipt of a letter of request and intent. The customer is urged to discuss the project plans prior to the purchase and installation of equipment.

b. GSES will encourage the use of induction generators or line-commutated inverters over the use of synchronous generators or self-commutated inverters in order to simplify interconnection requirements for 100kw and smaller co-generators.

H. <u>Conditions for Approval of Photovoltaic Installations</u>

a. Generating facility shall include a metering system that meets all applicable standards, regulations, and statutes that will meter the generation prior to customer usage and capable of recording the monthly output (kilowatts) of the generation facility based on the highest 15 minute rolling interval delivered to the customer and a second meter capable of reverse power flow measurement for net kilowatt hour readings. The facility will include full protective systems to protect utility line personnel from back feed onto the utility grid system upon utility power failure. See Exhibit A One line Diagram.

b. All wiring to be in accordance with the current National Electric Code safety and protection requirements and utility power quality standards for voltage and frequency. Inverters must be UL listed and approved. The system must be grid- tied (utility net metering applies) and requires a minimum 5-year warranty on the panels, inverters and installation. For small PV supply systems, harmonic content injection shall be limited to the levels prescribed in IEEE-519.

c. Systems must be installed by a NABCEP certified installer. Submit copy of installer certification to the City with Net Metering Application for Interconnection.

d. The AC outlet supply shall be wired to an outside disconnect, labeled, “WARNING!! DUAL POWER SUPPLY”, installed adjacent to or at the main point of service disconnect. See Exhibit B Warning Label Diagram.

e. 1- line electrical diagram of the generating system shall be furnished to the City prior to installation. The 1-line electrical diagram shall show all wiring, connecting point and protective devices for the selected equipment components at this site.

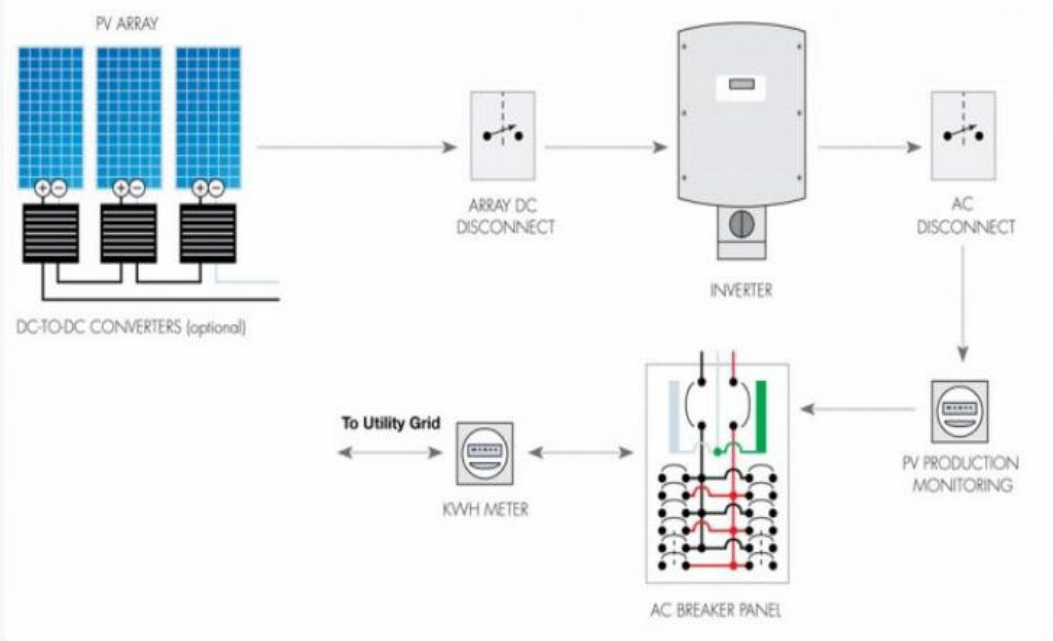
f. Generating facility shall be sized to supply no more than **<u>120 percent</u>** of the customer’s average annual electricity consumption at the site, where the site includes all contiguous property owned or leased by the consumer, without regard to interruptions in contiguity caused by easements, public thoroughfares, transportation, rights-of-ways, or utility rights-of-way.

g. Maximum Limits. The following maximum limits will apply, without exception, to the

monthly excess generation provisions of this policy.

a. Residential Customer –Generators may generate electricity subject to this net metering policy up to **10 kilowatts**.

b. Commercial or Industrial Customer- Generators may generate electricity subject to this net metering policy up to **25 kilowatts**.



PV Module Information:

Manufacture

Model #

PV Array information:

# of Modules in Series

# of Parallel Circuits

Inverter Information:

Manufacturer

Model #

Max DC Volt Rating

Max Power Rating

Nominal AC Voltage

Max AC Current

DC Disconnect Rating:

Max DC Voltage

Max Operating Amps

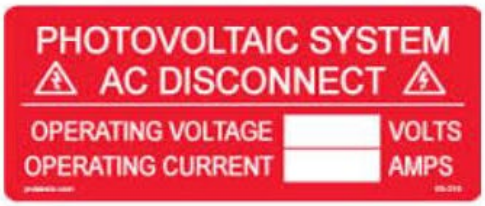
AC Disconnect Rating:

Max AC Voltage

Max Operating Amps

Exhibit A – Warning Label Diagram

THIS SIGN IS ATTACHED TO THE "METER HOUSING" AND IS AT LEAST 2 x 4 INCHES IN SIZE AND MUST BE WEATHERPROOF AND PERMANENT.



4" x 2"

THESE SIGNS ARE PERMANENTLY ATTACHED TO THEIR RESPECTIVE DISCONNECT SWITCHES.

THIS SIGN IS TO BE PLACED AT THE LOAD CENTER DIRECTLY NEXT TO THE ACTUAL PV BREAKER

I. System Voltage Transients

Voltage transients can and will occur on the power system resulting from both normal operation and acts of God. These transients will characteristically be of short time duration, low energy, but high magnitude. These transients may affect sensitive equipment such as computers. Due to the nature and origin of these types of transients, the customer at the customer's expense may require special power conditioning equipment.

J. Voltage Levels

The actual secondary distribution voltage at the customer's meter will vary up to and including +/- 5% of the nominal voltage, depending on circuit location and normal operating needs. This conforms to the ANSI Standard C84.1, which deals with electric power supply and utilization systems. It must be recognized that because of conditions outside the GSES control, there will be infrequent and limited periods when sustained voltage outside these limits may occur. Additional voltage variations will occur between the meter and the customer's utilization equipment at normal operation.

K. Momentary Interruptions and Voltage Dips

Many modern electronic appliances such as digital clocks, VCRs, microwave ovens, PCs, etc. are extremely sensitive to momentary power interruptions or voltage dips. In order to minimize the duration of outages to all customers when a temporary failure occurs (as caused by nearby or direct lightning strikes to power lines, or by wind trees, or animals) power circuit breakers and reclosers will trip to clear the fault and automatically reclose within a few seconds to restore service. Customers are encouraged to select electronic appliances with a short-term power outage carryover automatic clock reset feature, which are readily available from most leading manufacturers.

L. Three- phase Motor Protection

In the event the customer has three-phase motors that may be sensitive to a single-phase condition, it will be customer's responsibility to install the proper equipment to protect motor from damage.

M. Power Factor

See Municipal Code Article 08.020.020 Inspection and Power Factor.

N. Emergency Generator

When an emergency generator is required, it will be installed in such a manner as to eliminate the possibility of operating in parallel with, or back-feeding into the GSES. A double-throw, double-source main disconnect will be used for this purpose. Customers must sign and comply with GSES interconnection agreement in order to parallel with the GSES.

O. Welders

To ensure good service and limit the amount of voltage flicker to our customers, permission will be obtained from the Glenwood Springs Electric System for the use of welders in a residential area, which require more than 40 amps input.

P. Line Locating

A line locate must be requested before any excavation begins. Twenty-four (24) hour advance notice is required except for emergencies. Working without a locate is not only extremely dangerous but may cause the excavator and/or the company he represents a large fine and repair costs, which may include any lost revenue that the City may incur. To schedule a locate you must call the Utility Notification Center of Colorado (UNCC) at 811, GSES at 970-384-6352 and the City's Water/Wastewater Department at 970-384-6344.

Q. Request for Load Information Work Sheet (see following page)

CITY OF GLENWOOD SPRINGS

REQUEST FOR LOAD INFORMATION

Owner's Name: _____ Date: _____

Address: _____

Person Contact: _____

Telephone #: _____

Building Classification:

☐ Residential ☐ Industrial

☐ Commercial ☐ Other _____

Building Features: Square Footage: _____

Type Use (Office, Retail Store, etc.): _____

Electrical Data: Voltage Request:

☐ 120/240, 1☐, 3-w ☐ 277/480, 3☐, 4-w

☐ 120/208, 3☐, 4-w ☐ Other _____

Secondary Main Breaker Size:

☐ 100-amp ☐ 400 amp

☐ 200 amp ☐ Other _____

Load Profile: Total Connected KW: _____

Estimated Maximum Demand KW: _____

Transformer Request Size KVA: _____

Equipment List:

Heat: ☐ Gas ☐ Electric ☐ Other _____

Air Conditioning: ☐ Yes ☐ No

Largest Motor Load, HP _____ Qty _____

Largest Resistance Load, KW _____ Qty _____

Utility Service Information

Electrical Summary:

Transformer Size: _____KVA

Service Voltage: _____

Meter Classification:

Voltage Configuration: _____ Amp Classification: _____

Instrument Rated (CTS): _____ Meter Type: _____

Fault Current: _____

6.2 SERVICE ENTRANCE GUIDELINES

A. General

a. The consumer, before purchasing equipment or beginning construction of a proposed installation, should confer with the Electric Department to determine if the type of service and voltage desired by the consumer is available; to determine if extension of, or additions to the Electric Department's facilities will be required; and to secure definite location of the point of delivery, i.e., point where the Electric Department's electric facilities will connect to those of the consumer. Before any additions to or alterations of existing installations are made by the consumer which will materially affect the amount of service required, or which may require a change in the type of service or the point of delivery, the Electric Department shall be notified reasonably in advance thereof in order to determine if the service desired is available and, if so, that the necessary changes in the Electric Department's facilities may be arranged for and completed.

b. The Electric Department makes service available from either overhead or underground distribution facilities, in accordance with the terms of the Electric Department's Line Extension Policy. It is extremely important that the Electric Department be consulted in advance to determine the type of service that will be available.

c. The Electric Department is responsible for service up to the metering point. Anything beyond that point is the responsibility of the customer.

d. Outside disconnects are required for all new and remodeled services.

B. Consumer's Responsibility

a. It is understood that any of the Electric Department's facilities located on consumer's premises should be adequately protected against damage and that consumer is responsible for any damage or loss resulting from improper protection or neglect.

b. Installation of and proper connection of the service entrance conductors are the direct responsibility of the consumer and/or his electrical contractor.

c. Antennas, ropes, signs, flood lights, banners or other objects shall not be attached to or cross over any poles or lines owned by the Electric Department. Consumer's distribution wires are not to be installed on the Electric Department's poles or facilities, except for equipment on farm or irrigation metering poles, or metering equipment as approved.

C. Apparatus and Equipment

a. The Glenwood Springs Electric System shall be contacted prior to the start of all installations to determine the location of all metering equipment.

b. The installation and material of the service entrance equipment, meter mounting device, associated equipment and wiring, etc., is the responsibility of the consumer and shall comply with GSES guidelines, the latest version of the National Electrical Code (NEC), or other regulatory authorities having jurisdiction, whichever is more stringent.

c. The service entrance conductors shall be connected to the service drop conductors, by Glenwood Springs Electric Department Personnel Only.

d. A loadbreak fused disconnect or breaker shall be installed on the load side of the meter at the meter location.

e. The top of the conduit mounted on the pole must be six (6) feet from the Glenwood Springs Electric System's neutral. Cable tails must be long enough to reach connections, including drip loops.

f. All three-phase (3Ø) four-wire wye-metering stacks with 120/208-volt services must have a factory installed fifth terminal at the nine o'clock position. These installations must be reviewed on an individual basis prior to construction (in the design stage) to ensure compatibility with Glenwood Springs Electric System.

g. Glenwood Springs Electric System will not assume any liability or responsibility for maintenance of any equipment purchased and installed by others.

h. A nine (9') foot clearance is required in front of all transformers and electrical apparatus doors per NEC Code 110-34(a). A thirty (30") inch clearance is required on all sealed sides and rear. A nine (9') foot clearance above the transformers and electrical apparatus is required per NEC Code 110-34(c).

D. Meter Installation and Ownership

a. Generally, only one meter will be allowed for each rate under which consumer receives service at each location.

b. Projects, which incorporate the use of motel or lodge type housing, will be permitted to master meter. Condos, townhouses and apartments (housekeeping units), shall provide individual metering for each unit.

c. Where two or more meters are installed, the applicable rate will apply to each meter, and readings of the meters will not be combined for billing purposes.

d. All meters, service wires, and other electrical facilities installed by the Electric Department at its expense upon consumer's premises for the purpose of delivering or measuring electrical energy to consumer, shall continue to be the property of the Electric Department and may be repaired, inspected, tested, relocated, replaced or removed by the Electric Department at any time without prior notice.

e. The consumer shall provide and maintain without cost to the Electric Department, subject to the Electric Department's approval, an easily accessible location of sufficient size for installation of meters and other apparatus of the Electric Department in accordance with the Electric Department rules as contained herein.

E. Meter Location

a. The location of meters and metering equipment shall be designated by the Electric Department. No wiring dependent upon the meter location should be started until the

location has been definitely agreed upon by the Electric Department. Outdoor metering is preferred. It has the advantage of eliminating inconvenience to the customer occasioned by the reading and testing of meters. Insofar as is practicable, all meters for single- or two-family dwellings, terraces and small store buildings and apartments, etc. shall be installed outdoors in accordance with rules governing outdoor meter installations. Under certain conditions, however, it may not be practicable to install meters outdoors and by special arrangement with the Electric Department, an indoor location may be approved.

b. Meters must be accessible 24 hours a day, 12 months a year for maintenance and reading. They cannot be located within a locked area or within an area which might be locked in the future. The Electric Department will not accept keys.

c. Also, meters shall not be located where access might be barred or where the meter and/or Electric Department employees or agents could be subjected to physical damage by the accumulation of snow or ice, parked vehicles, stored materials, etc., and shall be located on the vehicle access side of the building where practical. Meter locations must also conform to National Electric Code requirements and all local codes.

d. In multiple metered buildings, meters shall be grouped in a centralized accessible location approved by the Electric Department.

e. If meter cabinets are constructed to screen meters, the doors of such cabinets shall be constructed of lightweight materials and open wide enough for easy access for maintenance and reading. The doors shall be hinged on the side and shall not be locked. The door openings shall be sufficiently high so that snow and ice will not impair access. The Electric Department will not be responsible for damage to consumer constructed meter cabinets.

f. All meter locations must be approved by the Electric Department prior to installation. If a meter location is not approved in advance, the Electric Department field installer is authorized to refuse installation of the meter until an acceptable location is agreed upon.

F. <u>Outdoor Meter Locations</u>

a. Outdoor meters shall be installed in a place accessible at all times, and in such a location as to coordinate with the service entrance requirements. Self-contained meter mountings shall be securely fastened to the building wall and shall be installed so that the center of the meter cover shall be five and one-half (5 ½) feet above the finished grade or permanent platform. Such a platform shall be not less than three (3) feet square. Proper location and clearance of meter mountings necessitate consultation between the consumer and the Electric Department.

b. Where service is rendered to individual consumers located in a structure designed for multiple occupancy, such as an office, professional building or an apartment building, etc., the individual outdoor meters should preferably be grouped at a point nearest the service entrance attachment. Each mounting shall be plainly and permanently marked by the consumer with numerals or letters showing which apartment, offices or rooms are supplied there from. Where the available space requires that meter mounting devices be placed in

vertical alignment, the highest meter may not be more than seven (7) feet above grade to the center of the glass cover, and the lowest meter may not be lower than thirty-six (36) inches above grade to the center of the glass.

G. Indoor Meter Locations

a. When indoor locations are necessary, the meters shall be installed in a location where they will be readily accessible at all times for reading and maintenance purposes. Meter mountings shall be securely fastened to the wall and shall be installed so that the center of the glass meter cover will be five and one-half (5 ½) feet above the floor. Proper location and clearances of meter mountings necessitate consultation between the consumer and the Electric Department.

b. Where two or more meters are to be installed indoors, they shall be grouped together in a common room or other suitable space accessible at all hours to authorized Electric Department employees. In unusual cases where installation is made in a multiple story building, exception may be made for multiple meter rooms (maximum of 1 room per 3 stories), with special permission of the Electric Department. Individual meter mounting devices may be placed as close together as the fitting will permit, but not less than two (2) inches apart. They shall be plainly and permanently marked by consumer with numerals or letters showing which apartments, offices or rooms are supplied there from. The load wires from each meter mounting shall run in separate conduit to individual disconnecting means. When un-metered conductors are run through private basements or other private areas, they shall be enclosed in a continuous length of conduit. The installation of pull boxes or other devices in this service feed will not be permitted. Where the available space requires that meter mounting devices be placed in vertical alignment, the highest meter may not be more than seven (7) feet above grade to the center of the glass cover, and the lowest meter may not be lower than thirty-six (36) inches above grade to the center of the glass cover.

H. Meter Mounting Installation

Meter mountings and associated equipment, both indoors and outdoors, shall be mounted securely and plumb. Where they are attached to masonry, concrete or plastered walls, expansion bolts, plugs or anchors shall be used.

I. Meter Pedestals

The electric department does not supply meter pedestals. The application of using a meter pedestal is determined by accessibility and the aesthetic value of using one.

a. Single meter pedestals will be used for single family dwellings on all newly constructed homes when applicable.

b. Double meter pedestals will be used at a common property line to serve both adjoining properties on new construction.

c. On multi-family units, a meter stack will be required. It will be strategically placed for the convenience of the meter reader and the Electric Department.

J. Classification of Metering

Selection of the type of metering to be used will be determined solely by the Electric Department and will be based upon the voltage of the circuit and the load supplied. The Electric Department classifies its metering installations as follows:

K. Self-Contained Metering

a. Where the service ampacity does not exceed 225 amperes, and where the service voltage does not exceed 240 volts, self-contained metering may be used.

b. For self-contained installations not covered by these drawings or location of metering equipment, or where instrument transformers are required, or 480-volt service, the Electric Department should be contacted prior to the start of the installation for approval.

c. The use of single-phase meter mounting devices other than those supplied by the Electric Department is permissible providing the following conditions are fulfilled:

   i. The cost of purchasing, installing, and connecting the device shall be borne by the consumer.

   ii. All such devices intended to be connected three-wire single phase, 120/208Y volt shall have a fifth terminal installed at the 9 o'clock position and connected to the service neutral.

   iii. Where an installation consists of multiple mounting devices (such as apartments, condos, etc.) the line side conductors in raceways or gutters shall be separated from the load side conductors by means of a permanent barrier.

   iv. Access to the line side conductors shall be sealable. In applications where a single device is used, line and load conductors must be in separate conduits.

   v. The meter-mounting device shall be equal in quality to the comparable device, which the Electric Department would otherwise furnish.

L. Instrument Transformer Metering

a. Instrument metering shall be used whenever service rating exceeds 225 amps, and on most 480-volt services.

b. Current and potential transformers (CT's and PT's) shall be securely mounted in an enclosure of adequate size, and shall not be installed in service disconnects, wiring gutters, junction boxes, or be exposed to the weather.

c. The installation of instrument transformer in pad-mount transformer will be done solely at the discretion of the Electric Department. Prior written approval must be obtained and will not be granted if the Electric Department determines that the transformer could serve more than one service.

d. CT cabinets and service disconnect for residential services shall be located in an accessible exterior location.

e. The cabinet for the instrument transformers and the necessary conduit and fitting will be supplied, installed and owned by the consumer. The instrument transformers and meter mounting device will be supplied and owned by the Electric Department but will be installed by the consumer. Meter test switch, and instrument transformer secondary wiring will be supplied, installed and owned by the Electric Department.

M. Non-registration of Meters

a. The consumer is requested to notify the Electric Department of any defect in the Electric Department's wiring or equipment, which may result in the failure of a meter to register.

b. Lack of proper registration will result in estimated billing.

N. Electricity Theft

Electricity theft costs customers money. Although GSES works to minimize costs, this loss is shared by our customers. Meter tampering and electricity theft are criminal acts that can lead to arrest, fines and/or imprisonment. Electricity tampering is also a safety issue that can cause fire, personal injury and possible electrocution. Please report any meter tampering or electricity theft to the Electric Department

O. Reasons for Discontinuing Service

The Electric Department may refuse to connect or may discontinue service for non-payment of bills, faulty or dangerous wiring, and non-compliance with the application for service or contract, theft of electricity, or appearance of power theft devices on a customer's premises. Discontinuance of service does not release a customer from any obligations to the Electric Department.

P. Moving or Removing Meters and Metering Equipment

Only authorized Electric Department employees are permitted to connect, disconnect, remove or relocate meters. All metering equipment owned by the Electric Department and either not installed, or installed and not be utilized, shall be returned to the Electric Department.

Q. Diversion of Electricity

Under no circumstances shall devices or attachments be connected to the Glenwood Springs Electric System facilities in such manner as to permit the use of un-metered energy, except in emergencies where specifically authorized by the Glenwood Springs Electric System. Legal recourse will be taken by the Glenwood Springs Electric System against any person engaged in this activity.

R. Access for Electric Department's Employees

Consumer shall permit authorized employees of Glenwood Springs Electric System access to premises of consumer to obtain information concerning connected load, to measure or test service, to read meters, and for other purposes incidental to the supplying of electric service.

6.3 CONSTRUCTION STANDARDS

A. Purpose

The purpose of these standards is the practical safeguarding of persons during installation, operation, and/or maintenance of electrical supply lines and associated equipment. These standards are to be used in conjunction with the National Electric Safety Code-Current Edition, all Federal, State, County and municipal rules, regulations and codes.

B. Scope

All GSES Department employees, authorized contractors, or other entities performing design, construction, operation, or maintenance tasks for electric supply or communication lines or equipment covered by these standards shall be responsible for following and meeting these applicable standards.

C. Application

a. New Installations. These standards shall apply to all new installations and extensions, except that they may be waived or modified by the approval of the GSES Line Superintendent.

b. Existing Installations

i. Where an existing installation meets, or is altered to meet, these standards, it shall be considered to be in compliance with these standards.

ii. Existing installations that complied with prior existing standards need not be modified to comply with these standards except as may be required for safety reasons by the GSES Line Superintendent.

iii. Where existing installations are to be altered or remodeled, the installation will conform to the new standards with exceptions made by the GSES Line Superintendent.

D. Easements for Company Facilities

Consumer agrees to provide, at no cost to the Electric Department and at the Electric Departments request, necessary easements and suitable land area or building space owned and controlled by the consumer for installation, construction, reconstruction, maintenance and operation of the Electric Department's overhead and/or underground facilities, used or useful to render electric service to the consumer, and to include those facilities described as ON Building Facilities (installed on the face of the consumer's building wall) of In Building Facilities (installed within the interior of the consumer's building).

E. Consumer Responsibility

a. It is understood that any of the Electric Department's facilities located on consumer's premises should be adequately protected against damage and that consumer is responsible

for any damage or loss resulting from improper protection or neglect.

b. Installation of and proper connection of the service entrance conductors are the direct responsibility of the consumer and/or his electrical contractor.

c. Antennas, ropes, signs, flood lights, banners or other objects shall not be attached to or cross over any poles or lines owned by the Electric Department. Consumer's distribution wires are not to be installed on the Electric Department's poles or facilities, except for equipment on farm or irrigation metering poles, or metering equipment as approved.

F. Line Locating

The customer must call the Utility Notification Center of Colorado (UNCC-Dial 811 or visit their website at http://www.unco2.org/web/) at least two full working days (48 hours) before trenching or excavating for underground service. Utilities are only required to locate their utility. In some cases, private utilities exist and it is the responsibility of the customer to hire a private company to locate, UNCC can provide information on private locating companies.

6.4 TEMPORARY SERVICE

A. General Requirements

a. These are typical guidelines only. GSES should be contacted prior to construction if variations are to be considered.

b. GSES reserves the right to determine the location, type of service and metering equipment that will be utilized for each service. Services built without GSES approval run the risk of not being connected. Metering equipment and service disconnects shall be located in an accessible location which will not be subject to physical damage (ice, vehicles, etc.).

c. If GSES's delivery point is from an underground source, the consumer must extend their service cable into the bottom of the vault, with sufficient cable tails to reach the secondary connections. GSES will assist with the entrance to the vault; however, the consumer must do all excavation and restoration.

d. Temporary service may be available:

   i. Prior to the installation of the permanent service; at locations where service is expected to be less than eighteen (18) months; or;

   ii. At heavy construction projects which may require service for a period longer than eighteen (18) months, provided that, in the opinion of the Electric Department, such service will not cause an undue hardship upon the Electric Department or its existing customers.

e. Temporary service shall be restricted to as short a time as possible and shall be disconnected by the Electric Department at such time that the permanent service is connected.

f. Temporary service connections and extensions will be made as provided in the current Line Extension Policy.

g. GSES shall be contacted prior to the installation of any temporary service to determine the type of service to be made available:

   i. If a service drop and meter support is required, it must be established by the consumer in accordance with Temporary Overhead Service.

   ii. If temporary service is to be underground, it must be established by the consumer in accordance with Temporary Underground Service.

   iii. When the permanent meter loop service is to be located on an Electric Department-owned pole, a temporary pole-mounted service can be installed by the consumer, eliminating the need for the service drop and meter support. This installation must be installed in accordance with Meter Loop at Service Pole.

h. As soon as the temporary service is no longer needed, all temporary equipment attached to GSES poles must be promptly removed.

i. Connection to or disconnection from Glenwood Springs Electric System's distribution system shall be made by the Glenwood Springs Electric personnel only.

j. No persons other than employees or agents of Glenwood Springs Electric System may break seals, remove or relocate meter and other equipment owned by Glenwood Springs Electric System.

6.5 CONSTRUCTION TEMPORARY - OVERHEAD

A. Illustration Notes

a. 1 - Pressure Treated Pole (20' minimum) not owned by Glenwood Springs Electric System.

b. 2 – 4 x 4 posts adequately braced four ways.

c. Weather head.

d. Three (#6 CU or larger) service conductors.

e. The consumer shall provide an approved triplex service drop of sufficient length to connect to the transformer subject to the following:

   i. Pressure treated pole, span length from Glenwood Spring Electric System’s pole to consumer’s pole shall not be less than 15' or more than 75',

   ii. (4x4 post), span length from Glenwood Springs Electric Springs’s pole to consumer’s pole shall not be less than 10' or more than 15'.

   iii. The terrain underneath the span is level and does not include any streets or alleys.

   iv. A 12' minimum clearance can be maintained above pedestrian areas and residential driveways.

v. The service drop cable must be property attached (secondary clevis and approved deadend tie) to the service drop support by the consumer.

f. Point of attachment.

g. Conduit must be securely attached to pole, stand-offs not required.

h. Conduit, size as required.

i. Socket hub.

j. Meter, provided and installed by Glenwood Springs Electric Springs.

k. Meter socket, (not provided by Glenwood Springs Electric System)

l. Weatherproof receptacles and over current protection, as required by current edition of National Electric Code.

m. Ground wire and electrode per National Electric Code.

n. Insulated bushing.

o. 6" of sand or clean dirt both above and below cable.

p. Service cable shall be USE rated triplex (or quadplex) cable assembly, 600v. #4 AL minimum size. Conductor voltage drop from transformer to meter shall be limited to 2%.

q. Adequate freestanding support for service equipment shall consist of a minimum of two upright supports (4x4 posts, angular steel, Unistrut, etc.). Set in concrete or tightly compacted backfill to a depth of 3 feet.

r. Connection to or disconnection from Glenwood Springs Electric System's distribution system shall be made by the Glenwood Springs Electric System only.

s. No persons other than employees or agents of Glenwood Springs Electric System may break seals, remove or relocate meter and other equipment owned by Glenwood Springs Electric System.

6.6 CONSTRUCTION TEMPORARY - UNDERGROUND

A. Illustration Notes

a. 4" x 4" post adequately braced, buried to a depth of thirty-six (36) inches below grade.

b. Meter provided and installed by Glenwood Springs Electric System.

c. Conduit, GRC or Schedule 80 PVC, size as required.

d. Appropriate meter socket, furnished and installed by consumer.

e. When temporary service is fed from a 3-phase transformer (overhead or underground), the meter socket shall have a fifth jaw installed in the 9:00 o'clock position.

f. Weatherproof receptacles and over-current protection.

g. Conduit securely attached to post.

h. Ground wire and electrode, furnished and installed by customer.

i. Bushing.

j. Service cable.

k. Cable buried at a minimum of twenty-four (24) inches.

l. Temporary services shall be restricted to as short a time as possible.

m. Tightly compacted backfill.

n. Connection to or disconnection from Glenwood Springs Electric System's distribution system shall be made by the Glenwood Springs Electric System only.

o. No persons other than employees or agents of Glenwood Springs Electric System may break seals, remove or relocate meter and other equipment owned by Glenwood Springs Electric System.

6.7 TEMPORARY METER LOOP AT SERVICE POLE

A. Illustration Notes

a. Top of service riser shall be approximately 6 feet below neutral wire on pole. If there is no joint use agreement for telephone or cable television.

b. If there is telephone and/or cable television joint use on the pole, GSES must be contacted prior to service being mounted on pole.

c. Cable tail ends must be long enough to reach transformer connection plus drip loops (as shown).

d. Weather head

e. Conduit riser shall be limited to one conduit per service, GRC preferred, EMT or Schedule 80 allowed.

f. Conduit standoff brackets ARE NOT ALLOWED, but conduit must be secured to the pole with appropriate straps.

g. Socket hub.

h. Appropriate meter socket.

i. Meter, provided and installed by Glenwood Springs Electric System.

j. Rain tight, load break fused disconnect or breaker required at meter location, must be on load side of meter.

k. Insulated bushing

l. Allow 3’ of slack in secondary cable below ground.

m. Ground wire and ground rod, per NEC. (Provided and installed by consumer. Do not attach to Glenwood Springs Electric System pole ground). Six (6) inches of sand or clean dirt, both above and below secondary wires is recommended. Secondary cable.

n. Pole ground and rod (Glenwood Springs Electric System owned).

o. Minimum climbing and working space of 24” measured horizontally both along and across the line shall be provided and shall be projected vertically not less than 40” above and below consumer’s attachments; or that required by the NEC.

p. Electrocution hazard. Care must be exercised during the installation of conduit and conductors to prevent contact with Glenwood Springs Electric System wires.

q. Glenwood Springs Electric System reserves the right to limit the quantity, size, and location of all meter loops attached to its poles and therefore should be consulted on all jobs involving attachments to its poles.

r. Connection to or disconnection from Glenwood Springs Electric System's distribution system shall be made by the Glenwood Springs Electric System only.

6.8 OVERHEAD SERVICE

A. General Requirements

a. These are typical guidelines only. GSES should be contacted prior to construction if variations are to be considered.

b. GSES reserves the right to determine the location, type of service and metering equipment that will be utilized for each service. Services built without the GSES approval run the risk of not being connected. Metering equipment and services shall be located outdoors in an accessible location which will not be subject to physical damage (ice, vehicles, etc.).

B. Sets of Service Drops

a. Not more than one service drop will be installed to serve one building or a group of buildings on the same plot, which are owned by one individual or corporation. Wiring beyond the point of delivery, connecting one building with another on a given consumer’s premises, is not classed as a service drop, and shall be owned and maintained by the consumer. The following exceptions to this rule may be recognized:

   i. Where, in the opinion of the Glenwood Springs Electric System, the capacity requirements make multiple services desirable.

   ii. Where a single building or group of buildings extend over a large area, special permission may be given by the GSES for additional service drops.

C. Point of Attachment

Glenwood Springs Electric System shall specify the location of the service entrance installation most suitable for connection to the Glenwood Springs Electric System's lines. The point of attachment of service drops should be so located that satisfactory clearance from trees, awnings, patios, foreign wires, adjacent buildings, etc. can be obtained; and damage from ice buildup on roofs negated; also, this point of attachment to any building shall be at a height above finished grade to permit a minimum clearance for service drop conductors of twelve (12) feet above residential driveways, not subject to truck traffic, or eighteen (18) feet above commercial areas, parking lots, and other areas subject to truck traffic. Under no circumstances shall there be less clearance than that prescribed in the latest version of the National Electric Safety Code (NESC). The attachment should not be more than twenty (20) feet above ground. If the specific heights and clearances cannot be maintained by attachment to a building, other than the roof, the consumer shall provide a rigid service mast to obtain a height which will conform with the required vertical clearances as specified above.

D. Length of Service Drops

The slope of the ground, intervening trees and obstructions shall govern the allowable length of service drop conductors, and the size of the conductor required. Span length from the Glenwood Springs Electric System's pole to consumer's attachment not to exceed seventy-five (75) feet.

E. Service Poles

Where the length of the service drop conductors is excessive or the size of the conductor would cause undue mechanical strain upon either the consumer's structure or the Glenwood Springs Electric System's pole line, a service pole may be required.

F. Service Entrance Conductors

a. Service entrance conductors shall have a current carrying capacity at least as great as that required by the National Electrical Code, or the State Electrical Inspector. In view of the rapid increase on the use of electric appliances and equipment, GSES strongly recommends that some provision be made for future load increase.

b. A sufficient length of wire, but in no case less than three (3) feet, shall extend from the weather head for connection to Glenwood Springs Electric System's service drop. No conductors, other than service conductors, shall be installed in the service conduit.

c. The voltage drop from the Glenwood Springs Electric System transformer to the meter shall not exceed 2%.

d. Connection to or disconnection from Glenwood Springs Electric System's distribution system shall be made by the Glenwood Springs Electric System only.

e. No persons other than employees or agents of GSES may break seals, remove or relocate meter and other equipment owned by Glenwood Springs Electric System.

6.9 UNDERGROUND SERVICE

A. General Requirements

a. These are typical guidelines only. GSES reserves the right to determine the location, type of service and metering equipment that will be utilized for each service. Services built without GSES approval run the risk of not being connected. Metering equipment and service disconnects shall be located outdoors in an accessible location which will not be subject to physical damage (ice, vehicles, etc.). All underground services ahead of GSES metering shall be run entirely in conduit. Direct burial of conductors will not be permitted except for temporary services.

b. If GSES's delivery point is from an underground source the consumer must extend their service cable in conduit into the bottom of the vault with sufficient cable tails to reach the secondary connectors. GSES will assist in the entrance to the vault; however, all excavation and restoration must be done by the customer. All conduits entering concrete vaults must be grouted.

B. Sets of Service Laterals

a. Not more than one service lateral shall be installed to serve one building or group of buildings on the same plot, which are owned, by one individual or corporation. Wiring beyond the point of delivery, connecting one building with another on a given consumer's premises, is not classed as a service lateral and shall be owned and maintained by the consumer. The following exceptions to this rule are recognized.

   i. Where, in the opinion of GSES, capacity requirements make multiple services desirable.

   ii. Where a single building or group of buildings extend over a very large area, special permission may be given by GSES for additional service laterals.

C. Point of Entry

GSES shall specify the location of the service laterals and entrance most suitable for connection with the Electric Department's facilities.

D. Service Entrance Conductors

a. Service entrance conductors shall have current carrying capacity at least as great as that required by the National Electric Code, or the State Electrical inspector. In view of the rapid increase in the use of electric appliances and equipment, the Glenwood Springs Electric System strongly recommends that some provision be made for future load increase.

b. Conductors shall be installed in schedule 40, PVC conduit from point of attachment to service entrance equipment.

c. The voltage drop from the Glenwood Springs Electric System transformer to the meter shall not

exceed 2%.

d. Connection to or disconnection from Glenwood Springs Electric System's distribution system shall be made by the Glenwood Springs Electric System only.

e. No persons other than employees or agents of Glenwood Springs Electric System may break seals, remove or relocate meter and other equipment owned by Glenwood Springs Electric System.

6.10 ILLUSTRATION NOTES

A. General Requirements

a. These are typical guidelines only. GSES reserves the right to determine the location, type of service and metering equipment that will be utilized for each service. Services built without GSES approval run the risk of not being connected. Metering equipment and service disconnects shall be located outdoors in an accessible location which will not be subject to physical damage (ice, vehicles, etc.). All underground services ahead of GSES metering shall be run entirely in conduit. Direct burial of conductors will not be permitted except for temporary services.

b. If GSES's delivery point is from an underground source the consumer must extend their service cable in conduit into the bottom of the vault with sufficient cable tails to reach the secondary connectors. GSES will assist in the entrance to the vault; however, all excavation and restoration must be done by the customer. All conduits entering concrete vaults must be grouted.

c. One position meter pedestal assembly illustrated. One, two, three, and four position units are similar.

d. Meter(s) supplied and installed by GSES

e. Circuit breaker access door

f. Line side termination access door. Appropriate quantity of set screws termination lugs included with assembly (one per each meter position).

g. Service entrance cables, per NEC requirements

h. Pedestal feeder cables shall be minimum 4/0 AL, USE, 600 volt. Conductor voltage drop from the transformer to the meter shall be limited to 2% maximum. Conduit required to point of attachment.

i. 6" of sand or clean dirt, both above and below cable is recommended.

j. Grounding Electrode, per NEC requirements

k. GRC, EMT, schedule 80 PVC above grade, GRC schedule 40 or 80 below grade

6.11 MULTI METERING SERVICE

A. General Requirements

a. These are typical guidelines only. GSES reserves the right to determine the location, type of service and metering equipment that will be utilized for each service. Services built without GSES approval run the risk of not being connected. Metering equipment and service disconnects shall be located outdoors in an accessible location which will not be subject to physical damage (ice, vehicles, etc.). All underground services ahead of GSES metering shall be run entirely in conduit. Direct burial of conductors will not be permitted except for temporary services.

b. If GSES's delivery point is from an underground source the consumer must extend their service cable in conduit into the bottom of the vault with sufficient cable tails to reach the secondary connectors. GSES will assist in the entrance to the vault; however, all excavation and restoration must be done by the customer. All conduits entering concrete vaults must be grouted.

i. Every line side compartment shall accommodate provisions for a GSES wire seal whether or not the compartment is designed to house a meter.

ii. The electric meter will not be set until each meter socket and the premises it supplies have been properly identified by the consumer or agent. Proper identification shall mean the unit number is plainly marked by a permanent durable means at the corresponding main service breaker, tenant panel board, and doorway or entrance to the apartment, office, store or premise. The method of identifying the corresponding unit on the meter socket is with a stamped brass tag securely attached.

iii. A 5th jaw is required in the 9 o'clock position on all meter sockets, 120/208 volt 3 wire network.

iv. Each meter location must have an individual ringless cover and sealing provisions

v. Individual socket load side disconnects.

vi. All three- phase services shall be 4 wire-wye.

vii. Ground wire and electrode, furnished and installed by consumer.

viii. PVC conduit

ix. Service lateral conduit and conductors.

x. Conduit above ground shall be GRC, EMT, or schedule 80 PVC.

xi. Three phase multiple unit devices designed for 4-wire poly phase use, must have a seven terminal mounting block with lever type by-pass.

xii. Conduit below grade.

xiii. Conduits shall be continuous in length from the meter socket to the transformer location.

6.12 INSTRUMENT METERING SERVICE ON BUILDING

A. General Requirements

a. These are typical guidelines only. GSES reserves the right to determine the location, type of service and metering equipment that will be utilized for each service. Services built without GSES approval run the risk of not being connected. Metering equipment and service disconnects shall be located outdoors in an accessible location which will not be subject to physical damage (ice, vehicles, etc.). All underground services ahead of GSES metering shall be run entirely in conduit. Direct burial of conductors will not be permitted except for temporary services.

b. If GSES's delivery point is from an underground source the consumer must extend their service cable in conduit into the bottom of the vault with sufficient cable tails to reach the secondary connectors. GSES will assist in the entrance to the vault; however, all excavation and restoration must be done by the customer. All conduits entering concrete vaults must be grouted.

c. GSES will not connect 120/208 volt 3 wire services larger than 225 amp; 4 wire services will be required beyond that capacity.

d. Instrument transformers shall not be installed in service disconnects, wiring gutters, junction boxes, not be directly exposed to the weather.

   i. Appropriate meter socket obtained from GSES, 6 terminal for single phase, 13 terminal for three phase.

   ii. 1-1/4" conduit from instrument transformer enclosure to meter housing.

   iii. Instrument transformer enclosure, NEMA 3R rated, cabinet is to have a side-hinged or drop out, sealable door.

   iv. When multiple conduits enter any cabinet, common phase wires must be split as shown for compliance with NEC Article #300-20.

   v. Installation of overhead or underground service laterals is the responsibility of the consumer.

   vi. Window type current transformers obtained from GSES, securely installed in cabinet with correct polarity (white dot towards source).

   vii. Disconnect devices shall be installed outdoors in an accessible location on the load side of instrument transformer enclosure.

6.13 INSTRUMENT METERING SERVICE IN SWITCH GEAR

A. General Requirements

a. These are typical guidelines only. GSES reserves the right to determine the location, type of service and metering equipment that will be utilized for each service. Services built without GSES approval run the risk of not being connected. Metering equipment and service disconnects shall be located outdoors in an accessible location which will not be subject to physical damage (ice, vehicles, etc.). All underground services ahead of GSES metering shall be run entirely in conduit. Direct burial of conductors will not be permitted except for temporary services.

b. If GSES's delivery point is from an underground source the consumer must extend their service cable in conduit into the bottom of the vault with sufficient cable tails to reach the secondary connectors. GSES will assist in the entrance to the vault; however, all excavation and restoration must be done by the customer. All conduits entering concrete vaults must be grouted.

c. GSES will not connect 120/208 volt 3 wire services larger than 225 amp; 4 wire services will be required beyond that capacity.

B. Appropriate meter socket obtained from GSES, 6 terminal for single phase, 13 terminal for three phase.

C. 1-1/4" conduit from meter housing to switch gear

D. Main disconnects must be on load side of CT's unless special switch gear design mandates otherwise.

E. Steel support frame

6.14 UNDERGROUND CONDUIT SYSTEMS

A. General

The City of Glenwood Springs Municipal Code, Article 070.040.03(e)(8). - Underground Utilities. All wires, cables or other equipment of electrical energy, and telecommunication signals with the exception of transformers, meters, junction boxes and like equipment shall be placed underground. Where subdivision or developments are approved along or with crossing existing overhead power and telecommunication facilities, energy and telecommunications may be obtained from these existing facilities. The connections to these facilities shall be placed underground unless otherwise approved by the Director of Electrical Services due to economic, engineering or aesthetic reasons. Utility easements and rights-of-way shall be provided in the subdivision or development meeting the requirements of the City of Glenwood Springs Electric System for the installation and maintenance of energy distribution and telecommunication facilities.

B. Conduit Systems

A conduit system is the combination of conduit, conduits, manholes, and/or vaults joined to form an integrated whole.

a. Routing

i. Conduit systems should be subject to the least disturbance practical. Conduit Systems extending parallel to other subsurface structures should not be located directly over or under other subsurface structures. If this is not practical, the rule on separation should be followed.

ii. Conduit alignment should be such that there are no protrusions that would be harmful to the cable.

iii. Where bends are required, the bending radius shall be sufficiently large to prevent damage to cable being installed in the conduit. The maximum change of direction in any plane between lengths of straight rigid conduit without the use of bends should be limited to 5 degrees.

b. Natural Hazards

Routes through unstable soils such as mud, shifting soil, etc., or through highly corrosive soils, should be avoided. If construction is required in these soils, the conduit should be constructed in such a manner as to minimize movement or corrosion or both.

c. Highways and Streets

When conduit must be installed longitudinally under the roadway, it should be installed in the shoulder or, to the extent practical, within the limits or one lane of traffic.

d. Bridges and Tunnels

The conduit system shall be located so as to minimize the possibility of damage by traffic. It should be located to provide safe access for inspection or maintenance of both the structure and the conduit system.

e. Crossing Railroad Tracks

The top of the conduit system should be located not less than 50 inches below the top of the rails of a railroad. Where unusual conditions exist or where proposed construction would interfere with existing installations, a greater depth that specified above may be required at crossings under railroads, manholes and vaults should not, where practical, be located in the roadbed.

f. Underwater Installations

Underwater crossings should be routed, installed, or both so they will be protected from erosion by water currents.

C. Separation From Other Underground Installations

The separation between a conduit system and other underground structures paralleling it should be as large as necessary to permit maintenance of the system without damage to the paralleling structures. A conduit that crosses over another subsurface structure shall have a separation sufficient to prevent damage to either structure. The parties involved should determine these separations.

a. Separations Between Electric and Communication Conduit Systems

   i. Conduit systems to be occupied by communication conductors shall be separated from conduit systems to be used for electricity by:

      - 3 inches of concrete
      - 4 inches of masonry
      - 12 inches of well-tamped earth

b. Sewers, Sanitary and Storm Drains

   i. If conditions require a conduit to be installed parallel to and directly over a sanitary or storm sewer, it may be done provided both parties are in agreement as to the method.

   ii. Where a conduit run crosses a sewer, it shall be designed to have suitable support on each side of the sewer to prevent transferring any direct load onto the sewer.

c. Water Lines

   Conduit should be installed as far as is practical from a water main in order to protect it from being undermined if the main breaks. Conduit that crosses over a water main shall be designed to have suitable support on each side as required to prevent transferring any direct loads onto the main.

d. Gas and other lines that transport flammable material

   Conduit should have sufficient separation from gas and other lines that transport flammable material to permit the use of pipe maintenance equipment. Conduit and fuel lines shall not enter the same manhole, handhole, or vault with gas or other lines that transport flammable material.

D. Excavation and Backfill

a. Trench

   The bottom of the trench should be undisturbed, tamped, or relatively smooth earth. Where the excavation is in rock, the conduit should be laid on a protective layer of clean tamped backfill.

b. Quality of backfill

All backfill should be free of materials that may damage the conduit system. Class 6-backfill materials shall be used.

c. Compaction

All backfill will be done in one-foot lifts with each lift being adequately compacted to fill any voids. Moisture may be needed to add to the backfill material to achieve maximum compaction. The excavator will assume the responsibility of the trench settling for one year after the backfill has been applied.

d. Excavation

i. Mechanical excavating equipment shall be used only in areas where there is no known danger of contacting or damaging buried facilities.

ii. Before excavating in any area where any buried facilities are suspected, such facilities shall be located as accurately as possible

iii. All trenches will be adequately protected by warning devices, barriers, barricades or guardrails from the public and employees.

iv. No trench or hole will be left open overnight.

v. In excavations which employees may be required to enter, excavated or other material shall be effectively stored and retained at least 2 feet or more from the edge of the excavation.

vi. Sides of trenches 5 feet of more in depth shall be shored, sloped or otherwise supported by means of sufficient strength to protect employees working within them.

vii. Excavating machines, which are parked, or operating on streets or highways shall be protected by proper warning devices. When it is necessary to leave excavating equipment unattended, the blade, bucket or scoop shall be lowered to the ground and the ignition system locked.

e. Excavation Depth

The distance between the top of a cable/conduit and the surface under which it is installed (depth of burial) shall be sufficient to protect the cable/conduit from damage imposed by expected surface usage.

i. All conduit intended for primary voltages will be buried at no less than 4 feet from the top of pipe to the finished grade.

ii. All conduit intended for secondary voltages will be buried at no less than 24 inches. Lesser depths than indicated above may be used where supplemental protection is provided. The supplemental protection should be sufficient to protect the cable from damage imposed by expected surface usage.

f. Burial Tape

Electrical marking tape will be installed over the electric conduit and buried 1 foot below the finished grade.

E. Conduit and Sizing

All conduit will be of the P.V.C. type, schedule 40 wall thickness or greater. It will be the conduit commonly known as “electric gray”. The conduit must be glued using approved P.V.C. glue at every joint.

a. Installations

i. No joint may terminate in a vault or within 4 feet of the vault and must be kept off of the floor of the vault a minimum of 3”.

ii. No conduit runs may have more than 360 degrees of bends in the entire run.

iii. Conduits must extend into the vault at least 2” and no more than 6”.

iv. Vault must be cleared of all debris.

b. Sizing

Primary Conduits

Cable Size	No. of Phases	Radial or Loop	No. and Size of Pipe
1/0	1	Radial	1 – 3”
1/0	1	Loop	2 – 3”
1/0	3	Radial	1 – 4”
1/0	3	Loop	2 – 4”
4/0	1	Radial	1 – 3”
4/0	1	Loop	2 – 3”
4/0	3	Radial	1 – 6”
4/0	3	Loop	2 – 6”
500	3	Radial	1 – 6”
500	3	Loop	2 – 6”

Secondary Conduit Sizing

All secondary conduits will be installed per N.E.C. Code Current Edition Table 300-5. The size will be determined from the table below.

Location	Conduit Size
From transformer to single meter pedestal	3”
From transformer to double meter pedestal	3”
From transformer to secondary pedestal	3”
From transformer to meter stacks with 3 or more meters	4”
Street light conduits	2”
100 amp services on buildings	2”
200 amp services on buildings	3”
Greater than 200 amp services	4”

Secondary runs greater than 200 feet require approval from the Electric Department.

6.15 VAULTS

A. Concrete

Concrete vaults will be placed in strategic positions to best allow the installations, operation, and inspection of the conduit system. The positions will be determined by the Electric Department.

a. The installer of the vault will be given a spec sheet of the vaults to be installed to ensure proper depth and location of the vault

b. All knockout holes will be grouted or blocked to prevent backfill material from entering the holes and to prevent settling of the backfill around the vault.

c. When vaults are to be placed in a roadway, all precautions will be taken to ensure the vault will not be sitting too high or too low to final grade.

d. No more than (2) two-inch grade rings will be allowed per vault

e. All vaults that will have transformers or other electrical apparatus placed up on them will be set so the apparatus is level.

f. All soil the vault is placed on will be compacted to prevent settling of the vault.

g. No bends or elbows will be allowed within 10' of terminating a conduit in a concrete vault.

6.16 CLEARANCES

A. General statement

The following illustrations show clearances for the conditions most commonly encountered. For other situations and for details, see the National Electric Code, the National Electric Safety Code or contact the State Electrical Inspector in your area. (303-869-3448).

B. Safety clearance around oil filled equipment

Clearances from padmount transformers or other oil-filled equipment are measured from the nearest metal portion of the equipment to the structure or overhang. The clearance from a building is 3 feet if the building has noncombustible walls (brick, concrete, steel or stone), 10 feet if the building has combustible walls (including stucco).

C. Working Clearances

A minimum clearance of 10 feet of clear, level working space is required in front of a pad-mount transformer to allow for the use of hot sticks. Landscaping and other obstructions must not encroach on these clearances.

D. Meter clearances

a. Meter clearances are measured from the center of the meter socket, or from the center of the face of the meter.

b. The 10-inch clearance at the top and left side of the meter allows the meter man to see and align the meter blades to the meter socket jaws when installing the meter.

c. Keep a clear working space 4-foot square, in front of the meter. This space must be permanently free of all obstructions, including landscaping.

d. Allow 3 feet of clearance from gas meter, and 3 feet from windows or doors for customer privacy.

E. Guard posts

a. It is the customer's responsibility to install and maintain guard posts where GSES equipment is exposed to vehicular traffic.

b. Guard posts are also required where minimum clearances around equipment cannot be met. For example: Guard posts are required where pad-mounted devices cannot be given the 3 feet clearance from the back and sides of the device, and 10 feet from the front.

c. If the post is placed in stable soil, surround it with 6 inches of concrete. If the soil is unstable or sand, surround the post with 12 inches of concrete.

d. If several guard posts are used, locate them no more than 5 feet apart. For extra visibility, paint the posts traffic yellow.

e. In some situations, a 6-inch diameter post is required, not the 4-inch illustrated here

6.17 EASEMENTS AND RIGHT OF WAYS

A. General

Per Municipal Code Article 070.040.030(e)(8)(c) utility easements and rights-of-way shall be provided in the subdivision or development meeting the requirements of the City of Glenwood Springs Electric System for the installation and maintenance of energy distribution and telecommunication facilities. Also, per Municipal Code Article 070.040.030(g)(1) dedications shall be made to fulfill the forgoing requirements for utility easements, drainage easements, pedestrian easements, streets and alleys.

Consumer agrees to provide, at no cost to the Glenwood Springs Electric System and at the Glenwood Springs Electric System's request, necessary easements and suitable land area or building space owned and controlled by the consumer for installation, construction, reconstruction, maintenance, and operation of Glenwood Springs Electric System's overhead and/or underground facilities, used or useful to render electric service to the consumer, and to include those facilities described as On Building Facilities (installed on the face of the consumer's building wall) or In Building Facilities (installed within the interior of the consumer's building).

B. Easements and Right of Ways

Glenwood Springs Electric System owned facilities are generally installed within an easement or right-of-way. These easements or rights-of-ways are typically gained by one of the following methods. Easements are usually granted when property is subdivided and are shown on the subdivision plat. They may also be granted by a separate document and recorded at the Garfield County Clerk and Recorder's office. Any structure, retaining wall or fence located in a easement should have by a "letter of non-objection" from all utilities allowed to use that easement. Glenwood Springs Electric System has jurisdiction over utility, public utility, public access, public use, and drainage easements located within the corporate limits. Any structure, retaining wall or fence to be located in these easements must first obtain a "letter of non-objection". The minimum width of an easement is normally 1.5 times the normal depth of bury for underground utilities, so if a line is normally buried four feet deep, the minimum easement width is six feet. Future needs for vehicular access, as well as excavation access to the utility may require a wider easement. Generally, the width determination is made on a case-by-case basis.

C. Easements by Prescription

In some situations, where there is not recorded easement, the city may claim a prescriptive easement for facilities continually operated in open, notorious and adverse use of the easement for the statutory period of eighteen years.

D. Platted/Dedicated

An easement that is provided to the Glenwood Springs Electric System by virtue of a dedication statement of each subdivision platted. A five-foot side lot and ten-foot rear lot easement is a typical platted easement. It is sometimes necessary to install power lines along the rear or down the side lot line.

E. Customer Granted Easement

An easement that is granted to the Glenwood Springs Electric System by the customer. This is generally used on commercial installations. The Glenwood Springs Electric System requires the customer to grant, at no cost to the Glenwood Springs Electric System, easements for power lines and any associated equipment before any part of a commercial installation is energized. In the event the Glenwood Springs Electric System has to cross a property other than that of the customer requesting service to extend facilities, the requesting customer may be required to obtain all easements needed.

F. Service Drop Easements

Application for electric service or receipt of service grants to the Glenwood Springs Electric System an easement on private property for electric lines, wires, conduits, meters, poles and other equipment of the Glenwood Springs Electric System necessary to render service to the customer. In order to comply with the requirements of the National Electric Safety Code, the customer shall not make grade changes, or build permanent or portable structures, (buildings, sheds, decks, swimming pools, patios, patio covers, antennas, etc.) under, over or within 5 feet measured horizontally on both side of low voltage overhead or underground service drops (under 600 volts) without prior written approval of the Glenwood Springs Electric System except that in the case of a swimming pool, the horizontal clearance must be 10 feet.

G. Right-of-way.

A right-of-way is a matter of ownership. The city owns all municipal streets and alleys. Road right-of-way is generally considered the roadway, curb, gutters, sidewalks, and open areas up to the property line. Most of the electric distribution lines and transformers are located in the roadway right-of-way. Rights-of-ways are typically dedicated to the public when property is subdivided and are shown on the subdivision plat. The right-of-way exists even if no roadway is ever constructed. Since it is dedicated to the public, no individual may claim exclusive use or possession of a public right-of-way.

H. Utility Right-of Ways

Generally, contains utilities. Strict requirements for the use of these right-of-way applications apply such as underground or overhead power, sanitary sewer, etc.

6.18 STREET LIGHTING

A. General

The Glenwood Springs Electric System is responsible for the installation and maintenance of street lights on public roadways within the City of Glenwood Springs and has the authority to approve new roadway street lights within the city limits. The City of Glenwood Springs Engineering Department

and Glenwood Springs Electric Department determine the required lighting illumination and uniformity levels. Street lighting designs shall conform to the guidelines as published by the Illuminating Engineering Society of North America (IESNA), the Glenwood Springs Electric System Construction Standards and Municipal Code Article 070.040.100 Exterior Lighting Standards.

Some governmental entities in areas outside the city limits of Glenwood Springs, but within the service territory of the Glenwood Springs Electric System, have special authority to request roadway lighting such as Garfield County and Colorado Department of Transportation.

B. Street Lights

Street lights shall comply with the general requirements as noted in Municipal Code Article 070.040.100(f)(10) Street Lighting.

a. New street light installations shall comply with the requirements as noted in the Underground Conduit Systems.

b. Street lights that are to be installed by a private developer but are to be turned over to the city as public street lights, will need to have the following criteria met before acceptance.

   i. Have an overall lighting plan that is subject to the approval of the Public Works Director and the Community Development Department.

   ii. Have Electric Department approved light fixtures.

c. Customer request for new street light.

   When a request for a new street light is received, the Glenwood Springs Public Works Director, the Glenwood Springs Community Development Department and the Glenwood Springs Electric Department will determine if a street light is necessary, the specific location, the impact on neighboring properties and the type of street light to be installed. If it is determined, at the sole discretion of the aforementioned departments, that a street light or lights are appropriate, a petition form will be sent to the requesting party. It is the responsibility of the requesting party to obtain signatures from the affected property owners. 100% of the affected property owners must agree to the light and sign the petition before any light will be installed. An easement may be requested by the Glenwood Springs Electric Department for the installation of the street light. If an easement is required, it must be granted prior to the installation of the street light. If the requested easement is not granted, the street light cannot be installed.

d. Customer request for street light removal.

   When a request for a street light removal is received, the Glenwood Springs Public Works Director, the Community Development Department and the Glenwood Springs Electric Department will determine if the removal of the street light is prudent, appropriate and what the impact on neighboring properties will be. If it is determined, at the sole discretion of the aforementioned departments, that the removal of the street light or lights is appropriate, a petition form will be sent to the requesting party. It is the responsibility of the requesting party to obtain signatures from the affected property owners. 100% of the property owners affected

must agree to the removal of the light and sign the petition before any light will be removed. If the aforementioned departments deem that the removal would not be appropriate or prudent, the light will not be removed.

C. Security Lighting

Security lights shall comply with the general requirements as noted in Municipal Code Article 070.040.100(f)(5) Security Lighting.

6.19 RECOMMENDED GUIDELINE FOR "AS BUILT" DRAWINGS

A. The "as-built" drawing requirement is in Municipal Code Section 070.040.030(f)(1)(g), which reads as follows: "The developer or his successor shall retain, at his sole expense, a licensed professional engineer for appropriate on-site construction inspections to ensure that all improvements as set forth in Subsections B and C are installed as required, pursuant to City standards and specifications, and as-builts shall be provided. The engineer shall certify, in writing, to the City Engineer that the improvements were installed in compliance with the approved development plan or subdivision agreement pursuant to City standards and specifications, and as-builts shall be provided."

B. The intent of the as-built drawings is to provide detailed and accurate information, in a useful format, to any party, public or private, that may have a need to locate or excavate installed infrastructure. With useful information available to crews, all affected parties should be able to minimize expense, damage, and interruption of service, and inconvenience to owners, customers and the general public. Questions regarding as-built drawings may be directed to the Public Works Director or the City Engineer. Discretion must be employed by the draftsperson regarding the functional quality of the drawings. If so much information is included on one sheet as to make their use impractical, a second, or third, drawing sheet may be necessary.

C. It is recommended that the contractor maintain a full-sized set of approved plans on site, and during construction, accurately mark these plans with record information. The color red to be used to indicate all additions and the color green to indicate all deletions. Clear and concise notes and sketches should accompany changes marked on these plans. These field-managed record drawings should be provided to the engineer to assist in the preparation of the final as-built drawings.

D. The following requirements should be applied to each as-built developed for the City of Glenwood Springs. The submittal requirements include Mylar drawing(s) and electronic AutoCAD drawing file format, on either CD or disk. Other electronic drawing file formats shall be capable of being imported directly into AutoCAD. As-built drawings shall be prepared by revision to the original, approved Development, Subdivision or Engineering Plans. At no time will the original data be accepted as the as-built data. Each sheet shall be labeled "AS-BUILT" in one-inch-high letters and have an appropriate certification block added for a signature by the Engineer and/or Surveyor. The following items shall be required for all "as-built" drawings.

GENERAL AS-BUILT REQUIREMENTS:

- All as-builts for projects are required to be on Mylar, at least 24" x 36", and shall bear the name, address, and telephone number of the firm preparing the drawing and the date the as-built data is added to the original via the revision block. Electronic AutoCAD drawing files, based on the City of Glenwood Springs locale coordinate grid, are also required.
- Surveyor's/Engineer's statement (with embossed or wet seal and with an original signature on each sheet) shall verify that as-built drawings reflect the true conditions in the field.
- Contractor's statement (with an original signature on each sheet) shall verify that all construction specifications and product qualities have been met or exceeded.
- "AS-BUILT DRAWING" shall be labeled on each sheet in one inch high letters.
- Street names shall be on all streets. All easements and rights-of-way shall be shown and clearly labeled.
- If the utility system is to be private (not to be dedicated to the city), then it should be stated on each sheet.
- The location and elevation of the benchmark referenced will be shown on the drawing. If the referenced benchmark is not within the project, then a complete description of its location will be provided to assist in future locating.
- The locations and description of any utility lines and other installations of any kind or other description known to exist within the construction area. The location includes dimensions to permanent features.
- The locations and dimensions of any changes to buildings and structures.
- Correct grade or alignment of roads.
- Correct elevations to changes made in site grading.
- Changes in details of design or additional information such as approved placement details, pipe sizes, material changes, etc.
- Where drawings and/or specification allow options, only the option actually used in the construction shall be shown on the as-built drawings.

ELECTRIC/FIBER OPTIC SYSTEM - CABLE UTILITY AS-BUILT REQUIREMENTS:

- Locate and clearly label all conduit runs, fittings, splice vaults, pull boxes, meter pedestals, light bases, transformer or switch gear pads, poles and other appurtenances in two directions. Swing ties should be made from objects that are permanent in nature.
- Show all sizes and material types of pipes and conduits.
- All horizontal distances shall be shown to the nearest tenth of a foot (i.e., 205.3'). All vertical distances shall be shown to the nearest tenth of a foot (i.e., 5798.5').

- Show location and elevations on pipes and fittings where changes or deflections in direction occur.
- Special detail drawings may be required where installations are not shown on approved construction drawings for whatever reason or where required for clarity.
- Typical service installation details with deviations from original plans or standard details shall be noted on as-built drawings.

APPENDIX – ELECTRICAL STANDARD DRAWINGS

STANDARD DRAWINGS	Filename
1. Typical Shallow Utility Separation Detail	
2. Street Light Foundation Detail	
3. Overhead Service Entrance to Building Attachment	
4. Overhead Service with Mast Through Roof	
5. Instrument Metering Service in Switchgear	
6. Round Splice Vault Details	
7. Transformer and Equipment Clearance	
8. 3 Phase Transformer Vault Detail (Small)	
9. 3 Phase Transformer Vault Detail (Large)	
10. Overhead Residential Service Meter Pole Detail	
11. Construction Temporary Detail	
12. Multi-Metering Service Detail	
13. Meter Pedestal Service Detail	
14. Meter Loop Service at Pole Detail	
15. Overhead Service Entrance to Rigid Service Mast Through Roof	
16. Residential Overhead Temporary Service Detail	
17. Underground Service Entrance to Building Detail	
18. 4 foot Square Manhole Vault Detail	
19. Instrument Metering Service on Building Detail	
20. Temporary Underground Single Post Detail	
21. Switchgear Vault Detail	
22. Typical Fiber Transformer Vault-Meter Ped Detail	

Chapter 4

Stormwater Standards

City of Glenwood Springs Engineering

Revised 2024

Chapter 4 Stormwater Standards

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Chapter 4 Stormwater Standards

I. Introduction

The standards in this chapter are intended to be applied by The City of Glenwood Springs Engineering Department while reviewing proposed drainage facilities and stormwater discharges associated with development and redevelopment projects. They are also intended to comply with the most recent version of the Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Division's (WQCD) Colorado Discharge Permit System (CDPS) Stormwater Discharges Associated with Municipal Separate Storm Sewer Systems (MS4s) and the most recent version of the Mile High Flood District (MHFD) Urban Storm Drainage Criteria Manual.

A variety of stormwater management techniques shall be implemented to address the impacts of development. Proper management of stormwater runoff minimizes damage to public and private property, protects infrastructure, safeguards the public health, safety, and general welfare, and protects water resources and aquatic wildlife.

This chapter establishes design and review criteria for the construction, function, and use of stormwater best management practices (BMP's) that may be used to meet the minimum development standards. It also establishes the long-term responsibility and maintenance of BMPs to ensure that they continue to function as designed, are maintained appropriately, and protective of public safety.

The Urban Drainage and Flood Control District (UDFCD) has developed a lengthy and robust Urban Storm Drainage Criteria Manual (USDCM). Volume 3 of the USDCM (Volume 3) includes extensive language covering the importance of stormwater quality treatment and the functional mechanisms associated with various types of treatment facilities. It also includes detailed design guidance and criteria that are updated frequently based on ongoing field research on the functionality of various treatment facilities. While the climate and topography of Glenwood Springs are different from those in the Denver metro area, Volume 3 is a valuable reference and is cited throughout this Chapter.

The following is a summary of the minimum standards. This summary should only serve as a guideline for general understanding of stormwater management requirements in Glenwood Springs and for development of a conceptual design. Detailed and specific requirements are included throughout Chapter 4, that have the potential to significantly impact a site's design.

II. Minimum Standards

A. Better Site Design – Site designs should preserve the natural drainage and treatment systems, reduce the generation of additional stormwater runoff and pollutants, and fully increase infiltration of stormwater into the ground rather than into hard infrastructure practicable.

B. Water Quality Capture Volume (WQCV) – New development and redevelopment shall treat a volume of water equal to the 80th percentile runoff event for their site. This volume has been sized to remove 90% of particles greater than 60 microns in size by releasing the WQCV over a 12-hour period. The WQCV is determined based on the site's impervious area and can be reduced as impervious area is reduced.

C. Detention – New development and redevelopment shall detain for the minor and major storm event up to the point that the stormwater system downstream can accommodate. In most cases, a site will be controlling the post-development peak discharge rate to the predevelopment rate for the 2-year event and 25-year event.

D. Stormwater system – The downstream system from each site must be able to safely pass flows from the 2- or 25-year and 100-year event. A downstream hydrologic analysis must be performed to determine if there are any additional impacts in terms of peak flow increase or downstream flooding while meeting minimum standards #2 and #3. This analysis must be performed at the discharge points of the site and, at a minimum, at the next two downstream structures.

E. Floodplains: Development and redevelopment is regulated in all floodplains and flood ways as delineated by FEMA and State regulations. Developments within these areas will be required to determine flood plain elevations for their site through a Floodplain Development Permit, see Chapter 1 for permit and guidance. Other requirements are detailed in City Municipal Code Section 070.040.020(d) Development in Waterways and Areas of Special Flood Hazards.

F. Geologic Hazards: Development and redevelopment is restricted in those areas recognized in the Geologic Hazard Ordinance City Municipal Code Section 070.040.020(c) Development in Areas of Geologic Hazard.

III. Definitions and Abbreviations

A. BMP-Best Management Practice: A device, practice, or method for removing, reducing, retarding, or preventing targeted stormwater runoff constituents, pollutants, and contaminants from reaching receiving waters.

B. CDPHE-Colorado Department of Public Health and Environment: The principal department of the Colorado State government responsible for public Health and environmental agency. This is the permitting agency for water quality permits. Colorado Department of Public Health and Environment (CDPHE).

C. CDPS-Colorado Discharge Permit System: Permitting system for all stormwater permits through CDPHE.

D. CMP- Construction Management Plan

E. Culvert: A transverse facility to convey water under a roadway or railway.

F. EPA- Environmental Protection Agency: An independent executive agency of the United States federal government tasked with environmental protection matters.

G. FILO- Fee in Lieu of: A fee designed to be paid instead of installing public infrastructure.

H. Historic: Conditions prior to any land development (i.e., native/undisturbed).

I. Major Storm: 100-year (1% chance) storm event.

J. MHFD- Mile High Flood District: Denver Area stormwater management resource.

K. MDCIA- Minimizing Directly Connected Impervious Area: A variety of runoff reduction strategies based on reducing impervious areas and routing runoff from impervious surfaces over grassy areas to slow runoff and promote infiltration. The concept of MDCIA has been recommended by MHFD as a key technique for reducing runoff peaks and volumes following urbanization.

L. Minor Storm: 25-year (4% chance) storm event.

M. LID- Low Impact Development: Refers to systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration, or use of stormwater in order to protect water quality and associated aquatic habitat.

N. Professional Engineer: A qualified State of Colorado registered professional engineer that ensures that a site feature (stormwater, walls, grading, etc.) are installed correctly. as specified in the design.

O. Stormwater System: Storm systems include streets, curbs, gutters, inlets, culverts, pipes, outfalls, roadside ditches (swales), detention areas, ponds, wetlands, the Roaring Fork and Colorado Rivers and their tributaries within City boundaries to which stormwater is collected and conveyed.

P. USDCM- Urban Storm Drainage Criteria Manual: Manual (Volumes 1, 2, and 3) developed by MHFD for guidance on stormwater management.

Q. WQCV- Water Quality Capture Volume: The runoff retention capacity of a BMP that is designed to capture and treat, at a minimum, the 80th percentile runoff event from an entire site, i.e., 80 percent of the most frequent occurring storms are fully captured and treated and larger events are partially treated.

4.1 Overview of Requirements

A. Unless specifically exempted, no development, disturbance of land, or construction shall be undertaken without first having been reviewed, approved, and issued a permit compliant with the requirements of the Engineering Standards. Unless specifically exempted, no building shall be erected, moved, or structurally altered without a building permit issued pursuant to the Glenwood Springs Municipal Code. This Chapter provides detailed guidelines on the development and building permits that require engineering review. For complete requirements, refer to the Glenwood Springs Municipal Code

B. All development and redevelopment projects in the City of Glenwood Springs that will:

a. Increase the amount of impervious area on a site (this includes adding hard surface patios, increasing the footprint of the house, etc.)

b. Disturb more than 200 square feet of land on the site (this includes grading, even if a structure or hard surface is not added, as well as "scrape and replace" of impervious area),

are required to an engineering review as part of the building permit, ROW permit, or grading permit application review process.

Refer to Table 1.0 for a guide on the requirements by the size of the project and subject property.

Table 1.0 General Requirements for Projects

Project Description	Area Added or Disturbed	General Requirements
Disturbing less than 200 SF	<200 SF	No Requirements
Landscaping or grading only, no impervious and or change to the drainage pattern.	200-1000 SF	• CMP
Landscaping or grading only that might include hardscape or change in grade or drainage pattern, small additions, small scrape and replace.	200-1000 SF	• WQCV or drain to green-space • CMP • Drainage Letter • FILO
Replacement of existing hardscape	Limited to footprint of existing hardscape	• CMP • WQCV or drain to green space for impervious area. • FILO
Existing Lot Coverage 50%-100%	>200 SF	• CMP • WQCV for Entire Area • Conveyance for Flows • Detention to the Undeveloped rate Drainage Report or FILO • Requires a Professional Engineer
Landscaping, grading, installing or disturbing hardscapes, additions to structures	>1000 SF	• CMP • WQCV for Entire Area • Conveyance for Flows • Detention to the Changed rate Drainage Report or FILO • Requires a Professional Engineer

Notes:

- Special Circumstances: Any work, regardless of amount or size, performed on historic properties, in environmentally sensitive areas, geologic hazard areas, in jurisdictional or non-jurisdictional floodplains may be required to submit information for permit review and may be required to provide a more detailed drainage analysis and design than suggested in the table above.
- Pre-project lot coverage is determined by dividing the total hardscape footprint on the lot (house, driveway, patios, sidewalks, etc.) by the total lot area. Interior demolition is measured by the square footage of the room renovated/modified divided by the total square footage of the structure.

4.2 Review and Acceptance

A. The City shall review all drainage submittals for general compliance with the Engineering Standards. An acceptance by The City does not relieve the owner, engineer, or designer from the responsibility of ensuring that the design, calculations, plans, specifications, construction, and record drawings follow the criteria as stated in the owner's and engineer's certifications.

B. The City may, but is not required to, refer submittals to other agencies that have an interest or responsibility for drainage and/or water quality issues. Other review agencies may include local or State agencies, such as the Colorado Water Conservation Board or the Colorado Geologic Survey, responsible for floodplain and water quality, slope stability, mudflow analysis, geology, water rights and other stormwater related issues.

4.3 Stormwater Fee in Lieu

A. The city recognizes that the stormwater infrastructure requirements may be difficult to achieve due to site constraints and costs. To help mitigate these constraints The City has provided the option of payment of a voluntary fee-in-lieu of detention (FILO). The amount of the fee is based on the estimate of the cost of providing detention in Glenwood Springs. However, if a developer can show that their cost of detention is less than The City cost estimate, The City has the option of accepting this lesser amount or asking the developer to build on-site detention.

B. The average calculations showed that the volume of detention needed is approximately 7.3 cubic feet of rainwater runoff per 100 square feet of impervious area for the maximum design storm. The city reviewed engineer cost estimates and called local contractors to determine that it cost approximately $50.00 per cubic foot of detention in Glenwood Springs. The FILO then works out to be $365 per 100 square feet of impervious area added or redeveloped. The fee can be referenced in the Municipal Code70.40.30(e)(2)

C. The fees collected through the FILO program will be used to improve conveyance and detention throughout the city and reduce impacts of urban runoff on the rivers.

D. Exceptions can be made to the FILO or detention requirements, and any development can apply for a variance by following the procedures outlined in Chapter 1 of the Engineering Standards.

4.4 Drainage Letter and Report

A. The purpose of the Drainage Plan and Report is to identify and refine conceptual solutions to the drainage changes that may occur onsite and offsite because of the development. These reports are required, unless determined by the City Engineer Department to be unnecessary.
B. Preparation of plan documents shall follow the standards and guidance found in Chapter 1 of the Engineering Design Standards. For projects, all reports shall:
C. Be typed on 8½" by 11", electronic, pdf format.
D. Contain enough information to describe the existing site, proposed work, explanation of steps taken to reduce impervious area and implement low impact development strategies, pre- and post-drainage patterns, sizing calculations for stormwater management facilities, how chosen facilities should operate and be maintained.
E. The site plan, drawings, figures, plats, calculations, and tables shall be included in the plan set.
F. Contain a certification sheet that includes the following statement and Professional Engineer's stamp and signature:

> *"I hereby affirm that this (Type of Report/Letter) and the accompanying plans for the (type or phase design) of (Name of Development) was prepared by me (or under my direct supervision) for the owners thereof in accordance with the provisions of the City of Glenwood Springs Stormwater, Drainage, Water Quality and Erosion Control Chapter and approved variances and exceptions listed thereto. I understand that it is the policy of the City of Glenwood Springs that the City of Glenwood Springs does not and will not assume liability for drainage facilities designed by others."*
>
> *License No. _____*
> *Licensed Professional Engineer, State of Colorado (Affix Seal)*

G. <u>Drainage Letter</u>
   a. A Drainage Letter is a short letter prepared for a site that has less than 1000 square feet of imperious added. The letter shall include:
   b. Description of the existing site, including common location, topography, land use, ground cover, soil type (if known), drainage pattern, riparian areas, wetlands, and receiving system.
   c. Description of the proposed project, including changes to land use, topography, ground cover, soil type, drainage pattern and receiving system.
   d. Discussion of any drainage issues.
   e. Discussion of drainage basins and drainage alterations, including increases in flow, changes in direction, outfalls, etc.
   f. Description of proposed stormwater conveyance system
   g. Pervious infrastructure - Description of water quality improvements. Improvements must be made for at least the project area. Describe what efforts have been made to reduce runoff and

increase infiltration (e.g. reduces impervious area, disconnect impervious area, route runoff via landscape rather than hard infrastructure). Demonstrate that 60% of the WQCV is either infiltrated or evaporated.

h. Impervious infrastructure - Calculations to determine the WQCV and design a BMP that can treat that volume. WQCV and BMP design shall meet the requirements of USDCM Volume 3.
i. The Drainage Letter shall be stamped and signed by a qualified professional engineer licensed in Colorado.

H. Drainage Report
   a. The Drainage Report shall provide details of the proposed drainage facilities including grading, erosion control, and stormwater treatment.
   b. The purpose of the Drainage Report is to:
   c. Describe the existing site, including common location, topography, land use, ground cover, soil type, drainage pattern, location of riparian areas and wetlands, upstream run on and receiving system (all downstream structures to outfall and riparian and wetland areas).
   d. Describe the proposed project, including changes to land use, topography, ground cover, soil type, drainage pattern and receiving system.
   e. Discuss any previous drainage studies (i.e., project master plans) for the site that influence or are influenced by the drainage design and the mitigation plan for any impacts.
   f. Discuss the effects of adjacent drainage issues.
   g. Provide references to major drainage way planning studies such as flood hazard delineation reports, master plans, and flood insurance rate maps.
   h. Discuss potential drainage impact of site constraints such as streets, utilities, existing structures, riparian areas, wetlands, and development or site plan.
   i. Identify all irrigation facilities and waterways within the watershed that will influence or be influenced by the site drainage.
   j. Describe proposed stormwater conveyance system.
   k. Pervious infrastructure - Description of water quality improvements. Improvements must be made for at least the project area. Describe what efforts have been made to reduce runoff and increase infiltration (e.g., reduces impervious area, disconnect impervious area, route runoff via landscape rather than hard infrastructure). Demonstrate that 60% of the WQCV is either infiltrated or evaporated.
   l. Impervious infrastructure - Calculations to determine the WQCV and design a BMP that can treat that volume. WQCV and BMP design shall meet the requirements of USDCM Volume 3.
   m. Discuss easements and tracts for drainage purposes, including the conditions and limitations for use.
   n. The report must include printed copies of the input and output files for all computer models used for the analysis and design.
   o. Reference plan drawings as needed.

I. The location, type, and design of the stormwater system shall be identified at a construction plan level or 95% design level. The Drainage Report shall provide details of the proposed drainage facilities, including grading and stormwater treatment. Not all designs may be completely finalized during the development process, and minor changes may occur during the development of the construction documents. If changes occur during final construction plan preparation or during construction, a Drainage Report Addendum shall be submitted for review and approval along with

the construction documents. The Drainage Report shall be stamped and signed by a qualified professional engineer licensed in Colorado.

4.5 Floodplain and Geologic Hazard Requirements

A. Development within areas of special flood hazard must adhere to the standards in City Municipal Code Section 070.040.020(d) Development in Waterways and Areas of Special Flood Hazards.
   a. Developments within these areas are required to determine the flood plain elevations for their site and complete a Floodplain Development Permit, see the City Municipal Code for permit and guidance.
B. Development within areas of geologic hazards must adhere to the standards in the Geologic Hazard Ordinance City Municipal Code Section 070.040.020(c) Development in Areas of Geologic Hazard.

4.6 Rainfall

This section provides regionally specific rainfall depth, duration, frequency, and intensity data; runoff data; for use in addressing stormwater management for City projects.

A. Overview
   a. Climate: The climate in Glenwood Springs offers mild weather with low humidity and year-round sunshine. Summer weather in Glenwood Springs starts around June or July when temperatures reach 80°F during the day, although temperatures are much cooler during the night. The occasional summer shower can occur at any time, sometimes turning into thunderstorms. Autumn in Glenwood Springs is usually dry and warm and during September daytime temperatures can reach 70°F, but night temperatures can drop to below freezing. Winter daytime temperatures typically range from 20 to 40°F in the City and from 10 to 30°F on the mountain. Once the sun goes down, the temperature drops dramatically. The City of Glenwood Springs often sees isolated short, high intensity storms leading to significant concentrated flooding and debris events.
   b. Flooding: The current Flood Insurance Study was completed on October 15, 1985. The Mitchell Creek basin was re-mapped and a CLOMER for this floodplain was accepted in 2018. The Flood Insurance Rate Map for Glenwood Springs is, for insurance purposes, the principal product of the Flood Insurance Study. This map contains the official delineation of flood insurance zones and base flood elevations.
   c. Peak Flow: The maximum rate of discharge during the period of runoff caused by a storm. The information about peak flows and associated volume of runoff during various floods that have been observed in the past can be complied with the analysis of the observed discharge data and runoff hydrographs.
B. Methodology

   The methodology used to generate the rainfall data for a project shall depend on the size of the drainage basin being studied. The Design Engineer needs to provide justification for the selected runoff generation method used. Methods available to calculate urban runoff generated in the Glenwood Springs area are:
   a. Small basins (less than 90 Acres)

i. Rational Method: This method is the widely accepted method for determining runoff on small sites. This method uses rainfall data in the form of intensity-duration (time)-frequency curves, discussed in this section. The Rational Method becomes less valid over larger areas with larger basins.

b. Large Basins (greater than 90 Acres)
   i. TR-55: A simplified procedure for estimating runoff and peak discharges in small watersheds.
   ii. TR-20: A computer program that formulates hydrology on a physically based watershed scale runoff event model that computes direct runoff and develops hydrographs.
   iii. Colorado Urban Hydrograph Procedure (CUHP): Used for calculating runoff for basins that are larger than 90 acres. This method is not to be used for smaller basins, as it will generally overestimate or underestimate peak runoff rates.
   iv. Storm Water Management Model (SWMM) Version 5: A model developed by the EPA that is a dynamic rainfall-runoff-routing simulation model for single events or long term (continuous) simulation of runoff quantity and quality for primarily urban areas.

c. Rainfall Depth, Duration, Frequency, and Intensity
   The rainfall IDF curve is a statistical formula to describe the relationship between the local rainfall characteristics and return periods. The IDF curve is used in the Rational Method for peak runoff predictions of basins smaller than 90 acres. Rainfall intensity data, which form the basis of the IDF curves.

d. Design Rainfall Distribution
   For larger drainage areas (over 90 acres) or for sizing facilities where a hydrograph must be analyzed, such as a detention pond, a temporal distribution must be assigned to a precipitation event for calculation of runoff. Characteristics of a temporal distribution include duration and distribution (depth at a certain time) of rainfall.

C. The rainfall and snowfall design information needed for storm and snowmelt runoff analyses in the City of Glenwood Springs is defined below. Major subjects include:

   a. Precipitation statistics for the City of Glenwood Springs.
   b. IDF (intensity-duration-frequency) relationships for flood predictions from small watersheds.
   c. Temporal rainfall distributions for flood flow simulation through large watersheds
   d. snowmelt calculation methods
   e. The derivation of WQVC

The 2-, 25-, and 100-year storms are needed for drainage designs. The IDF curves provided in the figures below are based upon data in the Precipitation-Frequency Atlas of the United States, Midwestern States, NOAA Atlas 14, Volume 8 (NOAA 2013).

Figure 7.1 Tabular Representation of Point Precipitation Frequencies

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.116 (0.092-0.150)	0.176 (0.139-0.228)	0.268 (0.212-0.348)	0.339 (0.266-0.443)	0.430 (0.320-0.573)	0.494 (0.360-0.671)	0.553 (0.388-0.773)	0.607 (0.408-0.876)	0.670 (0.432-1.00)	0.712 (0.451-1.09)
10-min	0.170 (0.135-0.220)	0.258 (0.204-0.333)	0.392 (0.310-0.509)	0.497 (0.390-0.648)	0.630 (0.468-0.839)	0.723 (0.527-0.983)	0.809 (0.569-1.13)	0.889 (0.597-1.28)	0.982 (0.633-1.46)	1.04 (0.660-1.60)
15-min	0.208 (0.165-0.269)	0.314 (0.249-0.407)	0.479 (0.378-0.621)	0.606 (0.476-0.791)	0.768 (0.571-1.02)	0.882 (0.643-1.20)	0.987 (0.694-1.38)	1.08 (0.728-1.56)	1.20 (0.772-1.79)	1.27 (0.805-1.95)
30-min	0.285 (0.226-0.369)	0.411 (0.326-0.532)	0.604 (0.477-0.784)	0.753 (0.591-0.982)	0.940 (0.698-1.25)	1.07 (0.780-1.45)	1.19 (0.836-1.66)	1.30 (0.872-1.87)	1.42 (0.916-2.12)	1.50 (0.950-2.31)
60-min	0.381 (0.303-0.493)	0.510 (0.404-0.660)	0.707 (0.559-0.918)	0.860 (0.675-1.12)	1.05 (0.784-1.40)	1.19 (0.867-1.61)	1.31 (0.923-1.83)	1.42 (0.959-2.06)	1.56 (1.00-2.32)	1.64 (1.04-2.52)
2-hr	0.478 (0.384-0.608)	0.608 (0.488-0.776)	0.810 (0.648-1.04)	0.967 (0.769-1.24)	1.17 (0.881-1.53)	1.31 (0.966-1.75)	1.44 (1.02-1.98)	1.55 (1.06-2.21)	1.69 (1.10-2.49)	1.78 (1.14-2.70)
3-hr	0.560 (0.454-0.707)	0.679 (0.549-0.858)	0.865 (0.697-1.10)	1.01 (0.809-1.29)	1.20 (0.917-1.57)	1.34 (0.998-1.78)	1.46 (1.05-2.00)	1.59 (1.09-2.24)	1.73 (1.14-2.53)	1.84 (1.18-2.75)
6-hr	0.732 (0.600-0.909)	0.833 (0.682-1.04)	1.00 (0.816-1.25)	1.14 (0.923-1.43)	1.33 (1.04-1.73)	1.48 (1.13-1.95)	1.63 (1.19-2.22)	1.78 (1.25-2.50)	1.99 (1.33-2.88)	2.14 (1.39-3.16)
12-hr	0.908 (0.754-1.11)	1.04 (0.860-1.27)	1.25 (1.03-1.54)	1.43 (1.18-1.77)	1.69 (1.34-2.16)	1.89 (1.46-2.46)	2.10 (1.56-2.81)	2.31 (1.63-3.19)	2.60 (1.76-3.71)	2.82 (1.85-4.10)
24-hr	1.10 (0.924-1.32)	1.26 (1.06-1.52)	1.54 (1.29-1.86)	1.78 (1.48-2.16)	2.12 (1.70-2.68)	2.39 (1.87-3.07)	2.67 (2.00-3.52)	2.95 (2.11-4.02)	3.35 (2.29-4.70)	3.65 (2.42-5.21)
2-day	1.32 (1.12-1.56)	1.51 (1.28-1.78)	1.83 (1.55-2.17)	2.11 (1.78-2.52)	2.51 (2.04-3.12)	2.83 (2.24-3.58)	3.17 (2.41-4.12)	3.52 (2.55-4.73)	4.01 (2.78-5.55)	4.40 (2.95-6.18)
3-day	1.47 (1.26-1.72)	1.68 (1.45-1.98)	2.04 (1.75-2.40)	2.35 (2.00-2.78)	2.79 (2.29-3.44)	3.14 (2.50-3.93)	3.51 (2.68-4.51)	3.88 (2.83-5.15)	4.40 (3.07-6.03)	4.81 (3.25-6.69)
4-day	1.60 (1.38-1.86)	1.83 (1.58-2.13)	2.21 (1.90-2.58)	2.54 (2.17-2.98)	3.00 (2.47-3.66)	3.37 (2.70-4.18)	3.74 (2.88-4.77)	4.13 (3.03-5.44)	4.66 (3.26-6.33)	5.07 (3.44-7.01)
7-day	1.92 (1.68-2.21)	2.17 (1.89-2.49)	2.58 (2.24-2.97)	2.92 (2.52-3.38)	3.40 (2.83-4.09)	3.79 (3.06-4.62)	4.18 (3.24-5.25)	4.58 (3.38-5.94)	5.12 (3.62-6.85)	5.54 (3.79-7.55)
10-day	2.20 (1.94-2.51)	2.46 (2.16-2.80)	2.89 (2.53-3.30)	3.25 (2.82-3.73)	3.75 (3.14-4.46)	4.15 (3.38-5.02)	4.55 (3.56-5.66)	4.97 (3.69-6.38)	5.53 (3.93-7.33)	5.96 (4.10-8.05)
20-day	3.01 (2.69-3.36)	3.33 (2.97-3.73)	3.85 (3.42-4.33)	4.29 (3.79-4.84)	4.90 (4.15-5.71)	5.36 (4.42-6.36)	5.83 (4.62-7.12)	6.31 (4.75-7.95)	6.95 (4.99-9.04)	7.44 (5.18-9.87)
30-day	3.68 (3.32-4.08)	4.08 (3.67-4.52)	4.72 (4.23-5.25)	5.25 (4.67-5.86)	5.96 (5.09-6.87)	6.51 (5.40-7.62)	7.04 (5.61-8.49)	7.58 (5.74-9.43)	8.27 (5.98-10.6)	8.79 (6.16-11.5)
45-day	4.55 (4.13-4.98)	5.07 (4.60-5.56)	5.89 (5.32-6.48)	6.54 (5.87-7.23)	7.41 (6.36-8.42)	8.05 (6.73-9.31)	8.67 (6.95-10.3)	9.27 (7.06-11.4)	10.0 (7.28-12.7)	10.6 (7.45-13.7)
60-day	5.30 (4.84-5.76)	5.93 (5.41-6.45)	6.92 (6.29-7.55)	7.70 (6.94-8.44)	8.70 (7.50-9.79)	9.43 (7.92-10.8)	10.1 (8.14-11.9)	10.8 (8.22-13.1)	11.6 (8.42-14.5)	12.1 (8.57-15.6)

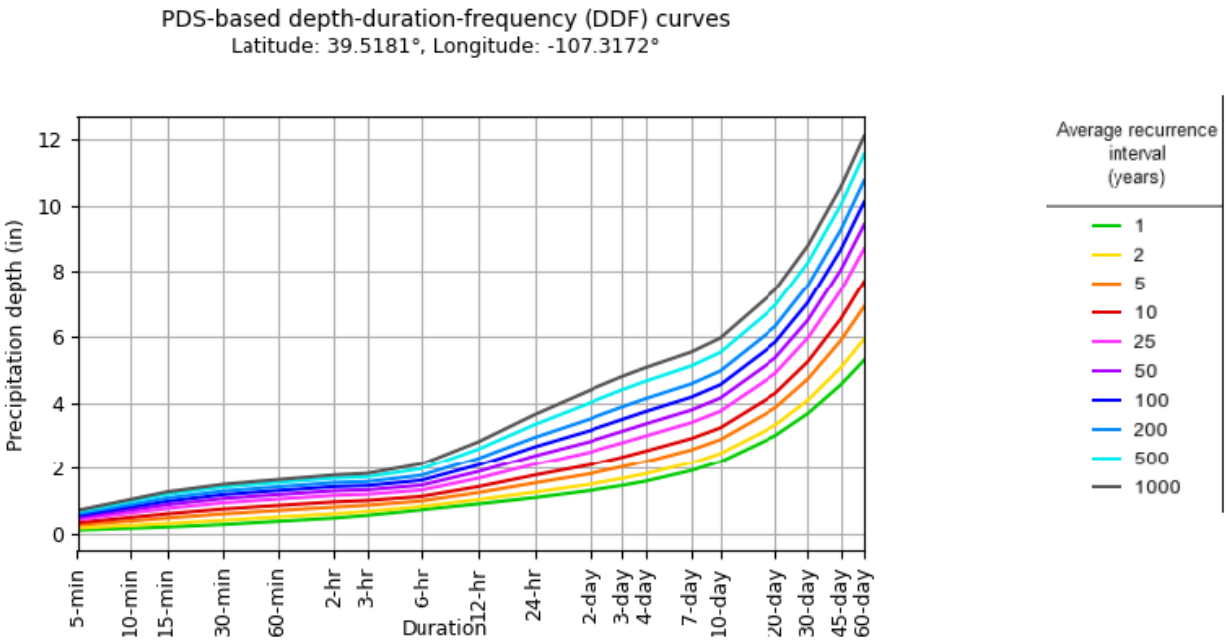
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

(NOAA Atlas 14, Volume 8, Version 2; Glenwood Springs, Colorado; Latitude 39.5455°, Longitude -107.326°, Elevation 5788.02 feet)

Figure 7.2 DDF CURVE



(NOAA Atlas 14, Volume 8, Version 2; Glenwood Springs, Colorado; Latitude 39.5455°, Longitude -107.326°, Elevation 5788.02 feet)

Table 7.1 Rainfall Intensity-Duration-Frequency, Glenwood Springs, Co

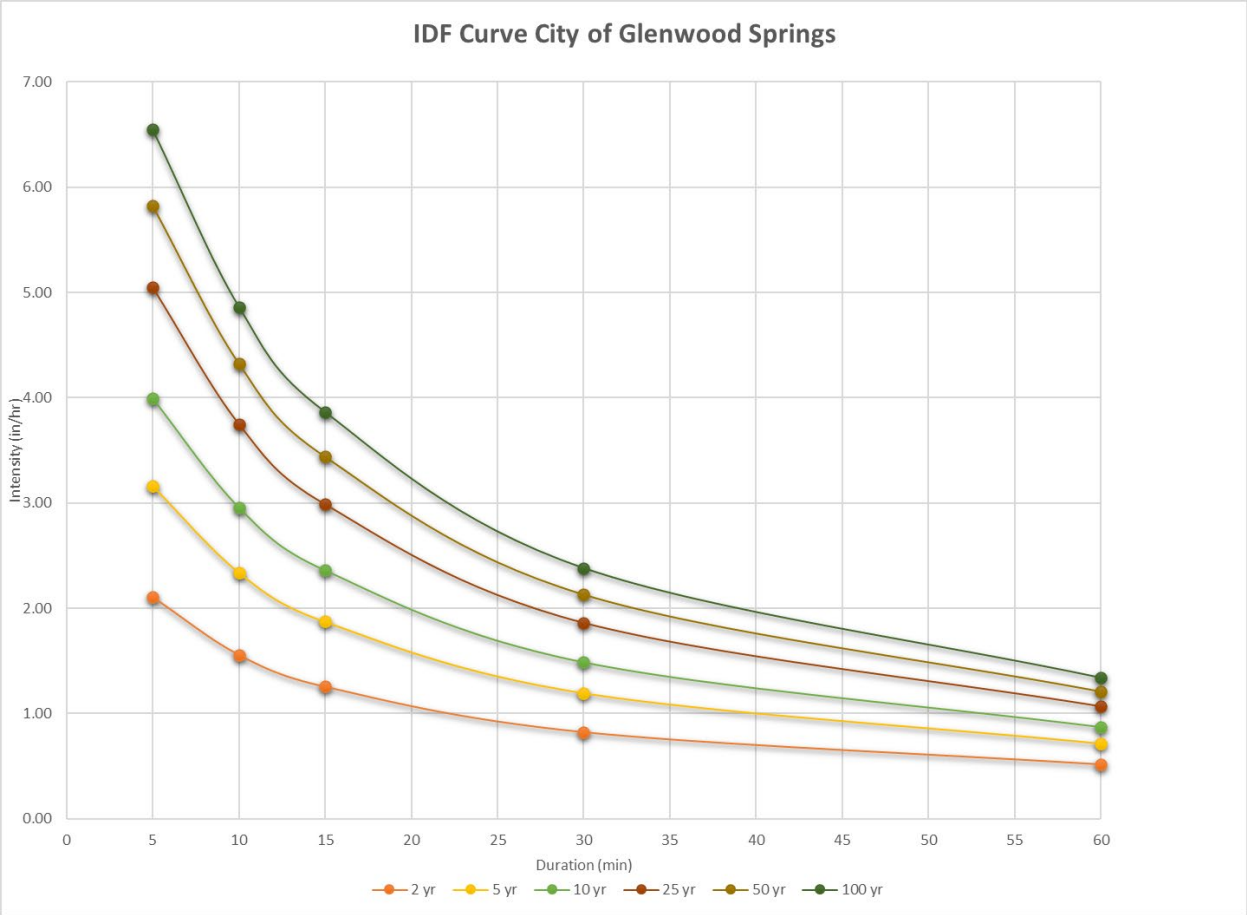
Return Period	Rainfall Intensity in inch/hr for Various Periods of Duration								
	5-min	*10-min*	*15-min*	*30-min*	*60-min (P_1)*	*2-hr*	*3-hr*	*6-hr*	*24-hr*
2-yr	**2.11**	**1.56**	**1.25**	**0.82**	**0.51**	**0.31**	**0.23**	**0.14**	**0.05**
5-yr	**3.17**	**2.35**	**1.88**	**1.20**	**0.72**	**0.41**	**0.29**	**0.16**	**0.05**
10-yr	**4.00**	**2.96**	**2.36**	**1.49**	**0.87**	**0.49**	**0.34**	**0.19**	**0.05**
25-yr	**5.04**	**3.75**	**2.98**	**1.86**	**1.06**	**0.58**	**0.40**	**0.21**	**0.05**
50-yr	**5.83**	**4.33**	**3.44**	**2.13**	**1.21**	**0.65**	**0.44**	**0.23**	**0.06**
100-yr	**6.50**	**4.83**	**3.84**	**2.36**	**1.33**	**0.70**	**0.48**	**0.24**	**0.06**

Using the data in Table 7.1 (derived from NOAA Atlas 14 Volume 8), the following equation was used to determine intensities not shown in the IDF table or curve.

$$I = \frac{a * P_1}{(b + t_c)\hat{}c} \qquad \textbf{EQ. 7.1}$$

Where,
I= intensity
P1= 1-hr rainfall depth (inches
Tc= time of concentration
a,b,c= constants

Figure 7.3 IDF Curve, Glenwood Springs, Co



Note: Graphical representation of rainfall intensity, inches per hour, over a duration of time, in minutes, for several time periods, year.

4.7 Runoff

The surface in a watershed is composed of pervious or impervious areas. The pervious surface is an area where water can readily infiltrate into the ground. The impervious surface is the area that produces direct runoff as soon as it rains. As urbanization occurs, impervious areas increase. As a result, the total amount of runoff volume increases. In urban hydrology, the percentage of impervious area is the most sensitive parameter to runoff generation.

Estimates of runoff flow rates and volumes for selected levels of protection provide the basis for the design of drainage facilities for the management of flood discharges and water quality in a drainage system.

A. Hydrologic Loss

In a rain event, not all raindrops reach the ground. Raindrops can be lost to evaporation, infiltration, puddles, or land on vegetation. All major losses considered in the rainfall and runoff modeling techniques include soil infiltration and depression loss.

B. Soil Infiltration Loss

Infiltration is the penetration of water into the soil. Different soil types can affect this penetration rate. The Natural Resources Conservation Service (NRCS) has classified soils into four types (SCS 1983)

- Type A Soil – Soils having high infiltration rates such as sand and gravel.
- Type B Soil – Soils having moderate infiltration rates such as loamy soils.
- Type C & D Soil – Soils having very slow infiltration such as clay soils.

C. Depression Loss

Depression losses account for the amount that puddles in low areas, ponds, and potholes. These losses are only considered in CUHP/SWMM Modeling. Refer to the chart below for depression capacity for various land uses.

Soil Type	Initial Rate Inch/hr	Final Rate Inch/hr	Decay Coefficient 1/sec for CUHP	Decay Coefficient 1/hr for SWMM
A	5	1	0.0007	2.52
B	4.5	0.6	0.0018	6.48
C&D	3	0.5	0.0018	6.48

D. Hydraulic Criteria

Identify the hydraulic design point for closed systems tied to The City's existing collection system.

Identify flow capacity of drainage facilities, such as:

a. Calculate culvert sizes with capacities and area of contribution.

b. Calculate storm sewer capacity including capacity of next two downstream drainage structures (max velocity 20 ft/sec, HGL 12 inches below ground, EGL below ground, minimum velocity of 5 ft/sec at half full conduit flow).

c. Calculate gutter capacity (max velocity 10 ft/sec, allowable spread = 4 feet minor storm, 12-inch depth at flow line for major storm, n=.016 for street, n=.025 for grass)

d. Calculate storm inlet capacity (clogging factor = 50%).

e. Calculate storm inlet capacity (clogging factor = 50%).

4.8 Detention

A. Types of Detention Basins:

a. Dry Detention Basins

b. Bio-retention or sand filter facilities

c. Wet Detention basins

d. Above/Below Ground

4.9 Water Quality

The City of Glenwood Springs water quality and erosion control design criteria rely on guidance provided in the MHFD USDCM Volume 3. The procedure is outlined below:

A. Calculate the WQCV and Volume Reduction: This section presents the hydrologic basis and calculations for the WQCV and discusses the benefits of attenuating this volume. This section also describes various methods for quantifying volume reduction when using LID practices. The use of these methods should begin during the planning phase for preliminary sizing and development of the site layout. The calculations and procedures in this section allow the engineer to determine effective impervious area, calculate the WQCV, and more accurately quantify potential volume reduction benefits of BMPs.

B. Select Stormwater Treatment Facility for new development or redevelopment: Treatment facility selection involves many factors such as physical site characteristics, treatment objectives, aesthetics, safety, maintenance requirements, and cost. Typically, there is not a single answer to the question of which facility should be selected for a site; there are usually multiple solutions ranging from standalone treatment facilities to treatment trains that combine multiple facilities to achieve the water quality objectives.

i. Stormwater Treatment Facility Maintenance (MHFD USDCM Volume 3, Chapter 6): For stormwater treatment facilities to be effective, proper maintenance is essential. Maintenance includes both routinely scheduled activities, as well as non-routine repairs that may be required after large storms, or because of other unforeseen problems. Stormwater treatment facility maintenance is the

responsibility of the entity owning the facility; however, local governments with MS4 permits are responsible for ensuring that maintenance of privately owned facilities occurs within their MS4. Facilities should be designed with maintenance as one of the key design considerations. Planning-level design guidance pertaining to maintenance is included in the individual Fact Sheets contained within this chapter. This chapter focuses on maintenance of in-service facilities and provides recommendations for private facility owners, as well as for MS4 permittees responsible for ensuring proper maintenance for both public and private facilities within their MS4.

C. Colorado Department of Transportation's (CDOT) Erosion Control and Stormwater Quality Filed Guide, provides an overview of erosion and sediment control principles and information on construction best management practices (BMPs). https://www.codot.gov/programs/environmental/water-quality/assets/pocket-field-guide-english.

D. The Construction Management Plan Checklist, provided on the City of Glenwood Springs Engineering Department Website.

4.10 Calculating WQCV

A. The WQCV is calculated as a function of imperviousness and BMP type using Equation 11.1 and Table 11.1, and as shown in Figure 12.1:

$$\boldsymbol{WQCV = 0.70\,Aa\left(0.91I^3 - 1.19I^2 + 0.78I\right)/12} \qquad \textbf{EQ. 11.1}$$

Where:
WQCV = Water Quality Capture Volume (ft3)
A = Area draining to the treatment facility (ft2)
a = Coefficient corresponding to BMP type and from Table 4.11
I = Imperviousness (percent expressed as a decimal)
Note: The provided equation is modified from MHFD USDCM Volume 3 Equation 3-1. This equation was developed based on rainfall data from the Denver Metro area. However, in reviewing MHFD USDCM Volume 3, Figure 3-1: Map of the average runoff Producing Storm's Precipitation Depth in the United States in Inches the precipitation depth of the average runoff producing storm in Glenwood Springs is 0.30 inches, while in Denver it is 0.43 inches. The WQCV equation above includes the coefficient of 0.70 to adjust for the equation for use in Glenwood Springs.

At a planning level, the watershed imperviousness can be estimated based on the zoned density. When finalizing design, calculate imperviousness based on the site plan.

Table 11.1 Drain Time Coefficients for WQCV

Drain Time (hours)	Coefficient, *a*
12 hours (filtration BMPs)	0.8
24 hours (constructed wetland ponds)	0.9
40 hours (extended detention)	1.0
No attenuation (e.g. grass buffer or swale)	1.0

Ref: Mile High Flood District Urban Drainage Criteria Manual Volume Three Table 3-2

B. Effective Imperviousness

The imperviousness value used in the WQCV calculation for sites that implement low impact development (LID) principles such as green infrastructure and MDCIA may be reduced to reflect the site's effective imperviousness. The effective imperviousness is dependent on the level of MDCIA implemented for high-level planning applications.

- Level 1 includes designing impervious surfaces to drain over a grass buffer or other pervious surface prior to reaching any stormwater conveyance system.
- Level 2 is an enhancement to Level 1 and includes eliminating curb and gutter or using slotted curbs; low-velocity pervious grass- or rock-lined swales instead of storm sewers, and pervious street shoulders.

Guidance on calculating effective imperviousness for Level 1 and Level 2 MDCIA can be found in Volume 3 of the USDCM.

Where a detailed site plan has been developed and the square footage of directly connected impervious area, unconnected impervious area, receiving pervious area, and separate pervious area have all been defined, a more detailed effective imperviousness can be determined using the methods in Volume 3 of the USDCM.

C. Detention

When a site requires a detention facility, a single facility may be designed to serve as both the detention and stormwater quality treatment facility. Detention facilities that are also water quality treatment facilities have outlets to provide for both the stormwater quality treatment and detention release rates. For these facilities, the guidance in the USDCM for Excess Urban Runoff Volume (EURV) facilities shall be followed.

Guidance on how to design extended detention basins, sand filter basins, bioretention, and permeable pavement to meet the WQCV standard are included in the fact sheets in Volume 3 of the USDCM.

When detention storage volume is sized for a site that also incorporates a WQCV structure , WQVC may be included in the detention volume.

Example:

Detention Vol= 1500CF

WQCV= 300 CF

Total Detention Required with a WQCV Structure = 1,500 CF

4.11 Calculation WQCV Reduction

A. Runoff volume reduction is an important part of the Four Step Process for stormwater management as discussed in MHFD USDCM Volume 3, Chapter 1 and is fundamental to effectively manage stormwater runoff.
   a. The approach recommended in this section is based on the Four-Component Land Use Model that is used by the Colorado Urban Hydrograph Procedure (CUHP) and the EPA Stormwater Management Model (SWMM). This conceptual model, illustrated in Figure 4.12, represents a drainage area by four components:

b. Directly Connected Impervious Area (DCIA) – DCIA is an impervious area that drains to the storm drain system or stream without flowing over surfaces that would allow for infiltration.
c. Unconnected Impervious Area (UIA) – UIA is an impervious area that drains to a receiving pervious area, where there is an opportunity for infiltration.
d. Receiving Pervious Area (RPA) – RPA is a pervious area that receives runoff from UIA and allows for infiltration.
e. Separate Pervious Area (SPA) – SPA is a pervious area that does not receive runoff from impervious surfaces.

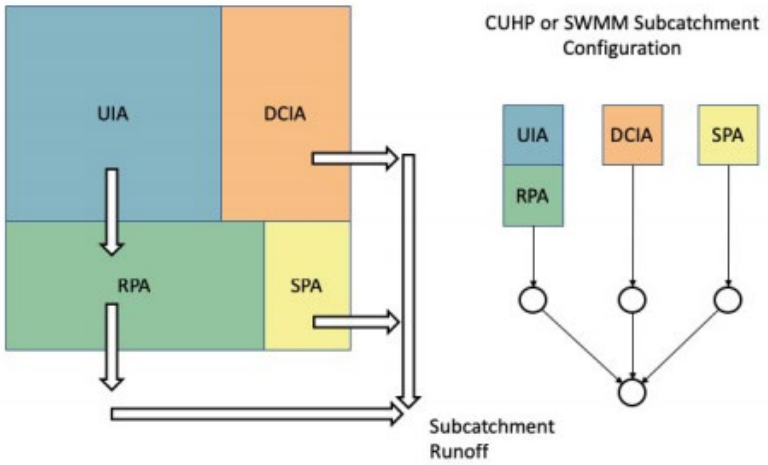


Figure 12.1: Water Quality Capture Volume (WQCV) Based on BMP Drain Time
Ref: Mile High Flood District Urban Drainage Criteria Manual Volume Three Figure 3-2.

B. Detention Criteria
a. Detention needs to be provided for the increase in runoff from the pre- and post-developed conditions. The Design Engineer needs to provide justification for the selected detention requirement method used. Methods available to calculate detention in the Glenwood Springs area are:
i. Federal Aviation Administration (FAA): a Rational Formula-based procedure that is used in calculation and design of detention facilities with tributary areas of less than five (5) acres in size. This method provides sizing for one level of peak control only and not for multi-stage control facilities. The input required for this Rational Formula-based FAA volume calculation procedure includes:

The calculations are best set up in a tabular (spreadsheet) form with each 5-minute increment in duration being entered in rows and the following variables being entered, or calculated, in each column:

Determine the inflow volume by multiplying the peak flow rate (CiA) by the time of concentration (Tc) as calculated by the rational method:

$$\boldsymbol{V_i = (CiA)(T_c)60\frac{sec}{min}} \qquad \textbf{EQ:12.1}$$

Where:
Vi = Inflow volume (ft3)
C = Rational Method runoff coefficient for the major or minor storm
i = Design Rainfall Intensity (in/hour)
A = area of the catchment tributary to the storage facility (acres)
Tc = Rational Method time of concentration for the tributary catchment (minutes) (see the Runoff chapter)

ii. Determine the outflow volume by multiplying the allowable release (Qo) rate by the time of concentration (Tc):

$$\boldsymbol{V_o = (Q_o)(T_c)60\frac{sec}{min}}$$ **EQ. 12.2**

Where:
Vo = Outflow Volume
Qo = Allowable maximum release rate from the detention facility (cfs)
Tc = Rational Method time of concentration for the tributary catchment (minutes) (see the Runoff chapter)

iii. If the entire site is not tributary to the detention pond, the allowable release rate from the detention pond must be decreased to compensate for site runoff that does not pass through the detention pond. The allowable release rate is calculated as the total site predevelopment runoff rate minus the post-development un-detained flow rate. The result will be that the post-development peak flow from the entire site will meet the pre-development runoff rate criteria. A maximum of 5% of the total site is allowed to bypass the detention pond.

$$\boldsymbol{Q_o = Q_{pre-developed} - Q_{undetained}}$$ **EQ.12.3**

Where:
Qo = Allowable maximum release rate from the detention facility (cfs)
$Q_{pre\text{-}developed}$ = Allowable maximum release rate from the site in the pre-developed condition (cfs)
$Q_{un\text{-}detained}$ = The release rate that bypasses the detention facility (cfs)

iv. Determine the storage volume by subtracting the outflow volume (Vo) from the inflow volume (Vi):

$$\boldsymbol{V_{storage} = V_i - V_o}$$ **EQ. 12.4**

ii. Storm Water Management Model (SWMM): May be used in calculation storage facilities with tributary areas of twenty (20) acres or more.
i. Both FAA and SWMM can be used for sizing of detention for storage facilities with tributary areas between five (5) and twenty (20) acres, but the FAA calculating should be increased by 20% to better align with the SWMM calculation.
ii. Mile High Flood District (MHFD) Software/Spreadsheets.

4.12 Permanent Stormwater Treat Facilities

Management of stormwater quality is important for river communities like Glenwood Springs. This section presents design requirements for permanent stormwater treatment facilities, the applicability of the requirements, runoff reduction, and site planning concepts. Information specific to industrial and commercial activities, design details, and design requirements associated with maintenance are also included. The goal of the requirements outlined in this section is to keep our streams and drainageways healthy.

The city is required to comply with the Colorado Discharge Permit System (CDPS). The content of this section will be revised as The City's requirements change. The naming convention for facilities that treat stormwater quality after construction has varied over time but are most generally called "Best Management Practices" (BMPs). The City's term for these facilities is "permanent stormwater treatment facilities". The term "treatment facilities" may also be used.

A. Site Planning

To minimize detrimental impacts to water quality in the city, site planning should consider how the site will be used as well as how stormwater runoff will be conveyed and treated to mitigate the impacts of development. These planning principles are guidelines, and no specific criteria is associated with them.

General site planning goals for every development are as follows:

a. Reduce runoff and maximize stormwater infiltration by minimizing directly connected or continuous impervious areas, slowing runoff through previous and/or vegetated areas, and avoiding over compaction of pervious soil types.
b. Centralize treatment facilities and integrate them with site operations to minimize land use, achieve greater economy of scale, and reduce the number of treatment facilities requiring maintenance.
c. Minimize impacts to the natural environment including water quality, air quality, wildlife habitat, vegetation, wetlands, and natural landforms.
d. Promote riparian habitat by utilizing broad, shallow drainageways, open areas, and existing natural channels.
e. Include tree planting to provide canopy stormwater capture and root intrusion to augment soil infiltration rates, especially in proximity to impervious surfaces and waterbodies to enhance shading.
f. Anticipate the risk for pollutant discharge from site operations such as washing, fueling, manufacturing, materials storage, and vehicle maintenance, among others. Develop operational procedures to minimize the risk of spills and design the site layout to prevent any spills from leaving the site.
g. Consider the freeze/thaw nature of the City's winter climate when selecting treatment facilities and how this may impact maintenance.
h. Limit the use of proprietary structures for water quality treatment as more frequent maintenance is typically required to maintain adequate performance. Proprietary structures often have high long-term costs.
i. Design treatment facilities for ease of maintenance.

j. Any portion of a site not draining to a treatment facility should have a very low pollutant load and should drain across a vegetated area prior to discharge from the site. No impervious area should discharge directly into wetlands, the Roaring Fork River, the Colorado River, or one of their tributaries.
k. Best practices used to meet the city's site planning goals include low impact development (LID), green infrastructure, and nature-based solutions. One type of low impact development is minimizing directly connected impervious areas (MDCIA). MDCIA reduces runoff from the site by routing it from impervious surfaces to pervious areas to promote infiltration. Developing the layout of a site to reduce runoff will also reduce the required size of WQCV treatment facilities.

B. Methods of MDCIA:

Include using pervious drainage conveyances where appropriate, routing downspouts across pervious areas, and incorporating vegetated areas into locations that generate and convey runoff like parking lots and driveways. Grass buffers, grass swales, and bioretention can all be used. Other LID principles include the following:

a. Protect areas that add value such as those with mature trees, stream corridors, wetlands, and soils with high infiltration rates.

b. Minimize impacts by being creative with site layout to reduce the extent of paved and other impervious areas.

c. Concentrate new impervious areas over Type C and D soils and preserve areas over Type A and B soils for landscape areas and other permeable surfaces.

d. Maintain natural drainage patterns and implement sheet flow.

e. Consider stormwater quality needs early in the development process to better integrate stormwater treatment facilities into the site.

f. Select permanent stormwater treatment facility based on expected pollutant type.

g. Volume 3 of the USDCM offers extensive text regarding planning principles and ideas to minimize site runoff. Volume 3 of the USDCM provides graphics that offer some general guidance as to the treatment facilities that are typically used for sites having specific characteristics.

C. Applicability

Permanent stormwater treatment facilities are required for all new development and redevelopment sites.

The city currently has no regional WQCV treatment facility. If the City constructs a regional WQCV treatment facility in the future, and a developer would like to use it to provide water quality treatment, Public Works must be contacted to determine the feasibility and associated requirements.

D. Design Standards

This section discusses design criteria for permanent stormwater treatment facilities that are allowed for use in the city. These treatment facilities include extended detention basins, grass swales, grass buffers, sand filter basins, bioretention (previously known as porous landscape detention or PLD), and proprietary structures. Permeable pavement is also allowed provided the maintenance agreement and the O&M Plan do not allow sanding. Retention ponds and wetland facilities are not typically allowed because water rights are a necessary component for legal standing of these facility types. Other types of treatment facilities may be proposed by the design engineer.

Proposals to use other treatment facility types are required to include detailed data and calculations showing that a proposed treatment facility meets one of the design standards listed in this section. The design of treatment facilities shall facilitate maintenance.

a. Tributary Offsite Area:

   When an offsite area is tributary to a permanent stormwater treatment facility there are two options. The first option is to intercept the offsite flow and route it around or through the site in a separate conveyance system. The second option, if offsite flow cannot be separated, is to size the treatment facility for the entire tributary area. This could mean a much larger design volume for volume-based facilities or a larger peak runoff rate from the 80th percentile storm event for flow-based facilities.

b. Right-of-Way Restrictions:

   Privately owned and maintained treatment facilities must be located outside the public right-of-way and offline from public stormwater conveyance systems.

c. Maintenance

   Long-term maintenance requirements are a critical component of treatment facility selection and design because facilities that are not properly maintained do not function properly and/or do not treat stormwater runoff to the extent required by the MS4 permit. All new facilities shall be designed to facilitate maintenance operations.

   Maintenance considerations that must be evaluated during the selection and design process include accessibility, required equipment, frequency of maintenance, special required training, and the need for replacement materials.

d. Access

   An easement shall be provided in accordance with Section 5.3 to allow City staff to access the facility if the responsible agency is negligent. Access roads shall be provided to all structures including forebays, outfalls, inlets, micropools, outlet structures, and proprietary facilities. Access roads must support an 80,000-pound vehicle load, be at least 10 feet wide, and have an inside turning radius of at least 25 feet. Access roads must pass close enough to each structure that the equipment to be used will reach the structure. A backhoe with a reach of 25 feet must be able to pass within 25 feet of the structure without leaving the access road. If the access road cannot pass close enough to the structure for the equipment to reach, a concrete access ramp or

similar supportable material, such as a 6-inch layer of angular 4-inch-minus riprap, shall be provided at a slope no steeper than 10:1. Concrete ramps shall be scored for wet weather traction.

e. Forebays

Accessible forebays shall be provided at all concentrated inflow points of extended detention basins and sand filter basins for removal of accumulated sediment and floatables. The forebay must be designed in accordance with Volume 3 of the USDCM.

f. Stockpile Areas

Facilities should be designed with stockpile areas for temporary storage and drying of mucked out material. A stockpile area should be directly adjacent to each structure to be cleaned out. Stockpile areas shall be located outside the low flow area and should be as flat as possible. Total stockpile area shall be twice the square footage of all forebays and the micropool.

g. Extended Detention Basins

Extended detention basins shall include a micropool with a hard bottom against which to excavate that is accessible to a vacuum truck or backhoe. Extended detention basins shall include a trickle channel at least 48 inches wide with no cross slope. Trickle channels shall have a concrete bottom and sides at least 6 inches high to allow access for lightweight maintenance equipment if the trickle channel longitudinal slope is less than 5%

h. Infiltration Facilities

Sand filter basins have a short lifespan and shall include pretreatment to remove trash and larger sediment. If located next to a roadway, infiltration facilities shall include a barrier to prevent degradation of the roadway subgrade.

During construction and maintenance operations, special care shall be taken to avoid compaction of subsurface soils that will reduce infiltration rates.

If a full infiltration basin is not used, an underdrain system including a loading evaluation will be required and cleanouts must be provided every 300 feet. Infiltration testing shall be conducted after construction and prior to acceptance to ensure the facility functions as intended.

i. Proprietary Structures

Proprietary structures that do not require confined space entry procedures are preferred. Careful design of access to vaults and use of a vacuum truck may eliminate confined space entry requirements.

Treatment facilities require regular inspection and maintenance, to be completed by the property owner. Section 4.14 outlines the inspections and maintenance requirements. Based on site conditions, the design engineer may require additional maintenance measures, a more frequent schedule, or unique protocols for a site. Volume 3 of the USDCM should be consulted when determining the maintenance schedule, activities, and protocols to be included on the O&M Plan.

4.13 Ownership and Maintenance Plan

An Ownership and Maintenance (O&M) Plan must be developed, submitted, and approved as part of the Stormwater Quality Plan and then also included as part of the Ownership and Maintenance (O&M) Agreement. An executed O&M Agreement is required prior to facility approval and project close out.

A. Inspection and Maintenance Requirements:

An executed O&M Agreement is required prior to facility approval and project close out. The requirements of an O&M Plan are outlined in a checklist in the appendix. City staff is available for consultation during the treatment facility selection and design process to ensure the design meets the requirements in this section. Minimum required components for maintenance are presented below.

Table 15.1: Minimum Required Inspection and Maintenance Schedule

Extended Detention Basin	
Activity	**Required Frequency**
Inspection for debris at outlet, sediment in the forebay, and damage to structures or embankments; maintain or repair as necessary	Twice annually
Remove sediment from forebay, trickle channel(s), and micropool; aeration of vegetated areas	Annually
Mowing	As needed to maintain 6" height and control weeds
Irrigation and application of fertilizer, herbicide, and pesticide	As needed to maintain vegetative health

Note: Maintenance frequency is highly dependent on construction activity within the tributary area, associated erosion control measures, and the design of the facility. More frequent removal of accumulated sediment may be required, but detention basins are generally low maintenance facilities.

Sand Filter Basin and Bioretention	
Activity	**Required Frequency**
Inspection to confirm infiltration rate after rainfall; maintain as necessary. Debris and litter removal.	Twice annually
Mowing, plant care, irrigation, and application of fertilizer, herbicide, and pesticide (for bioretention only)	As needed to maintain vegetative health
Mulch replacement (for bioretention only)	As needed to maintain 3" depth
Inspection of underdrain	When ponding lasts longer than 24 hours
Sediment removal and replacement of media	When ponding lasts longer than 24 hours and underdrain is not clogged

Proprietary Structure	
Activity	**Required Frequency**

Inspection for debris that may cause bypass of design treatment flow rate; maintain as necessary.	Quarterly for first 2 years; as indicated based on first 2 years after that
Filter cartridge inspection; replace as necessary	Twice annually
Debris removal, filter cartridge replacement, and vacuuming	As recommended by the manufacturer

Grass Swale, Grass Buffer	
Activity	**Required Frequency**
Inspection for uniform cover, sediment accumulation, rill and gully development, and impacts from foot or vehicle traffic; maintain as necessary. Debris and litter removal.	Twice annually
Aeration	Annually
Mowing	As needed to maintain 6" height
Irrigation and application of fertilizer, herbicide, and pesticide	As needed to maintain vegetative health

Note: Grass swales and buffers may need to be scraped or detached to restore original cross section and infiltration rate; Reseeding or resodding may be required to restore vegetative cover.

Permeable Pavement	
Activity	**Required Frequency**
Inspect during rainfall event or with applied water to ensure infiltration and integrity of system components; Maintain as necessary	Annually
Sweeping to remove sediment and debris	Monthly
Vacuuming to remove sediment that has filled void spaces	Annually

Note: Avoid sealing or repaving with non-porous materials; do not apply sand as part of winter operational procedures.

If the conditions of the O&M Agreement presented in the O&M Plan are not met, city staff may inspect facilities or respond to complaints relating to facilities that may not be performing properly. Facility owners should expect notification of inspections and subsequent findings to be communicated by inspection personnel. If maintenance efforts are not properly conducted over time, the city may complete the maintenance and back-charge the owner as included in the Maintenance Agreement.

2. References

- City of Aspen, *Urban Runoff Management Plan*
- Colorado Department of Transportation's (CDOT) Erosion Control and Stormwater Quality Filed Guide, provides an overview of erosion and sediment control principles and information on construction best management practices (BMPs). *https://www.codot.gov/programs/environmental/water-quality/assets/pocket-field-guide-english.*
- Denver Urban Drainage and Flood Control District (UDFCD). *Urban Storm Drainage Criteria Manual*
- NOAA (2013), *"Precipitation Frequency Atlas of eh United States, Midwestern States, NOAA Atlas 14 Volume 8,"* National Oceanic and Atmospheric Administration, Washington, D.C.: US Department of Congress, National Weather Service, Silver Spring, Maryland.
- Station 05-3359 as Glenwood Springs #2, Daily Precipitation Record from January 1980 through December 2008, Western Reginal Climate Center, Desert Research Institute 2215 Raggio Parkway, Reno, NV
- United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey, 2019

Chapter 3

Water Distribution Standards

City of Glenwood Springs Engineering

Revised 2026

Chapter 3 Water Distribution Standards

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Chapter 3 Water Distribution Standards

I. Introduction

This chapter shall govern all new construction, reconstruction and rehabilitation of City of Glenwood Springs (City) operated water. In addition, these standards and guidelines shall apply to all private developments within the City.

These Engineering Standards and Guidelines will also be cited in the text as the "Standards."

II. Design Standards

The following codes and manuals shall be applicable when pertinent to the work, when specifically cited in these Standards, or when required. Refer to individual chapters for additional design standards. The content of this manual shall be used in conjunction with the latest revisions of the following supplementary standards: See appropriate websites

a. Rules and Regulations as adopted in the City of Glenwood Springs Municipal Code (Code).

b. American Water Works Association (AWWA).

c. Colorado Department of Public Health (CDPHE).

   i. Regulation 11, Colorado Primary Drinking Water Regulations.

   ii. Safe Drinking Water Program Policy DW-005, Design Criteria for Potable Water Systems.

   iii. Safe Drinking Water Program Policy DW-007, Backflow Prevention and Cross-Connection Control.

   iv. Colorado Cross-Connection Control Manual.

d. National Fire Protection Association (NFPA).

e. International Plumbing Code (IPC).

f. International Building Code (IBC).

g. International Residential Code (IRC).

h. Occupational Safety and Health Administration (OSHA).

i. City of Glenwood Springs Fire Department requirements.

j. American Society for Testing and Materials (ASTM)

k. American National Standards Institute (ANSI)

l. National Sanitation Foundation (NSF)

m. American Standards Association (ASA)

n. Standard Methods for the Examination of Water and Wastewater

o. United States Geological Survey (USGS)

p. National Geodetic Vertical Datum (NGVD)

III. Definitions and Terms

a. **Private Water System:** Portion of the water line beginning two feet outside the outer foundation wall of the structure to the discharge side of the curb stop valve. Portion of the system located where no easements are granted to the city or in the public right-of-way if permitted. It shall be the responsibility of the owner of the property to maintain the private water line from their building up to and including the connection to the discharge side of the City's curb stop valve. (Reference Code: 080.040.010(e) – Connections to Water System/Maintenance of Service Lines)

b. **Public Water Main:** Portion of the system located within public right-of-way or easements which are operated and maintained by the city. The City's responsibility includes the water main and appurtenances to and including the curb stop valve. (Reference Code: 080.040.010(e) – Connections to Water System/Maintenance of Service Lines)

c. **Backflow Tester:** A person who has been certified by the State of Colorado to test and maintain backflow devices (Reference Code: 060.030.020 – Amendments to the IRC, Additional Definitions; 060.040.020 – Amendments to the IPC, Additional Definitions).

3.1 GENERAL REQUIREMENTS

A. The Water Design Standards establish minimum design standards for designing, permitting, furnishing, installing, and maintaining the City of Glenwood Spring's public water utility distribution system, including water transmission and storage facilities for domestic, fire protection, commercial and industrial, irrigation, and other uses.

B. Any extension/connection of the Glenwood Springs Water System must be approved by the City and shall be made in accordance with the provisions of these Standards and the supplementary standards mentioned above. Where there are conflicts or differences between these Standards and other standards listed above, these Standards shall govern. (Reference Code: 080.040.010(a) – Connections to Water System/Requirement, 080.040.030 - Line Extensions)

C. In designing and planning for any development, it is the developer's responsibility to see that adequate water for both domestic and fire protection use is attainable. The developer must demonstrate in the proposed plans how water will be provided, whether the existing system will be adversely impacted, how adequate water will be supplied at the required pressures in the event of a fire, and where water will be stored to provide for the development's water storage requirements. Design of water system infrastructure shall be by a registered engineer in the State of Colorado and will be reviewed by the City for compliance with these Standards.

D. Any person who wishes to connect onto the City's water system must first make an application for such connection to the City, obtain necessary permits (Reference Code:), and pay the necessary fees (Reference Code: 080.040.010(c) – Connections to water system/Tap Fee; 080.040.010(b) - Connections to water system/City Permission; 080.060.040 - Amount of System Improvements Fees) for such connection.

E. Prior to receiving water from the City's system, all improvements must be completed, accepted by the city and approved, including granting of right-of-way or easements, and all applicable fees must

be paid. (Reference Code: 080.010.020 - Application for Service; 080.040.010 - Connections to Water System)

F. Easements for water mains and other facilities shall be provided in accordance with Chapter 1. (Reference Code: 070.040.030(e)(7)(c) – Site Development Standards/Site Development and Improvement Standards/Underground Utilities).

G. No person shall abandon any water service connection to the City's water distribution system without first obtaining the necessary permits and written authorization through the City.

H. With the exception of private water systems defined in these Standards, all water lines and fire hydrants constructed pursuant to these Standards shall be and become the sole and exclusive property of the City, as well as any and all easements and rights-of-way therefore; and all such persons paying for the same shall, upon request of the City, execute and deliver any and all necessary and proper deeds of conveyance, assignments or other documents which the City may desire to perfect such ownership by the City. (Reference Code: 080.040.010(e) Connections to water system/Maintenance of Service Lines; 080.040.030(a) – Line extensions/Construction of Waterlines and Appurtenances; 080.040.030(d) - Line extensions/Ownership of Extension)

I. The City W/WW Department staff shall be onsite to observe, inspect, and approve ANY work that may affect water or sewer mains. (Reference Code: 080.040.030(a) - Line extensions/Construction of Waterlines and Appurtenances)

J. All work upon or in connection with any portion of the water system of the City or any utilities which connect thereto shall be done by the City or by a qualified contractor that is specifically granted permission by the City. Such work shall be performed in conformity with the Design Criteria of the CDPHE, these Standards and the rules and regulations of the City. Such work shall be inspected and approved by the City. (Reference Code: 080.040.030(a) – Line extensions/Construction of Waterlines and Appurtenances.

K. All water service connections to existing water mains and all taps to existing mains shall be made by City personnel at the expense of the Contractor, unless the Contractor is specifically granted permission to perform the tap or service connection at the Contractor’s expense. If the Contractor is granted permission by the City to perform the tap, the City shall be present at the time of the tap to observe and inspect the work. (Reference Code: 080.040.030(a) – Line extensions/Construction of Waterlines and Appurtenances; 070.040.030(a)(1) Site Development and Improvement Standards/Purpose)

L. The City shall be given 72 hours’ notice prior to scheduling a shutdown of the water system. A Contractor that requests shutdown of the water system shall be responsible for providing a minimum of 48 hours advanced notification to all customers that may be affected by the shutdown.

M. The City equipment including valves, curb stops, and hydrants shall be operated only by City employees.

N. During the construction of mains and services, the Contractor shall cap, plug, or secure the ends of such lines whenever the project is shut down at the end of the day so that contaminants will not enter the lines.

O. The City shall be notified a minimum of 72 hours in advance of the time that a tap connection to an existing main or a service connection to an existing main is needed so that the water division crew may be scheduled for the work. At the time of notification, the customer must also notify the City of the requested water tap sizes. Tap size shall not be larger than what is allowed by City EQR schedule as calculated by the Building Department. (Reference Code: 080.040.010(d) – Connections to water system/Service Connections)

P. All lines shall be disinfected and tested by the Contractor, with a representative of the City present, in accordance with the standard specifications. De-chlorination, collection, and disposal of any water used for disinfection shall be the responsibility of the Contractor. Water shall only be discharged at a location approved by the City and in accordance with the City's Wastewater Discharge Regulations (Reference Code: 080.030.030 – Wastewater Discharge Regulations).

Q. No occupant or owner of any building or premises which obtains water from the City water system shall supply/re-sell water to other persons or families or to other premises. The water supply may be discontinued for any violation of this Section. (Reference Code: 080.040.050 – Customers not to Supply Water to Others).

R. All public improvements require a 2-year warranty for acceptance. (Reference Code: 080.040.030(a) – Line extensions/Construction of Waterlines and Appurtenances; 070.040.030(f)(2) – Site Development and Improvement Standards/Assurance and Acceptance of Public Improvements/Acceptance by City of Public Improvements)

S. When available, raw water should be utilized for irrigation and is required if a raw water connection is available within 400'. (Reference Code: 080.040.015 – Connections to Raw Water Irrigation System; 070.040.050(h)(2) – Landscaping, Screening, and Fencing/Installation and Maintenance/Irrigation System Design)

3.2 REQUESTS FOR WATER SERVICE AND REQUIRED PRE-CONSTRUCTION SUBMITTALS

A. The following section covers the required submittal material required for the City to review a water project to ensure that it conforms to these standards/regulations. This information is in addition to the requirements of Chapter 1.

B. Customers outside of the corporate limits of the City shall be subject to additional fees if the service is existing or Water Service Agreement requirements if they are seeking a new water service. (Reference Code: 080.040.030(c) – Line extensions/Restrictions on Extensions

C. The applicant shall provide documentation and proof that water and sewer taps have been obtained from appropriate utility district when the property will be served by a utility district other than the City. (Reference Code: 060.030.020 – Amendments to IRC; 060.020.020 – Amendments to IBC; 070.060.060(b)(3)(f)(4). – Preliminary Plat/Preliminary Plat Procedure/Review and Decision/Preliminary Plat Approval Criteria)

D. The city requires the preparation of a water system analysis in order to assess the impacts and service demands of any project or development proposal connecting to the public water distribution system. The detailed analysis shall be prepared by an Engineer registered in the State of Colorado and include a technical report, preliminary plan, and connection and isolation plan as outlined in the following subsections.

E. A technical report is required at the discretion of the Public Works Director. The technical report shall provide an overview of the proposed project or development, proposed water utility improvements, water service demands, system impact and feasibility, and basic design requirements, and include the following information:

   a. Water demands should include estimated water demands based on projected land use/service type, number of equivalent residential units (EQRs), and water demand per EQR.

   b. Apply peaking factors and summarize flows for each service type for the following conditions:

      i. Peak-Hour (gallons-per-minute),

      ii. Maximum-Day (gallons-per-minute),

      iii. Average-Day (gallons-per-minute),

      iv. Insurance Service Office (ISO) or International Building Code (IBC) Fire Flows (gallons-per-minute), and

      v. Irrigation (gallons-per-minute).

   c. Design Criteria: The technical criteria used for design shall be summarized for City review and comment. Minimum design requirements from AWWA and CDPHE should be met. It shall include, but not be limited to, the following:

      i. Equivalent Residential Units (EQRS) (080.060.020 - Classification).

      ii. Flow Types and Peaking Factors to Estimate Demands

      iii. Water Storage Requirements

      iv. Fire Volume, Equalization Volume, Emergency Volume, Total Water Storage Volume

      v. Pipeline Maximum Velocity

      vi. System Water Pressures

   d. System Layout: Describe the proposed distribution system layout, including locations for connections with the existing water utility system.

   e. Network Analysis: Include a distribution network analysis as performed through computer simulation or appropriate manual calculation, identifying any systems impacts based on proposed demands and providing design solutions to ensure perpetuation of future water system growth, maintain system pressures, and flow rates.

      i. If a computer hydraulic simulation is required, developer will coordinate with City consultant.

   f. Main Sizing: Indicate the required sizing of proposed distribution mains based on water demands and/or conveyance of fire flow, whichever condition requires the larger pipe.

   g. Design Alternatives: Discuss alternative system layouts and methods of providing water service, including an evaluation of each alternative and reasons for selecting the recommended design.

h. Water Storage: Discuss storage volume necessary to serve additional EQRs and fire flow capacity. Consider the development and if the volume will be provided through excess storage in City's existing storage tanks or in new water storage tank. Storage volume shall be calculated as directed in Sections below.

i. Special Conditions: Identify any special conditions, such as the presence of corrosive soils, conflicts with other utilities, unusual installation depths or oversizing requirements, that require special provisions for improvements construction.

F. Preliminary Plan:

A preliminary plan shall be included in the utility report to provide a plan view and reference for the proposed improvements, and identify issues addressed in the report. The preliminary plan is to include the following:

a. Preliminary Design: Illustrate proposed methods and alternatives for providing site water distribution and service.

b. Property Boundaries: Reflect legal boundaries of the proposed project or development site, including existing and proposed property and lot lines, existing and proposed rights-of-way and utility easements, and boundaries of abutting properties.

c. Topography: Include site topography at 2-foot interval contours, and the elevation and location of City-recognized benchmarks with reference to local, USGS and NGVD data.

d. System Area: Define and delineate the system area included in the network analysis.

e. Existing Utilities: Illustrate existing water utilities, including fire hydrants and valves, within 400 feet of the proposed development.

f. Unusual Features: Identify unusual features, such as creeks, drainage facilities, railroads, and irrigation ditches, that might influence the location of underground utilities.

g. Proposed System Layout: Illustrate the general layout of the proposed water distribution mains, storage tank, valves, and fire hydrant locations, including construction phasing.

h. Storage Tank: Provide design information, if required, on proposed water storage tank such as height, diameter, materials of construction, elevations, proposed tank's elevation relative to existing tank's elevations, and enough details to ensure compliance with CDPHE's Design Criteria for Potable Water Systems Finished Water Storage.

i. Booster Pump Stations: Provide design information, if required, on proposed water booster pump stations such as footprint, height, pump types, operating/design points, and equipment summary for all pumps, valves, piping, HVAC, electrical, controls, and telemetry equipment. Provide sufficient detail to ensure compliance with CDPHE's Design Criteria.

j. Water Distribution Control Structures: Provide design information, if required, on proposed water control structures such as footprint, height, structure type, operating/design points, and equipment summary for all valves, piping, HVAC, electrical, controls, and telemetry equipment. Provide sufficient detail to ensure compliance with CDPHE's Design Criteria for Potable Water Systems Distribution System Piping and Appurtenances (Water Distribution Control Structure shall refer to a pressure regulating/reducing valve, air release, check valve, or pressure relief valve installed within a vault).

G. Connection and Isolation Plan:

A connection and isolation plan shall be provided in the utility report to identify proposed connection points with the existing water systems and design conditions for providing required system isolation for maintenance and flushing. The connection and isolation plan is to include the following:

a. Valve Locations: Identify all valves necessary to isolate a point of connection for the proposed water system onto the existing system. Existing system valves should be inspected for location and accessibility.

b. Thrust Restraint: Determine and include design and construction requirements for sufficient thrust restraint for existing water mains and valves at proposed connection points ("stub outs" and terminal extensions) to allow construction while the existing water system remains in service.

c. System Isolation: Identify water main sections that can be isolated within the proposed and existing water systems that provide for emergency maintenance and identify discharge points for system flushing.

d.

3.3 DESIGN REVIEW POLICIES

See Chapter 1, regarding design review policies.

3.4 AS-BUILT DRAWING SUBMITTAL

In addition to the requirements of Chapter 1, the following water distribution specific information shall be included on the As-Built Drawings

a. Pipe size, material type, and pipe profile.

b. Service tap locations (include public or private demarcation points.

c. Fire hydrant locations.

d. All valves, fittings, curb boxes, hydrants, storage tanks, and other waterline appurtenances either below ground or at the ground surface shall be located via survey. All such measurements shall be recorded on the set of As-Built drawings and shall be provided to the City after the completion of the project.

3.5 CONSTRUCTION WATER USE POLICY

All water used for construction purposes must be pre-approved by the City and users must follow the protocol outlined in the City's Construction Water and Fire Hydrant Usage policy.

3.6 CROSS CONNECTION AND BACKFLOW PREVENTION

All water services must be properly protected from contamination or pollution by backflow due to cross connections from owner water systems. Reference Code 080.040.010(f) – Cross Connection

Requirements, of the City Municipal Code for comprehensive requirements.
Note the following:

a. Testable backflow devices shall not be installed below grade. City may consider alternate installation approaches, on a case-by-case basis, subject to the installation meeting CDPHE regulations and Colorado Cross Connection Control Manual requirements. (Reference Code: 060.040.030 - International Plumbing Code Commentary)

b. Hazard survey is required.

c. Annual testing required by certified tester (Reference Code: 060.030.020 – Amendments to International Residential Code)

d. Report records must be submitted to the city on an annual basis. If reports are not submitted annually as required by CDPHE and the City, the City reserves the right to discontinue water service. Until the backflow report has been submitted.

e. Whenever the use of an antifreeze compound becomes necessary, propylene glycol is recommended. Other antifreeze compounds may be used after written approval by the City Water Department. The use of ethylene glycol is not permitted. In areas where the use of an approved antifreeze is necessary, a readily visible, durable sign shall be posted stating "ETHYLENE GLYCOL PROHIBITED." The sign shall be in letters not less than one (1) inch high on a contrasting background. (Reference Code: 060.040.020 – Amendments to International Plumbing Code (IPC) definitions)

3.7 WATER MAIN LINES

A. All materials including pipe, fittings, valves and fire hydrants must conform to the latest standards issued by the American Society of Testing and Materials (ASTM), the American Water Works Association (AWWA), the American Standards Association (ASA) and American National Standards Institute (ANSI) and National Sanitation Foundation (NSF), where such standards exist, and be acceptable to the City.

B. Pipes or pipe fittings must not contain more than 0.25% lead. All products must comply with ANSI/NSF standards.

C. Gaskets containing lead must not be used. Manufacturer approved transition joints must be used between dissimilar piping materials.

D. All materials used for the rehabilitation of water mains must meet ANSI/NSF standards.

E. Used materials will not be accepted.

F. Packing and jointing materials used in the joints of pipe must meet the standards of AWWA and the City. Pipe having mechanical joints or slip-on joints with rubber gaskets is preferred.

Pipe and Fittings

A. Refer to Ch. 7 specification, Water Transmission and Distribution Lines for comprehensive material requirements. Note the following:

a. The City's preferred material of water mains is C900 Class DR18 minimum Polyvinyl Chloride (PVC) Pipe , Class 52 Ductile Iron Pipe may also be utilized in non-corrosive environments. Exceptions may be allowed by the city on a case-by-case basis.

b. All pipe and services shall be installed with continuous tracer wire and tape and tied back into the valve box, fire hydrants and curb stop.

Corrosion Protection

a. All ductile iron pipe and fittings, at a minimum, shall be encased in polyethylene. The polyethylene encasement shall be installed in such a way that it will prevent contact between the pipe and the surrounding backfill and bedding material.

b. ductile iron pipe and fittings may be required to be epoxy-coated and utilize blue bolts at all fittings.

Joint Restraint and Thrust Protection

a. All tees, bends, plugs, hydrants, etc. must be provided with concrete reaction blocking and joint restraint.

b. Joint restraint shall be the applicable style of Megalug, (i.e. appropriate style for DIP or PVC).

c. Locking pipe may be required in certain locations within the city system for all wet utility installations.

Minimum Pipe Size

a. The minimum size for mains shall be an 8 inch inside diameter.

b. The City shall be consulted as to the size of the water main. Larger size mains are required in specific areas. Nothing shall preclude the City from requiring the installation of a larger sized main in areas not addressed in the Plan, if the City determines that a larger size is needed to meet fire protection requirements or for future service.

Depth of Bury

a. The minimum earth cover over water transmission and distribution lines shall be 5.5 feet. A greater depth shall be provided to avoid excessive high points in the main or where it is necessary to clear existing structures or obstructions. Water service lines shall have the same minimum cover. The Contractor shall be responsible for constructing water mains and services such that the required minimum cover is maintained.

Minimum Separation Distances from Pollution Sources or dry utilities

a. Per current CDPHE Design Criteria , water mains shall be separated from pollution sources, as generally summarized below:

   i. Parallel Installation of potable water mains with interceptors and sewer mains, reclaim, and irrigation (raw water) pipelines shall be accomplished in a fashion to preclude contamination of the water facilities. The separation distance shall be measured edge to edge of the interceptor or sewer main and the water pipeline. The potable water mains shall be located no less than 10 feet away from (i.e., between pipes, outside to outside) the sewer main.

ii. Water mains crossing sewer must be laid to provide a minimum vertical distance of 1.5 feet between the outside of the water main and the outside of the sewer. This is the case whether the water main is above or below the sewer with preference to the water main located above the sewer.

iii. At crossings, one full length of water pipe must be located so both joints will be as far from the sewer as possible. Special structural support for the water and sewer pipes may be required.

iv. Deviations to the horizontal separation distance are allowed, provided that the water main is laid in a separate trench or on an undisturbed earth shelf located on one side of the sewer at an elevation that the bottom of the water main is at least 1.5 feet above the top of the gravity sewer.

v. If the interceptor or sewer main crosses over the water main but less than 1.5 feet of clear space will exist, either the sewer main or water pipe shall be installed in a pipe casing extending no less than 10 feet each side of the water main centerline. The pipe casing shall be of watertight material with no joints. The casing pipe material may be steel, ductile iron, or PVC with suitable carrier pipe supports and casing pipe end seals. Alternatively, reinforced concrete encasement of the carrier pipe extending no less than 10 feet each side of the water main centerline may be used.

vi. If the interceptor or sewer main will cross above or over the water main, the interceptor or sewer main shall be installed in a pipe casing extending no less than 10 feet each side of the water main centerline.

vii. If the minimum clearances cannot be satisfied, the City will consider alternative designs on a case-by-case basis.

b. Water service pipe and the building sewer shall be separated by 5 feet of undisturbed or compacted earth (Reference IPC). Following exceptions apply:

i. The separation distance shall not apply where the bottom of water service pipe is a minimum of 12 inches above the top of the highest point of the sewer and the pipe materials conform to Table 702.3 in the IPC.

ii. Water service pipe is permitted to be located in the same trench with a building sewer, provided such sewer is constructed of materials listed in 702.2 in the IPC.

c. The requirement for separation of sewer and water from all other utilities shall be a minimum of 4 feet of horizontal distance.

Future Connections

a. Isolation Valve Required: When future main extensions are provided for by “stub out” or terminal connections, the stub out or terminal main extension shall be valved so that only one valve must be closed when the future main is extended. The valve shall be restrained to the existing distribution main to allow closure of the stub out or terminal main section without creating a pressure separation of the valve from the in-service distribution main.

b. Valve Restraint: Valve restraint may be ensured by the use of a direct swivel connector or adapter, or by providing a pipeline extension that can restrain the valve through frictional resistance. Where valve restraint through frictional resistance of extended pipeline sections is

proposed, the Engineer shall determine the necessary pipe length required to provide adequate frictional resistance, subject to review and approval by the City.

c. Thrust Restraint: Thrust restraint must be provided with concrete reaction blocking and joint restraint, i.e. Megalug or approved equal.

d. Testing: When future connections are made, the entire main beyond the stub out or terminal main extension shall be flushed, chlorinated, and pressure tested.

e. Service Taps Prohibited: No service taps shall be allowed on a stub out or on a terminal main beyond the isolation valve.

f. A City standard 2" minimum blowoff assembly shall be installed on all permanent dead-end runs approved by the City, if fire hydrants are not located at the end. Wherever possible, the blowoff shall be installed in the street right-of-way, three feet from the curb and gutter. In no case shall the location be such that there is a possibility of back-siphonage into the distribution system. On water mains which will be extended in the future, the valve which operates the blowoff assembly shall be the same size as the main and provided with a concrete thrust block.

Bedding

a. Refer to Ch. 7 specification, Trenching, Backfilling, and Compaction, for comprehensive pipe bedding requirements. Note the following:

   i. Pipeline bedding material shall be Class 6 aggregate base course.

   ii. Pipeline trench shall be backfilled entirely with Class 6 aggregate base course, or flow fill per engineering standards.

Encasement

a. When water main encasements are required or requested by the City, the encasement shall be made using pipe casing in accordance with Ch. 7 specifications.

   i. Concrete pipe encasements are not preferred. Exceptions may be allowed through City Water Department on a case-by-case basis.

   ii. Mains to be installed inside casings shall be installed with self-restraining casing spacers. Casing spacers shall provide axial thrust restraint to prevent pipe deflection during and after installation.

Abandonment-in-Place

a. All pipes that are to be abandoned in place shall be grout filled. The ends shall be physically cut and capped with two linear feet of non-shrink grout.

b. All valves that are to be abandoned in place (on abandoned mainlines) shall have the top section of the valve box and valve box lid removed. The resulting cavity shall be backfilled with Class 6 aggregate base and compacted to 95%. Surface patching and restoration shall be in accordance with Chapter 5.

c. City shall verify valve operation/position prior to abandonment.

Pipe Installation

a. Refer to Ch. 7 specification, Water Transmission and Distribution Lines, for additional pipe installation requirements.

Disinfection

a. Refer to Ch. 7 specification, Water Transmission and Distribution Lines, for disinfection requirements. Note the following:
   i. The city prefers the tablet method for disinfection. Other methods may be allowed through the city on a case-by-case basis.
   ii. The general disinfection procedure is as follows:
      - Disinfection performed using the concentration/time required in AWWA C651,
      - Collect high chlorine residual sample
      - Flush to background residual
      - Collect bacteriological sample
      - Let water sit undisturbed for minimum time per AWWA
      - Collect second bacteriological sample
   iii. Bacteriological sampling must be performed by a Colorado-certified laboratory
   iv. Contractor is responsible for all testing and record keeping. Contractor must certify in writing that all disinfection and required testing was performed. Test records must be submitted to the city.

b. W/WW staff must be onsite to operate valves, observe high/low chlorine testing, flushing, bacteriological sampling

c. Contractor is responsible for proper dechlorination and disposal of water used for flushing. If necessary, contractor will need to install a tap for flushing. Once finished, tap will need to be abandoned at main in accordance with these standards.

Pressure Testing

a. Refer to Ch. 7 specification, Water Transmission and Distribution Lines, for pressure testing requirements. Note the following:

   i. Prior to the acceptance of the project, the water main pipe shall be flushed, subjected to a hydrostatic pressure test, and disinfected in accordance with specification, Water Transmission and Distribution Lines. The Contractor shall furnish all equipment and personnel for conducting the tests under the observation of the City inspector. The testing equipment shall be subject to approval.

   ii. Tests shall be made after all connections have been made and the roadway section has been constructed to grade. The Contractor shall keep a record of the flushing and volume of water used from the City system in flushing and testing and shall provide the City Inspector with the report prior to acceptance of the main.

   iii. A main shall not be tested until the lines have been flushed of chlorine. The contractor shall flush the pipelines by a means in accordance with good practice. The flushing shall be made through an open pipe end.

   iv. At no time shall chlorinated water from a new main be flushed into a body of fresh water. This is to include lakes, rivers, streams, drainage ways, and any and all other waters where fish or other water life can be expected.

   v. If connecting to an existing water main at an existing valve, the existing valve must be pressure tested to City standards prior to connection. If the existing valve is over 5 years old, a new valve must be installed. If an existing valve fails to pass the test, the Contractor shall

make the necessary provisions to test the new line prior to connection to the existing system or install a new valve.

vi. All equipment used for pressure testing must be properly disinfected before being connected to the system.

vii. City needs to be onsite to observe the entirety of the pressure test.

Inspection and Acceptance

a. Prior to backfilling, all water lines and appurtenances shall be inspected and approved by the City. Approval shall not relieve the Contractor for correction of any deficiencies and/or failure as determined by subsequent testing and inspections. It shall be the Contractor's responsibility to notify the City for the required inspections.

b. City will not accept the new line until records of the pressure testing and bacteriological tests are received.

3.8 VALVES

All materials including pipe, fittings, valves and fire hydrants must conform to the latest standards issued by the American Society of Testing and Materials (ASTM), the American Water Works Association (AWWA), the American Standards Association (ASA) and American National Standards Institute (ANSI) and National Sanitation Foundation (NSF), where such standards exist, and be acceptable to the City.

Materials

a. Refer to Ch. 7 specification, Water Transmission and Distribution Lines, for comprehensive material requirements. Note the following:

i. Gate valves shall be provided for sizes 4-inch through 10-inch.

ii. Butterfly valves shall be provided for sizes 12-inch and larger.

iii. Mud plugs required

iv. Valve boxes – see section 3.6.4 below

Minimum Spacing

a. Valves shall be installed as necessary on water mains at the following locations:

i. Every intersection, all sides of tees/crosses, unless specified by city staff.

ii. No more than 600 feet of water main will be located between isolation valve zones (i.e., sections of main that may be taken out of service for maintenance activities). Staff may require additional valves depending on isolation requirements.

iii. Where necessary to ensure that no more than three valves must be closed to isolate any section of a transmission/distribution main.

iv. No more than two fire hydrants will be located between isolation valve zones.

b. Valves shall not be placed in locations that may be subject to routine parking or storage and shall not be placed within public sidewalks, multi-use paths, or on-street bike lanes.

c. Valves shall be located to provide maximum accessibility for emergency access.

d. Valves outside of paved areas shall be marked with a flexible delineator marker post with a blue reflector, such as Carsonite markers.

Valve Boxes

a. Valve boxes shall be centered and installed over each gate valve operator. Valve boxes shall be of such length as will be adapted, without full extension, to reach the ground surface above the pipe. The valve boxes shall be of cast iron, complete with cover, Buffalo type, two or three-piece, extension type with screw-on adjustment with #160 wide oval base to fit the valve to which it is to be used (Tyler 6850 Series). The cover shall have the word "water" cast on the top. All casting shall comply with country-of-origin marking laws. Boxes shall have 5-1/4 inch shafts. The minimum thickness of metal of the box shall be ¼ inch. Each valve box shall be fitted with a debris cap or plug, S. W. Services, or approval equal.

b. Larger meter setters/box shall be approved by the water department.

c. Valve boxes shall be centered on the valves. Earth fill shall be carefully tamped around the box, or to the undisturbed trench face if less than 4 feet.

Air Release Valves

The design of any air release valves/vaults must be approved by the city and will be on a case-by-case basis. All designs/calculations shall be by a professional engineer registered in the State of Colorado.

Pressure Reducing Valves

The design of any pressure reducing valves/vaults must be approved by the city, the City's consultant engineer, and will be on a case-by-case basis. All designs/calculations shall be by a professional engineer registered in the State of Colorado.

Inspection and Acceptance

a. Refer to Ch. 7 specification, Water Transmission and Distribution Lines, for installation requirements. Note the following:

    i. Prior to backfilling, all hydrants and appurtenances shall be inspected and approved by the City. Approval shall not relieve the Contractor for correction of any deficiencies and/or failure as determined by subsequent testing and inspections. It shall be the Contractor's responsibility to notify the City for the required inspections.

    ii.

3.9 FIRE HYDRANTS

Hydrant Lead Size

The minimum size hydrant lead/pipe connecting to a fire hydrant shall be 6-inches.

Easements

a. All fire hydrants shall be installed within public rights-of-way or easements. Easements shall be a minimum of 15 feet square centered on the hydrant.

b. Hydrant lead valve to have same easement requirements.

c. Main line easements shall have 20' wide easement centered over pipe.

Placement and Accessibility

a. The placement of fire hydrants shall comply with the City's most recent adoption of the International Fire Code.

b. Snow removal (060.090.020 – Hydrant Access)

Spacing

a. Spacing must meet minimum requirements of International Fire Code, Table C102.1. and the city fire marshal.

b. In a single-family residential area, there shall be no more than 500 feet of fire access distance between hydrants. No dwelling unit shall be over 250 feet of fire access distance from the nearest hydrant.

c. In all other areas, there shall be no more than 350 feet of fire access distance between hydrants. No exterior portion of any building shall be over 175 feet of fire access distance from the nearest hydrant.

Restraint and Thrust Protection

a. All hydrants must be provided with concrete reaction blocking and joint restraint.

   i. Joint restraint shall be the applicable style of Megalug, (i.e. appropriate style for DIP or PVC).

   ii. Rodding between the fire hydrant and tee shall be determined on a case-by-case basis.

Depth of Bury

Fire hydrants depth of bury shall be 5.5 feet minimum.

Hydrants on Private Services

City maintains ownership of hydrants and hydrant lead lines on private service lines up to and including hydrant lead valve.

Materials

a. Refer to Ch. 7 specification, Water Transmission and Distribution Lines, for comprehensive material requirements. Note the following:

   i. All fire hydrants for ordinary water works service shall be Mueller Super Centurion A423, or Kennedy K81D and conform to AWWA C 502.

   ii. Each fire hydrant assembly shall be equipped with an auxiliary shut-off valve located between the water main and the fire hydrant as shown on the drawings. The auxiliary valve size shall be 6

inches and is bolted directly to the tee. The branch piping from the main to the fire hydrant shall be 6-inch C900 or ductile iron pipe. (A MJ x swivel tee is allowed on branch.)

Pressure Testing

a. Refer to Ch. 7 specification, Water Transmission and Distribution Lines, for testing requirements. Note the following:

   i. Hydrant shall be tested up against the hydrant lead valve.

Disinfection

Refer to previous sections above for disinfection requirements. Disinfection procedures for hydrants shall be the same as water mains.

Inspection and Acceptance

a. Refer to Ch. 7 specification, Water Transmission and Distribution Lines, for comprehensive inspection requirements. Note the following:

   i. Hydrants shall be bagged and marked out-of-service until accepted and approved by the City.

   ii. Prior to backfilling, all hydrants and appurtenances shall be inspected and approved by the City. Approval shall not relieve the Contractor for correction of any deficiencies and/or failure as determined by subsequent testing and inspections. It shall be the Contractor's responsibility to notify the City for the required inspections.

3.10 SERVICE LINES

General

a. Only City W/WW Department staff may install the water service line between the City's main up to (and including) the curbstop shut-off valve. In certain circumstances—and only with pre-authorization—the city may approve a qualified contractor to install the service line and curb stop valve while under the City's direct supervision (080.040.030(a) - Construction of Waterlines and Appurtenances).

b. The customer is responsible for all costs incurred by the City for the installation of the service line between the water main up to (and including) the curbstop valve 080.040.010(e) - Maintenance of Service Lines.

c. The water service connection made on the customer-side of the water curbstop valve must be inspected and approved by City staff before the new water service will be turned on.

d. Curbstops are city ownership and may be operated only by city staff, unless preauthorization has been granted. Operations of curbstop shall be done during the Water Department's regular hours of operation. Anything outside regular business hours shall be billed at an hourly rate.

Tap size

a. The maximum size of a water service tap shall be based on the number of equivalent units (EQRs) established in Article 080.040.010 (d) - Service Connections.

Depth of Bury

Water services are recommended to follow same depth of bury requirements as water mains.

Service Tap Abandonment

a. Any existing service tap that is no longer active or will not be used must be abandoned at the main. For ¾" to 2" services, the corporation stop and saddle must be removed and full circle repair clamp (12.5" width) must be installed. For services greater than 2", valve must be removed, and plug installed with thrust block, see section 3.5.4 for thrust block information.

b. Installation of a replacement tap will not be allowed by the city until all existing service taps are properly abandoned. Alternate abandonment schedules may be allowed by the city on a case-by-case basis.

Minimum Distances from Fittings and Services

a. The city requires a minimum of 5 feet between tap locations or any fittings along the water main line. If the minimum clearances cannot be satisfied, the city will consider alternative designs on a case-by-case basis.

Combined Fire/Domestic Services

a. A combination fire sprinkler/domestic service line is allowed from the City's water distribution main if the following conditions are met:

    i. All combination systems must follow NFPA 25 Standards.

    ii. The combination line shall separate into a domestic service line (with meter) and a dedicated fire sprinkler line (without meter, but with Oriseal shutoff) within the structure.

    iii. Fire systems shall be separate or separated from domestic systems in such a way that both systems can be operated and tested at their respective pressures.

Irrigation Services

a. Irrigation service lines shall serve no more than one individual property, unless approved by the City under the provisions of a homeowner's association.

b. Reference to Appendix – Water Distribution Standard Drawings for irrigation riser detail and preferred manufacturer materials.

c. Contractors/Developers/Owners to consult Parks and Recreation department for irrigation clock specifics and requirements per location and accessibility. The preferred clock manufacturer is Rain Master.

d. Main line irrigation to be Schedule 40 PVC piping sized appropriately for required system design.

e. The preferred spray head manufacturer is Rain Bird.

Pressure Reduction Devices on Service Lines

If the water system pressure exceeds 80 psi, a pressure reducing valve must be installed downstream of the water meter (IPC).

Services 2-inch (2”) and Smaller

a. Refer to Ch. 7 specification, Water Transmission and Distribution Lines, for comprehensive material requirements. Note the following:

   i. Tapping saddle – Mueller/Smith Blair or approved equal, with brass body, stainless steel straps and iron pipe thread.

   ii. Corpstop valve - Mueller/McDonald or approved equal; Iron pipe (IP) thread; Teflon Ball with 300 psi rating.

   iii. Pipe Type –Type K Copper or Pure-core HDPE, or approved equal.

   iv. Curbstop Valve – Mueller or approved equal, with compression fittings.

   v. Valve Box - Mueller/McDonald or approved equal; 1 ½” Upper for ¾’ & 1”; 2” Upper for 1 ½” & 2”. Residential style operating rod.

   vi. Identification and Marking – Tracer wire and tape shall be installed.

Services Larger than 2-inch (2”)

a. Refer to specification Water Transmission and Distribution Lines for complete requirements. Note the following:

   i. Tap – MJ tee or hot tap (stainless steel tapping saddle)

   ii. Gate valve – reference section 3.3

   iii. Pipe Type –C900 or ductile iron

   iv. Valve Box – See section 3.6.4 for specifications.

   v. Identification and Marking – Tracer wire and tape shall be installed.

   vi. Restraint Systems - All tees, bends, plugs and hydrants must be provided with reaction blocking, tie rods or joints designed to prevent movement.

3.11 WATER METERS

General Requirements

a. A City-approved water meter must be installed on any water service line. Requirements are defined in the Code 080.040.020 – Water meter equipment.

b. Requests for water meters can be initiated by contacting the city. (Reference Code:080.040.020(b)(2)– Water meter equipment/Installation, Ownership and Maintenance)

c. The meter must be installed in a location that can be accessed for inspection and future maintenance. Existing meters that are inaccessible by city staff will be required or made accessible by owner. Failure to provide accessibility to the meter will potentially result in water shut-off by city staff.

d. A schematic showing typical meter installation, including additional requirements for isolation valves, pressure reducing valves, and cross-connection devices will be provided by plumber for city review.

e. The meter installation must be inspected and approved by City staff before the new water service will be turned on. (Reference Code: 080.040.020(b)(1) – Water meter equipment/Installation, Ownership and Maintenance).

3.12 EARTHWORK

Site Control and Safety

Contractor to provide safe and healthful working conditions on each operation at all times. Contractor shall comply with all provisions, regulations and recommendations issued pursuant to the Occupational Safety and Health Act, and the Construction Safety Act as amended, and with laws, rules and regulations of other authorities having jurisdiction, with regard to all matters relating to the safety and health of workers and the general public. Compliance with government requirements is mandated by law and considered only a minimum level of safety performance. Perform all work in accordance with best safe work practices recognized by the construction industry.

Traffic Control

Refer to Chapter 5 for traffic control requirements.

Trenching operations

Refer to Ch. 7 specification, Trenching, Backfilling and Compaction, for additional information.

Protection of existing structures and utilities

Contractor shall protect all existing structures, utilities and improvements not designated for removal and shall restore damages or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation.

Backfill and compaction

Refer to Ch. 7 specification, Trenching, Backfilling and Compaction, for additional information.

Street Patching and Restoration

See Chapter 5 regarding patching and trench restoration.

APPENDIX – WATER DISTRIBUTION STANDARD DRAWINGS

CITY STANDARD DRAWINGS	Filename
W01. Concrete Thrust Block Details	
W02. Concrete Thrust Block Details	
W03. Fire Hydrant Assembly	
W04. Gate Valve Detail	
W05. Gate Valve and Box Assembly	
W06. Water Pipe Insulation Detail	
W07. Polyethylene Wrap Detail	
W08. Water Service Connection Detail	
W09. Water Main Concrete Encasement Detail	
W10. Line Valves at Tees and Crosses	
W11 Vertical Bend Anchor Detail	
W12 Water Meter Pit	
W13 Trench Excavation and Backfill Detail	
W14 Irrigation Connection Detail	

Chapter 2

Wastewater Collection Standards

City of Glenwood Springs Engineering

Revised 2026

Chapter 2 Wastewater Collection Standards

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Chapter 2 Wastewater Collection Standards

I. Introduction

This chapter shall govern all new construction, reconstruction and rehabilitation of City of Glenwood Springs operated sewer. In addition, these standards and guidelines shall apply to all private developments within the city.

These Engineering Standards and Guidelines will also be cited in the text as the "Standards."

II. Design Standards

The following codes and manuals shall be applicable when pertinent to the work, when specifically cited in these Standards, or when required. Refer to individual chapters for additional design standards.

a. Rules and Regulations as adopted in the City of Glenwood Springs Municipal Code (Code)

b. City of Glenwood Springs (City).

c. American Water Works Association (AWWA).

d. Colorado Department of Public Health and Environment (CDPHE).

e. International Plumbing Code (IPC).

f. International Building Code (IBC).

g. Occupational Safety and Health Administration (OSHA).

III. Definitions and Terms

a. **As-Built Drawing:** Plans that indicate the actual constructed condition as surveyed or noted by the contractor. As-Built Drawings will be required even if the system is private.
b. **Private Sewer System**: This includes a sewer service or main for a building or development that is not maintained by the city. This shall include lift stations, pressurized systems, and gravity lines serving a development unless the system serves multiple developments and is approved for acceptance by the Public Works Director. The owner or homeowner's association is responsible for the maintenance of the system from the building to the public main, including "broken in" connections to the main if an integrated WYE is not installed.
c. **Public Sewer Main**: Portion of the system located within public right-of-way or easements, and which are operated and maintained by the city. The City's responsibility includes the sewer main the integral sewer wye/factory tap.
d. **Wastewater Systems:** Sewage facility and sewage derived from domestic, commercial, and industrial waste to which storm water and groundwater are not intentionally admitted.

2.1 GENERAL REQUIREMENTS

A. Any extension/connection of the City's Wastewater System must be approved by the City and be in conformance with the Colorado Department of Public Health and Environment (CDPHE) regulations, and the CDPHE Recommended Standards for Wastewater Facilities (Design Criteria). (Reference Code: 080.030.010(a) – Connections to wastewater system/Requirement to Connect).

B. Where there are conflicts or differences between these Standards and City ordinances, the more restrictive requirement shall apply according to the determination of staff.

C. All sewer systems shall be designed as a gravity sewer whenever physically and/or economically feasible.

D. All buildings located within the City and within four hundred (400) feet of any established wastewater line, which are used for residence or business purposes or in which people congregate or are employed, must be connected with the City wastewater system; and all plumbing fixtures in such buildings shall also be connected to the City's wastewater system. Staff may override this requirement if it is not practical or feasible. Where an established wastewater line is not so available, the building wastewater may be connected to a private disposal system in conformity with the design criteria and rules and regulations of CDPHE. All private disposal systems shall be approved by the County and reviewed by the City. (Reference Code: 070.040.030(a)(1) – Site Development and Improvement Standards/Purpose; 080.030.010(a) – Connections to wastewater system/Requirement to Connect)

E. In designing and planning for any development, it is the developer's responsibility to see that adequate sewer systems are provided. The developer must show in the proposed plans how sewer facilities will be provided and whether the existing system will be adversely impacted. A detailed analysis of the existing and proposed system may be required. If adverse impacts are indicated, the city may require upgrading of the existing public wastewater system. Design of wastewater facilities shall be by a registered engineer in the State of Colorado and will be reviewed by the City for compliance with these Standards. (Reference Code: 080.030.010(a) – Connections to wastewater system/Requirement to Connect; 070.080.050(d)(2) – Relationship of Regulations to Other Requirements.

F. Any person who wishes to connect onto the City's wastewater system must first make an application for such connection to the city, procure the necessary permits, and pay the necessary fees (tap fee, improvement fee, etc.) for such connection. Prior to discharge of any wastewater, all improvements must be completed, accepted by the city and approved, including granting of right-of-way or easements, and all applicable fees must be paid. (Reference Code: 060.020 – International Building Code: Section 109.2 Schedule of Permit Fees; 080.030.010(b) – Connections to wastewater system/City Permission Required; 080.060.040 – Amount of System Improvement Fee)

G. No person shall abandon any private sewer service connection to the City's wastewater collection system without first obtaining the necessary permits and written authorization through the City. (Reference Code: 080.030.010(e) – Connections to wastewater system/Abandonment of connection)

H. With the exception of private sewer services defined in these Standards, all wastewater lines constructed pursuant to these Standards shall be and become the sole and exclusive property of the City, as well as any and all easements and rights-of-way therefore; and all such persons paying for the same shall, upon request of the City, execute and deliver any and all necessary and proper deeds of conveyance, assignments or other documents which the City may desire to perfect such ownership by the City. (Reference Code: 080.030.020(d) – Line extensions/Ownership of Extension)

I. The City's W/WW Department staff shall be onsite to observe, inspect, and approve ANY work that may affect water or sewer mains, including private services and mains. (Reference Code: 080.030.020(b) – Line extensions/Installation)

J. All work upon or in connection with any portion of the wastewater system of the City or any utilities which connect thereto shall be done by the City or by a qualified contractor that is specifically granted permission by the City. Such work shall be performed in conformity with the Design Criteria of the CDPHE, these Standards and the rules and regulations of the City. Such work shall be inspected and approved by the City. (Reference Code: 080.030.040 – Work Performed)

K. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters. (Reference Code: 080.030.030(b)(10) Waste discharge regulations/Discharge of non-acceptable wastes into wastewater system prohibited; 060.040.020 (Amendment adding Ch. 11, Section 1104.3 to the IPC) Amendments to International Plumbing Code – Combining Storm and Sanitary Drainage)

L. The City shall be given 72 hours' notice prior to scheduling a diversion of flows in the wastewater system. Connections to existing sewer facilities where live flows exist shall be made only after consultation with and receipt of written permission from the City. No bypass of sewage to the surface will be allowed in the completion of this connection.

M. During the construction of mains and services, the contractor shall cap, plug, or secure the ends of such lines whenever the project is shut down at the end of the day so that contaminates will not enter the lines.

N. The City construction inspector shall be notified a minimum of 72 hours in advance of the time that a tap connection to an existing main or a service connection to an existing main is needed so that the wastewater division crew may be scheduled for the work. Failure to provide 72-hour notice of inspection will cause an additional inspection fee to be charged. The inspector shall be present at the time of the tap. All private sewer connections to existing public sewer mains and all taps to existing public mains shall be made by City personnel at the expense of the Contractor, unless the Contractor is specifically granted permission to perform the tap or service connection at the Contractor's expense. At the time of notification, the customer must also notify the city of the requested sewer tap sizes. (Reference Code: 080.030.040 – Work Performed)

O. Any extension or enlargement installed by someone other than the City shall be guaranteed for two years from the date of City acceptance. (Reference Code: 080.030.020(b) – Line extensions/Installation; 070.040.030(f)(2) – Site Development and Improvement

Standards/Assurance and Acceptance of Public Improvements/Acceptance by City of Public Improvements)

P. Utility Easements and rights-of-way shall be provided for installation and maintenance of City water and wastewater facilities (Reference Code: 070.040.030(e)(7) – Site Development and Improvement Standards/ Site Development and Improvement Standards/Underground Utilities).

2.2 REQUESTS FOR SEWER SERVICE AND REQUIRED PRE-CONSTRUCTION SUBMITTALS

The following section covers the required submittal material necessary for the City to review a sewer project to ensure that it conforms to these standards/regulations. This information is in addition to the requirements of Chapter 1.

A. The following items shall be included on all plan drawings.

   a. Show outline of water and sewer main and service lines. Show centerline of water and sewer line with appropriate ties to centerline of street or survey control lines, curbs, property lines or right-of-way lines and easement lines.

   b. On each sheet of the plan, show a sufficient number of typical sections to give the relative location of surface and underground improvements with respect to proposed sewer main. Indicate size, type and other appurtenant data for all improvements.

   c. Utilities, sewers, and storm drains.

   d. Indicate the type, size and ownership of all existing utilities in streets or rights-of-way or rights-of-way in which the water and sewer lines are to be connected. Tie utilities, sewers, house connections, and storm drains to streets rights-of-way centerline or to street property line.

   e. Indicate portions of existing utilities that are to be abandoned because of water and sewer construction.

   f. Details: At intersections where tees, crosses, valves and concrete reaction blocks are to be provided, or at any other sections of the lines where a large number of fittings will be involved, show a large-scale view of the appurtenances with dimensions to each separate fitting.

2.3 DESIGN REVIEW POLICIES

A. See Chapter 1, regarding design review policies.

2.4 AS-BUILT DRAWING SUBMITTAL

A. In addition to the requirements of Chapter 1, the following wastewater collection specific information shall be included in the as-built drawings.

   a. Pipe size and type details

   b. Service tap locations

c. Manhole elevations, rim elevations, and invert elevations

d. All tees, service wyes, and other sewer line appurtenances either below ground or at the ground surface shall have reference measurements to at least three prominent above ground objects. All such measurements shall be recorded on the set of As-Built Drawings and shall be provided to the City after the completion of the project.

2.5 CONSTRUCTION WATER USAGE POLICY

All water used for construction purposes must be pre-approved by the City and users must follow the protocol outlined in the City's Construction Water and Fire Hydrant Usage policy.

2.6 WASTE DISCHARGE REGULATIONS

A. Waste Discharge Regulations are defined in Section 080.030.030 of the Code. Note the following:

a. It shall be unlawful for any person to place or cause to be placed any solids or insoluble matter of any kind or nature whatsoever within any wastewater line belonging to the City or any part thereof or within any connection thereto.

b. The discharge of nonacceptable wastes into the City wastewater system, whether directly or indirectly, is prohibited; and, where investigation reveals the presence in the system of nonacceptable wastes emanating from any lot, land, building or premises, the owner, lessor, renter or occupant of such lot, land, building or premises shall be required at his/her own expense to treat, neutralize or in other ways prepare the noxious substance therein to the satisfaction of the City in order to convert the same into acceptable wastes. Nonacceptable wastes are herein defined as follows:

i. Any liquid or vapor having a temperature higher than one hundred fifty (150) degrees Fahrenheit;

ii. Any water or waste having a five-day Biochemical Oxygen Demand which may contain more than five hundred (500) parts per million by weight as averaged during any twelve-hour period,

iii. Any gasoline, benzene, naphtha, fuel oil or other flammable or explosive liquid, solid or gas;

iv. Any solid waste;

v. Any ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch, manure, grit, brick, cement, onyx, carbide or any other solid or viscous substance capable of obstruction of the flow of the wastewater lines or other interference with the proper operation of the wastewater system;

vi. Any water or waste having a pH lower than six and one-half (6.5) or higher than nine (9), or having any other corrosive property capable of causing damage or hazard to structures, equipment or personnel of the wastewater system;

vii. Any water or waste containing a toxic or poisonous substance in sufficient quantities to injure or interfere with the wastewater process, instituting a hazard to humans or animals or creating any hazard in the receiving water at the City's wastewater treatment facility;

viii. Any water or waste containing total suspended solids (TSS) of such character or quantity that unusual attention or expense is required to handle such materials at the City's wastewater treatment facility;

ix. Any noxious or malodorous gas or substance capable of creating a public nuisance

x. Any surface or ground water; or

xi. Any toxic or poisonous pollutant which causes an increase in the cost of operation and maintenance at the City's wastewater treatment facility. Upon violation of this Paragraph, in addition to all other remedies of the City, the City shall require the violator to pay the incremental fines as noted in Subsection (g). In the event the above-described nonacceptable wastes cannot be treated, neutralized or in other ways prepared to the satisfaction of the City Representative, the City Representative may order the building discharging such nonacceptable wastes disconnected from the City's wastewater system until such wastes can be eliminated, treated, neutralized or in other ways prepared to the satisfaction of the City Representative.

xii. Any water from storm drains, roof drains, window well drains, drainage collection systems, foundation drains, sumps, surface runoff, sub-surface drainage, or cooling processes.

xiii. Garage drains shall not be discharged into City’s wastewater system prior to a sand oil separator or equivalent being installed.

c. The city may order any building discharging such nonacceptable wastes as defined above disconnected from the City's wastewater system until such wastes can be eliminated, treated, neutralized or in other ways prepared to the satisfaction of the city.

d. Grease, oil and sand traps or other appurtenances shall be provided when, in the opinion of the City, they are necessary for the proper handling of any liquid waste containing grease in excessive amounts or any flammable waste, sand or other harmful ingredients. All traps shall be of a type and capacity approved by the City and shall be located as to be readily and easily accessible for cleaning and inspection. See dedicated section 2.16 for additional information about grease interceptors.

e. When required by the City, the owner of any property served by a private sewer service line carrying industrial waste or nonacceptable waste, as defined in this Section, shall install a suitable control manhole in the private sewer service line to facilitate observation and sampling of the waste by the City. Such manholes, when required, shall be accessible and safely located and shall be constructed in accordance with the plans approved by the City. The manholes shall be installed and maintained by the owner at their expense.

2.7 GRAVITY SEWER MAINS

A. General

a. Sewer mains shall be sized for the ultimate development of the tributary area. New gravity sewer systems shall be designed on the basis of an average daily per capita flow of sewage of not less than 100 gallons per day plus wastewater flow from industrial plants and major institutional and commercial facilities unless water use data is available to better estimate the flow. The 100 gal/capita/day figure shall be used in conjunction with a peaking factor to cover normal infiltration. However, an additional allowance should be made where the conditions are unfavorable. If the new collection system is to serve an existing development, the likelihood of inflow and infiltration (I/I) contributions from existing service lines shall be evaluated and the wastewater facilities designed accordingly. Nothing shall preclude the City from requiring the installation of a larger sized main if the City determines that a larger size is needed to meet the requirements for future service. All additional costs for the enlargement shall be paid by the City (Reference Code: 080.030.020(c) – Line extensions/Service Line Connections or Enlargement of Use)

b. Generally, gravity sewers shall be designed with straight alignment between manholes, however, curved alignment may be permitted when conditions warrant, upon special approval of the City.

c. Cleanouts at the end of sewer mains will not be accepted as a substitute for a manhole.

d. Sewer lines shall be designed to prevent damage from superimposed live, dead, and frost induced loads. Dead loads shall include at a minimum soil and potential groundwater. Where necessary, special bedding, haunching and initial backfill, concrete cradle or other special construction shall be used to withstand anticipated superimposed loading or loss of trench wall stability.

e. A minimum of 4’ of separation shall be provided when sanitary sewer is adjacent to dry utilities.

B. Pipe and Fittings

a. Refer to Ch. 7 specification, Sanitary Sewer lines for comprehensive material requirements. Note the following:

   i. The preferred material of sewer mains is gasketed SDR 35, SDR 26 or C900 Polyvinyl Chloride (PVC) Pipe and fittings. Exceptions may be allowed by the city on a case-by-case basis, or when bury depths require. Certain areas of the city require locking pipe; staff will make the developer aware of these areas during development review.

b. All pipe and services shall be installed with continuous marking tape, tracer wire, backwater valve, and tracer wire box when applicable.

C. Minimum Pipe Size

The minimum size for mains shall be an 8 inch inside diameter.

D. Depth of Bury

Gravity sewer mains will typically have a minimum depth of 5.5 feet. Actual depth will be determined by slope, flow, velocity, and elevation of existing system. Any mains deeper than 15' shall be reviewed and approved or denied by the Public Works Director.

E. Minimum Separation Distances from Pollution Sources or Dry Utilities

a. Per current CDPHE Design Criteria, water mains shall be separated from pollution sources, as summarized below.

i. Parallel Installation of sewer mains with potable, reclaim, and irrigation (raw water) water pipelines shall be accomplished in a fashion to preclude contamination of the water facilities. The separation distance shall be measured edge to edge of the sewer main and the water pipeline. The sewer mains shall be located no less than 10 feet away from (i.e., between pipes, outside to outside) and 1.5 feet below the potable water pipeline. The sewer mains shall be located no less than 4 feet away from and 1.5 feet below the reclaim water pipeline of irrigation (raw water) pipeline.

ii. If the sewer main crosses under the water main but less than 1.5 feet of clear space will exist, the sewer main shall be installed in a pipe casing extending no less than the 10 feet each side of the water main centerline. The pipe casing shall be of watertight material with no joints. The casing pipe material may be steel, ductile iron, or PVC with suitable carrier pipe supports and casing pipe end seals. Alternatively, concrete encasement of the carrier pipe bells extending no less than 10 feet each side of the water main centerline may be used if approved by the city on a case-by-case basis.

iii. If the sewer main will cross above or over the water main, the sewer main shall be installed in a pipe casing extending no less than 10 feet each side of the water main centerline.

iv. If the minimum clearances cannot be satisfied, the city may consider alternative designs on a case-by-case basis. Any variances require written approval by City.

b. Per the IPC, water and sewer service pipe shall be separated by 5 feet of undisturbed or compacted earth. Following exceptions apply:

i. The separation distance shall not apply where the bottom of water service pipe within 5 feet of the sewer service is a minimum of 12 inches above the top of the highest point of the sewer and the pipe materials conform to Table 702.3.

ii. Water service pipe is permitted to be located in the same trench with a sewer service, provided such sewer is constructed of materials listed in Table 702.2.

c. The requirement for separation of sewer and water from all dry utilities shall be a minimum of 4 feet of horizontal distance.

F. Slopes

a. All sewers shall be designed and constructed to give mean velocities of not less than 2.0 feet per second when flowing at 50% capacity based on Manning's Formula using a minimum "n" value of 0.013. The following minimum slopes apply:

Table 0-1 Sewer Line Pipe Slopes

Nominal Pipe Size (Inches)	Minimum % Slope (Feet / 100 Feet)
8	0.40% - (0.0040 ft/ft)
10	0.28% - (0.0028 ft/ft)
12	0.22% - (0.0022 ft/ft)
15	0.15% - (0.0015 ft/ft)
18	0.12% - (0.0012 ft/ft)
21	0.10% - (0.0010 ft/ft)
24	0.08% - (0.0008 ft/ft)
27	0.067% - (0.00067 ft/ft)
30	0.058% - (0.00058 ft/ft)
36	0.046% - (0.00046 ft/ft)

b. Under special conditions, slopes slightly less than those required for the 2.0 feet per second velocity may be permitted by the City. Such decreased slopes will only be considered where the depth of flow will be 0.3 of the diameter or greater for design average flow. Whenever such decreased slopes are proposed, the design engineer shall furnish with the plans his computations of the depths of flow in such pipes at minimum, average, and daily or hourly rates of flow. Larger pipe size shall not be allowed to achieve lesser slopes.

c. Sewers shall be laid with uniform slope between manholes. Uniform slope shall be checked by using a laser beam or lamping.

d. Where sewer mains are laid on slopes of 6.0 percent or greater or where ground water may use the trench as a conduit, check dams may be required to be placed along the pipe. The design spacing shall be noted on the plans. Installation must be documented and As-Built Drawings with a certification from a licensed engineer shall be submitted prior to issuance of a Certificate of Occupancy.

e. For sewer mains on a slope 12 percent or greater, the city will require mechanically restrained bells, joints and fittings. Based on soil types, the city may require restrained bells, joints and fittings on a case-by-case basis on any slope.

f. Sewer mains on 20 percent slope or greater shall be anchored securely with concrete anchors, or other approved method. The anchors shall be designed and stamped by a Colorado registered professional engineer. Installation must be documented and As-Built

Drawings with certification from a licensed engineer shall be submitted prior to issuance of a Certificate of Occupancy. The spacing shall be as follows:

i. 20% to 35%, not over 36 feet center to center spacing

ii. 35% to 50%, not over 24 feet center to center spacing

iii. 50% and over, not over 16 feet center to center spacing

G. Pipe Size Change

a. Manholes shall be provided where pipe size changes occur.

b. Where a smaller sewer main joins a larger one, the invert of the larger sewer should be lowered sufficiently to maintain the same energy gradient.

H. High Velocity Protection

Any sewer installation where velocities are proposed to be over 10 feet per second shall be reviewed and approved or denied on a case-by-case basis.

I. Drops

a. Straight grades between invert out of last manhole and connection to existing manhole are preferred over drops. Care must be taken when designing steep grades or sweeps so as not to create a situation of excessive velocity or excavation. Grade changes associated with sweeps shall not be allowed, unless otherwise approved by the City.

b. An outside drop connection shall be provided for a sewer entering a manhole at an elevation of 24 inches or more above the manhole invert. Where the difference in elevation between the incoming sewer and the manhole invert is less than 24 inches, the invert shall be filleted to prevent solids deposition in the manhole. Outside drop connections shall be constructed per City Standard Drawings. Where the slope of the sewer main connecting to a drop connection exceeds 8.0 percent, a bend fitting shall be installed on the drop connection which most closely matches the angle made from the horizontal plane by the pipe.

c. An inside drop connection may be considered by staff on a case-by-case basis.

J. Bedding

Refer to Ch. 7 specification, Trenching, Backfilling, and Compaction for comprehensive pipe bedding requirements. Note the following:

a. Pipeline bedding material shall be Class 6 aggregate base course. Other materials may be considered by staff on a case-by-case basis.

b. Pipeline trench shall be backfilled entirely with Class 6 aggregate base course or CDOT approved flow-fill. Other materials may be considered by staff on a case-by-case basis.

K. Encasement

When sewer main encasements are required by the City, the encasement shall be made in accordance with Ch. 7 specifications.

a. Concrete pipe encasements are not preferred. Exceptions may be allowed through an approval process by the City.

b. Pipe Segment (manhole to manhole) may be adjusted to C900 PVC to provide secondary containment for sewer mains provided that the pipe bell joints are encased in concrete 10 feet each side of a water crossing location or along substandard horizontal clearance from water.

L. Abandonment-in-Place

All pipes that are to be abandoned in place shall be grout filled. The ends shall be physically cut, mechanical plug installed two linear feet into pipe, and pipe capped with two linear feet of non-shrink grout.

M. Pipe Installation

Refer to Ch. 7 specification, Sanitary Sewer Lines for pipe installation requirements.

N. Testing

Refer to Ch. 7 specification, Sanitary Sewer Lines, for comprehensive pipe testing requirements. Note the following:

a. Prior to acceptance of the project, the gravity sewer pipe shall be subject to a low-pressure air test in accordance with Ch. 7 specification Sanitary Sewer lines, section 3.09. The Contractor shall furnish all equipment and personnel for conducting the test under the observation of the City inspector. The testing equipment shall be subject to approval.

b. All wyes, tees, and end of side sewer stubs shall be plugged with flexible joint caps, or acceptable alternatives and securely fastened to withstand the internal test pressures. Such plugs or caps shall be readily removable, and their removal shall provide a socket suitable for making flexible jointed lateral connection or extension.

O. Cleaning, Inspection, and Acceptance

a. Prior to backfilling, all sewer lines and appurtenances shall be inspected and approved by the City. Approval shall not relieve the Contractor for correction of any deficiencies and/or failure as determined by subsequent testing and inspections. It shall be the Contractor's responsibility to notify the City for the required inspections.

b. Prior to acceptance, all sewer mains shall be high velocity jetted in conformance with Ch. 7 specifications, Sanitary Sewer lines, at the Contractor’s expense. Hydrant flushing of lines is not an acceptable cleaning method.

c. The Contractor shall televise the entire line as soon as the leakage and manhole tests are satisfactorily completed with the procedure outlined in the specifications. Any defects noted shall be repaired immediately. A copy of the video shall be provided to the City prior to acceptance of the project.

d. At completion of hard surfaces, the contractor may be required to retelevise the entire line. Any defects or materials within the pipe shall be immediately cleaned and repaired, to include manhole inspections.

2.8 MANHOLES

A. Minimum Size

a. Manholes shall be a minimum of 48” inside diameter. Minimum diameter shall be 60” where connecting mains are 18” or larger.

b. Manhole diameter sizing shall be based upon the number of pipes entering and exiting the manhole, the ability to achieve transitions in the flow, adequate shelves, room for maintenance and television inspections, and maintain the strength of the manhole.

c. Sewer manholes greater than 10’ in depth shall have a minimum of a 60” diameter.

B. Spacing

Preferred manhole spacing is 250 feet or less but shall be no more than 300 feet. Spacing beyond this will be considered on a case-by-case basis.

C. Minimum Slope Through Manhole

Minimum slope through the manhole shall be 2/10th of one foot from the invert into the invert out. All manholes shall be channeled.

D. Castings

a. Where lock-type castings are called for, the casting device shall be such that the cover may be readily released from the ring and all movable parts shall be made of non-corrosive materials and otherwise arranged to avoid possible binding.

b. City will inspect and approve all manholes and manhole appurtenances.

E. Accessibility

All manholes shall be located so that they are accessible by maintenance vehicles and shall be no closer than 5 feet from any surface obstruction.

F. Materials

Refer to Ch. 7 specification, Sanitary Sewer lines for comprehensive material requirements. Note the following:

a. Concrete Rings shall be precast concrete or adjustable, traffic-grade, plastic rings/risers when applicable.

b. Precast concrete manhole bases are preferred. Cast-in-place bases with integrally cast-in water stops may be approved by the city on a case-by-case basis. The tops of the base shall be at least 12 inches above top of pipe.

c. Manhole steps shall be steel reinforced copolymer polypropylene.

d. Joints shall have a double (rubber-neck or equivalent) flexible seal. Joints shall also be grouted from the inside.

e. Lift Holes shall be grouted from the outside and inside of the manhole.

f. Grade Adjustment Rings shall be precast concrete

g. Frame (manhole) rings shall be machine finished or ground-on seating surfaces so as to assure non-rocking fit in any position and interchangeability.

h. Cover shall be grey iron stamped with "SEWER". Covers shall be machine finished or ground-on seating surfaces so as to assure non-rocking fit in any position and interchangeability.

i. Exterior manhole coatings shall be with bituminous coating prior to delivery to the job site. All exterior manhole connections shall be wrapped with a minimum 12-inch-wide ice and water shield or equivalent product.

j. Interior manhole coatings may be required on a case-by-case basis per water/wastewater department recommendations.

G. Manhole Installation

Refer to Ch. 7 specification, Sanitary Sewer lines, for comprehensive manhole installation requirements. Note the following:

a. Connections to Manholes

i. Connection of manhole with pipe shall be made with flexible connector.

ii. Extra care shall be taken by grouting or other means of sealing to assure positive watertight manholes around the inlet or outlet pipes.

b. Manhole Floor and Inverts

i. Invert channels shall be smooth and semi-circular in shape, conforming to the inside of the incoming and outgoing sewer pipelines.

ii. Changes in direction of flow shall be made with a smooth curve of as large a radius as the size of the manhole will permit.

iii. Changes in size and grade of the channels shall be made gradually and evenly.

iv. Where large differences in invert elevations exist, sloped flow channels shall be formed so the wastewater does not undergo a vertical drop.

v. The invert channels may be formed directly in the concrete of the manhole base.

vi. The floor of the manhole outside the channel shall be smooth and shall slope toward the channels.

c. Finish Grade and Adjustment

Manhole cover and frame shall be no less than 6 (six) inches, and a maximum of 8 (eight) inches. To bring the manhole cover to the correct elevation, the top section of each manhole shall be constructed of pre-cast concrete grade adjustment rings.

i. Rings shall be not less than six inches (6") wide and furnished in heights to allow for two-inch (2") adjustments.

ii. Grade adjustment with rings shall be eight inches (8") maximum and two inches (2") minimum.

iii. All rings shall be grouted in place with 6000 psi non-shrink grout and sealed with approved construction adhesive.

d. Manhole Stubs

i. Pipe stubs shall be a full stick of pipe with bell end and extend approximately 20' from the outside face of the manhole, and/or approved on a case-by-case basis.

ii. Stubs shall be capped or plugged with manufactured fittings to form a watertight installation.

iii. The minimum connection to existing main shall be no less than 6 (six) feet.

H. Manhole Testing

Refer to Ch. 7 specification, Sanitary Sewer lines, section 3.10, for comprehensive testing requirements. Note the following:

a. Prior to acceptance of the project, the manholes shall be subject to a leakage test. The Contractor shall furnish all equipment and personnel for conducting the test under the observation of the City inspector. The testing equipment shall be subject to approval.

b. The city's preference is that a leak test shall be conducted prior to backfilling around the manhole.

I. Manhole inspection Acceptance

Refer to Ch. 7 specification, Sanitary Sewer lines, for comprehensive testing requirements. Note the following:

a. All materials (manholes, pipe) shall be inspected by staff upon arrival to the construction site and will be either approved or denied at that time.

b. During the construction of the manholes, the Contractor shall, in accordance with good practice, ensure that no earth, sand, rocks or other foreign material exists on the joint surfaces during assembly of the section. If such materials exist, they shall be cleaned up immediately.

c. Prior to backfilling, all manholes shall be inspected and approved by the City. Approval shall not relieve the Contractor for correction of any deficiencies and/or failure as determined by subsequent testing and inspections. It shall be the Contractor's responsibility to notify the City for the required inspections.

2.9 SERVICE CONNECTIONS

A. Service Tap Installation Policy

a. Only City W/WW Department staff may perform a tap into the City's water and sewer mains. In certain circumstances and only with pre-authorization the city may approve a qualified contractor to install the tap while under the City's direct supervision. (Reference Code: 080.030.040 – Work Performed).

b. The customer is responsible for all costs incurred by the City for the installation of tap(s) for a private sewer service. (Reference Code: 080.030.010(c) – Connections to wastewater system/Tap Fee)

c. The Contractor is responsible for all shoring or trenches. City crews will not enter a trench to perform inspection or install taps unless shoring is safe and meets OSHA requirements.

B. Depth of Bury

Private sewer services are recommended to follow same depth of bury requirements as gravity sewer mains.

C. Minimum Distances from Fittings and Services

The city requires a minimum of 5 feet between tap locations or any fittings along the sewer main line. If the minimum clearances cannot be satisfied, the city may consider alternative designs on a case-by-case basis.

D. Sewer Service Connection to Gravity Sewer Main

Refer to Ch. 7 specification, Sanitary Sewer Lines, for comprehensive requirements for sewer service connections. Note the following:

a. Full body factory wyes required for all new sewer line construction.

b. Material for connection to existing mains shall be approved by the City on a case-by-case basis. This is dependent on the condition and material of the existing main.

   i. All taps to existing mains shall be concrete encased.

   ii. Preferred connections include Fernco saddles or PVC saddles, to be approved by city sewer department staff.

c. Taps shall not be allowed to protrude in the existing main.

d. Sewer taps shall not be placed within a minimum of 3’ from a manhole.

e. All new sewer connections to the existing system shall be physically plugged until all tests have been completed and the City approves the removal of the plug.

f. Connections between new sewer service and an existing main of the same size shall be accomplished by the installation of a new manhole on the City sewer main. Alternate designs will be considered by the city on a case-by-case basis.

g. Sewer services shall not enter a manhole unless it meets section 2.12.4 (A)(6) noted above. Any existing sewer services entering an existing manhole shall be removed, grouted and relocated a minimum of 3’ up stream or downstream of the existing manhole if service is being replaced.

h. All connections between pipes of different materials shall be made with approved manufactured connectors.

i. Tracer wire shall be installed for all sewer service connections. Tracer wire boxes and ground rods shall be installed when the wire cannot be brought to the surface or ties in with existing tracer wire that is already grounded.

j. Backwater valves are required for all sanitary sewer services. Valves will be installed on private property, out of the ROW and will be maintained by the property owner, not the City. The city will be requiring backwater valves to be installed on existing services that are being replaced if the construction allows for the valve’s installation. The city will supply the owner with a Spears Backwater Valve part number S475PAK or equivalent.

E. Sewer Tap Abandonment

a. Any existing service tap that is no longer active or will not be used must be abandoned at the main. (Reference Code: 080.030.010(e) – Connections to wastewater system/Abandonment of Connection).

b. A sewer stopper (or sewer plug) is a device, typically made of rubber and steel, inserted into a drain pipe to create a watertight, airtight seal. It is designed to block sewage backflow, stop sewer gases from entering a building, or isolate pipe sections for maintenance.
Key details:

I. **Types:** Common types include mechanical gripper/test plugs (tightened with a nut to expand against pipe walls) and inflatable plugs (filled with air to seal the pipe).

II. **Purpose:** Primarily used for preventing backups, stopping odors, and temporarily sealing sewer lines during repairs or to stop flow, sometimes in municipal contexts to restrict service.

III. **Construction:** Generally made of durable rubber to create a compression fit, often reinforced with steel.

c. Installation of a replacement tap will not be allowed by the city until all existing service taps are properly abandoned.

F. Sewer Service Connection to Pressure Sewer Main

The design of any service connection to a pressure sewer main must be approved by the city and will be on a case-by-case basis. All designs/calculations shall be by a professional engineer registered in the State of Colorado.

G. Pressure Sewer Service Connection to Gravity Sewer Main

The design of any pressure service connection to a gravity sewer main must be approved by the city and will be on a case-by-case basis.

2.10 PRESSURE SEWER MAINS (FORCE MAINS)

The design of any pressure sewer main must be approved by the City on a case-by-case basis and be in conformance with CDPHE regulations. All designs/calculations shall be by a professional engineer registered in the State of Colorado.

2.11 LIFT STATIONS

The design of any lift station must be approved by the City on a case-by-case basis and be in conformance with CDPHE regulations and Design Criteria. All designs/calculations shall be by a professional engineer registered in the State of Colorado.

2.12 ON-SITE WASTEWATER TREATMENT SYSTEMS

The design of any on-site waste disposal systems must be approved by the City on a case-by-case basis and be in conformance with CDPHE regulations and Garfield County regulations. (Reference Code: 070.040.030(e)(3) – Site Development Improvement Standards/ Site Development Improvement Standards/Lot and Block Design; 070.040.030(f) – Site Development Improvement Standards/Assurance and Acceptance of Public Improvements)

2.13 GREASE, OIL AND SAND INTERCEPTORS

Refer to section 060.040.010 of the Code adopting the International Plumbing Code; IPC Ch. 10, Section 1003, Interceptors and Separators) summarized below:

a. Because of the impact of grease, oil and sand on the City's lines and treatment plant, grease, oil and sand interceptors are required on establishments preparing or serving food or other establishments where grease, oil and sand may be introduced into the drainage or sewage system. A grease, oil, and sand interceptor is not required for individual dwelling units or for any private living quarters, except for garage floor drains. Multi-family housing shall be reviewed on a case-by-case basis.

b. All grease, oil, and sand interceptors shall be new. The interceptor and its installation shall be in conformance with the latest edition of the International Plumbing Code (IPC).

c. Plans shall be submitted to and approval obtained from the City prior to the installation of any grease, oil and sand interceptor.

d. Each plumbing fixture or piece of equipment connected to a grease, oil and sand interceptor shall be provided with an approved type flow control or restricting device installed in a readily accessible and visible location in the tail piece or drain outlet of each such fixture. Flow control devices shall be so designed that the total flow through such device or devices shall at no time be greater than the rated capacity of the interceptor. No flow control device having adjustable or removable parts shall be approved.

e. Each grease, oil and sand interceptor required by this section shall have an approved rate of flow which is not less than that given in the City’s EQR schedule for the total number and size of fixtures connected thereto or discharging thereunto.

f. Each grease, oil and sand interceptor shall be installed and connected so that it shall be at all times easily accessible for inspection, cleaning and removal of the intercepted grease. New construction/remodels shall install interceptors on the exterior of the building and shall be reviewed on a case-by-case basis.

g. Interceptors shall be maintained in efficient operating conditions by periodic removal of the accumulated materials. No such collected material shall be introduced into any drainage piping, public or private sewer, and it shall be disposed of in an environmentally safe manner. Maintenance and inspection shall occur every 6 months or as required and the records shall be provided to the City.

h. The City may require such tests as may be necessary to determine the collecting efficiency of the various types and kinds of interceptors to establish the rate of flow or other rating thereof. Such test requirements may be revised or modified from time to time as may be deemed necessary by the city.

i. No interceptor shall be installed which does not comply in all respects with a type or model of each size approved and accepted by the City. Whenever it shall come to the attention of the City that any interceptor does not so comply, the City shall immediately suspend or revoke such approval.

j. Sump pits require visible and audible alarm systems for grease and oil contamination.

2.14 EARTHWORK

A. Site Control and Safety

Contractor to provide safe and healthful working conditions on each operation at all times. Contractor shall comply with all provisions, regulations and recommendations issued pursuant to the Occupational Safety and Health Act, and the Construction Safety Act as amended, and with laws, rules and regulations of other authorities having jurisdiction, with regard to all matters relating to the safety and health of workers and the general public. Compliance with government requirements is mandated by law and considered only a minimum level of safety performance. Perform all work in accordance with best safe work practices recognized by the construction industry.

B. Traffic Control

Refer to Chapter 5, for traffic control requirements (Also reference Code: 060.130 – Miscellaneous Permits).

C. Trenching Operations

Refer to Ch. 7 specification, Trenching, Backfilling, and Compaction.

D. Protection of Existing Structures and Utilities

Contractor shall protect all existing structures, utilities and improvements not designated for removal and shall restore damages or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation.

E. Backfill and Compaction

Refer to Ch. 7 specification, Trenching, Backfilling, and Compaction.

F. Street Patching and Restoration

See Chapter 5 regarding patching and trench restoration (Also reference Code: 060.130 – Miscellaneous Permits).

APPENDIX – WASTEWATER COLLECTION STANDARD DRAWINGS

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S01.	Standard Manhole Detail	
S02.	Drop Manhole Detail	
S03.	Concrete Encasement Detail	
S04.	Casing Detail	
S05.	Sewer Clean-Out	
S06.	Sewer Service Connection	

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CHAPTER 5 – TRANSPORTATION

5.1 GENERAL INFORMATION

5.1.1 GENERAL CONSIDERATIONS

The standards and guidelines established by this chapter are intended to represent the minimum standards for the design and construction of transportation facilities. The standards are intended to be applied by the City Engineer for conformance with City development regulations. The City Engineer may augment these construction standards with the latest editions of the following design documents (in order of preference):

- American Association of State Highway and Transportation Officials (AASHTO) - Policy on Geometric Design of Highways and Streets
- American Association of State Highway and Transportation Officials (AASHTO) - Guide for the Development of Bicycle Facilities
- American Association of State Highway and Transportation Officials (AASHTO) – Guide for Design of Pavement Structures
- American Association of State Highway and Transportation Officials (AASHTO) – Standard Specifications for Highway Bridges
- American Association of State Highway and Transportation Officials (AASHTO) – LRFD Bridge Design Specifications
- American Association of State Highway and Transportation Officials (AASHTO) – Guide Specifications for the Design of Pedestrian Bridges
- Colorado Department of Transportation - Roadway Design Guide
- Colorado Department of Transportation - Standard Plans – M&S Standards
- Colorado Department of Transportation - Standard Specifications for Road and Bridge Construction
- Colorado Department of Transportation – State Highway Access Code (SHAC)
- Federal Highway Administration (FHWA) - Manual on Uniform Traffic Control Devices (MUTCD)
- Transportation Commission of Colorado - Colorado Supplement to the Federal Manual on Uniform Traffic Control Devices
- The Institute of Transportation Engineers (ITE) - Traffic Engineering Handbook
- National Association of City Transportation Officials (NACTO) - Guidelines for Major Urban Street Design
- City of Glenwood Springs and State of Colorado Department of Transportation Access Control Plan

Obtaining copies of these publications shall be at the applicant's own expense.

The overall goal of this chapter is to encourage the uniform development of an integrated, fully accessible public transportation system that will facilitate present and future travel demand through a variety of transportation modes with minimal environmental impact to the community as a whole.

5.1.2 APPLICABLE SPECIFICATIONS

The following specifications shall be used in conjunction with this standard:

A. Colorado Department of Transportation Standard Specifications for Highway and Bridge Construction, and applicable Standard Special Provisions.

5.1.3 DEFINITIONS AND TERMS

Access Control Plan: An agreement between the City and CDOT to control access points to Highway 82 (Grand Avenue/Glen Avenue) from I-70 Exit 116 to the southern City boundary. Upon new development or redevelopment that increases traffic from the proposed business by 20% or more, a CDOT Access Permit will be required. Please see City planning or engineering staff for more information.

Applicant: The person, party, firm or corporation who proposes to do the improved work.

Average Daily Traffic or (ADT): The total traffic during a given time period (in whole days), greater than one (1) day and less than one (1) year, divided by the number of days in that time period. To determine potential ADT for a local access City street, it will be assumed, for the purposes of the Chapter only, that each Single-Family Dwelling Unit will generate ten (10) traffic trips per day. Traffic generation for other uses will be in accordance with the current edition of the "Trip Generation", published by the Institute of Traffic Engineers, or other approved sources, and will include the traffic generated by the proposed development unless otherwise noted. Projects submitted to the City for review and approval will be considered to be proposed projects.

CDOT Standard Specifications: The current Standard Specifications for Road and Bridge Construction, as published by the Colorado Department of Transportation, and its amendments.

City: The City of Glenwood Springs, Colorado, the City Engineer, the Public Works Director or his/her designee.

City Engineer: The City of Glenwood Springs, the City Engineer or his/her designee.

Cul-De-Sac: A circular area symmetrical or offset about the centerline of a street.

Dwelling Unit: Any building or portion thereof which contains living facilities, including provisions for sleeping, eating, cooking and sanitation for not more than one family.

Emergency Vehicle Access (EV): means an all-weather drivable surface constructed and maintained in accordance with this Chapter, that provides emergency access between a public or private street and one hundred fifty (150) feet of all portions of an exterior wall of the first story of any structure requiring EV Access as measured by an approved route around the exterior of the building.

Engineer: A professional engineer currently licensed by the State of Colorado, retained by the Applicant, and acting on their behalf.

Functional Classification: is the process by which streets and highways are grouped into classes, or systems, according to the character of traffic service that they are intended to provide. There are three functional classifications: arterial, collector, and local roads. All streets and highways are grouped into one of these classes, depending on the character of the traffic (i.e., local or long distance) and the degree of land access that they allow. Refer to Section 5.2.2 for definitions of each functional classification.

Gravel Surface: Two inches of crushed surfacing top course per the current CDOT Standard Specifications.

Improved Street or Alley: A street that has been improved to full urban or suburban standard, including drainage, paving, sidewalk, and in most cases curb and gutter, as set forth in these standards. A alley that has been improved to full urban or suburban standard, including drainage and paving as set forth in these standards.

Land Surveyor: A professional land surveyor currently licensed by the State of Colorado, retained by the Applicant, and acting on their behalf.

Maintenance: The regular and continual preservation of a public facility, private street and appurtenant features within the easement in an “as new” condition.

Major Structure: Major structures are bridges and culverts with a total length of 20 feet or greater and retaining walls with both a total length greater than 100 feet and a maximum exposed height at any section of over 4 feet. The length is measured along the centerline of roadway for bridges and culverts, and along the top of the wall for retaining walls.

Planned Unit Development (PUD): A horizontal area within the exterior boundaries of the PUD, including any streets and required improvements, easements, reservations or dedications. The PUD provides for the opportunity to create self-contained residential neighborhoods with a pre-determined variety of housing choices and without following a standard system of public streets and lot design, with allowances for mixed use, residential and neighborhood commercial development that are not usually permitted in residential zones.

Private Street Easement: An easement or parcel which creates a legal source of access from a public street to an existing or proposed lot or lots of record or project, across other parcels of property.

Tract: Any parcel of land, lot, building site, or contiguous combination thereof devoted to or intended to be devoted to a principal use and any other uses customarily accessory thereto.

Unimproved Street, Roadway, or Alley: The right-of-way has been opened, the area is or could be traveled upon, but the maximum limit of improvement would consist of a gravel base roadway. This street most likely has not been graded to an established grade but generally follows the lay of the land. This street is not maintained by the City unless opened by the City.

Unopened Street or Alley: This term applies when right-of-way currently exists but no roadway improvements have been provided and travel within the right-of-way is prohibited by the fact that no clearing or grading has occurred.

5.2 PUBLIC STREETS

5.2.1 GENERAL

A. The design of streets and roads shall depend upon their type and usage. The design elements of City streets shall conform to standards as set forth in this chapter.

B. Street design must provide for the maximum loading conditions anticipated. The width and grade of the pavement must conform to specific standards set forth in this chapter for uniformity and safety. Typical sections for each of the various street classifications are shown in the Standard Plans included in the appendix to this chapter.

C. Lot and block patterns shall allow for access onto a street from each lot. The use of an easement for principal access to a lot shall not be allowed. Permanent access easements may be permitted if recommended by City Staff and approved by the City Attorney.

D. Alignment of principal arterials, minor arterials and collectors shall conform as nearly as possible with that shown in the Long Range Transportation Plan and the City of Glenwood Springs Comprehensive Plan.

E. The layout of streets shall provide for the continuation of existing principal streets in adjoining subdivisions or of their proper projection when adjoining property is not subdivided. Access streets, which serve primarily to provide access to abutting property, shall be designed to discourage through traffic.

F. Access points/driveways shall be in accordance with Section 5.2.10.

G. It shall be the responsibility of the City Engineer to identify specific conditions for street improvements and/or right-of-way reservation required as a condition of development. All street improvements shall be consistent with these Standards, the Glenwood Springs Municipal Code and the Glenwood Springs Development Code.

5.2.2 FUNCTIONAL CLASSIFICATIONS

The City of Glenwood Springs has developed a Street Classification Map, indicating existing and proposed streets and their functional classifications. City streets are divided into principal arterials, minor arterials, commercial collectors, residential collectors, local streets and private roads in accordance with the regional transportation needs and the functional use that each serves. Refer to the following sections for further definitions. Function is the controlling element for classification and shall govern right-of-way width, road width, and road geometrics for the design classifications. New streets will be classified by the City Engineer.

A description of street design standards for each street classification follows. Refer to Table 5-7 in the next section for a summary of the street right-of-way standards. All elements listed are required unless specifically noted.

1. **Principal Arterials** provide for mobility through the City and for connecting the major activity centers within the City. Although principal arterials may provide access to commercial and residential properties where no other alternative is available, access is a secondary function.

Most Principal Arterials within Glenwood Springs are under the jurisdiction of the Colorado Department of Transportation. Although CDOT criteria will govern the specifications for these principal arterials, the City of Glenwood Springs requires the following specifications shown in Table 5-1 for Principal Arterials under City jurisdiction.

2. **Minor Arterials** augment the principal arterial system. They provide for mobility through the City and for connecting destinations on opposite sides of the City. Minor arterials may also provide access to properties, although the number of access points should be limited.
3. **Commercial Collectors** provide access to the primary commercial areas and gather traffic from various parts of the commercial areas and distribute it to the major street system. Different configurations with several on-street parking options are provided for residential and commercial areas.
4. **Neighborhood Collectors** provide access to neighborhood cores and gather traffic from various parts of the neighborhood and distribute it to the major street system. Different configurations with several on-street parking options are provided for residential and commercial areas.
5. **Local Streets** provide access to individual residential units and neighborhood commercial areas. Different configurations with several on-street parking options are provided for residential and commercial areas.
6. **Alleys** provide for accessibility and service to individual lots and businesses. They also serve as utility easements or corridors.
7. **Private Streets** are owned, controlled, and maintained by one or more property owners.

Table 5-1 Principal Arterial Specifications

Street Function:	Provide mobility for through traffic and connections between major activity centers
Connectivity:	Connects major activity centers and regional transportation nodes
Average Daily Traffic:	> 10,000 motor vehicle trips per day
Managed Speed:	25 mph–45 mph
Motor Vehicle Travel Lanes:	• 11'–12' travel lanes • Number of lanes based on street capacity required
Bike Lanes:	• Separated multi-use path or paths are required • 10' minimum width required for two-directional, 5' minimum width required for single-direction travel, exclusive of the gutter. • Separated paths shall be separated by a minimum 5' wide landscaping buffer
Parking:	• On-street parking generally not provided on principal arterials • Parking may be provided as a traffic calming feature and to meet parking demand when principal arterials traverse a neighborhood with existing driveway accesses or commercial properties fronting the street
Curb and Gutter: (or Shoulders with Ditches)	• 6" vertical/barrier curb required. Gutter width as needed for drainage. Minimum 1.5' gutter; OR • 4' minimum shoulder width with adequate ditch sections designed in accordance with the Stormwater Standards
Curb-to-Curb Width:	As necessary
Buffer Strip	• 5' landscaped strip required between sidewalk and vehicle travel lanes. • If arterial road serves a commercial area with on-street parking, then partially hardscaped planting strip is acceptable
Sidewalks and Min. Sidewalk Widths:	Sidewalks required on both sides of street unless alternative bicycle and pedestrian facilities meeting these criteria are provided within the corridor • 8 ft. width in commercial areas • 5 ft width in residential areas. 6 ft. width should be provided in high pedestrian volume areas with frequent two-way foot traffic All sidewalks and intersections with vehicle lanes should meet ADA specifications.
Driveways:	Minimize number of driveways. Use current CDOT or City code criteria
Center Median:	Center medians are encouraged and may be required to restrict turning movements
Min. Right-of-Way Width:	75' minimum width required • Wider right-of-way required to accommodate parking, commercial sidewalks, shoulders and ditches
Minimum Grade **Maximum Grade**	1.0% 6.0%

Table 5-2 Minor Arterial Specifications

Street Function:	Provide mobility for through traffic, access to significant destinations and, to a lesser extent, provide access to individual properties
Connectivity:	Collects traffic from collector streets and supplements the principal arterial system
Average Daily Traffic:	5,000 to 10,000 motor vehicle trips per day
Managed Speed:	25 mph–40 mph
Motor Vehicle Travel Lanes:	• 11'–12' travel lanes • Number of lanes based on street capacity required
Bike Lanes:	• To be provided on both sides of the street, unless a separated multi-use path is provided. • 5' width is preferred for one way travel. Lesser widths down to 4' may be acceptable on existing streets with width constraints, exclusive of the gutter. • Bike symbol pavement markings are required
Parking:	• On-street parking generally not provided on minor arterials • Parking may be provided as a traffic calming feature and to meet parking demand when minor arterials traverse a neighborhood with existing driveway accesses or commercial properties fronting the street
Curb and Gutter: (or Shoulders with Ditches)	• 6" vertical/barrier curb required. Gutter width as needed for drainage. Minimum 1.5' gutter; OR • 4' minimum shoulder width with adequate ditch sections designed in accordance with the Stormwater Standards
Curb-to-Curb Width:	As necessary to meet all uses • Additional width to be provided to accommodate parking if necessary • Additional width may be provided if necessary for drainage • Narrower width may be provided for existing constrained streets where no bike path can be provided or where a separate parallel bike path exists
Buffer Strip	• 5' landscaped strip required between sidewalk and vehicle travel lanes. • If arterial road serves a commercial area with on-street parking, then partially hardscaped planting strip is permitted
Sidewalks and Min. Sidewalk Widths:	Sidewalks required on both sides of street unless alternative bicycle and pedestrian facilities meeting these criteria are provided within the corridor • 8 ft. width in commercial areas • 5 ft width in residential areas. 6 ft. width should be provided in high pedestrian volume areas with frequent two-way foot traffic All sidewalks and intersections with vehicle lanes should meet ADA specifications.
Driveways:	Minimize number of driveways. Use current City code criteria
Center Median:	A landscaped center median may be required for access control, 4' minimum width measured between back of curbs
Min. Right-of-Way Width:	75' minimum width required • Wider right-of-way required to accommodate parking, commercial sidewalks, medians, shoulders and ditches
Minimum Grade **Maximum Grade**	1.0% 6.0%

Table 5-3 Collector Specifications

Street Function:	Provide access in and out of the primary commercial areas
Connectivity:	Collects traffic from within commercial areas or residential areas and connects these areas with the major street network.
Average Daily Traffic:	1,500 to 5,000 motor vehicle trips per day
Managed Speed:	20 mph–25 mph
Motor Vehicle Travel Lanes:	• Two 10'–12' travel lanes
Bike Lanes:	• To be provided on both sides of the street • 5' width is preferred. Lesser widths down to 4' may be acceptable on existing streets with width constraints, exclusive of the gutter.. • Bike symbol pavement markings required
Parking:	• One 8' lane for Parking One Side • Two 8' lanes for Parking Both Sides • Parking may be provided in 7' wide bays rather than a continuous on-street parking lane
Curb and Gutter: (or Shoulders with Ditches)	• 6" vertical/barrier curb required. Gutter width as needed for drainage. Minimum 1.5' gutter; OR • 4' minimum shoulder width with adequate ditch sections designed in accordance with the Stormwater Standards
Curb-to-Curb Width:	• As necessary to accommodate all uses • Additional width may be provided in gutter if necessary for drainage • Narrower width may be provided for existing constrained streets where no bike path can be provided or where a separate parallel bike path exists
Buffer Strip	• 5' landscaped strip required between sidewalk and vehicle travel lanes. • If collector road serves a commercial area with on-street parking, then partially hardscaped planting strip is permitted
Sidewalks and Min. Sidewalk Widths:	Sidewalks required on both sides of street • 8 ft. width in commercial areas • 5 ft width in residential areas All sidewalks and intersections with vehicle lanes should meet ADA specifications.
Driveways:	Use standards in this section
Center Median:	A landscaped center median may be required for traffic calming
Min. Right-of-Way Width:	80' minimum width required • Wider right-of-way required to accommodate parking, commercial sidewalks, medians, shoulders and ditches
Minimum Grade **Maximum Grade**	1.0% 8.0%

Table 5-4 Local Street Specifications

Street Function:	Provide access to individual residential units and commercial areas
Connectivity:	Connects to higher order streets
Average Daily Traffic:	1,500 or less motor vehicle trips per day
Managed Speed:	15 mph–25 mph
Motor Vehicle Travel Lanes:	10’ to 11’ travel lanes
Bike Lanes:	Generally not needed on low volume/low travel speed streets
Parking:	As required • One 8’ lane for parking one side • Two 8’ lanes for parking both sides. • Parking may be provided in 7’ wide bays rather than a continuous on-street parking lane
Curb and Gutter: (or Shoulders with Ditches)	• If curb and gutter is used, it shall be 6” vertical/barrier curb. Gutter width as needed for drainage. Minimum 1.5’ gutter; OR • If curb and gutter is not used, 2’ minimum shoulder width with adequate ditch sections designed in accordance with the Stormwater Standards
Curb-to-Curb Width:	• As necessary to accommodate all uses
Buffer Strip	• 5’ landscaped strip required between sidewalk and vehicle travel lanes. • If local street serves a commercial area with on-street parking, then partially hardscaped planting strip is acceptable
Sidewalks and Min. Sidewalk Widths:	Sidewalks required on both sides of street • 8 ft. width in commercial areas • 5 ft width in residential areas. All sidewalks and intersections with vehicle lanes should meet ADA specifications.
Driveways:	Use standards in this section
Center Median:	None
Min. Right-of-Way Width:	75’ minimum width required
Minimum Grade **Maximum Grade**	1.0% 10.0%

Table 5-5 Alley Specifications

Street Function:	Provide access to the rear of individual residential units and commercial areas
Connectivity:	Connects to higher order streets
Average Daily Traffic:	500 or less motor vehicle trips per day
Managed Speed:	10 mph
Motor Vehicle Travel Width:	20’ minimum total width
Bike Lanes:	None
Parking:	None
Curb and Gutter:	Concrete pan at alley center, or cross sloped alley to pan or curb and gutter on one side.
Buffer Strip	None
Sidewalks and Min. Sidewalk Widths:	None
Driveways:	Use standards in this section
Center Median:	None
Min. Right-of-Way Width:	25’
Minimum Grade **Maximum Grade**	1.0% 10.0%

Table 5-6 Private Street Specification

Street Function:	Provide access to individual residential units and commercial areas
Connectivity:	Connects to higher order streets
Average Daily Traffic:	NA
Managed Speed:	25 mph
Motor Vehicle Travel Lanes:	10’ to 11’ travel lanes
Bike Lanes:	Based on development negotiations
Parking:	Based on development negotiations
Curb and Gutter: (or Shoulders with Ditches)	• If curb and gutter is used, it shall be 6” vertical/barrier curb. Gutter width as needed for drainage. Minimum 1.5’ gutter; OR • If curb and gutter is not used, 2’ minimum shoulder width with adequate ditch sections designed in accordance with the Stormwater Standards
Curb-to-Width:	23’ minimum
Buffer Strip	Based on development negotiations
Sidewalks and Min. Sidewalk Widths:	Sidewalks required on both sides of street • 8 ft. width in commercial areas • 5 ft width in residential areas. All sidewalks and intersections with vehicle lanes should meet ADA specifications.
Driveways:	Use standards in this section
Center Median:	None
Min. Right-of-Way Width:	No right-of-way required
Minimum Grade **Maximum Grade**	1.0% 10.0%

5.2.3 STREET DESIGN STANDARDS

A. Goals

The City transportation system should encourage alternate mode use, especially walking and bicycling, by working toward a safe balance of all street users, including automobiles, trucks, bicycles and pedestrians.

B. Objectives

1. Standards should create safer routes for all modes.
2. Standards should optimize the use of the limited physical capacity of streets and balance street design so it does not favor motorized traffic.
3. Intermodal connections within the transportation system should be created, enhanced and improved.
4. Street design should enhance bicycle safety for its own sake and as a traffic calming measure.
5. Street design should enhance and improve the pedestrian safety and comfort and encourage non-motorized modes of travel.
6. Street design should provide safe, convenient and inviting access for transit users.
7. Standards should balance emergency service needs with other objectives.
8. Residential streets and street networks should be designed to discourage speeds above 25 mph.
9. Street standards should protect the local entity’s infrastructure investment by establishing standardized design, materials, construction and repair criteria for all public improvements.
10. Standards should discourage parking on sidewalks.
11. Standards should enhance and beautify the streetscape and pedestrian environment by bringing landscaping closer to the street.
12. Standards should assure that drainage facilities do not create hazards for cyclists and pedestrians.
13. Standards should assure that bicycle, pedestrian and vehicular uses of streets are the primary uses thereof and that the streets are properly maintained during construction and repair work.
14. Standards should have streets designed to not be barriers to personal interaction.
15. Standards should be designed to minimize additional pavement in Glenwood Springs.

Table 5-7 Street Design Standards Summary

Design Criteria	Functional Classification				
	Principal Arterial	Minor Arterial	Commercial Collector	Neighborhood Collector	Local Street
Design Capacity VPD	> 10,000	5,000 - 10,000	1,500 – 5,000	1,500 – 5,000	< 1,500
Minimum R.O.W.	75’	75’	80’	80’	75’
Pavement Width, Flowline to Flowline	25’ Min.	25’ Min.	23’ Min.	23’ Min.	23’ Min.
Driving Lanes	11’-12’ 2 – 4 Lanes	11’-12’ 2 – 4 Lanes	10’-12’ 2 Lanes	10’-12’ 2 Lanes	10’-11’ 2 Lanes
Center Median	Preferred for Left Turns	As needed for Access Control	As needed for Traffic Calming	As needed for Traffic Calming	None
Parking	None	None	8’ Lane(s) See Table 5-3	8’ Lane(s) See Table 5-3	8’ Lane(s) See Table 5-4
Shoulder Lanes	4’ Min. w/out C&G	4’ Min. w/out C&G	4’ Min. w/out C&G	4’ Min. w/out C&G	2’ Min. w/out C&G
Bike Lanes	Not Required	2 at 5’ (4’ Min.)	2 at 5’ (4’ Min.)	2 at 5’ (4’ Min.)	Not Required
Curb Style	Vertical	Vertical	Vertical	Vertical	Vertical or Mountable
Gutter	18-inch	18-inch	18-inch	18-inch	18-inch
Multi-Use Path	10’ or 5’ See Table 5-1	10’ or 5’ See Table 5-2	Not Required	Not Required	Not Required
Sidewalk	5’-8’ See Table 5-1	5’-8’ See Table 5-2	8’	5’	5’-8’ See Table 5-4
Landscape Buffer	5’	5’	See Table 5-3	5’	5’
Minimum Cross Slope	2.0%	2.0%	2.0%	2.0%	2.0%
Maximum Cross Slope	2.5%	2.5%	2.5%	2.5%	2.5%
Maximum Crown Line Cross Over	5.0%	5.0%	5.0%	5.0%	5.0%
Design Speed	45 MPH	40 MPH	25 MPH	25 MPH	25 MPH
Grade	1.0% Min. 6.0% Max.	1.0% Min. 6.0% Max.	1.0% Min. 8.0% Max.	1.0% Min. 8.0% Max.	1.0% Min. 10.0% Max.

Note: Refer to current AASHTO Policy on Geometric Design of Highways and Streets for roadway design values (e.g. vertical curve K values, minimum horizontal curve radii, etc.)

5.2.4 STREET GEOMETRIC DESIGN

A. Minimum Requirements

Except for State Highways, all City streets shall be designed in conformance with this section. The design standards outlined in this section are minimum design standards, and all new street design shall meet or exceed these standards. On streets designated as collector or arterial streets, the City Engineer may specify standards to be applied to street design that may exceed the minimum standards in this section based on functional need or to ensure safe and efficient operation of the street. Existing streets that are modified with development shall meet the minimum requirements herein, unless approved by the City Engineer.

B. Right-of-Way

Right-of-Way width is usually determined by the functional classification of a street with exceptions as noted in this chapter, or as allowed expressly by the City Engineer. The right-of-way width required for new streets shall comply with the requirements of Table 5-1 through Table 5-6; and shall include, without limitation, the following elements:

1. The paved roadway section including without limitation travel lanes, turning and speed change lanes transit lanes, bicycle lanes, and parking lanes;
2. Curbs and gutters or drainage swales;
3. Roadside and median landscaping areas;
4. Sidewalks and multi-use paths; and
5. Any necessary utility corridors.
6. Snow storage areas

Right-of-Way requirements may be increased if additional lanes, pockets for turning movements, transit lanes, bus loading zones, operational speed adjustments, bike lanes, utilities, schools, or other factors are required to be accommodated as determined by the City Engineer and CDOT.

C. Lane and Street Width

1. Street lanes shall meet the minimum width specifications shown in Table 5-1 through Table 5-6.
2. Street widths shall be measured from edge of lane to edge of lane (not including curb pan) on streets with concrete curb and gutter. Streets less than 24 feet wide may be required to be posted with "No Parking" restrictions due to the potential for restricting emergency vehicle access.

D. Horizontal Alignment

1. Extension to Property Line: All street sections shall be extended through the property to maintain connectivity, unless the street to be constructed has been approved by the City Engineer as a cul-de-sac or as a no outlet street.

2. Horizontal Curve: Street curvatures shall meet the specifications shown in the AASHTO Policy on Geometric Design of Highways and Streets.

3. Intersections and Street Spacing

   a. Angles: To the greatest extent feasible, all streets and driveways shall intersect at right angles (90°), with no intersecting angles of less than 80° or greater than 100°.

   b. Street Spacing for Signalized Intersections: Signalized intersections shall be spaced at half-mile intervals, although other locations may be approved by the City Engineer if adequate signal progression can be maintained.

   c. Spacing for Non-Signalized Intersections: Spacing between adjacent intersecting streets, whether crossing or "T" should be as shown in Table 5-8.

Table 5-8 Spacing Between Adjacent Streets

Highest Classification Involved	Minimum Centerline Offset
Principal Arterial	500 feet
Minor Arterial	400 feet
Collector	300 feet
Local Street	150 feet
Alley	100 feet
Private Street	150 feet

   d. Corner Radii: The minimum property line corner and flowline radii at intersections shall meet or exceed the minimum radii specifications shown in Table 5-9. When different class streets intersect, the higher standard shall apply on offsets and curb radii. Street intersection with non-standard cross sections or not at ninety degree (90°) angles will require truck turning analysis for both the wheel base and the overhang path. The truck turning analysis shall be submitted to the City Engineer for review. Deviations require the approval of the City Engineer.

Table 5-9 Minimum Intersection Radii

Street Type	Minimum Flowline Radius
Alleys	15 feet
Private Roads	20 feet
Local Street	20 feet
Collectors	30 feet
Arterials	40 feet

e. Traffic control will be as specified in the MUTCD or as modified by the City Engineer as a result of appropriate traffic engineering studies.

f. The use of offset intersections should be avoided wherever possible. Street intersections shall be laid out so as to intersect as nearly as possible at right angles. For reasons of traffic safety, a "T" intersection (three-legged) with minimum offsets preferable to a crossroad (four-legged) intersection for local access streets. For safe design, the following types of intersection features should be avoided:

- Intersections with more than four intersecting streets.
- Intersections adjacent to bridges and other permanent sight obstructions.

g. Pedestrian/Wheelchair ramps shall be provided on each quadrant of an intersection from which pedestrian movement is permitted. Ramps shall be designed in accordance with the CDOT standards or other design standards that meet the Americans with Disability Act (ADA).

h. Crosswalk markings will usually be installed at the following intersections:

- At controlled intersections;
- At any intersection located along a formally established “School Route”.
- At any intersection with a formalized bike/ pedestrian trail
- By request, with the approval of the City Engineer.

Crosswalks shall be striped with high visibility, reflective Continental Style markings, with 2’ wide crosswalk bars separated by 2’ spaces. If the crosswalk is colored concrete, the crosswalk shall be striped with 1’ wide transverse lines defining the limits of the crosswalk from the street or intersection. Minimum crosswalk width is 8’, but the width should match the width of the connecting trail or sidewalk.

i. Intersections should be designed to avoid the sheet flow of water across the intersection of all roadways classified as arterial or collector streets. Where practicable, runoff water should be carried under the intersection via catch basins and storm drains.

j. The right-of-way requirements for intersection approaches may be increased for such special intersection elements as raised median channelization, multiple left turn lanes, exclusive and/or “free” right turn lanes, turn lanes to accommodate large wheel base vehicles, bus turn outs, etc.

k. Where a traffic engineering study is required and the data supports the installation of traffic circles or roundabouts, they shall be designed in accordance with *Roundabouts: An Informational Guide (Second Edition)* NCHRP Report 672.

4. Road Width Transition Tapers: Where two street sections of different widths and same number of lanes are to be connected, a redirect taper is required between the outside traveled edge of the two sections. The length of the redirect taper shall be calculated in accordance with the Colorado Department of Transportation (CDOT) State Highway

Access Code (SHAC) Table 4-9.

5. Left Turn Lanes

   a. Storage Length: Left turn lane storage length shall be determined based on traffic volumes using the Leisch nomographs provided in the ITE *Guidelines for Major Urban Street Design*. The left turn lane storage length shall not be less than 50 feet. Where dual left turn lanes are provided, the lane storage length shall be based on at least 60 percent of the single lane storage length.

   b. Taper: Left turn lane tapers shall be calculated in accordance with the CDOT SHAC Table 4-6.

6. Speed Change Lanes: Speed change lanes required for transitional access to turning lanes shall be designed according to the design standards provided in Section 4-8 of the CDOT SHAC.

   a. Speed Change Lane Tapers: It is recommended that bay tapers (asymmetrical reverse curves) be used for deceleration transition tapers and that straight transition tapers be used for acceleration transition tapers. The taper length shall be calculated using CDOT SHAC Table 4-6 and be designed in accordance with CDOT SHAC Section 4-8(5).

7. Redirect Tapers: Where it is necessary to redirect vehicles on the traveled way, redirect tapers shall be installed according to table 4–9 of the CDOT SHAC.Cul-de-sacs: Where allowed, cul-de-sacs shall have a minimum diameter of 96 feet, curb face to curb face, and a minimum right-of-way diameter of 115 feet, except for residential streets. Cul-de-sacs are prohibited on arterial and collector streets.

E. Vertical Alignment

1. Minimum Street Grade: All new street grades shall equal or exceed the minimum street grade of 1.0 percent.

2. Maximum Street Grade: All new street grades shall not exceed the maximum street grades shown in Table 5-10.

Table 5-10 Maximum Street Grades

Street Type	Maximum Street Grade
Principal and Minor Arterial	6%
Commercial and Neighborhood Collector	8%
Local Street, Alley, Private Street	10%
Driveway and Intersection Approach (Min. 50')	4%
Signalized Intersection Approach (Min. 50')	3%

3. Design Controls for Vertical Curves: Design control for sag and crest vertical curves shall meet the requirements in the current edition of the AASHTO Policy on Geometric

Design of Highways and Streets.

4. Vertical Sight Distance: Minimum vertical curve sight distance shall equal or exceed the minimum values set by speed and grade in the current edition of the AASHTO Policy on Geometric Design of Highways and Streets. Greater vertical sight distance may be required by the City Engineer to ensure safe travel and street crossings for all transportation modes.

F. Medians

The City Engineer may require raised medians or landscaped raised medians on arterial streets to restrict conflicting turning movements. Raised landscaped medians may also be required on collector streets for aesthetics or traffic calming reasons.

1. Median Widths: Medians shall be at least 4 feet wide, measured between back of curbs. If left turn lanes are installed in the median, the median width adjacent to the left turn storage lanes shall be 4 feet and the median width at the start of the left turn lane bay taper shall be at least 14 feet wide, measured between back of curbs. Median design widths shall conform to Table 5-11.

Table 5-11 Median Width Design Standards

Function	Minimum Width
Separation of Opposing Traffic	4 feet*
Pedestrian Refuge or Traffic Device Location	6 feet*
Left Turn Lane Median	12 feet

2. Landscaping in Medians: Landscaping in medians shall be designed to survive harsh roadway conditions and shall comply with the requirements of the City Municipal Code.

G. Vertical Clearance to Structures: Vertical clearance is measured from the high point within the entire roadway width to the lowest portion of the structure. If the undercrossing roadway or overcrossing structure may be widened in the future, adequate vertical clearance shall be provided to accommodate the future condition. The vertical clearance of structures shall be in conformance with the current edition of the AASHTO Policy on Geometric Design of Highways and Streets for the Functional Classification of the roadway. In no case shall the vertical clearance be less than 14 feet.

5.2.5 STREET FRONTAGE IMPROVEMENTS

A. Street frontage in this Section indicates any part of a lot that is adjacent to a public or private street.

B. All commercial and residential (including multi-family) developments, subdivisions and plats shall install street frontage improvements at the time of construction as required by City

standards and Municipal Code. Such improvements, meeting the requirements of the City's Standards, or as approved in writing by the City Engineer, may include curb and gutter, sidewalk, storm drainage, lighting, traffic control devices and signals, utility relocation and/or undergrounding, street trees and street widening.

C. All frontage improvements shall be made across the full frontage of the property and shall match the adjacent street improvements and install the required minimum street section. Offsite transitions (tapers) may be required to meet the existing the existing conditions.

D. Exception: When the City determines that there are compelling reasons why all or some of the required improvements cannot be accomplished at the time of building construction, the City may allow, at its sole discretion, a recorded agreement which provides for these improvements be installed at a later date by the applicant. This may be accomplished by one of the following methods:

    1. The applicant provides a Performance Bond for 125% of the estimated cost to do the work,
    2. An assignment of savings is agreed upon, wherein the applicant deposits into a joint account an amount equal to the cost of the work,
    3. The applicant provides a cashier's check or an irrevocable letter of credit in the amount of the estimated cost to do the work.
    4. The applicant provides Payment in Lieu per the Municipal Code requirements.

5.2.6 TEMPORARY DEAD ENDS

Where a street is temporarily dead ended, an all-weather turn around shall be provided per the International Fire Code.

5.2.7 RIGHT OF WAY

All right-of-way shall be conveyed to the City on a recorded plat and by warranty deed.

5.2.8 NAMING AND ADDRESSES

Streets shall be numbered according to the American Society of Planning Officials (ASPO) Report Number 332, *Street Naming and Property Numbering Systems*, by Margaret A. Corwin and *Street Naming and Property Numbering for Small Cities* by Southwest Georgia Planning and Development Commission, Camilla Georgia. Names for new streets shall be submitted for approval during the platting process. Street numbers shall be included on each lot of the plat.

5.2.9 SIGNING

The developer is responsible for providing all construction traffic control signs, devices and flagging. The developer is also responsible for permanent traffic control devices, street signs and any other required signs. Traffic control signing and devices shall comply with the provisions as established in the most current edition of the FHWA *Manual on Uniform Traffic Control Devices (MUTCD)*. Street designation signs shall display street names, and be constructed in accordance with the most current MUTCD standard.

5.2.10 SITE ACCESS AND DRIVEWAYS

A. General

1. The terms “access”, “access point” and “driveway” are used interchangeably throughout this section.
2. All accesses and curb cuts proposed and constructed on City streets and alleys require a Right of Way permit.
3. All access aprons shall be constructed of concrete or asphalt, and shall be subject to the same testing and inspection requirements as curb, gutter, and sidewalk construction. Access aprons shall be constructed in accordance with the applicable Standard Detail (Tx.x) in the Appendix attached to this Chapter.
4. Access points at intersections shall be located as far as practical from the corner – see Access Spacing requirements in Table 5-12.
5. No access may be located so as to conflict with power poles, street lights, fire hydrants, or other above-ground public facilities.
6. Any development requiring access onto a state highway shall obtain a permit for such access in accordance with the Colorado State Highway Access Control Code before the issuance of a City permit. This provision applies to State Highway 6 and State Highway 82. On State Highway 82 (Grand Avenue/South Glen Avenue), the City and CDOT have implemented an Access Control Plan. A CDOT access permit may be required or updated for use.
7. Commercial and industrial driveways shall be designed so as to reduce the number and proximity of access points along public rights-of-way.
8. Residential driveways are limited to one access.
9. Driveways to commercial or mixed use developments that are greater than 24’ wide may require a median. See Table 5-11 for median standards.
10. Access onto any arterial or collector street, as designated in the City’s Street Classification Map, shall be designed such that all vehicles enter and exit in forward drive
11. Driveways giving direct access onto arterials will be denied if alternate non-arterial access is available.

B. Location of Access

1. Spacing: Table 5-12 provides the required spacing of access points and curb cuts onto different street types. Minimum spacing from corners shall be measured from point of intersection of the street flow lines.

Table 5-12 Access Spacing Requirements

For Access Onto Street Classification	Minimum Spacing (measured from edge of access*)			
	Single Family Residential	Other Residential	Commercial	Industrial
Local Streets				
- from property line	15'[1]	15'	15'	15'
- from corner*	50'[1]	50'	50'	50'
- between accesses	30'[1]	30'	30'	30'
Collector Streets				
- from property line	15'[1]	15'	15'	15'
- from corner*	50'[1] (1)	50'	50'	50'
- between accesses	30'[1]	30'	30'	30'
Arterial Streets				
- from property line	75' [12]	75'	75'	75'
- from corner*	150' [12]	150'	150'	150'
- between accesses	250' [12]	250'	250'	250'

* City Street Classification can be found here https://cogs.us/211/City-Maps

Note 1: Permitted when no other access is available.

Note 2: For access onto SH-82, Access Points are set by the Access Control Plan

2. Alignment: Accesses shall intersect City streets at a right angle (90°), with no intersecting angles of less than 80° or greater than 100°. Accesses controlled by a center median or access island, shall either be aligned, or offset by at least 150 feet on collectors, or at least 300 feet on arterials. Greater offsets may be required if left-turn storage lanes are required.

C. Sight Distance

All access points and curb cuts shall provide adequate sight distance as set forth in Section 5.2.11. Restriction of Turning Movements

D. Barrier Islands and Medians

Along streets designated as arterial, or, where required by the City's Access Control Plan, or where necessary for the safe and efficient movement of traffic, the City will require access points and curb cuts to be consolidated and to provide for only limited turning movements, as follows:

1. Access with Barrier Island - Left-Turn Restrictions ("Pork Chop"): Where restricted turning movements are required by the City, and where the abutting street does not have a median, a barrier island may be required.
    a. Barrier island design shall be approved by the City Engineer.
    b. Access drives around barrier islands shall be at least 12 feet wide, have a radius of at least 20 feet, and be designed to accommodate the largest vehicle using the access on a daily basis or at a minimum design to accommodate the City Fire Engine. The barrier island shall provide congruent curb ramps or cut through for sidewalks.

E. Traffic Control and Signage

All accesses shall be designed and constructed with appropriate traffic control and signage conforming to the MUTCD, and these Standards.

F. Auxiliary Turn Lanes

Auxiliary turn lanes shall be required on collectors or arterials when the design hour vehicles from the access will meet or exceed the standards in Section 4.8 of the Colorado State Highway Access Code. Design of speed change lanes shall conform with these Standards.

G. Access and Curb Cut Type

1. Driveway Ramp and Curb Cut: All new accesses and curb cuts shall be designed as driveway ramps and curb cuts, using the standard ramp driveway details provided in these Standards, except along streets where no curb and gutter exists.
2. Driveway Curb Return Radii: Radii for curb return accesses will be required by the City Engineer under the following conditions:
    a. The access is located along an arterial or collector.

b. The access is designed to restrict turning movements, requiring the installation of an access island or center median.

c. The roadway has no curb and gutter.

d. The access serves an industrial property, or provides for commercial deliveries, where large truck movements are required.

e. The City Engineer determines that a radii access is necessary to ensure adequate traffic safety and operation.

f. The access is for a new public street

H. Access and Curb Cut Width

Access and curb cut widths shall be consistent with Table 5-13. The width of each access shall be the minimum width that is necessary to serve the property and use. All access widths are measured from edge of pavement to edge of pavement (or curb to curb) at the throat of the driveway and are not inclusive of drive cut transitions or curb return radii.

I. Access and Curb Cut Grades

Access and curb cut grades shall be consistent with Table 5-13. The initial grade (G1) shall be a positive grade, beginning at the back of the sidewalk, the back of the driveway ramp or pan section, or the edge of the pavement (where no curb and gutter exists), and shall continue at least 10 feet beyond the right-of-way. The final grade (G2) may be positive or negative, depending on the access conditions. The maximum grade break (or change in slope) shall apply at all grade changes.

Table 5-13 Access Design Specifications

	Single Family Residential	Other Residential	Commercial	Industrial
Width				
- Minimum	10'[2]	15'[2]	15'[2]	20'[2]
- Maximum	20'	30'	40'	40'
- One-Way Lane	N/A	12’-18'	12’-20'	14’-24'
Curb Cut Radii				
- Minimum	5’[1]	15'	15'	20'
- Maximum	10’	30'	30'	40'
Access Grades				
Initial Grade (G1 to a point 10 feet beyond R.O.W.)				
- Minimum	(+) 2%	(+) 2%	(+) 2%	(+) 2%
- Maximum	(+) 8%	(+) 8%	(+) 6%	(+) 6%
Final Grade (G2)				
- Minimum	(±) 2%	(±) 2%	(±) 2%	(±) 2%
- Maximum	(±) 12%	(±) 10%	(±) 8%	(±) 8%
Max. Grade Break	(±) 8%	(±) 8%	(±) 8%	(±) 8%

Note:

1. Only applicable on arterial and collector streets.
2. Unless otherwise determined by the Fire Marshal.

J. Driveways

1. Vehicle Storage: Adequate driveway storage capacity for both inbound and outbound vehicles to facilitate safe, unobstructed, and efficient traffic circulation and movements from the adjacent roadway and within the development shall be provided, except for single-family or duplex residential driveways on local streets. Adequate driveway length will be subject to approval by the City Engineer
2. Internal Circulation: Developments requiring off-street parking facilities shall provide onsite vehicular circulation allowing access to all portions of the site without using the adjacent street system, unless a joint access or parking easement with one or more of the adjacent property owners has been dedicated.
3. Backing into the Right-of-Way Prohibited: Driveways shall be designed to contain all vehicle backing movements onsite, except for single family or duplex residential uses on

local streets. Triplex and Duplex residential uses may be considered in alleyways by City Engineer approval only.

4. Shared Driveways: Shared driveways are allowed and should be designed to meet the following criteria:

   a. Adequate turnaround for vehicles is provided on both lots.

   b. The driveway is properly engineered and constructed to mitigate any adverse drainage conditions and is appropriately surfaced for the type of development, usage, and zoning district.

   c. The driveway must meet Table 5.13 other residential standards.

   d. A public access easement, a minimum fifteen feet in width, for the benefit and use of all properties and property owners accessing the shared driveway has been dedicated and recorded to ensure legal access rights in perpetuity for each property served.

   e. Driveway spacing in conformance with the requirements in Table 5-12 of these Standards; or on State Highway 82, meeting the requirements of the Access Control Plan.

5.2.11 STREET INTERSECTION SIGHT OBSTRUCTION

Providing adequate sight distance is critical in intersection design. Unobstructed views of the intersection area shall be provided for approaching motor vehicles, bicyclists, and pedestrians for safety and for appropriate reaction time. The primary concerns for location of a new access are the sight distance along the roadway (for vehicles turning into the access) and the sight distance for vehicles entering the highway from the access point. Excerpts from Tables 4-1 and 4-2 from the latest version of the CDOT State Highway Access Code (SHAC) are provided in Table 5-14 and Table 5-15 as the minimum design standards for horizontal sight distance.

Table 5-14 Sight Distance Along Highway

Posted Speed in MPH	25	30	35	40	45	50	55
Design Sight Distance (in feet)	150	200	250	325	400	475	550
Minimum Sight Distance (in feet)	150	200	225	275	325	400	450

Ref: CDOT State Highway Access Code Table 4-1
Adjustments due to grade (SHAC Table 4-4) shall be applied

Table 5-15 Entering Sight Distance (in feet)

Vehicle expected to enter or cross highway*	Posted Speed in MPH						
	25	30	35	40	45	50	55
Two Lane Roadway							
Passenger Cars, Pickup Trucks	250	300	350	400	450	500	550
Single Unit Trucks > 10,000 lb GVW	325	390	455	520	585	650	715
Multi-Unit Trucks	425	510	595	680	765	850	935

Four Lane Roadway							
Passenger Cars, Pickup Trucks	300	360	420	480	540	600	660
Single Unit Trucks > 10,000 lb GVW	375	450	525	600	675	750	825
Multi-Unit Trucks	500	600	700	800	900	1000	1100

Ref: CDOT State Highway Access Code Table 4-2
*Vehicles determination from SHAC Table 4-3
Adjustments due to grade (SHAC Table 4-4) shall be applied

A. General. No sign, fence, hedge, shrub, tree or other natural growth or obstruction installed, set out or maintained which obstructs the view of motor vehicle operators at an intersection within the sight areas defined in this section. For the purpose of this standard, “intersection” shall include: the intersection of two public streets; the intersection of a commercial driveway with a public street; the intersection of a residential driveway with a public street; and the intersection of a private street with a public street.

B. The sight area at an intersection defined. The area bounded by setback lines, or bounded by setback lines and the edge of the traveled lane. Setbacks for intersection types are as specified in the following paragraphs.

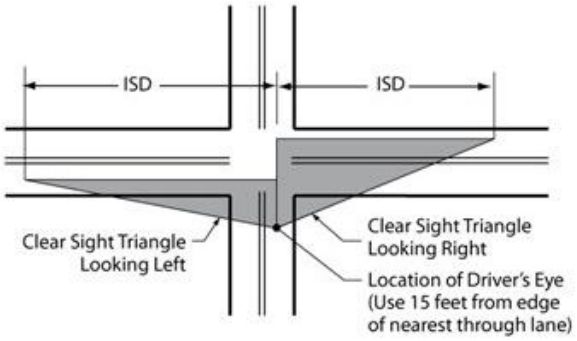


Figure 5–1 Intersection Sight Distance Triangles

C. Sight Obstruction Height Limits. Sight obstruction, as defined in subsection D of this section, shall not be permitted above a line defined within AASHTO guidelines.

D. Sight Obstruction Defined. Sight obstructions include, but are not limited to any object, sign, sign post, vegetation, mail box, mail box post, and fence which could obstruct a driver’s view. Exceptions to this definition include street lighting, regulatory, warning and guide signs.

E. Other Sight Obstruction Standards. Where unusual conditions preclude the application of the foregoing provisions of this section in a reasonable manner, or where a special viewing problem exists, the traffic engineer will determine when an intersection view obstruction exists, based on the intent of this section. Every obstruction of the sort prohibited in this section hereafter installed or permitted to remain shall be deemed a violation of this chapter.

5.2.12 SURFACING STRUCTURAL REQUIREMENTS

Due to the varying nature of subgrade soils and the existence of collapsible soils in the City, a geotechnical design of all roadway sections is required for any proposed new street or alley. The

roadway structural section design including Hot Mix Asphalt (HMA) or Portland Cement Concrete Pavement (PCCP), Aggregate Base Course, Geotextile Fabric, and Subgrade Stabilization shall be prepared by a Professional Engineer Registered in the State of Colorado specializing in Geotechnical Engineering and based on site specific soil and groundwater conditions. The subgrade stabilization shall be designed and constructed so that the prepared subgrade surface will comply with all of the City's Specifications including compaction and proof-rolling, and shall also be designed to maintain the stabilized condition under all anticipated traffic loading and seasonal fluctuations of temperature and groundwater conditions. Full depth pavement section is not acceptable.

Concrete pavement may be required in areas where heavy truck traffic and busses warrant additional pavement design capacity.

5.2.13 STREET, ALLEY AND SIDEWALK CUTTING, TRENCHING AND PATCHING

A. General

1. All work shall be done in an expedient manner. Use of fast-setting concrete and similar techniques are required unless the contractor or engineer documents in writing that the quality of repair will be compromised. Completion of the work, including replacement of pavement and cleanup, shall be accomplished within one (1) week after the repair work or activity involving the cut is done. This time frame may be adjusted if delays are due to inclement paving weather or other adverse conditions that may exist. However, delaying of the final patch or overlay work is allowable only with the City Engineer's written approval. The City Engineer may deem it necessary to complete the work within the one week time frame and not allow any time extension. If this occurs the contractor shall perform the necessary work as directed by the City Engineer or the work will be completed by the City either with its own personnel or via a secondary contractor billed out at three (3) times the rate of the cost of the city's work.
2. . Removal and replacement of work that does not meet these standards shall be completed within thirty (30) days of written notification of the deficiency unless deemed an emergency requiring immediate action. In the event the replacement work has not been completed, the City will take action upon the contractor's surety or bond to cover all related costs.
3. No metal tracked vehicles shall be allowed on asphalt or concrete.
4. Grading shall be done as necessary to prevent surface water from entering the excavation. Any water accumulation within the trench shall be promptly removed.
5. Surface drainage, driveways, fire hydrants, manholes, water valves, etc., near the work shall be unobstructed by the trenching operation when feasible.
6. In streets that are less than five (5) years old, the City reserves the right to deny any street excavation or require repairs that exceed the requirements set forth in these specifications.
7. All permanent pavement patches and repairs shall be made with "in-kind" materials. For example, concrete patches in concrete surfaces, asphalt patches in asphalt surfaces,

concrete pavement with asphalt overlay patches will be expected in permanent "overlaid" concrete streets, etc. In no case is there to be an asphalt patch in concrete streets or concrete patch in asphalt streets. Any repair not meeting these requirements will be removed and replaced by the contractor at his or her expense within the time frames mentioned above.

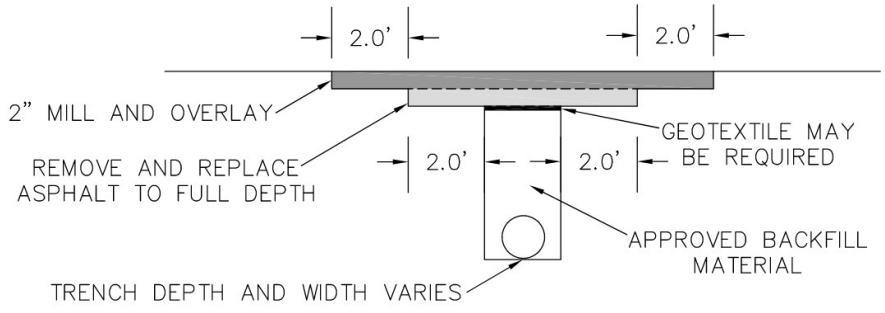
8. A temporary surface is required when the final surface is not immediately installed. The temporary surface installation and maintenance shall be the responsibility of the contractor or permittee until the permanent surface is completed and accepted. It shall be either a hot mix or cold mix paving material. Temporary surfaces shall be compacted, rolled smooth and sealed to prevent degradation of the repair and existing structures during the temporary period. If the contractor is unable to maintain a temporary patch for whatever reason, the City will complete repairs billed out at three (3) times the rate of the cost of the City's work at the expense of the contractor or permit applicant. Any exceptions to this requirement will be in writing and included by the City in the permit.

B. Contractor to have temporary patching in place within 24 hours of trench backfilling. Cutting in Improved Streets

1. In existing pavement, all excavations within thirty-six (36) inches of the edge of the asphalt shall require removal and replacement from the edge of asphalt to the excavation edge.

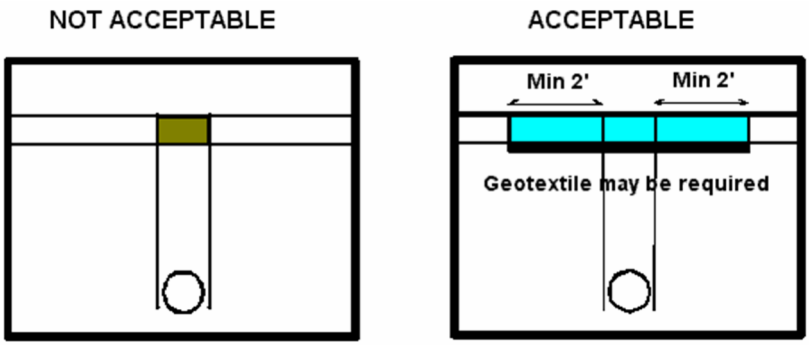
2. Concrete pavement, cross-pans, driveways, streets and alleys shall be removed to neatly sawed edges cut to full depth and cut in straight lines either parallel to the curb or perpendicular to the alignment of the sidewalk or curb. Any removal shall be done to the nearest joint.

3. The cuts in bituminous (asphalt) pavement shall be a minimum of two (2) feet on each side of the trench width required for excavation, and shall be re-sawcut to clean lines if trench failure or pavement damage has occurred.



T–PATCH DETAIL

4. In the case of older pavement where the likelihood of cracking and potholes next to the patch is greater, it will be required to extend the "shoulders" of the pavement beyond the two-foot minimum and reinforce this area with a geotextile.



5. "T" cutting is required for all repairs.

C. Trenching

1. All excavation, shoring, trenching and the like shall comply with OSHA's "Construction Industry Standards" as well as all applicable federal and state regulations.

2. Trenches shall be excavated along the lines and grades established and in no case shall be more than one hundred (100) feet in length, or be trenched or backfilled in non-continuous sections unless approved by the City Engineer. Failure by the contractor to comply with these requirements may result in an order to stop the excavation in progress until compliance has been achieved.

3. All excavated material shall be stockpiled in a manner that does not obstruct sidewalks, streets and driveways. No stockpiled materials shall be allowed on the asphalt surface or adjacent walkways. The work shall be done in a manner that will minimize interference with traffic and/or drainage of the street.

4. The contractor at the end of each day shall close all trenches and barricade all excavations and ditch lines, remove excess material from travel ways and thoroughly clean all streets, alleys and sidewalks affected by the excavation.

5. If it becomes necessary in the judgment of the City Engineer, all streets, alleys (if asphalt or concrete) and sidewalks shall be swept or washed. If the contractor cannot maintain a clean street/sidewalk work area, the City Engineer has the right to issue a stop work order on the project until the situation can be resolved.

6. Materials encountered during excavation such as rubbish, organic or frozen material, and any other material that is not satisfactory for use as backfill shall be removed from the site and disposed of daily by the contractor at his expense. Stones, concrete or asphalt chunks larger than six (6) inches shall be considered unsatisfactory backfill and removed by the contractor.

D. Backfill of All Trenches in Improved City Right of Way

1. Onsite testing shall be required for all backfill methods and reports provided to Engineering within one week of excavation completion and prior to final acceptance. Failure to provide documents may require removal and repair of cut.

2. A two year warranty period is required on all trenching work in the right of way. Backfill Materials

    a. Aggregate backfill:

        Aggregate backfill shall be CDOT Class 6 Structure Backfill (roadbase) meeting the specifications for this material within the CDOT specifications manual.

        Backfill shall be placed in uniformly distributed layers and brought up equally on all sides of the structure or trench wall. Each layer shall not exceed 6” before compacting to the required density and before successive layers are placed. Structure Backfill Class 6 (roadbase) shall be compacted to a density of not less than 95 percent of maximum density determined in accordance with AASHTO T 180.

    b. Flowable Fill (Flow-fill)

        Flow-fill is a self-leveling low strength concrete material composed of cement, fly ash, aggregates, water, chemical admixtures and/or cellular foam for air-entrainment. The amount of water shall be such that the flow-fill flows into place properly without excessive segregation. Flow-fill shall meet the requirements of CDOT Specification 206.02. Flow fill may be allowed in areas where expedited construction durations benefit the public or where unstable bank material make the use of backfill appropriate for safety concerns of the workers or surrounding facilities.

    c. Flow-fill shall be prohibited as a temporary or permanent street surface.. Flow-fill trenches may be left low in cases of steel plating for a temporary crossing of the trench area until the permanent surface can be installed. Limit one (1) week duration.

    d.

    e. When soft or unstable material or rock is encountered in the trench subgrade that will not uniformly support the pipe, such material shall be excavated to additional depths and backfilled as directed by a geotechnical engineer licensed in the State of Colorado.

E. Filling of Bore Holes, Vertical and Horizontal

3. For all bore holes, the limits of repair shall be identified in the permit. Bore holes shall be filled with flowable fill to prevent entry of moisture. Surface patching material used shall match the existing pavement section.

4. The completed job shall be flush with the surrounding pavement and have no indentations, pockets or recesses that may trap and hold water. The sealing of bore holes is the responsibility of the contractor or person making the bore.

F. Asphalt Surface Repair

1. Trench restoration shall be by a patch or patch plus overlay as required by the City Engineer.

2. Any damage to the existing asphalt surface in the vicinity of the work shall be repaired at

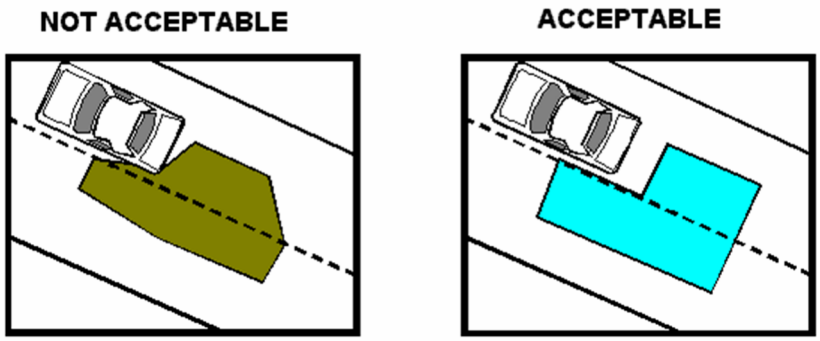
the expense of the contractor.Patching or mill and overlay may be required, at the discretion of the City.

3. The depth of asphalt patches in asphalt streets and alleyways shall be a minimum of 4 inches or the depth of the existing asphalt surface plus two (2) inches, whichever is greater. Hot mix asphalt shall be placed in accordance with CDOT Specification Sections 401 and 403, except that longitudinal joints between successive layers of asphalt shall be displaced laterally a minimum of 12 inches and asphalt over 2 inches thick shall be placed and compacted in equal lifts not to exceed 3 inches each.
4. For patches in asphalt, a tack coat shall be applied to all edges of the existing asphalt and all cold joints between curb and gutter before placing the new pavement in accordance with CDOT Specification Section 407. After placing the new asphalt, all seams (joints) between the new and existing pavements and curb and gutter shall be sealed with an asphalt tack coat or rubberized crack seal material.

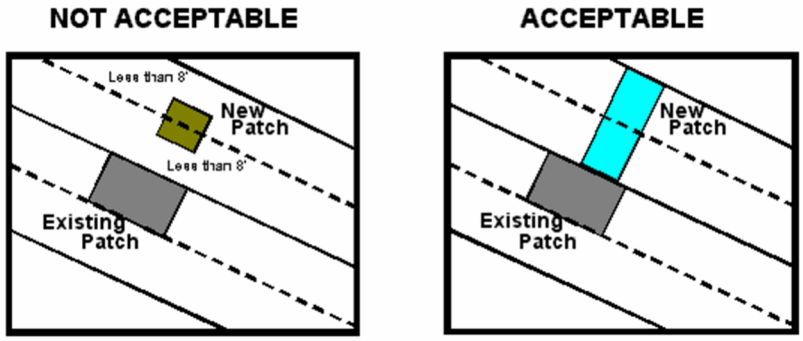
G. Asphalt Patching Standards

5. The asphalt patch area for street excavations that fall within the wheel path of the vehicular travel lane shall be increased in size to the center of the lane or adjacent lane. In no circumstance will the edge of a patch area be allowed to fall within the wheel path.

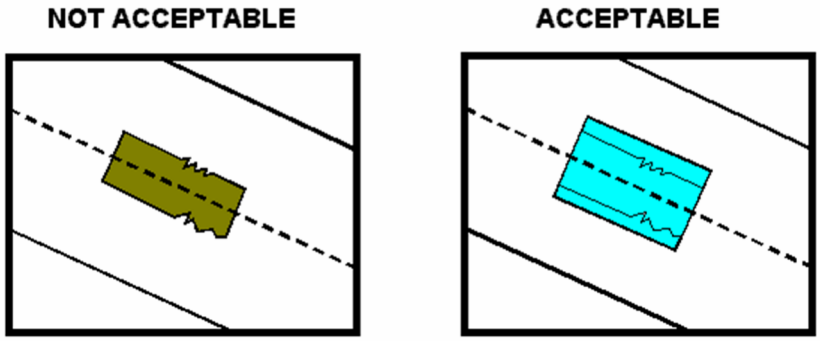
6. Existing pavements shall be removed to clean, straight lines parallel and perpendicular to the flow of traffic. Do not construct patches with angled sides and irregular shapes.



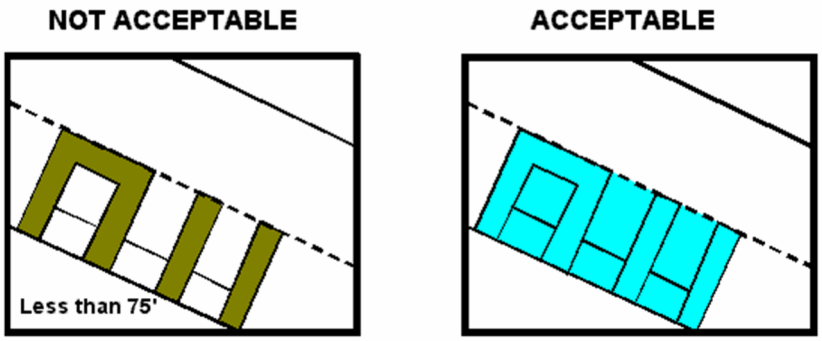
7. Do not "leave" strips of pavement less than one-half (½) a lane in width from the edge of the new patch to the edge of an existing patch or the lip of the gutter.



8. Asphalt and concrete pavements should be removed by saw cutting or milling.



9. In the case of a series of patches or patches for service lines off a main trench, repair the pavement over the patches by milling and overlay when the spacing between the patches is less than twenty five (25) feet (in cases where the existing pavement is in poor condition and may require overlay within the next few years, this requirement may be modified or waived by the City Engineer).

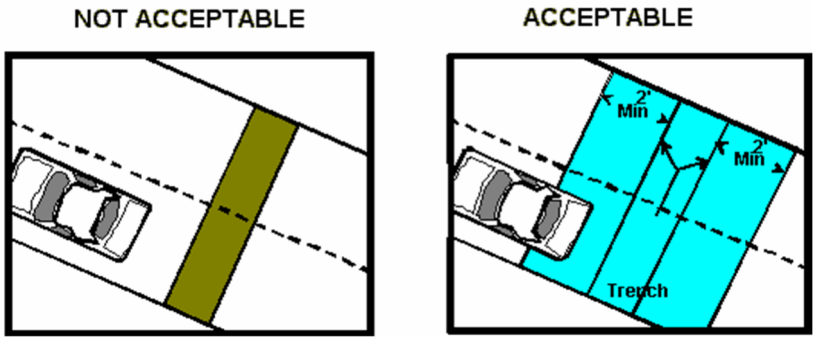


10. Street repairs should leave the pavement in a condition as good as, if not better than, the condition prior to the repairs.

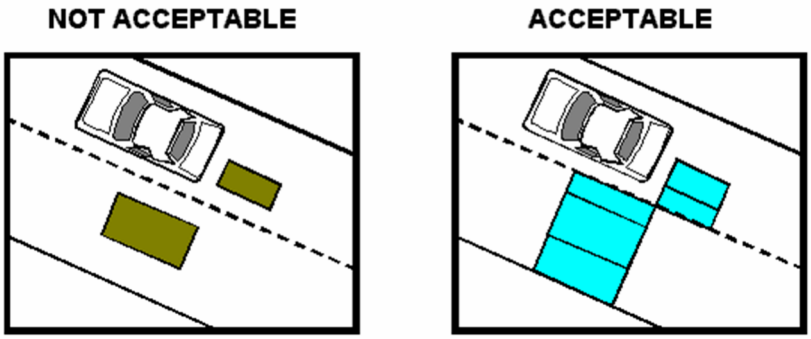
11. In all cases the existing pavement condition shall beinspected by The City prior to the work. After completion of the work, The City will re-inspect the pavement condition to verify that the pavement has been maintained or improved.

f. In the case of major projects that involve excessive haul of materials or unusually heavy construction equipment or activity, nondestructive testing of the pavement condition before and after construction may be required.

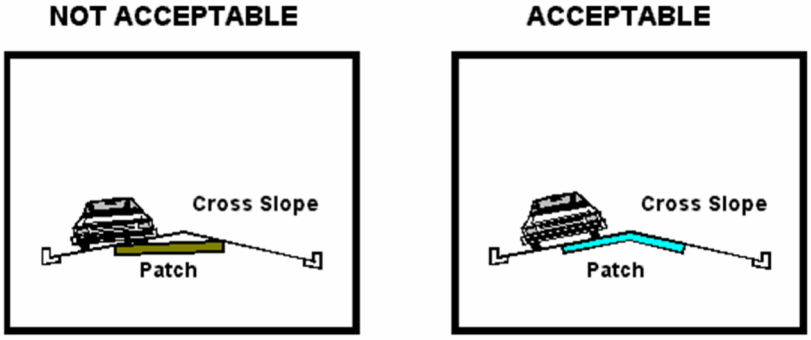
12. All trenches cut in asphalt shall be overlaid across the entire street width for a distance of two (2) feet minimum on all sides of the trench.



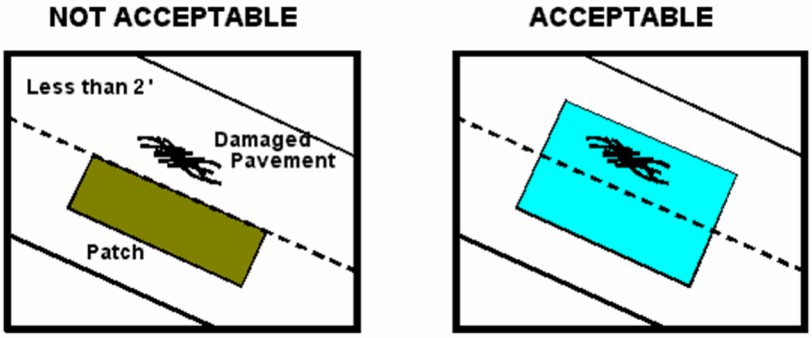
13. T-Patch (detail and description added here)



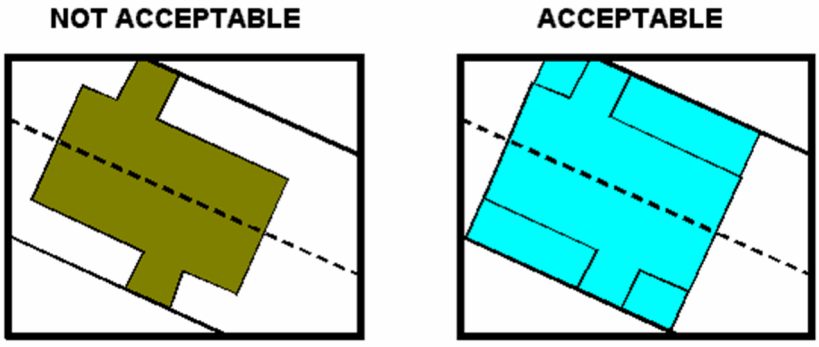
14. Patches should have a smooth longitudinal grade consistent with the existing roadway. Patches should also have a cross-slope or cross-section consistent with the design of the existing roadway.



15. When the proposed excavation falls within ten (10) feet of a section of failed pavement, the failed area shall be removed to sound pavement and patched. Scarring, gouging or other damaged pavement adjacent to a patch shall be removed and the pavement repaired.



16. Avoid frequent changes in width of patches. For future maintenance, this simplifies removal of adjacent pavement failures.

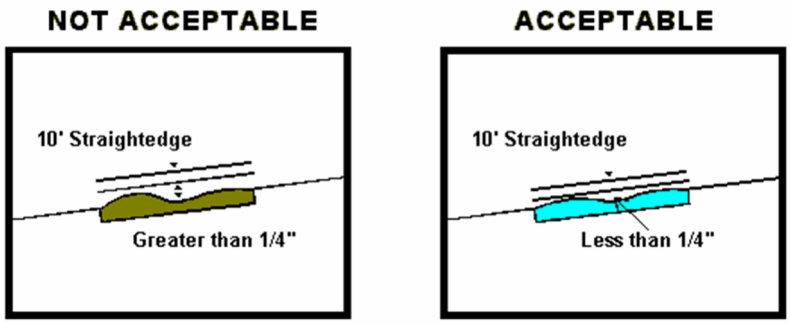


17. Consideration of pavement management issues may also identify opportunities for joint efforts between the utilities and the City. For example, suppose that the repair of a utility line requires an overlay on one-half (½) of a street, and that the condition of the remaining one-half (½) of the street might also warrant an overlay. We may decide at that point to overlay the entire street, with the City's street authority and the utility

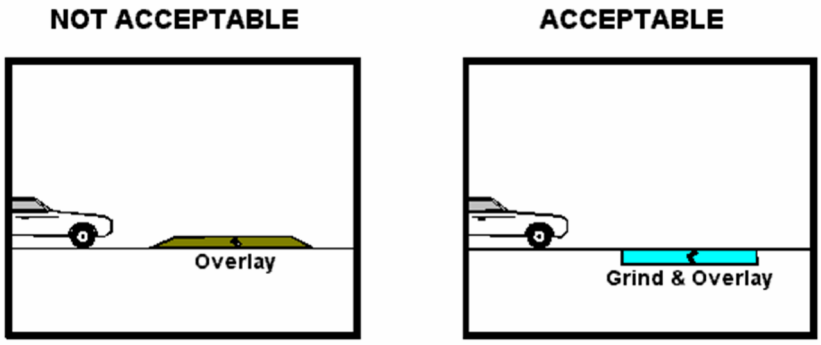
splitting the cost of the overlay. In such a case, the utility may be able to save the cost of grinding one-half (½) the street. The City's street authority will allocate a reasonable percentage of its annual overlay program to accommodate its share of these situations. This includes minor (two-to-three-block) maintenance projects and larger capital improvement projects (major water line extension). Coordination for these types of cooperative repairs should occur as far in advance of actual construction as possible.

H. Roadway Smoothness

1. Ensure that the transitions on and off of the repair are smooth. The patch itself must offer a smooth ride.
2. Surface tolerances for street repairs should meet the standard for new construction.



3. Overlays should be placed by first removing the existing pavement to the desired depth by milling, and then placing the pavement flush with the adjacent surfaces.

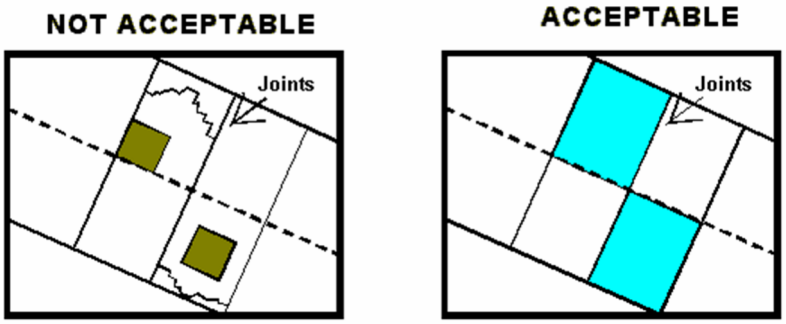


4. Unacceptable paving patches shall be corrected by removal and repaving of the patched area.

I. EXCEPTIONS: There may be situations where the patching standards are considered inappropriate. This determination shall be made by the City Engineer.

J. Concrete Surface Repair

1. The concrete pavement shall be replaced to match existing depth and strength unless geotechnical recommendations state otherwise. All concrete construction shall be protected from vehicular traffic, including contractor vehicles, until the concrete has achieved eighty percent (80%) of its ultimate strength. Concrete shall be coated and sealed with a uniform application of membrane curing compound applied in accordance with manufacturer's recommendations. When ambient or surface temperatures are expected to fall below 45 degrees F during the next three days, special measures shall be taken to ensure subgrade materials are above 40 degrees prior to concrete placement and the concrete will not fall below 40 degrees until the concrete has attained a compressive strength of at least 2000 psi.
2. Where existing cracks or damage are adjacent to the area being repaired, the repair area shall include the cracked or damaged concrete. Pavement repairs shall include all areas of damage, including bore holes, pot holes and equipment and/or material scarring of the existing surface.
3. When repairing concrete, the removal perimeter shall be saw-cut and replacement concrete shall be doweled into the old concrete per CDOT M-Standard Plans.
4. Concrete joints shall be thoroughly cleaned of all foreign material then filled with a hot-poured elastic type joint filler conforming to M 173, ASTM D1190-80, ASTM D1751-83, D1752-84, D3405-78, D3406-78, D3407-78 or silicone sealants or others as approved by the City Engineer. Joint material shall be filled to the surface. Excess material shall be scraped off to provide a smooth riding surface.
5. In concrete pavements, remove sections to existing joints. In damaged concrete, the limits of removal should be determined in the field by the City Engineer, or representative.



K. Gravel Streets, Alleys, Roadway Shoulders and Subgrade for Sidewalks and Curb and Gutter

1. For all roadway sections (gravel roads, trench resurfacing or base course beneath new asphalt sections), roadway shoulders and sidewalk and curb and gutter subgrades, the contractor shall replace the surfacing or subgrade with gravel conforming to a CDOT Class 6 Aggregate Base Corse (CDOT Specification 703.03).
2. Some streets may have been treated with a special surface treatment to control dust

and/or bind the aggregates together. In these cases, the contractor is responsible for replacing the existing surface treatment. Such surface treatments shall be of the same chemical composition as what existed prior to the excavation work. The City Engineer shall note on the permit the surface treatment that will be required.

3. When trenching within the roadway shoulder(s), the shoulder shall be restored to its original or better condition.

5.2.14 TESTING AND INSPECTION OF ALL WORK IN THE RIGHT OF WAY

A. Testing and inspection is required and will be at the developer's or contractor's expense. Twenty-four (24) hours' notice is required for all inspections.

B. All construction work within the public rights-of-way shall be subject to inspection by the City Engineer or representative, and certain types of work may have continuous inspection. It shall be the responsibility of the contractor to provide safe access for the inspector to perform the required inspections.

C. The City Engineer may make or require other inspections of any work as deemed necessary to ascertain compliance with the provisions of these Standards or the Municipal Code. Any work performed without the required inspections shall be subject to removal and replacement at the contractor's expense, regardless of the quality of the work.

D. Testing frequencies

Following are the minimum number of tests required for each construction activity. These tests must be submitted to the City Engineer within two weeks of excavation and shall be electronically submitted as a PDF to the City.

1. Flow-fill: The Contractor shall sample and test the first three loads of Flow-fill for each placement and then once for every additional 50 cubic yards. Sampling and testing will be witnessed by the Engineer. Mix design must be submitted from the batching plant, and approved by the City Engineer.

2. Utility trench backfill (manufacturer's recommended utility bedding, then Class 6 Structural Backfill): Tests required for gravel placement may be increased if directed by the City Engineer. Proctors shall be determined prior to backfilling. The horizontal frequencies of density tests are as follows:

   a. Utility mains: One (1) test per one hundred (100) linear feet per lift.

   b. Service lines: One (1) test per each service per lift.

   c. Manholes and valve boxes per each lift.

3. Concrete pavement, curbs, gutters and sidewalks: Testing to be conducted on the first truck and then once for every additional 50 cubic yards or portion thereof. Mix design must be submitted from the batching plant and approved by the City Engineer prior to placing concrete.

4. Asphalt pavement structure (new or replaced street sections and utility trenches):

a. Asphalt content: One (1) test per five hundred (500) tons or fraction thereof of mix produced, minimum of one (1) test per job.

b. Gradation; aggregate: One (1) test per five hundred (500) tons or fraction thereof of mix produced, minimum of one (1) test per job.

c. In-place density: One (1) test per 1000 square feet when patch exceeds 100 square feet.

5. Class 6 Aggregate base course materials: Placement, shaping and compaction shall be in accordance with CDOT Specification Section 304. Compaction density and shaping will be verified at the following frequency:

   a. One (1) test per four hundred (400) lane feet.

   b. No less than two (2) tests per excavation.

5.2.15 STAKING

A. All surveying and staking shall be performed by a firm capable of performing such work. The surveyor directing such work shall be licensed by the State of Colorado.

B. A pre-construction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to placement of materials.

C. The minimum staking of streets shall be as follows:

1. Stake centerline alignment every 25 feet (50 feet in tangent sections) with cuts and/or fills to subgrade.

2. Stake top of base course at centerline and edge of pavement every 25 feet.

3. Stake top back of curb at a consistent interval and offset for vertical and horizontal alignment.

5.2.16 PAVEMENT MARKING

A. Street pavement marking shall be provided on all Arterial and Collector Streets and at the intersections of all Local Residential Streets with Arterial and Collector Streets. The streets classification map can be found here.(chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://cogs.us/DocumentCenter/View/202/Streets-Map-24x36-PDF---City-of-Glenwood-Springs-Grid-4MB?bidId=)

B. The work shall be accomplished in accordance with the Manual of Uniform Traffic Control Devices for Streets and Highways (MUTCD), the Colorado Supplement and Section 627 of the CDOT, Standard Specifications for Road and Bridge Construction.

C. Epoxy with glass beads

D. Bike lanes shall be striped with high-contrast, white longitudinal markings 4” wide minimum, but 6” is preferred. Sharrows may be used for bike routes where not enough adequate width (less than 4’) is available for an on-street bike lane.

E. All stop bars and crosswalk bars shall be thermoplastic pavement marking material milled into the asphalt.

5.2.17 PHYSICAL TRAFFIC CALMING DEVICES

The following physical traffic calming devices, roundabouts, chicanes, and speedtables, may be considered for installation on non-arterial streets that are also non-emergency routes. The appropriate device depends on the roadway geometry, sight distance, and the traffic characteristics such as speed and volume. The City Engineer, in consultation with the City's Emergency Services, will determine whether a traffic calming device is appropriate for a specific location.

A. Roundabouts- Used primarily to reduce collisions at intersections, roundaboutscan also reduce speeding along residential street corridors and improve bicycle and pedestrian safety. In addition to these safety benefits, many circles can be landscaped, which can provide aesthetic enhancements to the street.

B. Chicanes – A series of 2 or 3 curb bulbs, chicanes slow traffic by creating a narrow, winding section of roadway. Like traffic circles, many chicanes can be attractively landscaped. Since they result in the elimination of some parking, they are generally only installed where there is low demand for on-street parking.

C. Speed Tables – Mounds that extend the full width of the street, speed tables can be effective at reducing speeds.

If calming devices are requested through the petition process, the City will perform a proper traffic analysis to determine whether an appropriate counter measure should be implemented.

The traffic calming petition can be found here. https://cogs.us/192/Traffic-Calming

5.3 PRIVATE STREETS

5.3.1 GENERAL

A. Purpose

The purpose of these requirements is to standardize private street design elements and to assure, so far as practical, that the minimum requirements of the public are met. These requirements include safety, welfare, convenience, aesthetics, and economical maintenance. These Standards are intended to assist, but not to substitute for competent work by professional engineers. It is expected that the professional engineer will bring to each project the best skills and abilities to ensure that the project is designed correctly and accurately.

B. Private streets may be allowed provided that all of the following conditions are met:

1. Be permanently established by dedication as private roadway during platting process
2. Include provisions for future use by adjacent property owners when applicable,
3. Meet City minimum design standards described herein, except for right of way requirements and approved deviations
4. Be accessible at all times for emergency and public service vehicle use

5. Have recorded on the plat or other legal document a statement acknowledging that the City will not be responsible for roadway maintenance costs associated with use of the road by emergency vehicles and service vehicles, including parking enforcement
6. Not result in land-locking of present or future parcels nor obstruct public street circulation
7. Develop, approve and record covenants which provide for maintenance of the private street by the owner or homeowners association or other legal entity.
8. See Table 5.6 above.

C. Acceptance as Public Streets.

Acceptance of private streets as public streets will be considered only if the street(s) meet all applicable public street standards, including dedication of right-of-way, are deemed to have a benefit to the public street system and are accepted by the City Council.

5.3.2 STREET TYPES, GEOMETRICS AND DESIGN CRITERIA

A. Geometric and Design Criteria.

Individual streets within the development shall be constructed in their entirety to the highest applicable design criteria. Side street approaches shall constitute new streets for design purposes.

B. Utilities Location.

Appropriate utility easements shall be provided on the proposed project plat and recorded with the Garfield County Clerk and Recorder. Utility installation shall be the responsibility of the Applicant and shall not be installed above ground or in a manner or location that will interfere with the traveled surface and shoulder area. All work shall be coordinated with the appropriate City utility department. Utilities shall be designed and constructed in accordance with all City standards.

C. Owners to Maintain Streets -- Organization required to Guarantee Maintenance and Assessment of Costs.

All private streets subject to the terms of this Chapter shall be maintained by the owners of the property served by them and kept in good repair at all times. In order to insure the continued good repair, a declaration of covenant requiring maintenance of the private street shall be recorded with the Garfield County Clerk and Recorder’s office concurrent with the recording of the subdivision or plat.

The declaration of covenants shall include the following terms:

1. The agreement for maintenance shall be enforceable by any property owner served by the street.
2. A means shall be established for assessing maintenance costs equitably to property owners served by the private street.
3. The declaration of covenants shall run with the land.
4. "Maintenance" shall include, but not be limited to, street surfacing, sidewalks, shoulders,

gates, signs, storm drainage facilities, vegetation control and snow removal.

D. Cul-De-Sacs and Turnarounds

1. Shall be designed in accordance with International Fire Code requirements.
2. Cul-de-sacs shallbe constructed if the street is not a through street. Cul-de-sacs or intersections must be provided at a minimum of one thousand five hundred (1,500) feet measured from centerline to centerline.
3. Parking shall be restricted in all cul-de-sacs and all turnarounds, as determined by the City Engineer.

E. Gates.

A building permit issued by the City is required when gates are installed across private streets. In order for the City to issue the building permit, the following requirements must be met:

1. Gates which serve ten (10) or more dwelling units shall have an Opticom activated opening system, or an equivalent and compatible system, which is approved by the Fire and Police Chief.
2. Gates shall have rapid-entry key capabilities (Knox box) for the Fire Department access, and access code shall be provided to the Fire Department.
3. All electrically-activated gates shall have default capabilities to the unlocked position.
4. The minimum clear width of a gate shall be compatible with the street required width.
5. Gates that might be obstructed by the accumulation of snow shall not be installed.
6. The City shall provide notice to the Fire Department of plans for a new gate. The applicant must have final approval of installed gate and function from the Fire Department prior to issuance of Certificate of Occupancy or substantial completion.
7. A turnaround shall be provided for vehicles that are not granted access through the gate. This turnaround must be outside the travel way.

F. Medians.

A street separated by a median shall have a minimum traveled surface width of ten (10) feet on each side of the median.

1. Fire hydrants shallbe located on both sides of the street at a spacing acceptable to the fire department, but not within the median.

5.3.3 SIGNS

A. Speed Limit Signs.

If speed limit signs are desired by the Applicant or the property owners, they shall be approved by the City Engineer and be installed by the Applicant and maintained/enforced by the property owners.

B. Street Signs and Street Names

1. Streets shall be numbered according to ASPO Report Number 332, Street Naming and Property Numbering Systems, by Margaret A. Corwin and Street Naming and Property Numbering for Small Cities by Southwest Georgia Planning and Development Commission, Camilla Georgia. Names for new streets shall be submitted for approval during the platting process. Street numbers shall be included on each lot of the plat.
2. Street name signs must conform to the MUTCD standards and shall be maintained by the property owners. If a sign is damaged or stolen the property owners shall replace the sign within seven calendar days of notification by the City or the City will replace and bill the property owners.

C. Fire lanes shall be installed by the applicant and maintained by the property owner. Signs and striping locations shall be approved by the Fire Chief.

D. Subdivision Signs/Monuments

1. Designed per City Municipal Code

5.3.4 COMPLIANCE

A. Certification. All private streets shall be constructed by the Applicant and inspected by the Applicant's engineer who shall issue a letter of compliance to the Applicant with a copy to the City certifying:

1. The private street has been constructed in accordance with the City's design and standards.
2. The street signs are in place and conform to the MUTCD standards.
3. The storm drainage, if applicable, has been constructed in accordance with the Engineer's design.
4. Bridges and structures have been designed and constructed in conformance with Section 5.6.

The compliance letter shall be stamped, signed, and dated by the applicant's engineer.

A set of as-built plans and inspection/testing reports must be submitted with the letter of compliance.

B. Completion. All private streets must be completed and the letter of compliance submitted to the City or a financial guarantee must be submitted to the City in the amount of one hundred twenty-five (125) percent of the Engineer's cost estimate to complete the work. The street(s) within a plat, large lot, or long subdivision must be constructed prior to the final inspection and approval of occupancy of any structures constructed within the plat, except for model home permits as authorized by the City Engineer.

5.3.5 MAINTENANCE

A. All private streets and sidewalks subject to the terms of this Section shall have a Street Maintenance Covenant recorded with the Garfield County Assessor's Office prior to or concurrent with the recording of the subdivision or plat.

B. Private streets or easements existing, without a street maintenance covenant, prior to the effective date of this Chapter will be exempted from the Street Maintenance Covenant.

5.3.6 PRIVATE TO PUBLIC STREET DEDICATION

A. The City has no obligation to accept any private street into the City street system for dedication or maintenance. It shall be the Applicant's responsibility to submit a preliminary site plan showing the street(s) proposed for dedication to the City and the Applicant must receive the City Council approval before proceeding with street construction or Right of Way dedication plans.

B. Street construction plans prepared in accordance with the most recent version of these Standards and Guidelines shall be submitted for review and must be approved by the City Engineer before street construction activity commences.

C. The Applicant must submit all necessary deeds, easements, etc., to the City for acceptance and recording by the Garfield County Clerk and Recorder’s Office.

D. Once the street has been dedicated to the City and accepted for maintenance, the street shall remain open for public use and may not be closed except by the City.

E. It shall be the Applicant's responsibility to have the bridge and drainage structures inspected and load rated by a licensed Professional Engineer prior to City acceptance.

F. All utility lines shall be inspected, cleaned and repaired if necessary prior to acceptance.

5.4 SIDEWALKS, CURB RAMPS, CURBS AND GUTTERS

5.4.1 GENERAL

A. Sidewalks are required on both sides of the street for all street classifications, except arterials (alternate pedestrian facilities must be provided in the corridor) and alleys. See section 5.2 for standards. See the applicable Standard Detail Drawing(s) in the Appendix attached to this Chapter for more requirements.

B. All streets constructed with curb, gutters, and sidewalks, shall have pedestrian/ADA ramps provided at street intersections and other pedestrian facility crossings. These ramps shall be constructed in accordance with CDOT Standards and Guidelines.

C. Sidewalk construction may be required in conjunction with any new development or redevelopment of the existing structures, or plat or approval, or other land use permit.

D. Concrete shall be an approved ready-mix use for sidewalk, curb ramps, curbs, and gutters. Hand mix concrete are not allowed unless review and approved by the City Engineer.

5.4.2 DESIGN STANDARDS

Plans for the construction of sidewalks, curbs, gutters, and curb ramps are to be submitted as part of the street plans when applicable. The minimum widths for sidewalks are contained in Table 5-7. Because these are minimum standards, the City Engineer may modify the improvement to be installed based upon the conditions specific to the site.

5.4.3 SIDEWALK CONSTRUCTION

A. Sidewalks shall be constructed per CDOT M&S Standard Plan M-609-1. Minimum sidewalk thickness shall be 4 inches and 6 inches at driveways.

B. Concrete for sidewalks shall be CDOT Class D, or other approved air-entrained concrete.

C. Form and subgrade inspection by the City is required before the sidewalk is poured.

D. Monolithic pour of curb, gutter, and sidewalk will not be allowed.

E. Expansion joints shall be placed every 50’ along concrete sidewalk.

F. Sidewalk demolition shall be done to the nearest joint. Control joint spacing shall be between 5-8 feet depending on the sidewalk width and existing control joint pattern.

G. Sidewalks shall be constructed of Portland Cement Concrete. Exceptions will be considered on a case-by-case basis at the discretion of the City Engineer.

5.4.4 CURB AND GUTTER

A. A concrete curb and gutter shall be used for all street edges, unless otherwise approved by the City Engineer.

B. All curbs and gutters shall be constructed per CDOT M&S Standard Plan M-609-1.

C. Concrete for curbs and gutters shall be CDOT Class D, or other approved air-entrained concrete.

D. When matching existing pavement grade, pavement shall be sawcut full depth, one foot from lip of pan, and milled 2” deep for an additional one foot. Exceptions to this may be approved by the City Engineer. See detail

E. Joints shall be placed at all alley and driveway returns, structures, curb ramps per CDOT M&S Standard Plan M-609-1.

F. Curb and Gutters shall be cut to the nearest joint. Control joint spacing between shall be 10 feet or to match existing control joint pattern.

G. Form and subgrade inspection by the City are required prior to pouring the curb and gutter.

5.4.5 CURB RAMPS

A. All sidewalks shall be constructed to provide for curb ramps in accordance with State and Federal law. Curb ramps and refuge islands shall be the same width as the crosswalk markings.

B. All curb ramps shall be constructed per CDOT M&S Standard Plan M-608-1.

C. Detectable warning patterns shall be cast iron and shall be on the CDOT Approved Products List.

D. Concrete for curb ramps shall be CDOT Class D, or other approved air-entrained concrete.

E. Form and subgrade inspection by the City are required before the ramp is poured.

F. Any variation due to site constraints shall comply with current ADA or PROWAG requirements.

5.5 SHARED-USE PATHS, BIKE LANES, AND TRAILS

5.5.1 GENERAL

Shared-use path and trail construction may be required in conjunction with any new development or redevelopment of an existing structure, or where traffic analysis or traffic planning indicates that substantial bicycle usage which would benefit from a shared-use path or trail.

5.5.2 DESIGN STANDARDS

All new construction shall conform to the standards for bicycle lane facilities outlined in this section, the “Guide for the Development of Bicycle Facilities” prepared by AASHTO.

A. On-Street Bike Lanes - Streets without On-Street Parking

   Bicycle lanes on new streets without on-street parking shall be at least 5 feet wide, measured from the edge of gutter pan.. On existing streets where on-street bike lanes are being added and available right-of-way or improvements space is restricted, the width of the bicycle lane may be reduced to a minimum of 4 feet wide.

B. On-Street Bike Lanes - Streets With On-Street Parking

   Bicycle lanes on new streets with on-street parking shall be at least 5 feet wide, exclusive of the parking lane.

C. Off-Street Bike Paths or Trails

   Off-street bike trails or paths shall be at least 10 feet wide and shall conform to the Guide for the Development of Bicycle Facilities. Where space is limited 8 feet may be accepted.

D. Bicycle Parking –reference Glenwood Springs Development Code Article 070.040.060(f)

E. Vertical Clearance to Structures

   Vertical clearance is measured from the high point within the entire trail width to the lowest portion of the structure. If the undercrossing trail or overcrossing structure may be widened in the future, adequate vertical clearance shall be provided to accommodate the future condition. The vertical clearance of structures shall be in conformance with the AASHTO *Guide for the Development of Bicycle Facilities*.

5.5.3 SHARED USE PATH AND TRAIL CONSTRUCTION

A. Off-Street Bike Paths and Trails shall be constructed per CDOT M&S Standard Plan M-609-1. Minimum concrete thickness shall be 6 inches.

B. Bike paths and trails shall be CDOT Class D, or other approved air-entrained concrete.

C. Root barrier fabric shall be placed under bike path or trail prior to placing of the materials.

   Form and subgrade inspection by the City is required before the sidewalk is poured.

D. Apply broom finish perpendicular to trail. Use ¼” sawcut joints cut 1-1/2” deep, minimum every 10’ along the trail. Contraction joints shall be constructed every 50’ along the trail.

5.6 BRIDGES AND STRUCTURES

5.6.1 GENERAL

This section applies to new bridge and drainage structures.

5.6.2 DESIGN STANDARDS

A. Existing Bridges

Existing vehicular bridge and drainage structures shall be capable of carrying a minimum design load of HS-20 per the AASHTO *Standard Specifications for Highway Bridges*.

B. New Bridges

New vehicular bridge and drainage structures shall be designed in accordance with the current AASHTO *LRFD Bridge Design Specifications*.

1. The Design and As-built Drawings for all new bridges shall be certified by a professional structural engineer.
2. Design and Rating calculation packages shall be provided by a professional structural engineer for all new bridge and drainage structures.
3. Additional information may be required from the Structural Engineer of Record for bridges that are included, or will be included in the National Bridge Inventory. Refer to CDOT for additional information.

C. Bridge Width

1. The clear width for all new bridges on streets with curbed approaches should be the same as the curb-to-curb width of the approaches.
2. For streets with shoulders and no curbs, the clear width of the bridge should be the same as the approach roadway width.
3. Sidewalks on the approaches should be carried across all new structures. There should be at least one sidewalk on all street bridges.

D. Bridge Railing

Any new and/or rehabilitated bridge shall be provided with crash-tested bridge rails that have been formally approved by FHWA. CDOT Type 7 and Type 10 bridge rails are examples of FHWA-approved railings.

E. Pedestrian Bridges

New pedestrian bridges shall be designed by a professional engineer in accordance with the current AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges.

5.7 SIGNALS, TRAFFIC CONTROL AND TRAFFIC CALMING

5.7.1 GENERAL

This work shall be the furnishing and installing of a complete and functional traffic control system consisting of controllers, signals, and appurtenances as required by the City Engineer.

A. Temporary traffic control to ensure public safety during construction activities must be provided. A plan meeting the requirements of the Federal Highway Administration's Manual on Uniform Traffic Control Devices, must be developed, signed and stamped by a licensed Traffic Control Supervisor in the State of Colorado prior to starting construction activities that require traffic control.

B. The developer is responsible for supplying and installing all necessary permanent traffic control devices such as but not limited to, street name signs, stop signs, speed limit signs, and channelization.

C. Neighborhood traffic control devices such as speed humps, traffic circles, curb extensions, etc., are devices used to control vehicle speeds and cut-through traffic. Installation of these devices will be permitted by approval of the City Engineer.

5.7.2 DESIGN STANDARDS

A. Signal systems shall be designed in accordance with NCHRP Report 812, Signal Timing Manual and materials and placement shall be in accordance with Section 614 in the CDOT S-Standard Plans, S-614-40, unless otherwise authorized by the City Engineer.

B. All public signal design shall be prepared by an engineering firm capable of performing such work. The engineer shall be a licensed Professional Traffic Operations Engineer in the State of Colorado.

5.7.3 VEHICLE DETECTION

Video detection is the preferred equipment of new signal installations at traffic actuated signals. When allowed by the City Engineer, detection loops shall be designed in accordance with the NCHRP Report 812, Signal Timing Manual. Materials and placement shall be in accordance with Section 614 in the CDOT S-Standard Plans. Detection Loops shall be sawcut into pavement.

5.7.4 STAKING

See Section 5.2.15 for staking requirements. In addition, the minimum staking of signals shall be as follows:

1. Location, with cut or fill to center of all pole bases.
2. Location and elevation of each service disconnect.
3. Location of pull boxes.
4. Location of all corners of controller base.

5.7.5 TESTING

A. All signals shall be subject to any necessary electrical inspections as well as requirements as set forth in the most recent edition of the NCHRP Report 812, Signal Timing Manual and the CDOT Specifications.

B. A signal system shall not be approved or accepted by the City until the signal has performed correctly to the City's satisfaction for a 30 day "check-out" period as outlined below.

C. Controller and cabinet testing may be required by CDOT and or the City of Glenwood Springs. All specifications and material samples shall be submitted to the City for review and approval prior to installation.

5.7.6 CHECK-OUT PROCEDURE

A. The contractor shall call for an intersection check-out after completing the controller cabinet installation along with all other signal equipment complete with wiring connections. All parts and workmanship shall be warranted for two years from date of acceptance. A performance bond shall be obtained by the applicant for this purpose.

B. New signals shall operate without any type of failure for a period of 30 days. The contractor shall have personnel available to respond to system failure within 6 hours during this 30 day period.

C. Failure of any control equipment or hardware within the "check-out" period shall restart the 30 day period again.

5.8 ROADSIDE FEATURES

5.8.1 GENERAL

Miscellaneous features included herein shall be developed and constructed to encourage the uniform development and use of roadside features wherever possible and feasible.

5.8.2 SURVEY MONUMENTS

A. All existing survey control monuments which are disturbed, lost, or destroyed shall be replaced with the proper monument as outlined below by a Professional Land Surveyor registered in the State of Colorado. All such work shall be at the expense of the responsible builder or developer and in accordance with State Law.

B. Monument Locations. Survey monuments shall be set in accordance with Colorado Revised Statutes .Bus Stops

A. Population density and system planning dictate the number and the placement of the Ride Glenwood Springs (RGS) bus stops and the Roaring Fork Transportation Authority (RFTA) bus

stops. The City and RFTA will determine the spacing and location of stops. In general, new service will not be initiated prior to the establishment of designated bus stops for an area.

B. The City of Glenwood Springs and the Roaring Fork School District will determine the location of school bus stops in new developments using the general criteria that follows:

    1. A school bus stop shall be required for each new residential subdivision or apartment complex where school children are to be boarding or un-boarding, unless it is determined that a new stop is not required due to adjacent facilities already existing that can serve the site.

    2. School bus stops shall be designed to complement the residential environment and provide a safe and convenient location and access for neighborhood children, including sidewalk access.

C. The physical location of any bus stop shall be primarily determined by the following considerations:

    - maximizing safety
    - operational efficiency
    - minimizing impacts to adjacent property and public right of way

D. Bus pullouts may be required on all arterial and collector roads for safe bus berthing and to minimize impacts to traffic flow by buses stopping.

E. All RGS and RFTA shall be identified with signage. This may include pavement marking and bus stop signs.

F. Passenger shelters may be required for some bus stops. Such shelters shall be designed to RGS and or RFTA standards and the location shall be approved by the City Engineer and Transportation Engineer prior to installation.

5.8.3 MAILBOXES

A. During construction, existing mailboxes shall be accessible for the delivery of mail or, if necessary, mail will be held a the local post office. The mailboxes shall be reinstalled at the original location or, if construction has made it impossible, to a location as approved by the U.S. Postal Service Post Master.

B.

C. Cluster boxes built to accommodate mail for more than 5 street addresses are not allowed in public right-of-way without the express written approval of the City Engineer. Requests to place these types of structures in the ROW must include site specific reason(s) why a standard US Postal Service-approved mailbox or mailbox cluster cannot be used.

5.8.4 GUARDRAILS

For the purposes of design and location, all guardrails along roadways shall conform to the criteria of the most recent versions of the CDOT M&S Standard Plans. Guardrails shall be installed by an approved guardrail contractor.

5.8.5 RETAINING WALLS

A. Retaining walls in the public right of way over 4 feet in total height shall be designed by a Colorado licensed structural professional engineer and submitted to the City for approval.

B. All walls over 4’ in total height require a building permit.

C. If a wall greater than 4 foot is constructed without approval, applicant will be responsible for supplying all above material and shall be charged for work without permit.

5.9 PARKING DESIGN

The following design standards of this Section shall be met for all public and private parking areas, except where the parking area is to serve a single-family or two-family dwelling unit. The number of parking spaces required is included in the Glenwood Springs Municipal Code Article 070.040.060.

D. Parking Stall Design Standards: Parking stalls shall meet the following standards, based on stall type. Table 5-16 Standard Parking Dimension Standards

Parking Angle (degrees)	Curb Length C	Stall D	Aisle Width		Bay Width	
			One Way A1	Two Way A2	One Way B1	Two Way B2
90	9’	19’	24’	24’	62’	62’
60	9’	21’	18’	22’	60’	64’
45	9’	19.8’	13’	20’	52.6’	59.6’
30	9’	17.3’	12’	20’	45.6’	54.6’
0	22’	8’	12’	20’	20’	36’

Table 5-17 Compact Car Parking Dimension Standards

Parking Angle (degrees)	Stall Width C	Stall Depth D	Aisle Width		Bay Width	
			One Way A1	Two Way A2	One Way B1	Two Way B2
90	8’	15’	24’	24’	54’	54’
60	8’	17’	18’	22’	52’	56’
45	8’	16’	13’	20’	29’	36’
30	8’	14’	12’	20’	26’	34’
0	18’	8’	12’	20’	20’	28’

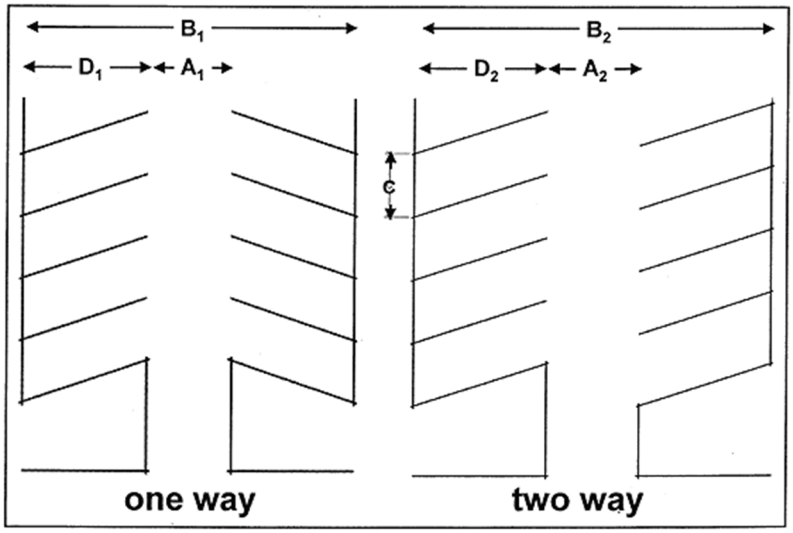


Figure 5-2 Parking Dimension Diagram

E. Spaces shall be designated for compact vehicle parking by means of a permanent, raised identification sign.

F. Outdoor parking areas shall not exceed eight percent (8%) of grade and shall be not less than one percent (2%) of grade. The cross slope of any parking or loading space shall not exceed five percent (5%) of grade.

G. Accessible parking spaces shall be in accordance with the Americans with Disabilities Act. Accessible parking spaces are to be located to maximize convenience of access to the facility and minimize the need to cross the flow of vehicular traffic.

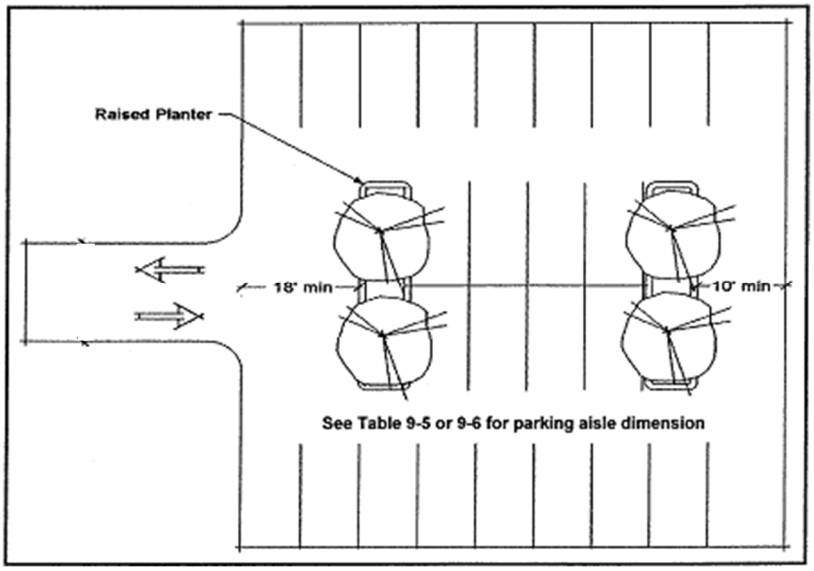


Figure 5-3 Drive Aisles

H. For any drive-in or drive-through retail or service use, there shall be provided stacking space for vehicles waiting for service, which space is sufficient to prevent any such vehicles from

extending onto the public right-of-way at any time. A minimum of (4) such stacking spaces be provided for each such service bay, window or counter on the entrance side, and one (1) such space on the exit side where an exit is provided. Parking spaces required for such service bay uses may be counted among the required stacking spaces.

I. Turnarounds are provided for dead-end parking bays.. Turnarounds must be identified with a sign or surface graphic and marked "no parking." The use of accessible parking spaces as the required turnaround is not permitted.

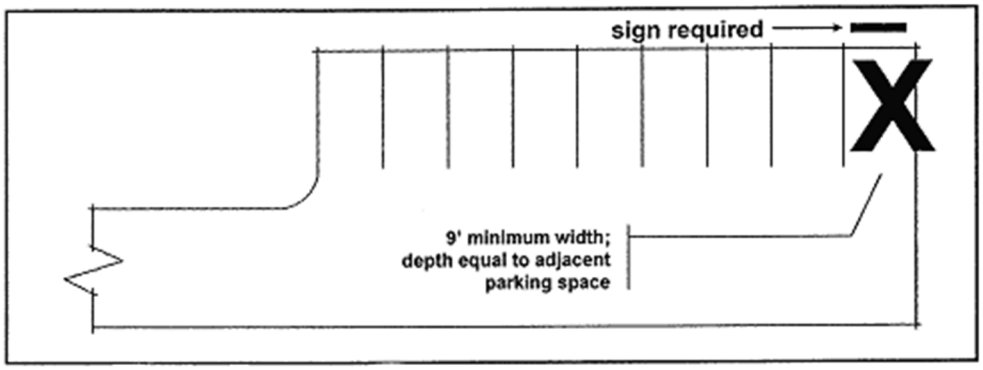


Figure 5-4 Parking Turnaround Spaces

J. Parking Access:

1. No parking stall is located so as to block access by emergency vehicles.
2. Suitable curbs or barriers to protect public sidewalks and to prevent parking in areas where parking is not permitted shall be provided.

K. Vehicle Overhang and Parking Area Walkway Design - Wheel or bumper guards must be located so that no part of a vehicle extends beyond a parking area boundary line, intrudes on a pedestrian way, or contacts any wall, fence, or planting. A vehicular overhang may, however, intrude into a private pedestrian way located on the perimeter of a parking lot if the pedestrian way is greater than six feet in width. Walkways shall have a minimum effective (exclusive of vehicle overhang) width of four (4) feet.

1. Walkways within the site shall connect areas or points of pedestrian origin and destination and shall not be located and aligned solely based on the outline of a parking lot configuration. The on-site pedestrian system must be designed to provide connections to major pedestrian and bicycle destinations such as parks, schools, trail connections, bicycle facilities and transit stops that are located either within the development or adjacent to the development. Walkways shall link street sidewalks with building entries through parking lots.
2. Where it is necessary for the primary pedestrian access to cross drive aisles or internal roadways, a pedestrian crossing shall be placed and shall emphasize and place priority on pedestrian access and safety. The material and layout of the pedestrian access shall

be continuous as it crosses the driveway with the break occurring in the continuity of the driveway paving. The pedestrian crossings must be well marked using pavement treatments, signs, striping, signals, lighting, traffic calming techniques, median refuge areas and landscaping.

L. Parking Study: At the discretion of the City Engineer, a parking study may be required to demonstrate that adequate parking is provided either for parking provided per zoning requirements or in conjunction with a parking reduction request. The scope of a parking study may consist of analysis of any or all of the following factors: joint use of parking areas, peak parking demand for each land use, unusual parking demand based on type of land use, availability of nearby on-street parking, vicinity of high frequency transit, and Institute of Transportation Engineers Parking Generation estimates.

M. Loading areas – reference Glenwood Springs Development Code Article 070.040.060.

N. Garages and carports. Parking requirements may be met by garages and carports covering or enclosing spaces which comply with minimum space size provisions of these Standards. Minimum vertical clearance between driving surface and ceiling shall be seven (7) feet.

O. Location of parking spaces – reference Glenwood Springs Development Code Article 070.040.060.

5.10 TRAFFIC IMPACT ANALYSIS STANDARDS

5.10.1 GENERAL CONSIDERATIONS

Reference Documents and Acronyms

Glenwood Springs Long Range Transportation Plan (2015-2035) ***(LRTP)***

State Highway 82 Access Control Plan, CDOT ***(ACP)***

State Highway 82 Corridor Optimization Plan, CDOT ***(COP)***

Intermountain 2040 Regional Transportation Plan, CDOT ***(IMTPR)***

State Highway Access Code, CDOT ***(SHAC)***

Trip Generation Manual, Institute of Transportation Engineers ***(ITE)***

Parking Generation Manual, ***(ITE)***

Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way, US Access Board ***(PROWAG)***

Glenwood Springs Comprehensive Safety Action Plan ***(CSAP)***

5.10.2 TRAFFIC STUDY

Any development that ultimately accesses a CDOT Right of Way may be required to obtain a CDOT access permit. Traffic studies for single-family and duplex developments are not required by the City.

A. Traffic Assessment

A Traffic Assessment (TA) is required for any proposed development that is expected to generate less than 100 peak hour trips for commercial/industrial sites or less than 20 peak hour trips for residential sites. The City Engineer will require an applicant to submit a Traffic Assessment.. The Assessment shall include a peak hour and daily trip generation study projection (compared to existing condition if site triggered change of use), proposed parking supply, an accessibility plan, and may require additional information as determined by the City Engineer.

B. Traffic Impact Study

1. A Traffic Impact Study (TIS) is required for any proposed development that is expected to generate 100 or more peak hour trips for commercial/industrial sites or 20 or more peak hour trips for residential sites to evaluate the overall impacts of the site on the transportation system.
2. For any site adjacent to State Highway 82 within the City Limits is governed by the SH 82 Access Control Plan. The ACP defines future access conditions along the corridor and can be amended only through a comprehensive study and consequent agreement by all parties (CDOT and the City) to approve the change. All applications for redevelopment along this corridor require review by CDOT and should adhere to state requirements, guidelines, and principles. For development along US 6 within the City Limits, excluding the section from Donegan Road to Laurel Street CDOT is also the

primary reviewer and studies should adhere to state requirements, guidelines, and principles.

C. Responsibilities for Traffic Impact Studies

The Applicant for development or redevelopment approval shall be responsible for assessing all traffic impacts associated with a proposed development, including impacts during construction. The City and/or the City and State will serve in a review and approval capacity.

D. Preparation and Certification

Traffic Assessments and Traffic Impact Studies shall be prepared by an Engineer registered in the state of Colorado with adequate experience and expertise in transportation planning and engineering. The Engineer shall be identified in the TA or TIS and shall stamp the final report.

E. Coordination with the City

Transportation consultants and Engineers preparing Traffic Assessments or Traffic Impact Studies shall discuss proposed development projects with the City Engineer prior to gathering data or initiating the study in a Pre-TIS Meeting. Issues to be discussed include, without limitation, the LRTP, definition of the study area, relevant subarea plans, collection of traffic data, methods for projecting build-out volumes, background traffic conditions, trip generation, trip reductions, directional distribution of traffic, trip assignment, transit considerations, and bicycle and pedestrian accessibility. These aspects of the Traffic Impact Study shall be approved by the City Engineer prior to study preparation.

F. Submittal

A Traffic Assessment and a Traffic Impact Study shall be prepared in conformance withthe information required in the following section of these Standards.

5.10.3 TRAFFIC STUDY FORMAT

A. Study Requirements

The information provided in the Traffic Impact Study shall include the following sections as outlined below. The study shall be typed in electronic form and clearly identify the data and information in the appropriate sections. In addition, the study shall contain a table of contents, lists of figures, list of tables, and appendix that includes all data, calculations, and capacity worksheets necessary to document the analysis. The information provided in the Traffic Assessment shall only include sections B, C, J, K and L below.

B. Introduction

The Study shall provide an introduction with an overview and specific discussion of the project or development proposal.

C. Site Location and Zoning

The study shall include a vicinity map detailing the property location; a conceptual site plan reflecting the boundaries of the project or development, access points, pedestrian facilities; and

information detailing the designated zoning district, general terrain and physical features of the site and the surrounding area.

D. Study Area Boundaries

The study shall include the Study Area Boundaries as determined based on discussions with the City Engineer in the Pre-TIS meeting and include all roadways and transportation routes providing access to the site and the surrounding transportation system.

E. Existing Transportation System

The study shall describe and include roadway orientations, functional classifications and geometries, intersection geometries, and traffic controls, including without limitation signage and striping, speed limits, parking restrictions, sight distance, transit routes and stops, the presence of on- and off-street bicycle and pedestrian facilities, and any other related traffic operations information and improvements approved or planned by government agencies. For identified improvements scheduled by government agencies, include the nature of the improvements, extent, implementation schedule, and the agency or funding source responsible.

F. Existing and Projected Roadway and Intersection Traffic Volumes

1. The study shall include diagrams that map existing daily and peak hour traffic volumes, and each variation of projected traffic volumes, for all roadways and peak hour volumes including pedestrian and bicycle volumesat intersections within the study area. Also provide diagrams that map the existing intersection and roadway laneage and traffic control devices within the study area.
2. Existing traffic volumes shall be collected during a mid-week day (Tuesday – Thursday) preferably during the school year, unless the City Engineer agrees that the site is minimally affected by school traffic. Data collected for traffic studies shall include general traffic, pedestrian and bike traffic, transit and school vehicles, and heavy vehicle percentages. Peak hour factors established during the traffic counts shall be considered for use in the capacity analysis by approach. The existing counts shall be factored by the seasonal factors established at the CDOT Automatic Traffic Counter #000214 on the south end of SH 82, which will be provided by the City Engineer.
3. Traffic projections and forecasting methodology shall be discussed at the Pre-TIS Meeting and approved by the City Engineer. Traffic counts shall be scheduled with the City Engineer at least two days in advance of deploying traffic counters in the field.

G. Existing and Proposed Site Uses

The study shall include an identification of the existing (or previous) land use and proposed land use or the highest potential land use based on zoning and maximum trip generation where a specific use has not been determined. If rezoning is proposed, the study shall provide a comparison between the highest trip generation uses for the existing zoning and the highest trip generation uses for the proposed zoning. If actual trip generation volumes can be observed and documented from the existing site, these volumes shall be used over those estimated using *ITE Trip Generation* for comparative purposes.

H. Existing and Proposed Land Uses in the Study Area Boundaries.

The study shall document any vacant land or potential redevelopment that may result in a change in traffic volume conditions within the study area during each traffic scenario studied. Perform and provide trip generation on these parcels and include the trips generated from these parcels in the trip volume diagrams and level of service analyses for each appropriate traffic scenario studied. If available, information in approved Traffic Impact Analyses within the last two years may be used instead of performing trip generation on these parcels.

I. Trip Generation

Traffic estimates for the proposed project and potential developed or redeveloped properties in the study area shall be obtained by performing trip generation using the procedures outlined in the most current edition of Trip Generation Manual of the Institute of Transportation Engineers (ITE). If adequate Trip Generation Manual data is not available for a specific land use, the procedures used to estimate trip generation data shall be approved by the City Engineer. Include the following specific trip generation information:

1. **Summary Table:** List each proposed (or approved) land use that requires trip generation analysis, including the project and any developed or redeveloped land uses within the study area. For each trip generation summary include land use type, amount, size, intensity, average trip generation rates for total daily traffic and peak hour traffic entering and exiting the site (a.m., noon and/or p.m. peak hour traffic generation may be required), and the resultant total peak hour and daily trips generated for each time period and each land use.
2. **Calculations:** Calculation of projected trip generation for any land use, used to determine study area impacts, shall be based on the following:
    a. Trip generation formulas (or rates, if formulas are not available) published in the most recent version of the Trip Generation Manual. Trip generation reports from other industry publications may be considered but are subject to the approval of the City Engineer.
    b. A local trip generation study conducted within the last two years, following procedures outlined in the most recent version of the Trip Generation Manual, if no published rates are available and similar land uses can be studied.
    c. Additional data or studies from other similar jurisdictions. Trip generation obtained in this fashion is subject to the review and approval of the City Engineer.
3. **Trip Generation Reductions:** Credit for any trip reductions is subject to review and approval in advance by the City Engineer. Anticipated trip reduction assumptions should be discussed and approved by the City Engineer at the Pre-TIS meeeting . Trip reductions typically fall into one of two categories: those that reassign some portion of the trip generation from the surrounding roadway network (passerby and diverted trip reductions), and those that remove trips generated from the land use trip generation (internal and modal split reductions).

a. Use of passerby and diverted trip reductions may be evaluated and considered in reducing the additional estimated total trip generation of a new land use. However, passerby and diverted trip reduction factors are not to be applied directly to reduce trip generation and turning movement volumes at driveways serving the studied land use. These factors are subject to the approval of the City Engineer.

b. Internal trip reductions and modal split assumptions may reduce the total trip generation of a land use. These factors considered in the Traffic Study shall supply analytical support and detailed documentation to demonstrate how the estimates were derived and incorporated, and are subject to the approval of the City Engineer.

J. Trip Distribution, Trip Assignment, and Modal Split

Trip distribution and assignment of any generated traffic estimates shall be clearly summarized and illustrated for each access route entering and exiting the generating land use, using the study area transportation system and existing traffic splits as a basis. If applicable to the site, a modal split may be assumed to further reduce the vehicular trip generation of the site, and the resultant non-vehicular trips shall be documented in the study. Include the following specific trip distribution and assignment information:

1. **Trip Distribution:** The trip distribution for each site shall be identified and illustrated with a graphical figure detailing the percentages making each movement, at each access and intersection in the study area. The trip distribution shall be logically based upon factors such as the site's location within the City, existing traffic volume data in the study area, market analyses, applied census data, and/or professional engineering judgment. Trip distribution assumptions are subject to the approval of the City Engineer upon review of the existing traffic volumes.

2. **Trip Assignment:** Trip assignment shall be done by applying the trip generation totals for each scenario studied, to the trip distribution percentages developed. The trip assignment shall develop anticipated traffic volumes for each of the movements identified by the trip distribution and each of the scenarios identified in the analyses. The resulting traffic volumes shall be illustrated with graphical figures detailing the anticipated volumes making each movement, at each intersection in the study area, during each scenario studied.

3. **Modal Split:** The number of vehicular trips generated by the site may be reduced by a modal split assumption approved by the City Engineer. Modal splits account for trips made by a mode other than a car, i.e. transit, bicycle, or pedestrian trips. Modal splits are highly influenced by the site's use, surrounding topography, and its proximity to transit routes, connective sidewalks, and trails.

K. Existing and Projected Traffic Volumes

Traffic Volume Scenarios: Five traffic volume scenarios and three separate times of the day may be required to be included in a Traffic Impact Study analysis. The applicant shall meet with the City Engineer to determine the scenarios and time periods to be studied, prior to the development of the Traffic Impact Study. The potential scenarios and time periods include the following:

a. Scenario 1 – Existing Conditions: An operational analysis of existing traffic conditions will be required in the Traffic Impact Study. Existing Conditions analysis should attempt to model traffic conditions at the time the traffic study is being prepared. Traffic counts that are older than the year the study is being prepared shall be factored up or adjusted to existing year volumes by a factor provided by the City Engineer.

b. Scenario 2 – Anticipated Project Completion Year Without Project Traffic: Include an analysis of the anticipated traffic conditions during the year the project is intended to be finished and traffic is generated. The analysis shall anticipate the increase in background traffic volumes and the generation of other related projects that are not present in the existing condition, but would likely be completed, and generating trips in this time period. The trip generation for the proposed project shall not be included in this scenario. If the project is intended to be completed the same year that the Traffic Study is being prepared, then this scenario is the same as Scenario 1 - Existing Conditions.

c. Scenario 3 – Anticipated Project Completion Year With Project Traffic: This scenario is the same as Scenario 2, except that the project volumes are assigned to the roadway network and included in the analyses.

d. Scenario 4 – Future Buildout Conditions Without Project Traffic: An analysis of the anticipated traffic conditions, using the projected buildout year defined as 20 years from the Existing Conditions scenario, based on the applicable CDOT 20-year growth factor. The analysis shall anticipate the increase in background traffic volumes and the generation of other related projects that are not present in the existing condition, but would likely be completed and generating trips in this scenario. The trip generation for the proposed project should not be included in this scenario.

e. Scenario 5 – Future Buildout Condition With Project Traffic: This scenario is the same as Scenario 4, except that the project volumes are assigned to the roadway network and included in the analyses.

4. **Traffic Volume Projections:** The traffic volume projections shall identify existing and projected daily traffic counts and peak hour turning movement counts for each access point, intersection and street identified in the traffic study area for each of the aforementioned scenarios required in the study.

5. **Time Periods:** Each scenario may be required to look at three different time periods (the a.m., noon and p.m. peak hour conditions). The City Engineer will determine which time periods and scenarios are required for each Traffic Impact Study depending upon the project's size, location, types of land uses and other pertinent factors.

6. **Raw Traffic Count Data:** Include all raw traffic-count data for average daily and peak hour conditions and traffic analysis worksheets in the appendices of the Traffic Impact Study for review and reference. Traffic analysis software output may be used for this part of the report.

   NOTE: All total daily traffic counts must be actual machine counts for a 24-hour period,

not based on factored peak hour sampling. The latest available machine counts from the City, and other agencies, may be acceptable if they are not more than 2 years old. Use of CDOT seasonal factors to increase raw volumes to seasonal peaks may be applied in establishing the Existing Conditions volumes if determined necessary by the City Engineer prior to conducting the study.

L. Level of Service and Queuing Analysis

1. The City has adopted LOS D as the minimum acceptable level of service for all movements and approaches when evaluating intersection operations. However, we are aware that the LOS for many of the City's intersections with SH 82 is controlled by SH 82 signal timing. Project impacts that maintain LOS D or better for all intersections and street segments may not be required to provide LOS related traffic mitigation improvements. Improvements at SH 82 intersections shall be evaluated and may become part of a developer improvement agreement for implementation at the time the project is constructed, or potentially with partners in the future, dependent upon the traffic impact and responsibility.
2. LOS E and lower peak hour conditions require the implementation of one or more transportation management strategies consistent with the goals and objectives of the LRTP. A transportation management strategy plan required to address and mitigate these conditions may include travel demand management, land use intensity reduction, site design, layout and access modifications, parking reduction measures, or transportation infrastructure improvements.
3. The Traffic Impact Study shall provide LOS analyses for all study area intersections (signalized, roundabout controlled, and unsignalized) using methodologies outlined in the current Highway Capacity Manual or other nationally accepted methods. The analyses should be performed for Scenarios 1 through 5, described in Section 5.10.3(K), "Existing and Projected Traffic Volumes," and for each time period (a.m., noon and/or p.m. peaks) that is required in the Traffic Impact Study, unless otherwise required by the City Engineer.
4. Level of service analyses shall consider the appropriate infrastructure, lane usage, traffic control and any other pertinent factors for each scenario to be studied. Intersections with planned improvements, discussed in City planning documents, may have those improvements implemented in the level of service analyses.
5. Signalized intersection level of service analyses shall use the existing timing and phasing of the intersections for all scenarios. If the analyses are to deviate from existing timings or phasing, then a detailed signal progression analyses for the affected corridor shall also be provided.
6. The results of the level of service analyses for each scenario and each time period shall be summarized into one or more tables that illustrate the differences in level of service for each scenario. At a minimum, these tables shall list the level of service results for each intersection to include the level of service for each movement and approach and the total intersection level of service, as well as the appropriate delay values for each

movement and approach and the total intersection. These tables shall highlight any locations where the addition of project traffic has caused any approach of any intersection to fall below the LOS D standard for the City.

7. In addition to Level of Service, the 95th percentile queue lengths shall be calculated for all movements affected by project traffic. The 95th percentile queue lengths determined for Scenario 5 represent the future turn lane demand (needs) and should be utilized for design or extension of any turn lane.

M. Traffic Counts and Analysis Worksheets

The Study shall provide capacity analysis calculations based on the planning or operational analysis techniques contained in the current Highway Capacity Manual or subsequent highway capacity techniques established by the Federal Highway Administration, including the following:

1. **Raw Traffic Count Data:** Include all raw traffic count data for average daily, hourly Average Daily Traffic (ADT), and peak hour conditions and traffic capacity analysis output or worksheets in the appendices of the traffic study for reference. Computer programs and associated printouts may be used for this part of the report.
2. **Level of Service Analyses:** Include all level of service analyses performed for intersections. Traffic analysis software output may be used for this part of the report. If signal timing or phasing changes are proposed for traffic mitigation and the signal is currently part of a coordinated system, a progression analysis will be required to ensure that adequate progression is maintained or provided. All progression analysis and assumptions to be used shall be reviewed and approved by the City Engineer (generally with input from CDOT).

N. Traffic Control, Roundabouts, and Traffic Signals

The Traffic Study shall discuss and analyze any traffic control measures that may be necessary to serve a proposed project or development. Any traffic control measures are to be evaluated based on the requirements established in the Manual on Uniform Traffic Control Devices (MUTCD) and by the City, and will be applied as necessary to ensure safe and efficient operation of the City's transportation system. The analysis shall demonstrate the need for traffic control measures considering the objectives and policies of the LRTP, CSAP, and alternative site designs in order to minimize or mitigate traffic impacts from the proposed project or development. The following traffic control measures are to be addressed:

1. **Regulatory Signage, Markings and Islands:** These traffic control measures shall be applied as necessary in conformance with the MUTCD and City standards and policies.
2. **Traffic Signals:** The installation of new traffic signals is discouraged by the City and all possible alternatives to signalization, including roundabouts, shall be evaluated before the installation of a new traffic signal will be considered. The need for new traffic signals will be based on warrants contained in the MUTCD and on City policies. In determining the location of a new signal, safety and community traffic circulation and progression will

be the primary considerations. If a traffic signal is suggested as part of a mitigation package, and the intersection lies within a series of coordinated traffic signals, then a progression analysis will be required to ensure that adequate progression may still be provided along the corridor. Generally, a spacing of one-half mile between all signalized intersections is to be maintained, to achieve optimum capacity and signal progression. Pedestrian and bicycle movements shall be considered in all cases and adequate pedestrian clearance is to be provided in the signal design and timing plan.

3. **Intersection and Access Locations:** To provide flexibility and safety for the existing roadway system and to ensure optimum two-way signal progression, an approved traffic engineering analysis shall be made to properly locate all proposed intersections that may require signalization, and any accesses to the proposed development.

O. Transportation Demand Management Strategies

The study shall include an outline of transportation demand management (TDM) strategies to mitigate traffic impacts created by proposed development and implementable measures for promoting alternate modes of travel, including but not limited to the following:

1. Site Design: Incorporate design features that facilitate walking, biking, and use of transit services to access a proposed development, including features such as transit shelters and benches, site amenities, bike racks, site design layouts to increase convenience of alternate modes and reduce multiple trips to and from the site, and direct connections to existing offsite pedestrian, bicycle, and transit systems.
2. Programs and Education: Incorporate alternate modes programs, such as providing transit passes to employees and residents, van pooling to the site by a major employer, ride-sharing, parking pricing, and planned delivery services, and educational measures such, as promoting telecommuting, distributing transit schedules and trails maps, and providing an onsite transportation coordinator or plan to educate and assist residents, employees, and customers in using alternate modes.

P. Traffic Accident Analysis

When required, the Traffic Impact Study shall include accident analyses at one or more locations in the study area. The City Engineer shall specify whether such accident analyses are needed for each Traffic Study. Where required, estimates of increased or decreased accident potential shall be evaluated for the proposed project or development and appropriate safety related mitigation measures are to be included. Traffic accident data is available from the City of Glenwood Springs' Police Department or from the City Engineer.

Q. Recommendations

1. The Traffic Study shall include a section in the report that provides any recommendations of the Engineer. These recommendations shall include the Engineer's recommended location, nature and extent of proposed transportation improvements associated with the project or development to ensure safe and efficient roadway operations and capacity, and compatibility with the City's transportation system

and the goals of the LRTP. Proposed TDM programs and the anticipated traffic reductions associated with each program shall be documented in the Recommendations.

2. These recommendations are to be supported with appropriate documentation and discussion of the technical analyses, assumptions and evaluations used to make the determinations and findings applied in the Traffic Impact Study. In the event that any Traffic Impact Study analyses or recommendations indicate unsatisfactory levels of service at any study area intersections, a further description of proposed improvements or mitigation measures to remedy deficiencies shall be included.

3. These proposed improvements or mitigation measures may include projects by the City, County, RFTA, or The Colorado Department of Transportation for which funds have been appropriated and obligated. These proposals may also include improvements to be funded and constructed by the applicant as part of project or development construction. Assumptions regarding future roads, widths and lane usages in any analyses are subject to the approval of the City Engineer.

4. In general, the recommendation section shall include:

   a. Proposed and Recommended Improvements: Provide a detailed description and sketch of all proposed and recommended improvements. Include basic design details showing the length, width and other pertinent geometric features of any proposed improvements. Discuss whether these improvements are necessary because of development traffic or whether they would be necessary due to background traffic. Specify the approximate timing necessary for each improvement.

   b. Level of Service Analysis at Critical Points: Provide another iteration of the LOS analyses that demonstrates the anticipated results of making recommended improvements, such as movement LOS, operational and safety conditions and conformance with the City's transportation system goals and the LRTP. In association with LOS analyses for recommended improvements, include a comparison of these results with the background LOS analyses without the proposed project or development. Where appropriate, this step is to be provided for both near term (year of project completion) and 20-year buildout scenarios.

   c. Assessment of Site Access: Provide a detailed assessment of the site access point(s) at the intersection of the public street and along all proposed facilities to demonstrate adequate sight distance and accessibility requirements are provided for vehicles, bicyclists and pedestrians using the driveway and sidewalk facilities. Sight distance requirements are defined in 5.2.11.

R. Conclusion

Include a conclusion in the report that provides a clear and concise description of the study findings and recommendations, and serves as an executive summary.

S. Revisions to Traffic Study

1. Following City review, the City Engineer may require revisions to a traffic study based on

the following considerations:

a. Completeness of the study,

b. Thoroughness of the level of service, queuing, and impact analyses and evaluations,

c. Compatibility of the study with the proposed access design, project or development plan and local transportation system,

d. Compliance with local and state regulations and design standards, and

e. An analysis of study deficiencies, errors, or conflicts.

APPENDIX – TRANSPORTATION STANDARD DRAWINGS

CITY STANDARD DRAWINGS	Filename
1. Arterial Roadway Typical Section	
2. Collector Roadway Typical Section	
3. Local Street Typical Section	
4. Alley Typical Section	
5. Private Street Typical Section	
6. Driveway Installation	
7. Driveway Installation Sidewalk Through Driveway	
8. Non-Curbed Street Driveway and Culvert	
9. Reserved	
10. Reserved	

Karp Neu Hanlon PC
ATTORNEYS AT LAW

WWW.MOUNTAINLAWFIRM.COM

Mail to:
Glenwood Springs
201 14th Street
Suite 200
Glenwood Springs, CO 81602

Aspen
0133 Prospector Road
Suite 4102-J
Aspen, CO 81611

Basalt
200 Basalt Center
Suite 200
Basalt, CO 81621

Ridgway
565 Sherman Street
Suite 6
Ridgway, CO 81432

DATE: June 12, 2026

TO: Glenwood Springs Mayor and Council

FROM: Karp Neu Hanlon, P.C.

RE: Property Acquisitions for South Bridge

Under cover of this memo is a resolution for Council's consideration authorizing and ratifying the real property acquisitions necessary to construct the South Bridge Project. Exhibit A to the resolution is the Right-of-Way plans for the project depicting the properties necessary for the project and their ownership. Since the Colorado Department of Transportation (CDOT), Federal Highways Administration (FHWA) and the City have now signed the federal grant agreement on right-of-way funds, the City will be fully reimbursed for the costs of acquisitions and can proceed in closing these transactions. A handful of acquisitions remain subject to negotiation and if necessary will proceed to a judicial eminent domain proceeding.

The required elements of a condemnation are authority to condemn, necessity/need, public purpose, and good faith negotiations. The first three of these elements are recited in the resolution while the fourth, good faith negotiations, is specific to each property and its owner. That last element only requires an offer of fair market value, which has been made to each property owner listed in Exhibit A. The City generally goes beyond this by seeking to engage in substantive negotiations with each affected property owner. However, some owners simply do not engage in negotiations. In the event that an acquisition proceeds to a judicial eminent domain proceeding, the statute provides the condemnor (the City) with the ability to obtain possession of the property in order to commence construction and keep the project schedule on track while a valuation hearing proceeds.

Staff, Legal, ROW acquisition consultants, and outside condemnation counsel are prepared to conclude these acquisitions as soon as the resolution is approved.

RESOLUTION 2026-11

A RESOLUTION OF THE CITY OF GLENWOOD SPRINGS, COLORADO, AUTHORIZING THE ACQUISITION OF REAL PROPERTY INTERESTS NECESSARY INCLUDING USE OF EMINENT DOMAIN AUTHORITY TO FACILITATE CONSTRUCTION OF THE SOUTH BRIDGE PROJECT IN SUPPORT OF IMPROVING PUBLIC SAFETY, REDUCING CONGESTION, ENHANCING CONNECTIVITY, AND SUPPORTING REGIONAL MOBILITY

WHEREAS, the City of Glenwood Springs (the "City") is a home-rule municipality organized under Article XX of the Colorado Constitution and governed by the Glenwood Springs Home Rule Charter (the "Charter"), and is authorized to acquire properties interests for public purposes, including through the exercise of eminent domain; and

WHEREAS, the City has obtained funding, been planning for, and intends to commence construction of the South Bridge Project (the "Project"); and

WHEREAS, the Project promotes safety by establishing an additional evacuation and emergency access route, reducing dependence on the existing 27th Street and State Highway 82 ("SH 82") intersection, and improving response times for fire, medical, and law enforcement services; and

WHEREAS, the Project introduces numerous safety measures along the Highway 82 corridor including:

- improvement of the County Road 154 intersection to eliminate unsafe movements, increase turn lane capacity, and separate oncoming traffic;
- the permanent closure of uncontrolled accesses that cause conflicts with pedestrians, cyclists, and highway users; and

WHEREAS, by providing a new, dedicated connection between SH 82 and areas south and west of Glenwood Springs, the Project enhances regional mobility, improves access for residents and emergency responders, and relieves pressure on existing transportation infrastructure; and

WHEREAS, the Project supports efficiency and transportation network reliability by creating a more direct link to SH 82, decreasing travel delays, and balancing traffic distribution across the corridor; and

WHEREAS, the Project strengthens local connectivity by better linking neighborhoods south and west of the Roaring Fork River to nearby roads and services, improving access to jobs, schools, and daily needs within the Glenwood Springs area and the Colorado River and Roaring Fork River corridors; and

WHEREAS, by improving access to the SH 82 corridor and adjacent developed areas, the Project represents a targeted infrastructure investment that enables continued growth of existing and emerging commercial areas while maintaining consideration of and protecting community and environmental factors; and

WHEREAS, the Project improves connectivity to existing and planned regional trail infrastructure, including the Rio Grande Trail and the anticipated Lower Valley (LoVa) Trail corridor by providing safer crossings, improved linkages between neighborhoods and the SH 82 corridor, and more direct connections to regional destinations; and

WHEREAS, the City has considered reasonable alternatives and has found through qualified engineers that acquisition of the property interests described in **Exhibit A** is necessary to achieve the foregoing public purposes; and

WHEREAS, the City determines that the proposed acquisition is not a pretext for private redevelopment, but is intended exclusively for legitimate public purposes as defined by Colorado law; and

WHEREAS, pursuant to Colo. Const. Art. XX, Section 1, municipalities "shall have the power, within or without its territorial limits, to construct, condemn and purchase, purchase, acquire, lease, add to, maintain, conduct and operate water works, light plants, power plants, transportation systems, heating plants, and any other public utilities or works or ways local in use and extent"; and

WHEREAS, C.R.S. §§ 38-1-101 et seq. and 38-6-101 et seq. authorize municipalities to acquire interests in private property for public purposes, including the construction or establishment of roads, public buildings, parks, utilities, and other public works and improvements; and

WHEREAS, City Charter § 13.4 explicitly incorporates the constitutional power of eminent domain;

WHEREAS, pursuant to C.R.S. § 38-1-121, the City has made a written offers of fair market value, as determined by qualified valuation experts, to the owners of the Properties, and intends to continue negotiating in good faith as required by law; and

WHEREAS, pursuant to C.R.S. §§ 38-30.5-107 and 38-30.5-107.5, it may be necessary for the City to exercise its power of eminent domain to acquire the property interests encumbered by a conservation easement if voluntary acquisition efforts are unsuccessful; and

WHEREAS, pursuant to C.R.S. § 38-1-105, a condemning authority may seek immediate possession of property interests prior to final determination of compensation upon appropriate findings and there is an immediate need to acquire possession of the property interests necessary for the Project; and

WHEREAS, the City Council finds that delay in acquiring possession of the Properties would pose a continued and unreasonable risk to public health, safety, and welfare due to

necessity of acquiring the Properties to initiate and continually support construction of the Project; and

WHEREAS, the City has no reasonable alternatives to obtain the Properties.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, RESOLVES THAT:

Section 1. Incorporation of Recitals The foregoing recitals are hereby adopted as legislative findings of fact and necessity and incorporated into this Resolution.

Section 2. Public Purpose and Necessity The City Council hereby determines that the acquisition of the property interests described and depicted in **Exhibit A** is necessary for a valid public use and public purpose, including protection of public health and safety, and construction or establishment of public improvements, and that such purposes cannot be reasonably accomplished without acquisition of said properties interests.

Section 3. Authorization of Voluntary Action The City Council authorizes and directs City staff to pursue voluntary acquisition of the necessary property interests through continued good-faith negotiations consistent with Colorado eminent-domain law.

Section 4. Authorization of Condemnation Proceedings If voluntary acquisition efforts are unsuccessful or if otherwise required by law, the City Attorney is authorized and directed to initiate condemnation proceedings pursuant to C.R.S. § 38-1-101 et seq. and related provisions to acquire the necessary property interests described in Exhibit A as expeditiously as permitted by law.

Section 5. Quick-Take Necessity and Immediate Possession The City Council hereby finds and determines that, in the event condemnation proceedings are initiated, immediate possession of the property interests described in **Exhibit A** may be necessary pursuant to C.R.S. § 38-1-105 to protect public health and safety and allow timely commencement of public improvements.

Section 6. Authorization to Seek Immediate Possession In any condemnation action authorized by this Resolution, the City Attorney is expressly authorized, in the City's discretion and when supported by the evidentiary record, to seek an order granting immediate possession of the subject properties upon deposit of the amount required by law.

Section 7. Ratification of Actions All actions previously taken by the City Council and by the officers, agents, and employees of the City consistent with the purpose and intent of this Resolution are hereby ratified, approved, and confirmed.

Section 8. Severability If any section, subsection, clause, phrase, or provision of this Resolution, or the application thereof to any person or circumstance, shall to any extent, be held by a court of competent jurisdiction to be invalid, void, or unconstitutional, the remaining sections, subsections, clauses, phrases, and provisions of the Resolution, or the application thereof to any person or circumstance, shall remain in full force and shall in no way be affected, impaired or invalidated.

INTRODUCED, READ, AND APPROVED THIS 18TH DAY OF JUNE 2026.

CITY OF GLENWOOD SPRINGS, COLORADO

_____

Marco Dehm, Mayor

ATTEST:

_____

Ryan Muse, City Clerk

Colorado Department of Transportation
202 Centennial Street
Glenwood Springs, CO 81601
Phone: 970-384-334
FAX: 970-947-5133
Region 3 JMK

Sheet Revisions		
Date	Description	Initials
05/12/25	Revise 2.01-2.05,5.01-5.01,7.01-7.06,7.08-7.10	
	Revise 7.12-7.20,8.01-8.04	jam
12/15/25	Revise 2.04,2.05,5.02,7.09,7.18-7.20,8.03,8.04	jam
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Jacobs
7001 E Belleview Ave, Suite 1000
Denver, CO 80237
Phone: 720-286-2000

COLORADO LICENSED ROBERT A. BOEHM 24APR26 34992 PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Title Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	02-02-26	1.01 to 1.02	1.01

SURVEYOR STATEMENT (ROW PLAN)

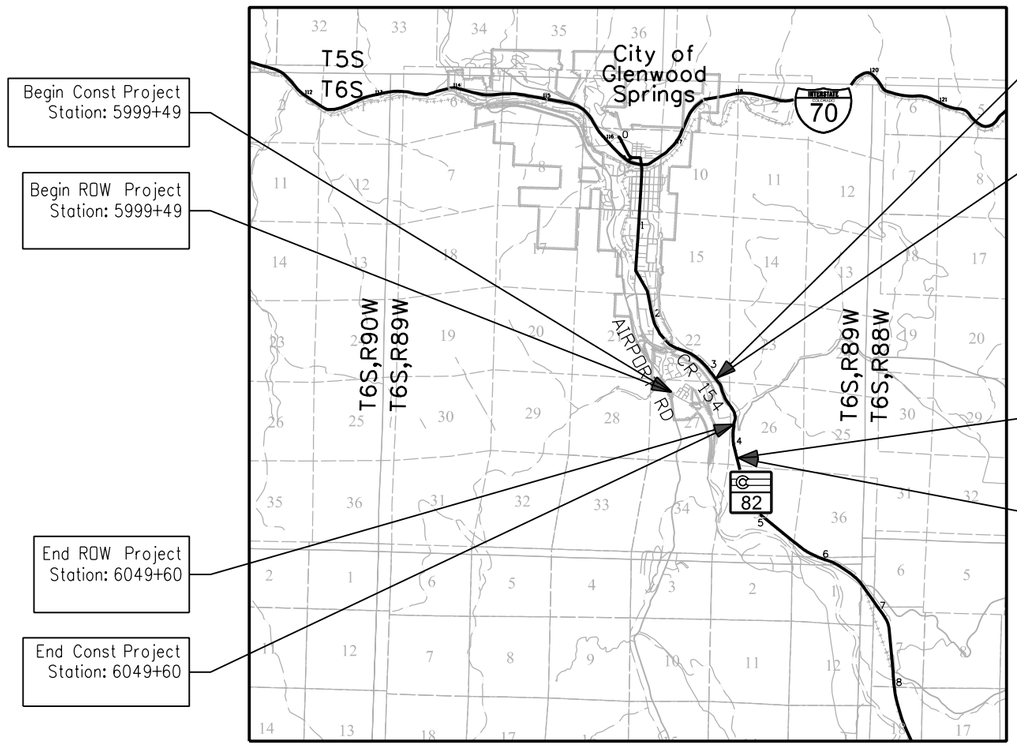
I, Robert A. Boehm, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, the research, calculations and evaluation of the survey evidence were performed and this Right-of-Way Plan was prepared under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications.
This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 34992

DEPARTMENT OF TRANSPORTATION
STATE OF COLORADO

RIGHT OF WAY PLANS OF PROPOSED
FEDERAL AID PROJECT NO. HPP M535-003
STATE HIGHWAY NO. 82
SECTIONS 26 & 27, TOWNSHIP 6 SOUTH, RANGE 89 WEST,
OF THE 6TH PRINCIPAL MERIDIAN
GARFIELD COUNTY

R.O.W. Length of Project = 2.29 Miles
Const. Length of Project = 2.29 Miles



PROJECT LOCATION MAP

0' 5000' 10000' 20000'

Lineal Units = U.S. Survey Feet
Scale 1" = 10000'

N

Basis of Bearings: Bearings are based on a grid bearing of S26°48'25"E from ROSEBUD to Q 158. ROSEBUD is a horizontal control disk and Q 158 is a benchmark disk and both are set in concrete. The survey data was obtained from a Global Positioning System (GPS) survey based on the Colorado High Accuracy Reference Network (CHARN).

1. This Right-of-Way Plan is not a boundary survey of the adjoining property and is prepared for the Colorado Department of Transportation purposes only.

2. For title information, The Colorado Department of Transportation relied on Commonwealth Title Company.

3. This plan set is subject to change and may not be the most current set. It is the user's responsibility to verify with CDOT that this set is the most current. The information contained on the attached drawing is not valid unless this copy bears an original signature of the Professional Land Surveyor hereon named.

NOTICE: According 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.

COLORADO DEPARTMENT OF TRANSPORTATION
FEDERAL-AID HIGHWAY PROJECT

ROW PLANS AUTHORIZED: _____ *DATE*

_____
CDOT CHIEF ENGINEER

Highlight of revision after plan authorization

SECTION CORNER
1/4 AND 1/16 SECTION CORNERS
SET EASEMENT MONUMENT
TEMPORARY EASEMENT POINT
RIGHT OF WAY MARKER
BLM MARKER
PROPERTY PIN
NOAA MARKER
QUARTER AND SIXTEENTH SECTION CORNERS (TOPO POINT)
FEDERAL MONUMENT
WITNESS CORNER
BENCH MARK
USGS MARKER
LOCAL OR PLSS MONUMENT
SECONDARY CONTROL MONUMENT
ROW RIGHT OF WAY MARKER
N 9.88 E 3.81 EL 0.00 PROJECT CONTROL MONUMENT
N 10.13 E 3.81 EL 0.00 DENSIFICATION CONTROL MONUMENT
N 10.38 E 3.81 EL 0.00 HIGH ACCURACY REFERENCE NETWORK CONTROL MONUMENT

PERMANENT, PROPERTY, SLOPE, & UTILITY EASEMENT LINE (PROPOSED AND EXISTING)
TEMPORARY EASEMENT LINE (PROPOSED AND EXISTING)
PROPERTY BOUNDARY LINE (PROPOSED AND EXISTING)
ACCESS CONTROL LINE (PROPOSED AND EXISTING)
BARRIER ACCESS CONTROL LINE (PROPOSED AND EXISTING)
RIGHT OF WAY LINE (PROPOSED AND EXISTING)
VIRGIN RIGHT OF WAY LINE (PROPOSED AND EXISTING)
CITY LIMIT LINE
COUNTY LINE
QUARTER SECTION LINE
SECTION LINE
SIXTEENTH SECTION LINE
STATE LINE
TOWNSHIP LINE

SURVEY/ROW

TOP OF CUT
TOE OF FILL

TERRAIN

Note: For a complete listing of symbology used within this set of plans, please refer to the M-100-1 Standard Symbols of the Colorado Department of Transportation M&S Standards Publication. Existing topo features are shown as screened weight (gray scale). Proposed or new features are shown as full weight without screening, except as noted with the word (proposed).

SHEET NO. INDEX OF SHEETS

1.01-1.02	(2)	Title Sheet & Plan Sheet Keymap
2.01-2.05	(5)	Tabulation of Properties
3.01-3.03	(3)	Project Control Diagram
4.01-4.04	(4)	Land Survey Control Diagram
5.01-5.02	(2)	Monumentation Sheets
6.01-6.0X	(NA)	Tabulation of Road Approach Sheets
7.01-7.20	(20)	Plan Sheets
8.01-8.04	(4)	Ownership Map
	(40)	Total Sheets

Scales of Original 11"x17" Drawings
Plan Sheets 1"=50'
Ownership Map 1"=200'

FILING CERTIFICATION:
DEPOSITED THIS __ DAY OF _____, 20__, AT __ M.
IN BOOK _____ OF THE COUNTY LAND SURVEYS/RIGHT OF WAY
SURVEYS AT PAGE _____, RECEPTION NUMBER _____.
SIGNED _____ DEPT. _____.

4/23/2026 MalekJA 06:29:21 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_TitleSht_Fed_LPA.dgn

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Sheet Revisions		
Date	Description	Initials
05/12/25	Revise sheet layout	jam
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

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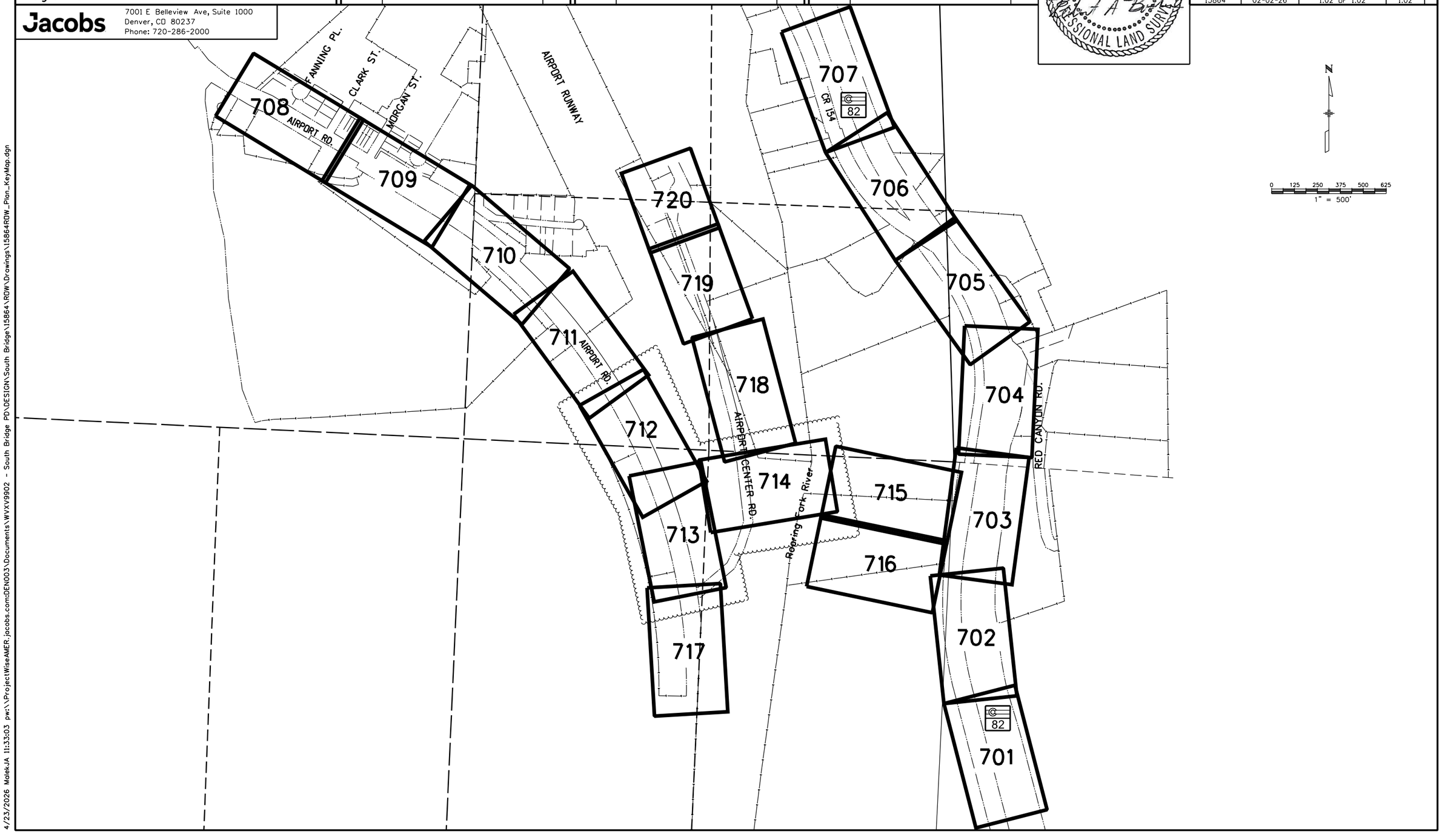
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet Keymap

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	02-02-26	1.02 OF 1.02	1.02



4/23/2026 MolekJA 11:33:03 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Plan_KeyMap.dgn

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Sheet Revisions

Date	Description	Initials
05/12/25	Rename PE-1,PE-1A,PE-1B to RWE-1,RWE-1A,RWE-1B	
	Revise PE-2	jam
02/02/26	Jacobs address update	jam

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

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PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Tabulation of Properties
Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	2.01 of 2.05	2.01

R.O.W. TABULATION OF PROPERTIES IN GARFIELD COUNTY STATE HIGHWAY 82

Parcel No.	Ownership Name and Mailing Address	Site Address	Location	Area In Square Feet (Acres)					Book and Page No. And/Or Reception No.	Title Commitment No.	Duration	Purpose Of Parcel
				Area Of Parcel	Existing ROW	Net Area	Remainder Left	Remainder Right				
			Township 6 South, Range 89 West									
			6th Principal Meridian									
RWE-1ren	ROARING FORK	N/A	A part of the SE 1/4, Sec. 27 and	24,054		24,054				N/A	N/A	
rename from	TRANSPORTATION AUTHORITY	PID: 218526200030	the SW 1/4 Sec. 26	(0.552)		(0.552)						To the City of Glenwood Springs for construction, use, and maintenance of roadway, trail, and associated improvements
PE-1	1340 Main Street											
	Carbondale, CO 81623											
RWE-1Aren	Same as above	Same as above	A part of the SW 1/4, Sec. 26	4,504		4,504				Same as above	N/A	For construction, use, and maintenance of roadway and associated improvements
rename from				(0.103)		(0.103)						
PE-1A												
RWE-1Bren	Same as above	Same as above	Same as above	27,951		27,951				Same as above	N/A	For construction, use, and maintenance of roadway and associated improvements
rename from				(0.642)		(0.642)						
PE-1B												
TE-1	Same as above	Same as above	A part of the NW 1/4 Sec. 26,	84,431		84,431				Same as above	1 year	
			the SW 1/4 Sec. 26 and	(1.938)		(1.938)						For construction of roadway, trail, and associated improvements
			the NE 1/4 Sec. 27									
TE-1A	Same as above	Same as above	A part of the SE 1/4, Sec. 27 and	109,522		109,522				Same as above	1 year	
			the SW 1/4 Sec. 26	(2.514)		(2.514)						For construction of roadway, trail, and associated improvements
TE-1B	Same as above	Same as above	A part of the NE 1/4 Sec. 27	1,878		1,878				Same as above	1 year	
				(0.043)		(0.043)						For construction of roadway and associated improvements
TE-1C	Same as above	Same as above	A part of the NE 1/4 Sec. 27	848		848				Same as above	1 year	
				(0.019)		(0.019)						For construction of roadway and associated improvements
RW-2	Holy Cross Energy	N/A	A part of the SW 1/4 Sec. 26	8,525		8,525		199,598		2004008	N/A	
	PO Box 2150	PID: 218526300029		(0.196)		(0.196)		(4.582)				For construction, use, and maintenance of roadway and associated improvements
	Glenwood Springs, CO 81602											
PE-2rev	Same as above	Same as above	Same as above	16,606		16,606				Same as above	N/A	For construction, use, and maintenance of roadway and associated improvements
				(0.381)		(0.381)						
TE-2	Same as above	Same as above	Same as above	12,863		12,863				Same as above	1 year	
				(0.295)		(0.295)						For construction of canal improvements
RW-2A	Same as above	N/A	A part of the SE 1/4 Sec. 27 and	32,740		32,740	138,006			1503108	N/A	
		PID: 218527100060	the SW 1/4 Sec. 26	(0.752)		(0.752)	(3.168)					For construction, use, and maintenance of roadway and associated improvements
PE-2A	Same as above	Same as above	Same as above	2,424		2,424				Same as above	N/A	
				(0.056)		(0.056)						For construction, use, and maintenance of roadway and associated improvements

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Sheet Revisions		
Date	Description	Initials
04/28/25	Deleted PE-2A,PE-4,PE-5,	
	Revise TE-3,TE-4,TE-5,	jam
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
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Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
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24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Tabulation of Properties
Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	02-24-26	2.02 of 2.05	2.02

R.O.W. TABULATION OF PROPERTIES IN GARFIELD COUNTY STATE HIGHWAY 82

Parcel No.	Ownership Name and Mailing Address	Site Address	Location	Area In Square Feet (Acres)					Book and Page No. And/Or Reception No.	Title Commitment No.	Duration	Purpose Of Parcel
				Area Of Parcel	Existing ROW	Net Area	Remainder Left	Remainder Right				
			Township 6 South, Range 89 West									
			6th Principal Meridian									
TE-2A	Holy Cross Energy	N/A	A part of the SE 1/4 Sec. 27	82,592		82,592				Same as above	1 year	
	PO Box 2150	PID: 218527100060		(1.896)		(1.896)						For construction of roadway and associated improvements and construction staging
	Glenwood Springs, CO 81602											
PE-2B	deleted											
PE-2C	Same as above	Same as above	A part of the SE 1/4 Sec. 27	3,424		3,424				Same as above	N/A	For construction, use, and maintenance of roadway and associated improvements
				(0.079)		(0.079)						
RW-3	JACKSON FAMILY RANCH, LLC	3995 82 Highway	A part of the SE 1/4 Sec. 27	52,018		52,018		301,516		1503107	N/A	
	PO Box 27	Glenwood Springs, CO 81601	and the SW 1/4 Sec. 26	(1.194)		(1.194)		(6.922)				For construction, use, and maintenance of roadway and associated improvements
	Glenwood Springs, CO 81602	PID: 218527400059										
PE-3	deleted											
TE-3rev	Same as above	Same as above	Same as above	28,286		28,286				Same as above	1 year	
				(0.649)		(0.649)						For construction of driveway improvements
TE-3A	Same as above	Same as above	Same as above	17,354		17,354					1 year	
				(0.398)		(0.398)						For driveway reclamation
PE-4	deleted											
TE-4rev	RAYMOND E. VATH AND	N/A	A part of the NW 1/4 Sec. 26	2,512		2,512				2004009	1 year	
	ELISABETH C. VATH	PID: 218526200020		(0.058)		(0.058)						For construction of driveway improvements
	PO Box 2296											
	Glenwood Springs, CO 81602											
PE-5	deleted											
TE-5rev	SPENCER CHARLES HOLDING, LLC	3890 82 Highway	A part of the NW 1/4 Sec. 26	1,411		1,411				2106016	1 year	
	a Colorado Limited Liability Company	Glenwood Springs, CO 81601		(0.032)		(0.032)						For construction of driveway improvements
	200 Mountain Shadow Drive	PID: 218526200019										
	Glenwood Springs, CO 81601											
TE-6	JSK HOLDINGS, LLC	3768 82 Highway	A part of the NW 1/4, Sec. 26	76		76				N/A	1 year	
	a Colorado Limited Liability Company	Glenwood Springs, CO 81601		(0.002)		(0.002)						For construction of drainage improvements
	3768 Highway 82, Suite 101	PID: 218526200008										
	Glenwood Springs, CO 81601											

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Sheet Revisions

Date	Description	Initials
04/28/25	Rename PE-11 to TE-11, Delete RW-9,PE-9	
	Added TE-9	jam
02/02/26	Jacobs address update	jam

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
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PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Tabulation of Properties

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	2.03 of 2.05	2.03

R.O.W. TABULATION OF PROPERTIES IN GARFIELD COUNTY STATE HIGHWAY 82

Parcel No.	Ownership Name and Mailing Address	Site Address	Location	Area In Square Feet (Acres)					Book and Page No. And/Or Reception No.	Title Commitment No.	Duration	Purpose Of Parcel
				Area Of Parcel	Existing ROW	Net Area	Remainder Left	Remainder Right				
			Township 6 South, Range 89 West									
			6th Principal Meridian									
PE-7	DEFIANT INVESTMENTS, LLC	3760 82 Highway	A part of the NW 1/4 Sec. 26	131		131				2004007	N/A	
	a Colorado Limited Liability Company	Glenwood Springs, CO 81601		(0.003)		(0.003)						For construction, use, and maintenance of drainage improvements
	7380 County Road 100	PID: 218526200025										
	Carbondale, CO 81623											
TE-7	Same as above	Same as above	Same as above	1,551		1,551				Same as above	1 year	For construction of driveway and drainage improvements
				(0.036)		(0.036)						
TE-8	HARVEY/NESBIT LLP	3758 82 Highway	A part of the NW 1/4 Sec. 26	1,075		1,075				Same as above	1 year	
	3758 Highway 82	Glenwood Springs, CO 81601		(0.025)		(0.025)						For construction of driveway improvements
	Glenwood Springs, CO 81601	PID: 218526200022										
RW-9	deleted											
PE-9	deleted											
TE-9add	3710 HWY 82 GS, LLC	3710 82 Highway	A part of the NW 1/4 Sec. 26 and	1,362		1,362				2020-04-104	1 year	For construction of driveway and associated improvements
	a Colorado Limited Liability Company	Glenwood Springs, CO 81601	the NE 1/4 Sec. 27	(0.031)		(0.031)						
	626 Cascade Avenue	PID: 218526200004										
	Boulder, CO 80302											
TE-10	CHRISTOPHER M. JANUSZ,	3642 82 Highway	A part of the NE 1/4 Sec. 27	1,391		1,391		30,192		2020-04-103	1 year	
	an unmarried man	Glenwood Springs, CO 81601		(0.032)		(0.032)		(0.693)				For construction of driveway and associated improvements
	3644 Highway 82	PID: 218527134002										
	Glenwood Springs, CO 81601											
TE-11ren	BUFF VALLEY, LLC	2215 154 County Road	A part of the NE 1/4 Sec. 27	859		859				2020-04-105	N/A	
rename from	a Colorado Limited Liability Company	Glenwood Springs, CO 81601		(0.020)		(0.020)						For construction, use, and maintenance of roadway and associated improvements
PE-11	623 East Hopkins Avenue	PID: 218527100029										
	Aspen, CO 81611											
RW-12	VILLAGE HOMES OF COLORADO, INC.	N/A	A part of the NW 1/4 Sec. 27	3,150		3,150				2020-04-89	N/A	
	5000 Greenwood Plaza Blvd. Suite, 200	PID: 218527231005		(0.072)		(0.072)						For construction, use, and maintenance of roadway and associated improvements
	Englewood, CO 80111											
RW-12A	Same as above	N/A	Same as above	6,285		6,285				2020-04-88	N/A	
		PID: 218527223039		(0.144)		(0.144)						For construction, use, and maintenance of roadway and associated improvements

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Sheet Revisions

Date	Description	Initials
04/28/25	Delete TE-14,RW-15,RW-16,PE-16,PE-15	
	Rename PE-14 to TE-14B, Revise TE-15,TE-16	jam
12/15/25	Delete TE-15Rev, TE-16Rev	jam
02/02/26	Jacobs address update	jam

Sheet Revisions

Date	Description	Initials
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Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
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PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Tabulation of Properties

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	2.04 of 2.05	2.04

R.O.W. TABULATION OF PROPERTIES IN GARFIELD COUNTY STATE HIGHWAY 82

Parcel No.	Ownership Name and Mailing Address	Site Address	Location	Area In Square Feet (Acres)					Book and Page No. And/Or Reception No.	Title Commitment No.	Duration	Purpose Of Parcel
				Area Of Parcel	Existing ROW	Net Area	Remainder Left	Remainder Right				
			Township 6 South, Range 89 West									
			6th Principal Meridian									
TE-13	Cardiff Glen Master Homeowners Association	N/A	A part of the NW 1/4 Sec. 27	328		328				2020-04-96	1 year	For construction of sidewalk improvements
	PO Box 1204	PID: 218527209026		(0.008)		(0.008)						
	Glenwood Springs, CO 81602											
TE-14Bren	FORCE LLC,	334 Airport Road	A part of the NE 1/4 Sec. 27	524		524				2020-04-98	N/A	For construction, use, and maintenance of utilities
rename from	a Colorado Limited Liability Company	Glenwood Springs, CO 81601		(0.012)		(0.012)						
PE-14	160 County Road 160	PID: 218527107001										
	Glenwood Springs, CO 81601											
TE-14	deleted											
TE-14A	Same as above	Same as above	Same as above	1,036		1,036				Same as above	1 year	For construction of driveway improvements
				(0.024)		(0.024)						
RW-15	deleted											
PE-15	deleted											
TE-15rev	deleted											
RW-16	deleted											
PE-16	deleted											
TE-16rev	deleted											
PE-17	deleted											

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Sheet Revisions

Date	Description	Initials
04/28/25	Delete RW-25	jam
12/15/25	TE-20 Name Change	jam
02/02/26	Jacobs address update	jam

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
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PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Tabulation of Properties

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	02-02-26	2.05 of 2.05	2.05

R.O.W. TABULATION OF PROPERTIES IN GARFIELD COUNTY STATE HIGHWAY 82

Parcel No.	Ownership Name and Mailing Address	Site Address	Location	Area In Square Feet (Acres)					Book and Page No. And/or Reception No.	Title Commitment No.	Duration	Purpose Of Parcel
				Area of Parcel	Existing ROW	Net Area	Remainder Left	Remainder Right				
			Township 6 South, Range 89 West									
			6th Principal Meridian									
TE-18	AIRPORT MINI STORAGE LLC	1097 116 County Rd.	Same as above	459		459				N/A	1 year	For construction of driveway improvements
	a Colorado Limited Liability Company			(0.011)		(0.011)						
	6874 Highway 82	Glenwood Springs, CO 81601										
	Glenwood Springs, CO 81601	PID: 218527100008										
TE-19	UNITED STATES OF AMERICA	N/A	Same as above	245		245				N/A	1 year	For construction of driveway improvements
	1800 Massachusetts Ave. NW Suite 500	PID: 218527100007		(0.006)		(0.006)						
	Washington, DC 20036											
TE-20	MELISSA MARIE BRONSON &	158 Airport Rd.	A part of the NW 1/4 Sec. 27	100		100				N/A	1 year	For construction of sidewalk improvements
	ERIC JONATHAN BRONSON	Glenwood Springs, CO 81601		(0.002)		(0.002)						
	616 Forest View Way	PID: 218527231004										
	Monument, CO. 80132											
PE-21	CARDIFF MESA	0 116 County Rd.	A part of the NW 1/4 Sec. 27	253		253				2020-04-95	N/A	For construction and maintenance of driveway and associated improvements
	CONDOMINIUM ASSOCIATION	Glenwood Springs, CO 81601		(0.006)		(0.006)						
	1487 Walz Ave.	PID: 218527236006										
	Glenwood Springs, CO 81601											
TE-21	Same as above	Same as above	Same as above	1,727		1,727				Same as above	1 year	For construction of driveway improvements
				(0.040)		(0.040)						
TE-22	HEATHER LOUISE MCGREGOR AND	63 116 County Rd.	A part of the NW 1/4 Sec. 27	501		501				N/A	1 year	For construction of drainage improvements
	STEVEN SMITH	Glenwood Springs, CO 81601		(0.012)		(0.012)						
	63 County Road 116	PID: 218527200023										
	Glenwood Springs, CO 81601											
TE-23	ROSAMOND WELCHMAN	146 Airport Rd.	A part of the NW 1/4 Sec. 27	85		85				N/A	1 year	For construction of noise barrier
	P.O. Box 147	Glenwood Springs, CO 81601		(0.002)		(0.002)						
	Halcottsville NY 12438	PID: 218527231001										
TE-24	150 AIRPORT ROAD LLC	150 Airport Rd.	A part of the NW 1/4 Sec. 27	64		64				N/A	1 year	For construction of noise barrier
	P.O. Box 129	Glenwood Springs, CO 81601		(0.001)		(0.001)						
	Woody Creek CO 81656	PID: 218527231002										
RW-25	deleted											

4/23/2026 MolekJA 11:41:41 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\RDW\Drawings\15864RDW_TabProp205.dgn

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Sheet Revisions		
Date	Description	Initials
02/03/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

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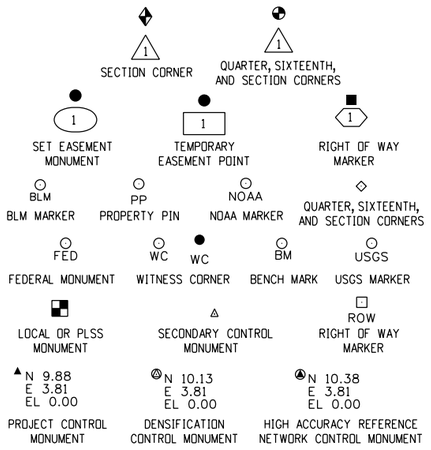
Project Control Diagram				
Title Sheet				
Project Number: HPP M535-003				
Project Location: Glenwood Springs South Bridge				
Project Code:	Last Mod. Date	Subset	Sheet No.	
15864	02-03-26	3.01 of 3.03	3.01	

SURVEYOR STATEMENT (PROJECT CONTROL DIAGRAM)

I, Robert A. Boehm, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation this Project Control Diagram was prepared and the field survey it represents was performed under my responsible charge and, based upon my knowledge, information and belief is in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 34992



Note: For a complete listing of symbololgy used within this set of plans, please refer to the M-100-1 Standard Symbols of the Colorado Department of Transportation M&S Standards Publication. Existing features are shown as screened weight (gray scale). Proposed or new features are shown as full weight without screening.

Typical Control Monument Cap
Not to Scale

▲ CM-MP - Control Point Monuments set by CDOT. They are CDOT Type 2 monuments, a 3¼" dia. aluminum control monument cap (as shown) on a 3' x¾" dia. aluminum security rod on a 3' x¾" dia. smooth aluminum rod.

General Notes:

1. This Project Control Diagram is not a boundary survey of the adjoining property and is prepared for the Colorado Department of Transportation purposes only.

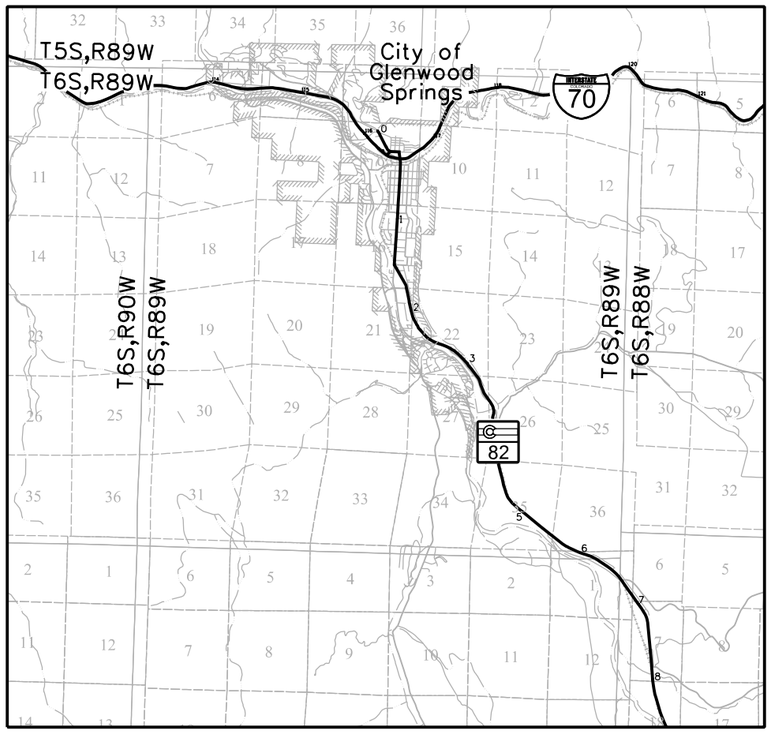
2. This plan set is subject to change and may not be the most current set. It is the user's responsibility to verify with CDOT that this set is the most current. The information contained on the attached drawing is not valid unless this copy bears an original signature of the Professional Land Surveyor hereon named.

3. Refer to the M-629-1 Survey Monuments of the Standard Plans found in The Colorado Department of Transportation, M & S Standards for typical survey monument descriptions.

DEPARTMENT OF TRANSPORTATION
STATE OF COLORADO

PROJECT CONTROL DIAGRAM

State Highway 82 MP 3.34 to 4.18
Sections 26 and 27
Township 6 South, Range 89 West
of the 6th Principal Meridian
County of Garfield



PROJECT LOCATION MAP

Basis of Bearings: Bearings are based on a grid bearing of S26°48'25"E from ROSEBUD to Q 158. ROSEBUD is a horizontal control disk and Q 158 is a benchmark disk and both are set in concrete. The survey data was obtained from a Global Positioning System (GPS) survey based on the Colorado High Accuracy Reference Network (CHARN).

Basis of Elevations: Project elevations are based on benchmark Q 158 1934, PID: KL0538, a standard benchmark disk set on top of a concrete monument, with a NAVD 88 elevation of 5961.79ft. Q 158 is a Second order Class 0 benchmark.

Project Coordinate System: Coordinates are derived from a modified NAD 83 (2011) Colorado State Plane Central (0502) Zone in US Survey Feet.
Combined Scale Factor Determination:
- Projection scale factor calculated at NGS monument ROSEBUD (AB2466)
- (Project coordinates: N39° 30'57.08902", W107° 19'01.88237")
- Grid Scale Factor: 0.9999620665
- Project elevation: 5888.291ft, and elevation factor: 0.9997208082
- Inverse combined scale factor (CSF): 1.0003172153

The origin of the project scale to ground: N34° 38'17.63747", W115° 27'50.62743" or grid N:0ft, E:0ft.
The resulting scaled coordinates are truncated by 1,000,000ft in the Northing and 2,000,000ft in the easting.

NOTICE: According 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.

SHEET NO.	INDEX OF SHEETS
3.01	(1) Title Sheet
3.02	(1) Coordinate Tables
3.03	(1) Plan Sheet
	(3) Total Sheets

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mm/dd/yy	XXXXXXXX	

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Project Control Diagram
Coordinate Tables

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	02-03-26	3.02 of 3.03	3.02

CHARN GEODETIC COORDINATE SUMMARY TABLE

Point No.	Geodetic Coordinates NAD-83(2011)		Elip Height (NAVD88) (m)	Ortho Height (m)	Mapping Angle	Grid Scale Factor	NAD 83(2011) Zone 0502		Description
	Latitude (N)	Longitude (W)					SP Northing (m)	SP Easting (m)	
DL6159	39°24'01.24159"	107°12'43.51799"	1879.680	1894.6	-1°04'47.3"	0.99994952	480141.645	766945.357	CARBONDALE CORS ARP
DL2035	39°32'49.05078"	107°19'39.07941"	1757.250		-1°09'09.4"	0.99996614	496609.051	757332.151	GLENWOOD SPRINGS CORS ARP
KL0538	39°29'19.41806"	107°17'54.99399"	1802.349	1817.156	-1°08'03.7"	0.99995875	490095.814	759688.783	NGS Monument "Q 158 1934"
AB2466	39°30'57.08902"	107°19'01.88237"	1771.337	1786	-1°08'45.9"	0.99996207	493139.100	758151.016	NGS Monument "ROSEBUD 1994"
AB2468	39°33'42.28087"	107°21'58.99917"	1727.159	1741.600	-1°10'37.6"	0.99996818	498318.211	754025.879	NGS Monument "GLENWOOD 1994"

PROJECT COORDINATE TABLE

Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
1	614512.585	490807.260	5904.21	2" Aluminum Cap on #5 Rebar "JACOBS CP1"
2	613804.640	491042.367	5906.75	2" Aluminum Cap on #5 Rebar "JACOBS CP2"
3	612879.731	491087.966	5911.92	2" Aluminum Cap on #5 Rebar "JACOBS CP3"
4	614352.416	492395.925	5908.48	2" Aluminum Cap on #5 Rebar "JACOBS CP4"
5	613666.003	492442.279	5913.92	2" Aluminum Cap on #5 Rebar "JACOBS CP5"
6	612673.276	492313.725	5936.98	2" Aluminum Cap on #5 Rebar "JACOBS CP6"
7	615393.257	488444.913	5917.35	2" Aluminum Cap on #5 Rebar "JACOBS CP7"
8	615143.083	488761.747	5921.33	2" Aluminum Cap on #5 Rebar "JACOBS CP8"
9	615013.482	489123.950	5924.11	2" Aluminum Cap on #5 Rebar "JACOBS CP9"
12	615845.146	491504.513	5898.84	3.25" Brass Cap on #4 Rebar "RFTA NG07"
13	614859.407	491901.115	5904.35	3.25" Brass Cap on #4 Rebar "RFTA NG08"
KL0538	608432.721	493202.846	5961.79	NGS MONUMENT "Q 158 1934"
AB2466	618420.422	488156.155	5859.82	NGS MONUMENT "ROSEBUD 1994"
17	629640.221	487422.639	5816.29	3.25" Aluminum Cap in RANGE BOX - ILLEGIBLE
AB2468	635417.612	474618.025	5714.28	NGS MONUMENT "GLENWOOD 1994"
101	615961.285	489983.448	5914.77	1" COPPER PLUG "JACOBS 101"
102	615179.613	490280.805	5912.83	1" COPPER PLUG "JACOBS 102"
103	614476.755	490591.296	5908.48	1" COPPER PLUG "JACOBS 103"
104	613758.776	490958.569	5908.72	1" COPPER PLUG "JACOBS 104"
114	616269.432	489661.490	5921.20	1" COPPER PLUG "JACOBS 114"
132	613270.436	491062.700	5909.47	1" COPPER PLUG "JACOBS 132"

GEODETIC COORDINATE TABLE

Point No.	Geodetic Coordinates NAD-83(2011)		Elip Height (NAVD88) (m)	Ortho Height (NAVD88) (m)	Mapping Angle	Grid Scale Factor	NAD 83(2011) Zone 0502		Description
	Latitude (N)	Longitude (W)					SP Northing (m)	SP Easting (m)	
1	39°30'19.00815"	107°18'27.07862"	1784.88	1799.61	-1°08'24"	0.99996075	491948.367	758958.818	2" Aluminum Cap on #5 Rebar "JACOBS CP1"
2	39°30'12.06092"	107°18'23.90098"	1785.65	1800.38	-1°08'22"	0.99996051	491732.653	759030.456	2" Aluminum Cap on #5 Rebar "JACOBS CP2"
3	39°30'02.93317"	107°18'23.08496"	1787.21	1801.96	-1°08'21"	0.99996020	491450.830	759044.350	2" Aluminum Cap on #5 Rebar "JACOBS CP3"
4	39°30'17.73771"	107°18'06.77943"	1786.20	1800.91	-1°08'11"	0.99996070	491899.562	759442.890	2" Aluminum Cap on #5 Rebar "JACOBS CP4"
5	39°30'10.96607"	107°18'06.01470"	1787.85	1802.57	-1°08'11"	0.99996047	491690.410	759457.015	2" Aluminum Cap on #5 Rebar "JACOBS CP5"
6	39°30'01.13422"	107°18'07.40284"	1794.86	1809.60	-1°08'12"	0.99996014	491387.922	759417.844	2" Aluminum Cap on #5 Rebar "JACOBS CP6"
7	39°30'27.24238"	107°18'57.42773"	1788.88	1803.61	-1°08'43"	0.99996103	492216.711	758239.001	2" Aluminum Cap on #5 Rebar "JACOBS CP7"
8	39°30'24.83360"	107°18'53.32360"	1790.09	1804.82	-1°08'40"	0.99996095	492140.482	758335.542	2" Aluminum Cap on #5 Rebar "JACOBS CP8"
9	39°30'23.62480"	107°18'48.67169"	1790.94	1805.67	-1°08'38"	0.99996091	492100.992	758445.907	2" Aluminum Cap on #5 Rebar "JACOBS CP9"
12	39°30'32.30879"	107°18'18.52494"	1783.27	1797.97	-1°08'19"	0.99996120	492354.403	759171.274	3.25" Brass Cap on #4 Rebar "RFTA NG07"
13	39°30'22.64901"	107°18'13.21759"	1784.95	1799.65	-1°08'15"	0.99996087	492054.045	759292.120	3.25" Brass Cap on #4 Rebar "RFTA NG08"
KL0538	39°29'19.41784"	107°17'54.99487"	1802.36	1817.16	-1°08'04"	0.99995875	490095.808	759688.762	NGS MONUMENT "Q 158 1934"
AB2466	39°30'57.08902"	107°19'01.88237"	1771.39	1786.08	-1°08'46"	0.99996207	493139.100	758151.016	NGS MONUMENT "ROSEBUD 1994"
17	39°32'47.77740"	107°19'14.10562"	1758.33	1772.81	-1°08'54"	0.99996609	496557.817	757927.511	3.25" Aluminum Cap in RANGE BOX - ILLEGIBLE
AB2468	39°33'42.28089"	107°21'58.99853"	1727.22	1741.72	-1°10'38"	0.99996818	498318.211	754025.894	NGS MONUMENT "GLENWOOD 1994"
101	39°30'33.15702"	107°18'37.95209"	1788.12	1802.83	-1°08'31"	0.99996123	492389.791	758707.799	1" COPPER PLUG "JACOBS 101"
102	39°30'25.49382"	107°18'33.96141"	1787.52	1802.23	-1°08'28"	0.99996097	492151.613	758798.405	1" COPPER PLUG "JACOBS 102"
103	39°30'18.61173"	107°18'29.82350"	1786.18	1800.91	-1°08'26"	0.99996073	491937.449	758893.013	1" COPPER PLUG "JACOBS 103"
104	39°30'11.59139"	107°18'24.95791"	1786.25	1800.98	-1°08'23"	0.99996050	491718.678	759004.922	1" COPPER PLUG "JACOBS 104"
114	39°30'36.13762"	107°18'42.13630"	1790.08	1804.79	-1°08'33"	0.99996134	492483.685	758609.697	1" COPPER PLUG "JACOBS 114"
132	39°30'06.78779"	107°18'23.50622"	1786.47	1801.21	-1d08'22"	0.99996033	491569.879	759036.651	1" COPPER PLUG "JACOBS 132"

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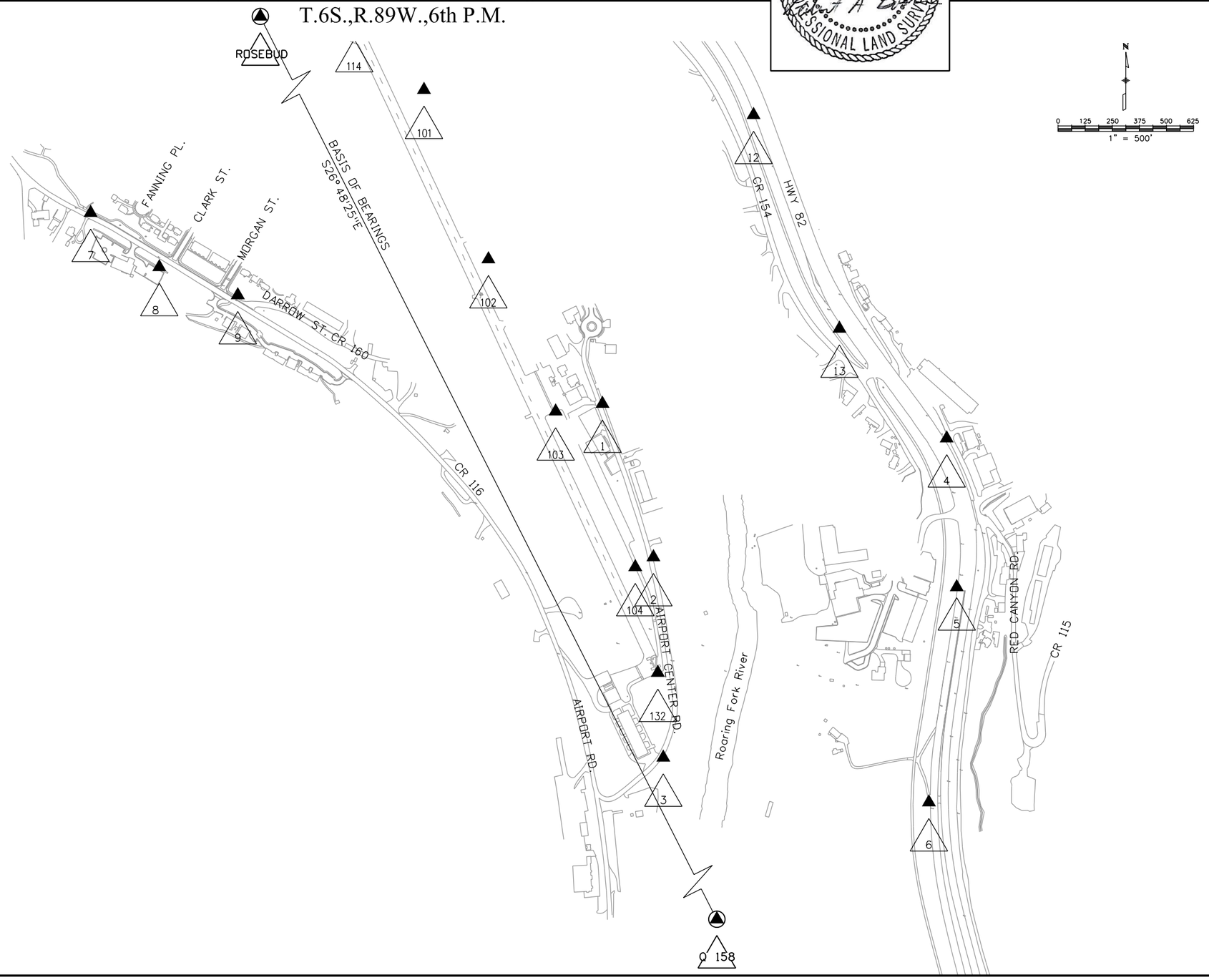
Project Control Diagram
Plan Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	02-03-26	3.03 of 3.03	3.03



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Land Survey Control Diagram
Title Sheet

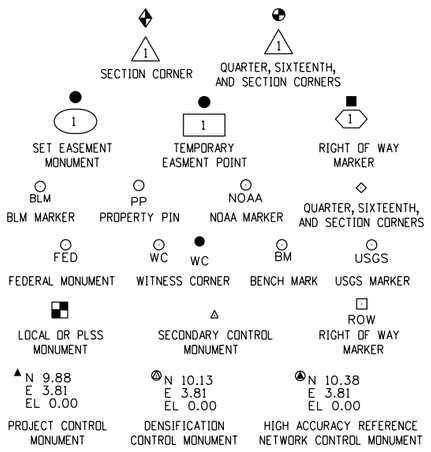
Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	02-03-26	4.01 of 4.04	4.01

SURVEYOR STATEMENT (LAND SURVEY CONTROL DIAGRAM)

I, Robert A. Boehm, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation this Project Control Diagram was prepared and the field survey it represents was performed under my responsible charge and, based upon my knowledge, information and belief is in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 34992



Note: For a complete listing of symbology used within this set of plans, please refer to the M-100-1 Standard Symbols of the Colorado Department of Transportation M&S Standards Publication. Existing features are shown as screened weight (gray scale). Proposed or new features are shown as full weight without screening.

General Notes:

1. This Land Survey Control Diagram is not a boundary survey of the adjoining property and is prepared for the Colorado Department of Transportation purposes only. No determination has been made to determine if the found monuments as shown are in their proper position or if they are at the corners they are intended to monument.

2. Title policy, title commitment, and title research are not part of this survey, therefore easements, rights, and restrictions of record were not researched and are not shown on this diagram. The verification of the physical evidence with relation to easements, rights of ways, property boundaries, and restrictions, as described in the instruments of record, were not included in this control survey.

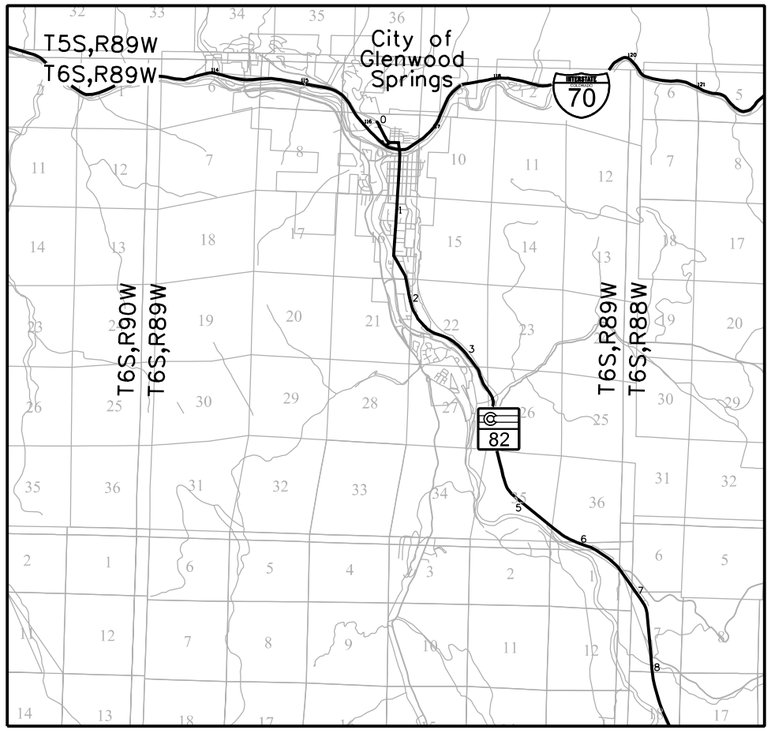
3. This plan set is subject to change and may not be the most current set. It is the user's responsibility to verify with CDOT that this set is the most current. The information contained on the attached drawing is not valid unless this copy bears an original signature of the Professional Land Surveyor hereon named.

4. Refer to the M-629-1 Survey Monuments of the Standard Plans found in The Colorado Department of Transportation, M & S Standards for typical survey monument descriptions.

DEPARTMENT OF TRANSPORTATION
STATE OF COLORADO

LAND SURVEY CONTROL DIAGRAM

State Highway 82 MP 3.34 to 4.18
Sections 26 and 27
Township 6 South, Range 89 West
of the 6th Principal Meridian
County of Garfield



PROJECT LOCATION MAP

Basis of Bearings: Bearings are based on a grid bearing of S26°48'25"E from ROSEBUD to Q 158. ROSEBUD is a horizontal control disk and Q 158 is a benchmark disk and both are set in concrete. The survey data was obtained from a Global Positioning System (GPS) survey based on the Colorado High Accuracy Reference Network (CHARN).

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4.02	(1) Monument Coordinate Tables
4.03-4.04	(2) Plan Sheet
	(4) Total Sheets

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Land Survey Control Diagram
Monument Coordinate Tables

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	02-03-26	4.02 of 4.04	4.02

PP
WC

FOUND BOUNDARY MONUMENT COORDINATE TABLE

Point No.	Northing(ft)	Easting(ft)	Description
6001	614861.171	491903.763	3.25" Aluminum Cap Up 0.2' "RFTA PLS 16401 WC 69.0' "
6002	615210.068	491724.726	3.25" Aluminum Cap "RFTA PLS 16401 WC 63.0' "
6003	615833.637	491473.550	3.25" Aluminum Cap "RFTA PLS 16401 WC 86.0' "
6004	614774.289	491959.524	3.25" Aluminum Cap "RFTA PLS 16401 WC 95.5' "
6005	614383.836	492182.223	3.25" Aluminum Cap "RFTA PLS 16401"
6006	614571.088	492014.550	Red Plastic Cap on #5 Rebar at Fence Corner - ILLEGIBLE
6007	614588.621	492001.232	Orange Plastic Cap on #5 Rebar "SURVCO INC SURVEY MARKER PLS NO 27613"
6008	614776.744	491895.929	3.25" Aluminum Cap "RFTA PLS 16401"
6009	613387.818	492378.122	3.25" Aluminum Cap "RFTA PLS 16401"
6010	613393.253	492303.111	3.25" Aluminum Cap "RFTA PLS 16401"
6011	613395.053	492278.000	3.25" Aluminum Cap "RFTA PLS 16401"
6012	613185.324	492244.982	Yellow Plastic Cap on #5 Rebar "SGM LS 15710"
6013	612924.720	492306.180	3.25" Aluminum Cap "RFTA PLS 16401"
6014	612514.959	492485.318	Yellow Plastic Cap on #5 Rebar "SGM LS 15710"
6015	612638.602	492847.919	Yellow Plastic Cap on #5 Rebar "SGM LS 15710"
6016	613375.956	492538.370	Yellow Plastic Cap on #5 Rebar "RIVER CITY SURVEYS PLS 29030"
6018	614257.559	492491.579	Yellow Plastic Cap on #5 Rebar "PROP COR HCE LS 19598"
6019	612170.208	492344.195	3.25" Aluminum Cap "RFTA PLS 16401"
6020	612152.513	492276.485	3.25" Aluminum Cap "RFTA PLS 16401 WC 30.0' "
6021	615179.321	491640.202	3.25" Aluminum Cap "RFTA PLS 16401 WC 47.0' "
6022	614037.322	492588.112	Yellow Plastic Cap on #5 Rebar "PROP COR HCE LS 19598"
6023	613936.192	492644.465	Yellow Plastic Cap on #5 Rebar "SGM LS 29030"
6024	613983.309	492629.715	Yellow Plastic Cap on #5 Rebar "SGM LS 29030"
6025	613897.085	492668.854	1.5" Aluminum Cap - ILLEGIBLE
6026	614770.431	492203.969	1.5" Aluminum Cap on #5 Rebar Set in Rock "PE+LS 5933"
6027	614878.933	492037.687	Yellow Plastic Cap on #5 Rebar - ILLEGIBLE
6028	614732.962	492139.966	#5 Rebar in Driveway
6030	613499.977	491232.113	#5 Rebar
6031	614604.515	489622.833	#4 Rebar
6200	613585.369	489509.503	Red Plastic Cap on #5 Rebar "PLS28643"
6501	615114.138	488798.876	#5 Rebar
6502	615304.995	488483.530	#5 Rebar
6503	615317.343	488455.778	1.25" Orange Plastic Cap "PROP COR PLS 27613"
6504	615411.833	488288.872	1.25" Orange Plastic Cap "PROP COR PLS 27613"
6505	615393.550	488531.937	1.25" Orange Plastic Cap "PROP COR SLW 27613"
6506	615432.648	488443.134	1.25" Yellow Plastic Cap "HCE INC LS 38215"
6507	614940.009	488965.882	1.25" Orange Plastic Cap "PROP COR PLS 27613"
6508	614584.125	489621.154	1.5" Aluminum Cap in Concrete "PE+PLS 5933"
6509	614522.245	489618.259	1.5" Aluminum Cap in Concrete "PE+PLS 5933"
6510	614520.056	490166.857	#5 Rebar
6511	614523.056	490056.838	#5 Rebar
6520	612120.416	490787.715	1.5" Aluminum Cap in Concrete "PE+PLS 5933"
6521	612117.777	490849.297	#5 Rebar Bent SE
6522	612798.971	490723.720	1.5" Aluminum Cap in Concrete - ILLEGIBLE
6523	613419.247	491179.150	1.25" Orange Plastic Cap "PROP CORNER PLS 28643"
6524	613930.563	491011.624	1.25" Orange Plastic Cap "PROP CORNER PLS 28643"
6525	614271.913	490897.741	1.25" Orange Plastic Cap "PROP CORNER PLS 28643"
6526	614159.263	490936.442	1.25" Orange Plastic Cap "WITNESS PLS 28643" - Lath 2Ft at 90°
6530	615649.687	488109.859	1.25" Yellow Plastic Cap "HCE INC LS 38215"
6531	615662.095	488125.548	1.25" Yellow Plastic Cap "HCE INC LS 38215"
6532	615584.815	488187.830	1.25" Orange Plastic Cap "HCE W.C. HCE LS38215"
6533	615497.180	488296.927	#5 Rebar Bent West
6534	615774.275	488031.190	1.25" Orange Plastic Cap "HCE W.C. HCE LS38215"
6535	615800.081	488219.028	1.25" Orange Plastic Cap "HCE W.C. HCE LS38215"
6536	616233.964	488173.147	1.25" Yellow Plastic Cap "PROP COR HCE LS 13598"

PP
WC

FOUND BOUNDARY MONUMENT COORDINATE TABLE

Point No.	Northing(ft)	Easting(ft)	Description
6537	616362.099	489107.654	1.25" Yellow Plastic Cap "HCE INC LS" - PARTIALLY ILLEGIBLE
6538	616400.882	489209.441	1.25" Yellow Plastic Cap "HCE INC LS 38215"
6539	616567.058	489398.655	1.25" Yellow Plastic Cap - ILLEGIBLE
6540	616360.569	489499.468	1.25" Yellow Plastic Cap "PROP COR HCE LS 13598"
6541	616334.263	489443.429	1.25" Yellow Plastic Cap "HCE INC LS 38215"
6542	616516.516	489833.040	1.25" Aluminum Cap "PONDEROSA LS 15710"
6543	615761.764	489719.701	1.25" Aluminum Cap "EL DORADO LS 15710"
6544	615192.901	489994.269	1.25" Yellow Plastic Cap - ILLEGIBLE
6545	614848.592	490175.210	1.25" Yellow Plastic Cap - ILLEGIBLE - Cap is Falling Apart
6546	614849.023	490158.796	1.25" Yellow Plastic Cap "SGM PLS 15710"
6547	614817.697	490180.077	1.25" Yellow Plastic Cap - ILLEGIBLE - Cap is Falling Apart
6548	614701.714	490176.202	#5 Rebar
6549	614702.991	490226.339	#5 Rebar Bent
6550	614682.093	490245.492	1.25" Yellow Plastic Cap "SOLAR COUNTY LS 14111"
6551	614682.258	490235.873	1.25" Yellow Plastic Cap "SOLAR COUNTY LS 14111"
6552	614669.124	490245.178	1.25" Yellow Plastic Cap "SOLAR COUNTY LS 14111"
6553	614722.396	489920.074	#5 Rebar
6554	614715.957	489993.327	1.25" Orange Plastic Cap "SURVCO INC SURV MARKER PLS 27613 970-945-5945"
6555	614732.128	489844.744	#5 Rebar
6560	613220.773	491324.649	1.25" Pink Plastic Cap "S&W PROP COR PLS 26950"
6561	613402.777	491408.289	1.25" Red Plastic Cap " WITNESS PLS 28643"
6562	613446.106	490511.922	1.25" Aluminum Cap - BENT AND ILLEGIBLE
6563	613941.343	490042.654	1.25" Aluminum Cap "PE & LS 5933"
6564	614055.636	489951.361	1.25" Aluminum Cap "PE & LS 5933"
6565	614032.137	490162.188	1.25" Aluminum Cap "PE & LS 5933"
6566	614946.882	488887.793	1.25" Orange Plastic Cap "PROP COR PLS 27613"
6567	614966.939	488780.990	1.25" Orange Plastic Cap "PROP COR PLS 27613"
6568	614987.142	488725.797	1.25" Orange Plastic Cap "PROP COR PLS 27613"
6569	615025.271	488622.038	1.25" Orange Plastic Cap "PROP COR PLS 27613"
6570	615076.020	488381.434	1.25" Orange Plastic Cap "PROP COR PLS 27613"
6571	614932.947	488064.429	1.25" Yellow Plastic Cap "SSC PLS 38342"
6572	614826.465	488023.788	1.25" Yellow Plastic Cap "SSC PLS 38342"
6573	615119.354	488146.132	1.25" Yellow Plastic Cap "SSC PLS 38342"
6574	615210.548	488185.924	1.25" Orange Plastic Cap "PROP CORNER PLS 27613"
6575	615266.536	488118.723	1.25" Yellow Plastic Cap "SSC PLS 38342"
6576	614812.477	490919.057	1.25" Yellow Plastic Cap "PROP CORNER PLS 28643"
6577	615113.415	490920.968	1.25" Yellow Plastic Cap "PROP CORNER PLS 28643"
6578	615195.574	490873.019	1" Copper Plug "LS 28643"
6579	614985.648	490400.636	#5 Rebar in Concrete
6580	615378.818	488344.240	1.25" Orange Plastic Cap "PROP CORNER PLS 27613"
6581	615465.425	488199.339	1.25" Orange Plastic Cap "PROP CORNER PLS 27613"
6582	615799.840	487992.936	1.25" Yellow Plastic Cap "HCE PROP COR LS 13598"
6583	615264.439	488858.265	1.5" Aluminum Cap - ILLEGIBLE
6584	615274.268	488757.066	1.5" Aluminum Cap - ILLEGIBLE
6585	615312.123	488780.055	Nail and Disc in Asphalt "KOBYLARZ 25954"
6586	615493.404	488890.343	Nail and Disc in Asphalt "KOBYLARZ 25954"
6587	615707.363	489039.820	1.5" Aluminum Cap "KOBYLARZ 25954 1FT W.C."
6589	616057.685	489252.910	1.5" Aluminum Cap "KOBYLARZ 25954 1FT W.C."
6590	616099.974	489183.357	1.5" Aluminum Cap "VISTA ENGR 19597"
6591	615164.880	491574.346	1.25" Red Plastic Cap - ILLEGIBLE NOT HELD
6592	615843.206	491203.413	1" Yellow Plastic Cap "W.C. 1411"
6593	615902.285	491298.576	1.25" Red Plastic Cap "PROP COR 3317"
6594	615872.347	491300.880	1.25" Red Plastic Cap "S&W 3317 PROP COR"
6595	614691.332	491895.165	1.25" Yellow Plastic Cap "PROP CORNER LS 19598"
6596	615060.760	491615.195	1.25" Yellow Plastic Cap "LS 22580" NOT HELD

PP
WC

FOUND BOUNDARY MONUMENT COORDINATE TABLE

Point No.	Northing(ft)	Easting(ft)	Description
7001	614013.510	490941.325	#5 Rebar
7002	614819.738	490722.264	Yellow Plastic Cap on Bent #5 Rebar - ILLEGIBLE
7003	614812.474	490919.011	Yellow Plastic Cap "PLS 28643"
7004	615322.181	490876.145	Orange Plastic Cap "PLS 28643"
7005	615321.876	490922.093	Orange Plastic Cap "PLS 28643"
7006	614905.392	490806.442	#5 Rebar
7007	614977.355	490704.628	Yellow Plastic Cap "PLS 28643"
7008	614822.150	490652.337	#5 Rebar
8001	614690.972	490710.621	1.5" Aluminum Cap "LS 36056"
8002	614732.349	490691.529	1.5" Aluminum Cap "LS 36056"
8003	614387.829	490819.628	#5 Rebar
8004	614350.850	490753.770	1.5" Aluminum Cap "LS 36056"
8005	614679.793	490570.840	1.5" Aluminum Cap "LS 36056"

WC
WC

FOUND ALIQUOT MONUMENT COORDINATE TABLE

Point No.	Northing(ft)	Easting(ft)	Description
1001	610985.974	486824.620	3.25" Aluminum Cap "US DEPT INTERIOR 1996 BLM"
1002	612318.068	486869.973	3.25" Aluminum Cap "US DEPT INTERIOR S1/16 S28/27 1996 BLM"
1003	613649.071	486914.977	STONE -12" x 6" x 6"
1004	613648.479	486914.747	#5 Rebar Adjacent to Stone - See #1003
1005	616318.010	486971.160	2.5" Brass Cap "US GLO SURVEY T6S R89W S21/S22/S28/S27 1924"
1006	610914.586	488139.659	3.25" Aluminum Cap "SPORIS ENGINEERING LLC W1/16 S27/S34 2005 PLS 28643"
1007	613586.221	488244.937	1.5" Aluminum Cap "2 PARCEL A RLS 4551"
1008	616205.818	489525.882	#5 Rebar Yellow Plastic Cap "SGM LS15710" - Reference to #6203 21.1' Distant
1009	613444.911	490908.798	#5 Rebar 1.5" Aluminum Cap "EL DORADO REF PT LS15710" - 16.41' Distant
1010	613477.759	490905.564	#5 Rebar No Cap Bent 17.7' Reference to CE 1/16 Corner
1011	613397.488	492246.090	3.25" Aluminum Cap "H.C.E. INC. T6S R89W 1/4 S27/S26 1998 LS 19598"
1012	616133.797	492160.750	2.5" Brass Cap "T6S R89W S22/S23/S26/S27 1924 US GLO SURVEY"
1019	610841.253	489458.954	3.25" Aluminum Cap "HCE INC T6S R89W 1/4 S26/S34 2003 LS195"
1020	610842.761	489454.811	3.25" BLM Aluminum Cap "T6S R89W 1/4 S27/S34 1996"
1021	610775.955	490788.176	3.25" Aluminum Cap "T5S R89W E1/16 S27/S34 1986 LS 15710"
6201	616181.595	489516.813	#5 Rebar on Fenceline - Reference to #6203 27' Distant
6203	616205.755	489504.668	3.25" Aluminum Cap on #6 Rebar "SGM INC WC 190 FT 1/4 S22/S27 2002 LS15710"

ROW

FOUND R.O.W. MONUMENT COORDINATE TABLE

Point No.	Northing(ft)	Easting(ft)	Description
6017	613485.632	492555.011	3" Brass Cap in 6" Conc Pillar Leaning West - "CDOT ROW MARKER"
6029	613157.232	492518.990	3" Brass Cap in 6" Conc Pillar - "CDOT ROW MARKER"

PROJECT CONTROL COORDINATE TABLE

Point No.	Project Coordinates Northing(ft)	Project Coordinates Easting(ft)	Elev(ft) (NAVD88)	Description
1	614512.585	490807.260	5904.21	2" Aluminum Cap on #5 Rebar "JACOBS CP1"
2	613804.640	491042.367	5906.75	2" Aluminum Cap on #5 Rebar "JACOBS CP2"
3	612879.731	491087.966	5911.92	2" Aluminum Cap on #5 Rebar "JACOBS CP3"
4	614352.416	492395.925	5908.48	2" Aluminum Cap on #5 Rebar "JACOBS CP4"
5	613666.003	492442.279	5913.92	2" Aluminum Cap on #5 Rebar "JACOBS CP5"
6	612673.276	492313.725	5936.98	2" Aluminum Cap on #5 Rebar "JACOBS CP6"
7	615393.257	488444.913	5917.35	2" Aluminum Cap on #5 Rebar "JACOBS CP7"
8	615143.083	488761.747	5921.33	2" Aluminum Cap on #5 Rebar "JACOBS CP8"
9	615013.482	489123.950	5924.11	2" Aluminum Cap on #5 Rebar "JACOBS CP9"
12	615845.146	491504.513	5898.84	3.25" Brass Cap on #4 Rebar "RFTA NG07"
13	614859.407	491901.115	5904.35	3.25" Brass Cap on #4 Rebar "RFTA NG08"
KL0538	608432.721	493202.846	5961.79	NGS Monument "Q 158 1934"
AB2466	618420.422	488156.155	5859.82	NGS Monument "ROSEBUD 1994"
17	629640.221	487422.639	5816.29	3.25" Aluminum Cap in RANGE BOX - ILLEGIBLE
AB2468	635417.612	474618.025	5714.28	NGS Monument "GLENWOOD 1994"

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Denver, CO 80237
Phone: 720-286-2000

Sheet Revisions

Date	Description	Initials
02/03/26	Jacobs address update	jam

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	

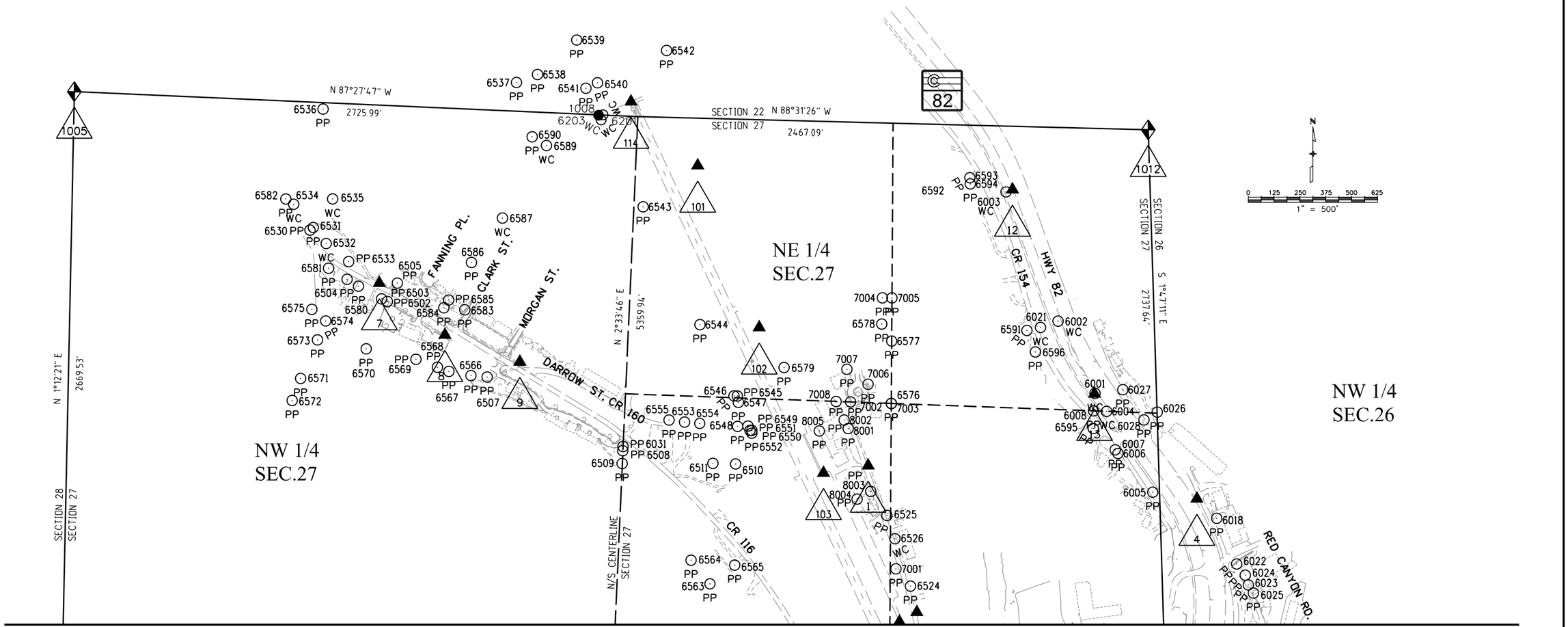
COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Land Survey Control Diagram
Plan Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	02-03-26	4.03 of 4.04	4.03

T.6S.,R.89W.,6th P.M.



MATCHLINE SEE SHEET 4.04

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Sheet Revisions		
Date	Description	Initials
02/03/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Land Survey Control Diagram
Plan Sheet

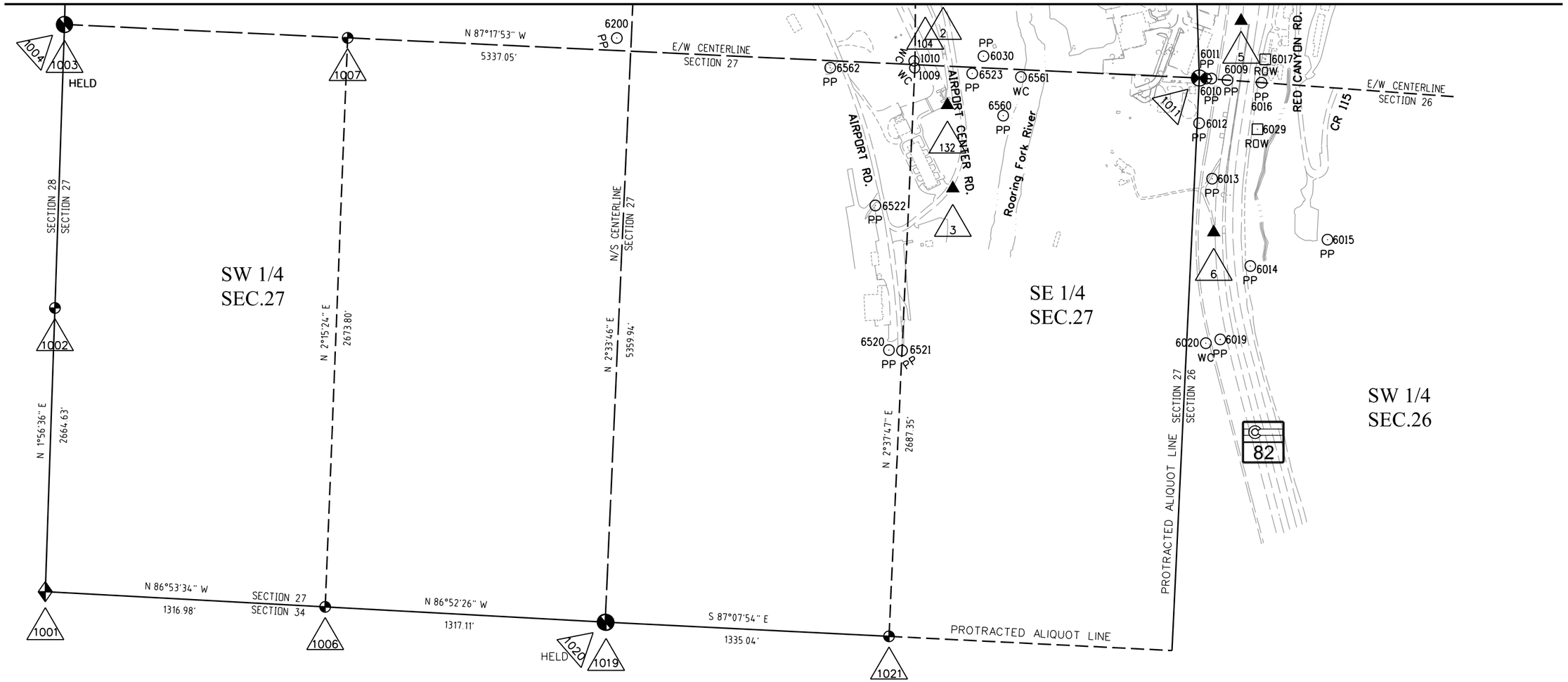
Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	02-03-26	4.04 of 4.04	4.04

T.6S.,R.89W.,6th P.M.

N
0 125 250 375 500 625
1" = 500'

MATCHLINE SEE SHEET 4.03



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Sheet Revisions

Date	Description	Initials
05/12/25	Revise Point Descriptions, Delete Points	jam
02/02/26	Jacobs address update	jam

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

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24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Monumentation Sheet

Project Number: HPP M535-003

Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	5.01 of 5.02	5.01

SURVEYOR STATEMENT FOR THE CALCULATED POSITIONS OF ROW MONUMENTS

I, Robert A. Boehm, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, the research and evaluation of the survey evidence were performed and the calculated positions of these R.O.W. monuments were prepared under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications.
This statement is not a guaranty or warranty, either expressed or implied.

TABULATION OF R.O.W. MONUMENTS TO BE SET

XXX

Point No.	Northing(ft)	Easting(ft)	Description	Station	Offset
4003	615093.076	489055.227	RW-12 & POB TE-20	6006+49.95	-64.70
4007			deleted		
4008			deleted		
4009			deleted		
4010	613226.289	492251.839	RW-2A, PE-2A	6046+13.42	-95.19
4012	613209.211	491982.270	RW-2A, PE-2A	6045+31.06	-49.98
4013	613199.578	492161.808	RW-2A, PE-2A	6047+18.50	-63.67
4014	613082.094	492229.434	POB RW-3	1015+75.76	-161.42
4015	613085.668	492162.794	RW-3	6047+25.94	50.00
4016	613112.711	491955.164	RW-3	6045+23.95	50.00
4021			deleted		
4023			deleted		
4028	613333.900	492531.989	POB RW-2, PE-2rev	1018+70.68	99.29
4029	613198.698	492551.901	RW-2, PE-2rev, POB TE-2	1017+40.09	139.55
4030	613030.617	492529.448	RW-2, PE-2rev, TE-2	1015+70.55	142.94
4031	612954.034	492495.997	RW-2, PE-2rev, TE-2	1014+85.69	120.32
4034	615434.817	488475.409	RW-12A	6000+33.16	-66.89
4036	615406.627	488539.340	RW-12A	6001+00.06	-70.82
4037	615226.563	488835.604	RW-12A	6004+43.72	-65.47
4041	615202.143	488875.771	RW-12	6004+90.73	-65.33
4042	615423.813	488463.201	RW-12A	6000+27.20	-51.62
4043			deleted		
4044			deleted		
4045			deleted		
4046			deleted		
4047			deleted		
4050			deleted		

TABULATION OF PERMANENT EASEMENT MONUMENTS TO BE STAKED

XX

Point No.	Northing(ft)	Easting(ft)	Description	Station	Offset
2001	613323.761	492266.984	POB RWE-1ren, TE-1	1018+20.33	-161.08
2002	613316.731	492312.224	RWE-1ren, TE-1	1018+20.27	-115.30
2003	613217.121	492296.747	RWE-1ren, TE-1	1017+19.46	-115.44
2004	613208.797	492350.321	RWE-1ren, RWE-1Aren	1017+19.39	-61.22
2005	613016.718	492320.475	RWE-1ren	1015+25.98	-61.77
2006	613032.071	492221.662	RWE-1ren, TE-1A	1015+27.58	-161.76
2007	613212.635	492325.619	RWE-1ren, TE-1	1017+19.42	-86.22
2008	613389.655	492353.124	POB RWE-1Aren, TE-1	1018+98.57	-85.98
2009	613387.824	492378.138	RWE-1Aren	1019+00.56	-60.98
2010	614971.468	489022.755	POB PE-21 & TE-21	6006+85.00	56.19
2011	614974.030	489024.296	PE-21	6006+84.99	53.20
2012	614977.043	489025.133	PE-21	6006+84.15	50.19
2013	614954.845	489061.768	PE-21 & TE-21	6007+26.99	50.26
2014	614949.703	489058.676	PE-21 & TE-21	6007+27.00	56.26
2020			deleted		
2021			deleted		
2022			deleted		
2023			deleted		
2024			deleted		
2025	613220.000	491930.496	RW-2A, PE-2A, TE-2A	6044+77.91	-50.00
2026	613207.566	492162.237	PE-2A	6047+18.45	-71.67
2027	613237.819	492253.631	PE-2A	1017+33.36	-161.20
2028			deleted		
2029			deleted		
2030			deleted		
2031			deleted		
2032			deleted		
2034			deleted		
2035			deleted		
2036			deleted		
2037			deleted		
2038			deleted		
2039			deleted		
2040			deleted		
2041	614037.322	492588.112	POB TE-6, PE-7, TE-7	1025+37.31	132.05
2042	614053.850	492569.405	PE-7, TE-7	1025+55.52	117.25
2043	614057.927	492580.622	PE-7, TE-7	1025+56.90	129.09

TABULATION OF PERMANENT EASEMENT MONUMENTS TO BE STAKED

XX

Point No.	Northing(ft)	Easting(ft)	Description	Station	Offset
2044			deleted		
2045			deleted		
2046			deleted		
2047			deleted		
2048			deleted		
2049			deleted		
2050			deleted		
2062	613376.097	492538.391	PE-2rev	1019+13.36	99.20
2063	613375.590	492545.313	PE-2rev	1019+13.91	106.11
2064			deleted		
2065			deleted		
2066	613287.117	492556.080	PE-2rev	1018+28.11	130.22
2067	613198.343	492584.405	PE-2rev	1017+44.68	171.73
2068	612950.476	492534.119	PE-2rev	1014+86.77	158.60
2069	612926.020	492513.134	PE-2rev	1014+58.20	140.51
2070	612818.262	492477.545	PE-2rev	1013+41.30	113.73
2075	613020.479	492296.266	RWE-1ren, POB RWE-1Bren, TE-1A	1015+26.38	-86.27
2076	612924.689	492306.176	RWE-1Bren	1014+35.46	-65.25
2077	612170.158	492344.204	RWE-1Bren	1007+00.06	-77.73
2078	611897.329	492415.282	RWE-1Bren, TE-1A	1004+19.86	-76.45
2079	611891.152	492391.573	RWE-1Bren, TE-1A	1004+19.79	-100.95
2080	612163.982	492320.495	RWE-1Bren, TE-1A	1006+99.48	-102.22
2081	612928.451	492281.967	RWE-1Bren, TE-1A	1014+36.81	-89.71
2090			deleted		
2091			deleted		
2092			deleted		
2093			deleted		
2094			deleted		
2095			deleted		
2096	613261.184	491732.8711	PE-2C, TE-2A	6042+80.09	-52.74
2097	613269.853	491691.2731	PE-2C, TE-2A	6042+37.72	-56.07
2098	613348.040	491695.4353	PE-2C, TE-2A	6042+31.94	-134.15
2099	613345.808	491737.376	PE-2C, TE-2A	6042+73.82	-137.25
4006			deleted		

QUANTITY OF MONUMENTS TO BE SET

CAP TYPE	MONUMENT TYPE									
	1	1A	2	2A	3	3A	4	5	5(S)	6
REFERENCE										
ROW	16									
CONTROL										
ALIQUOT CORNER										
PERMANENT EASEMENT										
PROJECT POINTS										
LOCAL AGENCY										
WITNESS POST (REQUIRED)										

General Notes:

1. All centerline and offset stationing may not represent the centerline as constructed in the field.

2. Refer to the M-629-1 Survey Monuments of the Standard Plans found in The Colorado Department of Transportation, M & S Standards for survey monument descriptions.

3. This plan set is subject to change and may not be the most current set. It is the user's responsibility to verify with CDOT that this set is the most current. The information contained on the attached drawing is not valid unless this copy bears an original signature of the Professional Land Surveyor hereon named.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central (0502) Zone NAD '83/(2011) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.0003172153. The resulting project coordinates are truncated by 1,000,000 in the Northing and 2,000,000 in the Easting after converting from state plane coordinates to project coordinates. The CHARN is based on the NAD '83(2011) datum. Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.0003172153 - 1,000,000). Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.0003172153 - 2,000,000).

NOTICE: According 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.

SURVEYOR STATEMENT FOR SET R.O.W. MONUMENTS

I, Robert A Boehm, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, adequate research and evaluation of survey evidence were performed and the Right-of-Way monuments depicted on this Right-of-Way Plan WERE SET under my responsible charge and the field survey was performed in accordance with applicable standards of practice defined by Colorado Department of Transportation publications.
This statement is not a guaranty or warranty, either expressed or implied.

4/6/2026 MalekJA 13:19:51 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Mon501.dgn

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Sheet Revisions		
Date	Description	Initials
03/17/25	Revise Point Descriptions, Delete Points	jam
12/15/25	Delete TE Points	jam
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

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ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Monumentation Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	5.02 of 5.02	5.02

○ XX

TABULATION OF CALCULATED POSITIONS

Point No.	Northing(ft)	Easting(ft)	Description	Station	Offset
4011	613319.829	491451.461	RW-2A	6039+93.51	-75.23
4017	613222.924	491426.297	RW-3	6039+80.84	24.08
9001	615080.258	489047.436	RW-12	6006+49.90	-49.70
9003			deleted		
9004			deleted		
9005			deleted		
9006	613185.300	492245.470	RW-2A, RW-3	1016+80.21	-161.27
9007	613226.161	491427.137	RW-2A, RW-3	6039+81.26	20.76
9009	614537.855	492281.456	Exist.ROW	1030+83.62	60.35
9012	613040.921	492507.805	RW-2	1015+77.44	119.98
9013	613095.405	492515.236	RW-2	1016+32.42	119.03
9014	613322.005	492530.184	RW-2	1018+58.65	99.32
9016			deleted		
9017			deleted		
9019			deleted		
9020			deleted		
9021			deleted		
9023			deleted		

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TABULATION OF TEMPORARY EASEMENT POINTS TO BE STAKED

Point No.	Northing(ft)	Easting(ft)	Description	Station	Offset
2015	614708.672	489640.560	POB TE-14Bren	6013+45.00	-53.55
2016	614715.888	489630.721	TE-14Bren	6013+33.00	-53.48
2017	614768.244	489631.900	TE-14Bren	6013+03.70	-96.41
2018	614761.144	489641.743	TE-14Bren	6013+15.48	-96.47
2019			deleted		
2033	613485.632	492555.011	POB TE-4rev	1020+24.15	98.95
2051	613693.076	492349.666	TE-1	1022+09.14	-131.78
2052	613393.317	492303.090	TE-1	1018+94.57	-135.98
2053	614592.339	492030.306	POB TE-11ren	1032+74.39	-111.84
2054	614574.813	492017.355	TE-11ren	1032+67.71	-132.58
2055	614632.927	491982.581	TE-11ren	1033+35.20	-126.92
2056	614631.872	491984.260	TE-11ren	1033+33.36	-126.17
2057	614611.993	492015.984	TE-11ren	1032+98.71	-112.00
2058	614743.476	492157.045	TE-9add	1033+23.20	79.27
2059	614689.053	492196.513	TE-9add	1032+55.97	79.58
2060	614677.384	492180.269	TE-9add	1032+55.97	59.58
2100	614405.247	492412.710	TE-8	1029+09.53	97.11
3001	613395.147	492278.076	TE-1	1018+92.57	-160.99
3003	614383.846	492182.238	TE-1	1030+14.16	-109.85
3004	614776.744	491895.929	TE-1	1035+02.55	-113.39
3005	614774.419	491959.491	TE-1	1034+63.58	-63.13
3006	614413.290	492222.649	TE-1	1030+15.59	-59.86
3007	613685.401	492399.077	TE-1	1022+04.55	-81.95
3015	615098.270	489046.681	TE-20	6006+39.95	-64.73
3016	615106.816	489051.875	TE-20	6006+39.97	-74.73
3017	615101.622	489060.420	TE-20	6006+49.97	-74.70
3018	615093.273	489110.338	TE-13	6006+97.02	-93.35
3019	615063.762	489105.256	TE-13	6007+07.93	-65.46
3020	615050.145	489096.983	TE-13	6007+07.88	-49.53
3021	614948.568	489072.127	TE-21	6007+39.10	50.28
3022	614921.767	489039.172	TE-21	6007+24.74	90.25
3023	614949.226	488993.854	TE-21	6006+71.75	90.17
3024	614955.606	489013.215	TE-21	6006+85.03	74.70
3025			deleted		
3026			deleted		
3027			deleted		
3028			deleted		
3029	614501.719	489887.730	POB TE-14A	6016+62.30	-51.30

● XX

TABULATION OF TEMPORARY EASEMENT POINTS TO BE STAKED

Point No.	Northing(ft)	Easting(ft)	Description	Station	Offset
3030	614529.576	489857.900	TE-14A	6016+22.14	-52.03
3031	614547.423	489873.868	TE-14A	6016+22.20	-75.97
3032	614525.186	489904.671	TE-14A	6016+59.07	-80.05
3033			deleted		
3034			deleted		
3035			deleted		
3036			deleted		
3037			deleted		
3038			deleted		
3039			deleted		
3040	614577.950	490786.827	POB TE-19	44+00.52	15.97
3041	614610.856	490774.901	TE-19	44+35.52	15.88
3042	614613.241	490781.482	TE-19	44+35.54	22.88
3043	614580.335	490793.408	TE-19	44+00.54	22.97
3044	614231.986	490912.212	POB TE-18	40+32.54	16.89
3045	614263.951	490900.627	TE-18	40+66.54	16.80
3046	614268.551	490913.319	TE-18	40+66.57	30.30
3047	614236.586	490924.904	TE-18	40+32.57	30.39
3048			deleted		
3049			deleted		
3050			deleted		
3051			deleted		
3052			deleted		
3053	613407.791	492027.760	POB TE-2A	6045+37.38	-253.63
3054	613215.336	492017.434	TE-2A, PE-2A	6045+65.95	-62.54
3055	613307.136	491512.368	TE-2A	6040+55.54	-70.36
3056	613430.979	491536.407	TE-2A	6040+63.68	-196.26
3057	613124.553	491820.866	TE-3rev	6043+90.06	65.81
3058	613024.546	491783.014	TE-3rev	6043+73.41	171.43
3059	612996.582	491786.307	TE-3rev	6043+82.33	198.14
3060	612976.848	491815.374	TE-3rev	6044+14.82	211.52
3061	612961.283	491886.623	TE-3rev, TE-3A	6044+87.74	212.23
3062	612918.728	491878.270	TE-3rev	6044+88.25	255.59
3063	612943.223	491765.047	TE-3rev	6043+72.41	254.71
3064	612787.299	491751.630	TE-3rev	6043+91.08	410.09
3065	612789.989	491709.994	TE-3rev	6043+49.77	415.95
3066	612952.290	491711.443	TE-3rev	6043+02.74	256.33
3067	613021.147	491724.548	TE-3rev	6043+07.48	186.29
3068	613162.369	491716.876	POB TE-3rev	6042+76.75	47.30
3069	614041.027	492598.357	TE-6, TE-7	1025+38.69	142.84
3070	614026.795	492600.144	TE-6	1025+25.90	141.75
3071	614053.098	492567.337	TE-7	1025+55.26	115.07
3072	614126.152	492540.269	TE-7	1026+26.19	106.87
3073	614115.248	492562.209	TE-7	1026+11.22	125.06
3074	614410.095	492439.451	TE-8	1029+01.41	122.80
3075	614377.201	492455.761	TE-8	1028+68.10	121.55
3076	614354.792	492445.645	TE-8	1028+54.10	102.31
3077	613189.206	492632.001	TE-2	1017+42.89	220.16
3078	613080.513	492578.043	TE-2	1016+27.26	183.37
3079	612892.588	492536.077	TE-2	1014+24.94	166.66
3080	611660.744	492373.580	TE-1A	1002+01.18	-175.91
3081	612144.947	492247.434	TE-1A	1006+97.77	-177.70
3082	612940.042	492207.362	TE-1A	1014+40.80	-165.09
3083	611685.955	492470.350	TE-1A	1002+01.43	-75.91
3084	613656.970	492609.536	TE-5rev	1021+92.69	130.08
3085	613641.395	492639.172	TE-5rev	1021+81.15	160.95
3086	613595.540	492608.818	TE-5rev	1021+37.62	135.81
3087	613592.003	492591.297	POB TE-5rev	1021+32.39	118.90
3088	613529.790	492570.075	TE-4rev	1020+70.09	107.12

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TABULATION OF TEMPORARY EASEMENT POINTS TO BE STAKED

Point No.	Northing(ft)	Easting(ft)	Description	Station	Offset
3089	613507.815	492594.071	TE-4rev	1020+52.02	134.18
3090	613466.568	492578.978	TE-4rev	1020+08.96	125.54
3091	613397.848	492541.692	TE-4rev	1019+35.36	99.15
3095	615253.178	491698.244	POB TE-1B	1039+94.46	-59.74
3096	615243.377	491673.085	TE-1B	1039+93.98	-86.74
3097	615308.172	491647.844	TE-1B	1040+63.37	-88.11
3098	615317.973	491673.003	TE-1B	1040+63.90	-61.12
3099	615339.761	488410.991	POB TE-22	5999+65.88	46.69
3100	615317.343	488455.778	TE-22	6000+15.96	47.68
3101	615308.660	488450.784	TE-22	6000+15.18	57.66
3102	615331.078	488405.997	TE-22	5999+65.11	56.68
3103	615132.933	488989.649	POB TE-23, TE-24	6005+73.21	-64.93
3104	615147.610	488965.499	TE-23	6005+44.95	-65.01
3105	615150.174	488967.057	TE-23	6005+44.95	-68.01
3106	615135.496	488991.207	TE-23, TE-24	6005+73.21	-67.93
3107	615124.418	489009.434	TE-24	6005+94.54	-67.87
3108	615121.854	489007.876	TE-24	6005+94.54	-64.87
3109	612890.849	492200.356	POB TE-3A	1013+94.60	-167.70
3110	612844.653	492194.930	TE-3A	1013+51.38	-169.93
3111	612811.467	491957.540	TE-3A	6045+74.59	345.64
3112	612944.807	491920.161	TE-3A	6045+23.94	221.51
3113	612954.432	491885.278	TE-3A	6044+87.82	219.21
3114	613001.382	491921.943	TE-3A	6045+14.14	165.77
3115	612981.383	491952.236	TE-3A	6045+45.03	179.35
3116	612860.349	491982.177	TE-3A	6045+87.82	293.42
3117	614947.233	491842.521	POB TE-1C	1036+67.46	-62.62
3118	614930.457	491814.385	TE-1C	1036+67.69	-95.37
3119	614952.789	491801.070	TE-1C	1036+92.31	-95.37
3120	614969.453	491829.019	TE-1C	1036+92.53	-62.83
3121	615055.851	489087.595	TE-13	6006+96.89	-49.56
3122	614845.658	492058.238	TE-10	1034+63.83	58.64
3123	614878.933	492037.687	TE-10	1035+02.85	61.36
3124	614880.640	492039.035	TE-10	1035+03.45	63.45
3125	614738.977	492149.463	TE-10, TE-9	1033+23.97	70.49
3126	614390.664	492422.966	POB TE-8	1028+93.14	98.98
4022	614733.226	492139.773	POB TE-10,TE-9add	1033+24.95	59.26

4/2/2026 MalekJA 17:16:11 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Mon502.dgn

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Sheet Revisions		
Date	Description	Initials
04/28/25	Rename PE-1B to RWE-1B	jam
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

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ROBERT A. BOEHM
24APR26
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PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet
Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.01 of 7.20	7.01

T.6S.,R.89W.,6th P.M.

SW 1/4
SEC.26

JACKSON FAMILY RANCH LLC
PID 218527400057

CONSERVATION EASEMENT
R-486938 12/27/1995

RWE-1B ren
TE-1A

ROARING FORK
TRANSPORTATION AUTHORITY
PID 218526200030

0 12.5 25 37.5 50 62.5
1" = 50'

3080
1001+00
1002+00
1003+00
1004+00
1005+00
1006+00
POB 1000+00.00
S75° 23'52"W 100.00'
N14° 36'08"W 500.36'
Exist.R.O.W. DENVER & RIO GRANDE RAILROAD
Colo V-8-C, Map 2 Corrected 12/31/1927
TE-1A
2079
S75° 23'52"W 24.50'
N14° 36'08"W 281.94'
RWE-1B ren
PC 1006+49.93
3083
S14° 36'08"E 218.43'
Exist.CDOT R.O.W. SH82 FAP S 0130(8)
2078
S14° 36'08"E 281.94'
BEGIN ROW CONSTRUCTION PROJECT
STATION: 1000+00
N14° 27'34"W
649.93'
82
Exist.CDOT R.O.W. SH82 FAP S 0130(8)

JACKSON FAMILY RANCH LLC
R-486937 12/27/1995
PID 218526300028

CONSERVATION EASEMENT
R-486938 12/27/1995

MATCHLINE SEE SHEET 7.02

4/1/2026 MalekJA 06:20:09 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Plan701.dgn

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Sheet Revisions		
Date	Description	Initials
02/05/25	Rename PE-1B to RWE-1B	jam
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

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24APR26
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PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.02 of 7.20	7.02

T.6S.,R.89W.,6th P.M.

N

0 12.5 25 37.5 50 62.5
1" = 50'

E. Line SE 1/4 SEC.27 (PROTRACTED)

RWE-1B TE-1A
ren
ROARING FORK
TRANSPORTATION AUTHORITY
PID 218526200030

JACKSON FAMILY RANCH LLC
PID 218527400057

CONSERVATION EASEMENT
R-486938 12/27/1995

SE 1/4
SEC.27

Delta: 23° 26'03"
Rad: 1960.08
ChBrng: N02° 53'07"W
Ch: 796.10'
Arc: 801.68'

Exist.R.O.W. DENVER & RIO GRANDE RAILROAD
Colo V-8-C, Map 2 Corrected 12/31/1927

3081
N14° 36'08"W 500.36'

6020
WC
TE-1A

1007+00
1008+00
1009+00
1010+00
1011+00
1012+00

Delta: 23° 26'03"
Rad: 1884.58'
ChBrng: N02° 53'07"W
Ch: 765.44'
Arc: 770.80'

2080
N14° 36'08"W 281.94'

RWE-1B
ren
Exist.R.O.W. DENVER & RIO GRANDE RAILROAD
Colo V-8-C, Map 2 Corrected 12/31/1927
Exist.CDOT R.O.W. SH82 FAP S 0130(8)

6019
S14° 36'08"E 281.94'
PP
2077

Delta: 23° 26'03"
Rad: 1860.08
ChBrng: S02° 53'07"E
Ch: 755.49'
Arc: 760.78'

82

MATCHLINE SEE SHEET 7.01

MATCHLINE SEE SHEET 7.03

Δc=23° 12'49" Lc=911.60'
Rc=2250.00' Tc=462.14'

Exist.CDOT R.O.W. SH82 FAP S 0130(8)
6014
PP

MOUNTAIN STATES TELEPHONE
AND TELEGRAPH EASEMENT
R-227423 10/29/1964

CONSERVATION EASEMENT
R-486938 12/27/1995

JACKSON FAMILY RANCH LLC
R-486937 12/27/1995
PID 218526300028

Holy Cross Energy
R-501884 12/3/1996
PID 218526300029

SW 1/4
SEC.26

4/1/2026 MalekJA 06:29:11 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Plan702.dgn

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Sheet Revisions		
Date	Description	Initials
05/12/25	Rename PE-1,PE-1A,PE-1B to RWE-1,RWE-1A,RWE-1B	
	Delete PE-2B,PE-3 Revise TE-4,PE-2	jam
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

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COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet
Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.03 of 7.20	7.03

0 12.5 25 37.5 50 62.5
1" = 50'

T.6S.,R.89W.,6th P.M.

SE 1/4, SEC.27

JACKSON FAMILY RANCH LLC
PID 218527400057
CONSERVATION EASEMENT
R-486938 12/27/1995

JACKSON FAMILY RANCH, LLC
R-498631 09/20/96
PARCEL 3
PID 218527400059
15' UTILITY EASEMENT LAZY H SLASH ELEVEN
EXEMPTION PLAT - R-498073

RW-3 PE-3 del
JACKSON FAMILY RANCH, LLC
R-498631 09/20/96
PARCEL 3
PID 218527400059

MATCHLINE SEE SHEET 7.15

RW-2A PE-2A PE-2B del
Holy Cross Energy
R-501884 12/3/1996
PID 218527100060

1/4 CORNER SECTIONS 26/27
E Line NE1/4 SEC.27 N01° 47'11"W 2737.64'
NE CORNER SECTION 27

RWE-1A ren TE-1
RWE-1 ren RWE-1B ren TE-1A
ROARING FORK TRANSPORTATION AUTHORITY
PID 218526200030

E Line SE1/4 SEC.27 (PROTRACTED)

Delta: 23° 26'03"
Rad: 1960.08'
ChBrng: N02° 53'07"W
Ch: 796.10'
Arc: 801.68'

Delta: 23° 26'03"
Rad: 1884.58'
ChBrng: N02° 53'07"W
Ch: 765.44'
Arc: 770.80'

Delta: 23° 26'03"
Rad: 1860.08'
ChBrng: S02° 53'07"E
Ch: 755.49'
Arc: 760.78'

Exist.R.O.W. DENVER & RIO GRANDE RAILROAD Colo V-8-C, Map 2 Corrected 12/31/1927

Exist.CDOT R.O.W. SH82 FAP S 0130(8)

POB RWE-1ren (2001) N15° 49'21"W 76.63' TO 1/4 COR. - SECS 26/27 (1011)

POB RW-3 (4014) N03° 01'23"E 315.83' TO 1/4 COR. SECS 26/27 (1011)

POB RW-2A & PE-2A (4010) N01° 55'24"W 171.30' TO 1/4 COR. SECS 26/27 (1011)

POB RWE-1Bren & TE-1A (2075) N07° 34'51"W 380.33' TO 1/4 COR. SECS 26/27 (1011)

10' WATER AND SEWER EASEMENT LAZY H SLASH ELEVEN BOOK 1002 PAGE 9

RIO GRANDE TRAIL

POB RWE-1Aren & TE-1 (2008) N85° 48'52"W 107.32' TO 1/4 COR. SECS 26/27 (1011)

Exist.R.O.W. DENVER & RIO GRANDE RAILROAD Colo V-8-C, Map 1 Corrected 12/31/1927

Exist.CDOT R.O.W. SH82 FAP S 0130(8)

6046+00 6047+00 6048+00 6049+00 1013+00 1014+00 1015+00 1016+00 1017+00 1018+00 1019+00

N08° 49'55"E 93.13' S08° 49'55"W 295.19' N08° 49'55"E 41.48' N08° 49'55"E 72.24' N08° 49'55"E 303.36'
S08° 49'55"W 21.27' S08° 49'55"W 11.67' S08° 49'55"W 100.81' S08° 49'55"W 179.14' S08° 49'55"W 181.18' S08° 49'55"W 194.38' S08° 49'55"W 93.13'
S81° 10'05"E 75.50' N81° 10'05"W 100.00' S81° 10'05"E 45.78' N81° 10'05"W 29.22' S81° 10'05"E 54.22' N81° 10'05"W 25.00' S81° 10'05"E 24.50'
S85° 48'52"E 25.08' S85° 48'52"E 25.08'

2006 2027 2001 2003 2052 2002 2007 2004 2009 2008 2081 2076 2075 2005
3082 4014 4010 3001 6012 6011 6010 6009 6013

RWE-1B ren

MATCHLINE SEE SHEET 7.02

Ac=23° 12'49" Lc=911.60'
Rc=2250.00' Tc=462.14'

POE 6049+59.87
SH.82=1016+42.08

END ROW
CONSTRUCTION PROJECT
STATION: 6049+59.87

82

NW 1/4 SEC.26

S. LINE NW 1/4 SEC. 26 RECORD BEARING S85° 48'52"E

N8° 45'15"E 546.46'

MATCHLINE SEE SHEET 7.04

NOTE:
PARCELS PE-2rev & TE-2 OVERLAP IN THIS AREA DUE TO DIFFERENT PURPOSES

POB RW-2 & PE-2rev (4028) N77° 27'39"W 292.88' TO 1/4 COR. SECS 26/27 (1011)

POB TE-2 (4029) N56° 58'28"W 364.74' TO 1/4 COR. SECS 26/27 (1011)

N07° 44'22"E 137.02' N07° 44'22"E 87.69' N07° 45'57"E 54.99' N03° 46'27"E 227.09' S08° 22'41"E 136.66' S06° 56'19"E 89.13' S17° 41'46"E 93.18' S83° 14'30"E 80.66' S26° 24'04"W 121.35' S12° 35'18"W 192.55' S40° 37'57"W 32.23' N33° 06'57"W 73.36' S18° 16'36"W 113.48' S23° 35'44"W 83.57'

N08° 37'39"E 12.03' N08° 37'39"E 42.68' N08° 37'39"E 88.79' S85° 48'52"E 6.94' S28° 29'01"W 78.18'

Exist.CDOT R.O.W. SH82 FAP S 0130(8)

4028 4031 4030 4029 2062 2063 2066 2067 2070 2069 2068 3091 6016 9014 9012 9013 6029

RW-2 ROW

PE-2 rev
RAYMOND E. VATH AND ELISABETH C. VATH
R-521042 B1055 P662 3/2/1998
PID 218526200020

TE-4 rev

MOUNTAIN STATES TELEPHONE AND TELEGRAPH EASEMENT
R-227423 10/29/1964

Delta: 31° 58'26"
Rad: 307.85'
ChBrng: S07° 36'31"W
Ch: 169.57'
Arc: 171.79'

Delta: 58° 19'43"
Rad: 259.50'
ChBrng: S11° 28'05"W
Ch: 252.92'
Arc: 264.18'

RW-2 PE-2 rev TE-2
Holy Cross Energy
R-501884 12/3/1996
PID 218526300029

3079 3078 3077

SW 1/4 SEC.26

4/2/2026 MalekJA 17:26:34 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864RDW_Plan703.dgn

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FAX: 970-947-5133
Region 3 JMK

Sheet Revisions		
Date	Description	Initials
02/06/25	Deleted PE-2B,PE-4,PE-5	
	Revise TE-4,TE-5	jam
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.04 of 7.20	7.04

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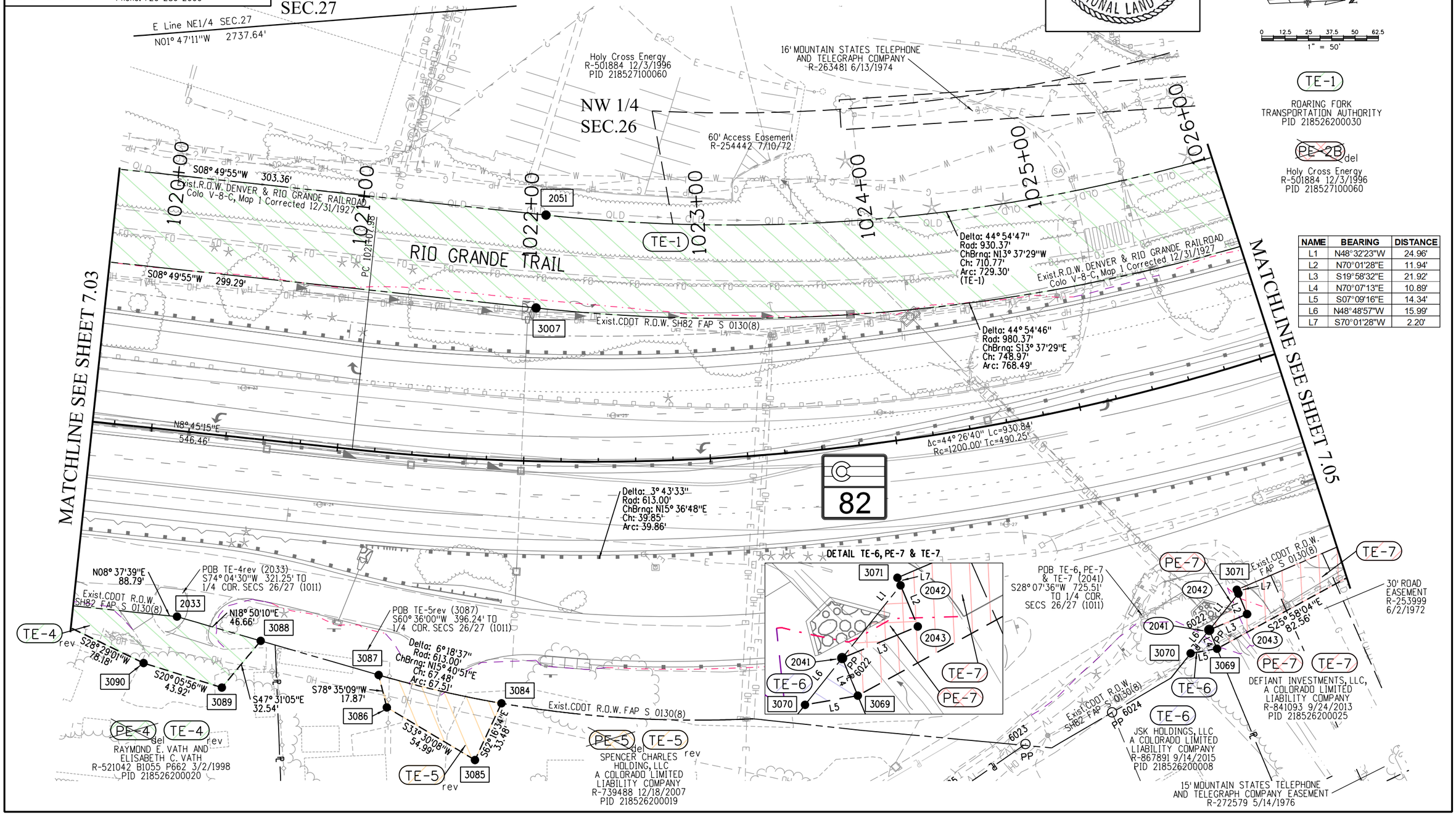

NAME	BEARING	DISTANCE
L1	N48°32'23"W	24.96'
L2	N70°01'28"E	11.94'
L3	S19°58'32"E	21.92'
L4	N70°07'13"E	10.89'
L5	S07°09'16"E	14.34'
L6	N48°48'57"W	15.99'
L7	S70°01'28"W	2.20'

4/2/2026 MalekJA 17:35:50 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\RDW\Drawings\15864RDW_Plan704.dgn

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Sheet Revisions		
Date	Description	Initials
02/06/25	Deleted PE-2B,RW-9,PE-9	jam
02/02/26	Jacobs address update	jam

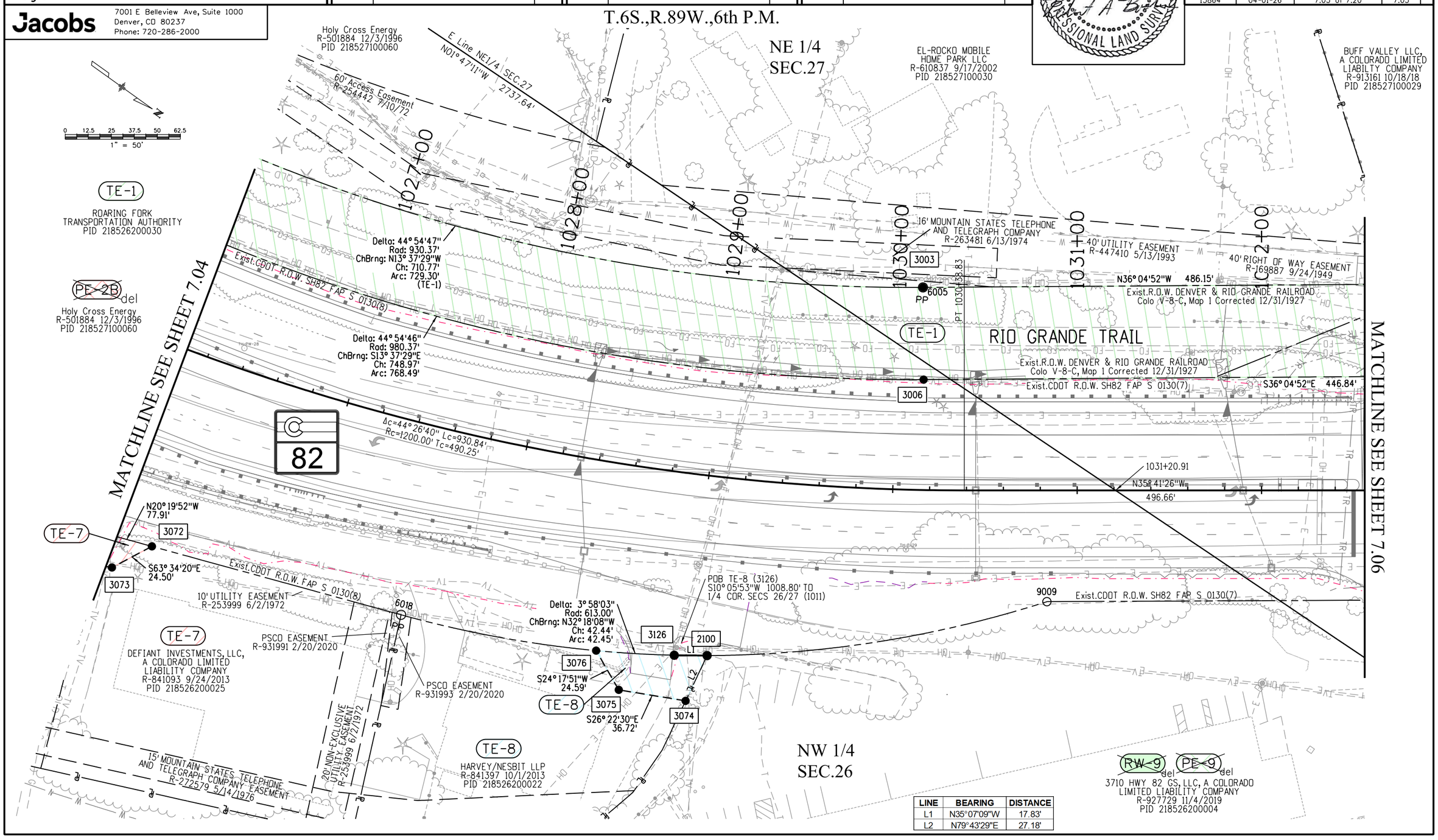
Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet
Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.05 of 7.20	7.05



LINE	BEARING	DISTANCE
L1	N35°07'09"W	17.83'
L2	N79°43'29"E	27.18'

4/1/2026 MalekJA 06:52:22 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\RDW\Drawings\15864RDW_Plan705.dgn

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Sheet Revisions

Date	Description	Initials
02/11/25	Rename PE-11 to TE-11, Delete RW-9,PE-9,	
	Added TE-9	jam
02/02/26	Jacobs address update	jam

Sheet Revisions

Date	Description	
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
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PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.06 of 7.20	7.06

T.6S.,R.89W.,6th P.M.

0 12.5 25 37.5 50 62.5
1" = 50'

TE-11
BUFF VALLEY LLC,
A COLORADO LIMITED
LIABILTY COMPANY
R-913161 10/18/18
PID 218527100029

EL-ROCKO MOBILE HOME PARK LLC
R-610837 9/17/2002
PID 218527100030

15' WATER EASEMENT
R-455954 12/27/1993

INGRESS/EGRESS AND UTILITY EASEMENT
R-883924 10/18/2016

MOUNTAIN VIEW CHURCH OF GLENWOOD
PID 218527100026

KAREN T. WELDEN
R-800078 3/16/2011
PID 218527100025

Exist.R.O.W. USPW N.R.S. 366

Exist.R.O.W. DENVER & RIO GRANDE RAILROAD
Colo V-8-C, Map 1 Corrected 12/31/1927

CR 154 (OLD HWY 82)

Exist.R.O.W. USPW N.R.S. 366

NE 1/4
SEC.27

TE-1C
TE-1
ROARING FORK
TRANSPORTATION AUTHORITY
PID 218526200030

RIO GRANDE TRAIL

40' RIGHT OF WAY EASEMENT
R-169887 9/24/1949

POB TE-11ren (2053)
S10°14'13"E
1214.18' TO
1/4 COR.
SECS 26/27
(1011)

S36°27'49"W
21.79'

S36°04'52"E
24.32'

N30°53'45"W
67.72'

S57°55'42"E
37.44'

Delta: 0°06'51"
Rad: 995.00'
ChBrng: S57°52'16"E
Ch: 1.98'
Arc: 1.98'

N36°04'52"W 486.15'

S87°54'19"E
63.60'

S36°04'52"E 446.84'

PC 1035+35.48

E-W 1/16th Line NE1/4 SEC.27 1285.27'

S87°54'19"E

N30°48'17"W
26.00'

S59°11'43"W
32.76'

N59°11'43"E
32.54'

Delta: 0°59'54"
Rad: 1492.16'
ChBrng: S31°17'02"E
Ch: 26.00'
Arc: 26.00'

POB TE-1C (3117)
S14°35'46"E 1601.43' TO
1/4 COR. SECS 26/27 (1011)

1034+14.65
N35°41'26"W
496.66'

HIGHWAY INSIDE RR ROW
IS AN EASEMENT
E-R-1 S 0130(7)

Δc=15°32'34" Lc=461.16'
Rc=1700.00' Tc=232.01'

Exist.R.O.W. DENVER & RIO GRANDE RAILROAD
Colo V-8-C, Map 1 Corrected 12/31/1927

Exist.CDOT R.O.W. SH82 FAP S 0130(7)

MATCHLINE SEE SHEET 7.05

MATCHLINE SEE SHEET 7.07

82

POB TE-9add, TE-10 (4022)
S04°33'03"E 1339.96' TO
1/4 COR. SECS 26/27 (1011)

TE-10
N31°41'58"W
39.11'

N38°18'16"E
2.18'

N35°56'58"W
138.88'

S37°56'13"E
179.62'

S59°18'49"W
11.27'

TE-9
add

N35°56'58"W
68.98'

S54°18'34"W
20.00'

S35°56'58"E
67.23'

N59°18'49"E
20.08'

20' INGRESS AND EGRESS EASEMENT
R-560305 3/9/2000

10' PSCO EASEMENT
R-900901 12/8/2017

SHARED ACCESS EASEMENT
R-771770 7/20/2009

APPROXIMATE ACCESS EASEMENT
R-771770
7/20/2009

WELL EASEMENT
R-855899
11/12/2014

LANDERCASPER, SAMUEL GENE
3642 HIGHWAY 82
GLENWOOD SPRINGS CO 81601
PID 218527134001
R-912590 10/05/2018

ENCROACHMENT EASEMENT
R-855907 11/12/2014

ENCROACHMENT EASEMENT
R-855907 11/12/2014

TE-9
add
RW-9 del
PE-9 del

3710 HWY 82 GS, LLC,
A COLORADO LIMITED
LIABILITY COMPANY
R-927729 11/4/2019
PID 218526200004

E Line NE1/4 SEC.27
N01°47'11"W 2737.64'

NW 1/4
SEC.26

TE-10
CHRISTOPHER M. JANUSZ,
AN UNMARRIED MAN
R-888030 1/23/2017
PID 218527134002

4/6/2026 Malek-JA 13:11:48 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Plan706.dgn

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Sheet Revisions		
Date	Description	Initials
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet
Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	02-02-26	7.07 of 7.20	7.07

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T.6S.,R.89W.,6th P.M.

0 12.5 25 37.5 50 62.5
1" = 50'

KAREN T. WELDEN
R-800078 3/16/2011
PID 218527100025

JOHN L. TAUFER AND
MAURINE C. TAUFER
R-377304 12/17/1986
PID 218527100023

Holy Cross Energy
R-174801 BOOK256 PAGE261
PID 218527100024

DAVID MOLLENBERG,
A TENANT IN SEVERALTY
R-878376 6/14/2016
PID 218527100022

NE 1/4
SEC.27

KATHERINE PIFFER
R-775252 9/17/2009
PID 218527100021

6591
PP

Exist.R.O.W. USPW NRS 366

Exist.R.O.W. DENVER & RIO GRANDE RAILROAD
Colo V-8-C, Map 1 Corrected 12/31/1927

CR 154

(OLD HWY 82)

6021
WC

TE-1B

ROARING FORK
TRANSPORTATION AUTHORITY
PID 218526200030

1039+96.65

1040+00

1041+00

1042+00

1043+00

1044+00

Exist.R.O.W. USPW N.R.S. 366

POE 1044+08.98

MATCHLINE SEE SHEET 7.06

3096

N21°16'59"W
69.54'

3097

RIO GRANDE TRAIL

S68°43'01"W
27.00'

TE-1B

N68°43'01"E
27.00'

6002
WC

3095

S21°16'59"E
69.54'

3098

Exist.CDOT R.O.W. SH82 FAP S 0130(7)

POB TE-1B (3095)
S16°26'53"E 1934.87' TO
1/4 COR. SECS 26/27 (1011)

Δc=15°32'34" Lc=461.16'
Rc=1700.00' Tc=232.01'

N20°08'52"W
410.32'

END ROW
CONSTRUCTION PROJECT
STATION: 1044+06.96

82

Exist.R.O.W. DENVER & RIO GRANDE RAILROAD
Colo V-8-C, Map 1 Corrected 12/31/1927

Exist.R.O.W. SH82 S 0130(7)

2/3/2026 MolekJA 11:22:22 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Plan707.dgn

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Sheet Revisions

Date	Description	Initials
02/10/25	Delete RW-25	jam
02/02/26	Jacobs address update	jam
04/01/26	added proposed ROW though city property	jam

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.08 of 7.20	7.08

T.6S.,R.89W.,6th P.M.

NW 1/4
SEC.27

0 12.5 25 37.5 50 62.5
1" = 50'

ROARING FORK SCHOOL DISTRICT RE-1
1405 GRAND AVENUE
GLENWOOD SPRINGS CO 81602
PID 218527208003

RW-12A
VILLAGE HOMES OF COLORADO, INC
R-650501 4/20/2004
PID 218527223039

VILLAGE HOMES OF COLORADO INC
100 INVERNESS TERRACE EAST
ENGLEWOOD CO 80112 PID 218527223038

10' UTILITY EASEMENT

15' UTILITY EASEMENT

5' USE EASEMENT

15' INGRESS/EGRESS & UTILITY EASEMENT

5' UTILITY EASEMENT

RW-12
VILLAGE HOMES OF COLORADO, INC
R-650501 4/20/2004
PID 218527231005

Cardiff Glen PUD
F47 3rd AM
R#718972

10' USE

33' DRAINAGE & UTILITY EASEMENT

4034 S66°12'19"E 69.87' 4036 S58°42'34"E 346.69' 4037 N31°19'09" E 15.00' 4041 S58°42'37"E 210.00'

N47°58'12" E 16.44'

N66°14'14"W 75.18'

6506 PP 4042 POB RW-12A (4042)
N59°03'55"W 1739.48' TO
NW COR. SEC 27 (1005)

9017 PP 6505

6584 PP 6585 PP 6583 PP

S31°17'20"W 15.01'

9016 N58°42'37"W 346.15' 9015 N58°42'37"W 210.01'

16' MOUNTAIN STATES TELEPHONE AND TELEGRAPH COMPANY R-253513 4/28/1972

S58°52'49"E 910.54'

BEGIN ROW CONSTRUCTION PROJECT STATION: 5999+48.76

S64°32'15"E 75.34'

Δc=5°39'25" Lc=98.73'
Rc=1000.00' Tc=49.41'

PCB 5999+48.76

6000+00 6001+00 6002+00 6003+00 6004+00 6005+00

PT 6001+22.83

PCT 6001+24.10

3099 6503 PP 3100 PP 6502

S63°24'35"E 50.08'
N63°24'35"W 50.08'

N29°54'26"E 10.02'
S29°54'26"W 10.02'

3102 3101

6580 PP

PCB TE-22 (3099)
N55°48'25"W 1740.71' TO
NW COR. SEC 27 (1005)

TE-22

TE-22

ACCESS EASEMENT R-921256 6/5/2019

UTILITY EASEMENT R-643766 12/29/2003

6501 PP

Proposed ROW over city property added after plan authorization

RW-25
CITY OF GLENWOOD SPRINGS
101 W 8TH STREET
GLENWOOD SPRINGS CO 81601
PID 218527200003
R-923254 7/25/2019

JOHN CHRISTNER AND ROXANNE CHRISTNER
R-587160 8/27/2001
PID 218527200025

MCGREGOR, HEATHER LOUISE & SMITH, STEVEN
R-751961 7/9/2008
PID 218527200023

GLENWOOD SPRINGS CONGREGATION OF JEHOVAH
3644 HIGHWAY 82
GLENWOOD SPRINGS CO 81601
PID 218527220001

6567 PP 6568 PP

MATCHLINE SEE SHEET 7.09

4/23/2026 MalekJA 12:00:12 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Plan708.dgn

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Sheet Revisions

Date	Description	Initials
02/10/25	Delete RW-25	jam
12/15/25	TE-20 Owner Name Change	jam
02/02/26	Jacobs address update	jam
04/01/26	added proposed ROW though city property	jam

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	02-02-26	7.09 of 7.20	7.09

T.6S.,R.89W.,6th P.M.

NW 1/4 SEC.27

0 12.5 25 37.5 50 62.5
1" = 50'

MELISSA MARIE BRONSON &
ERIC JONATHAN BRONSON
616 Forest View Way
Monument, CO. 80132
PID 218527231004

TE-20

TE-23

WELCHMAN, ROSAMOND
PO BOX 147
HALCOTTSVILLE,
NY 12438
PID 218527231001

53' ACCESS & UTILITY EASEMENT

Cardiff Glen PUD
F#7 3rd AM
R#718972

TE-24

150 AIRPORT ROAD LLC
PO BOX 129
WOODY CREEK,
CO 81656
PID 218527231002

LOT 97A-1
LOT 97A-2
LOT 97A-3
LOT 97A-4
13.6'UE
10'UE

POB TE-20 (4003)
N59° 33'17"W 2417.39' TO
NW 1/4 COR. SEC 27 (1005)

33' DRAINAGE & UTILITY EASEMENT

TE-24
TE-23

TE-20
3016
3017
3015
L10
L11
L9
L8
4003
TRACT H
TRACT H
L3
9001

VILLAGE HOMES OF COLORADO, INC
R-650501 4/20/2004
PID 218527231005

RW-12
RW-12

POB RW-12 (9001)
N59° 11'57"W 2417.22' TO
NW 1/4 COR. SEC 27 (1005)

LOT 79
LOT 88
LOT 78
Cardiff Glen PUD F#1
R#547815
LOT 77
LOT 89
LOT 91
LOT 90
CULVER CIR.
15' INGRESS/EGRESS & UTILITY EASEMENT

PERPETUAL AND NON-EXCLUSIVE UTILITY EASEMENT

CARDIFF GLEN MASTER HOMEOWNERS ASSN
PO BOX 1204
GLENWOOD SPRINGS CO 81602
R-547815 6/24/1999
PID 218527209026

TRACT I

POSSIBLE WATER EASEMENT
NO RECORD DOCUMENT FOUND

3018
L14
L13
TE-13
3019
L15
3121
3020
L12

POB TE-13 (3121)
N59° 11'23"W 2464.21' TO
NW 1/4 COR. SEC 27 (1005)

YEDOME, LLC
R-614496 11/13/2002
PID 218527200001

LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L3	S31°17'20"W	15.00'	L14	S09°46'16"W	29.94'
L8	N58°42'37"W	10.00'	L15	S31°16'50"W	15.93'
L9	N31°17'20"E	10.00'	L18	S15°32'31"W	3.13'
L10	S58°42'37"E	10.00'	L20	N31°01'18"E	2.99'
L11	S31°17'20"W	10.00'			
L12	N58°42'37"W	10.99'			
L13	N31°17'20"E	43.79'			

MATCHLINE SEE SHEET 7.08

MATCHLINE SEE SHEET 7.10

S58°52'49"E
910.54'

Δc=22°50'31" Lc=1275.74'
Rc=3200.00' Tc=646.45'

PC 6010+33.33

6006+00
6007+00
6008+00
6009+00
6010+00
6011+00
6012+00

UTILITY EASEMENT
R-643766 12/29/2003

PE-21

2012
S58°47'14"E
L18 42.83'
2013
3021
2011
L20
2010
S58°47'14"E 12.11'
S31°01'18"W 6.00'
N58°47'14"W 42.00'
N31°01'18"E 18.51'
2014
S50°52'45"W 42.48'

CITY OF GLENWOOD SPRINGS
101 W 8TH STREET
GLENWOOD SPRINGS CO 81601
PID 218527200003
R-923254
7/25/2019

Proposed ROW over city property added after plan authorization

POB PE-21 & TE-21 (2010)
N56° 43'18"W 2454.02' TO
NW 1/4 COR. SEC 27 (1005)

3024
N71°45'46"E 20.39'
3023
N58°47'14"W 52.99'
3022
TE-21

ACCESS EASEMENT
R-858579 1/23/2015

LEASE AGREEMENT
ROCKY MOUNTAIN NATURAL GAS
DIVISION OF KN ENERGY, INC.
R-474502 02/15/1995

CITY OF GLENWOOD SPRINGS
UTILITY EASEMENT
R-912759 10/10/2018

CITY OF GLENWOOD SPRINGS
UTILITY EASEMENT
R-912759 10/10/2018

CITY OF GLENWOOD SPRINGS
UTILITY EASEMENT
R-912759 10/10/2018

20' PRIVATE ROADWAY ACCESS AND UTILITY EASEMENT

CARDIFF MESA CONDOMINIUM ASSOCIATION
R-914127 11/14/2018
PID 218527236006

40' ACCESS AND UTILITY EASEMENT
R-547812 06/24/1999

6507
PP
6566
PP

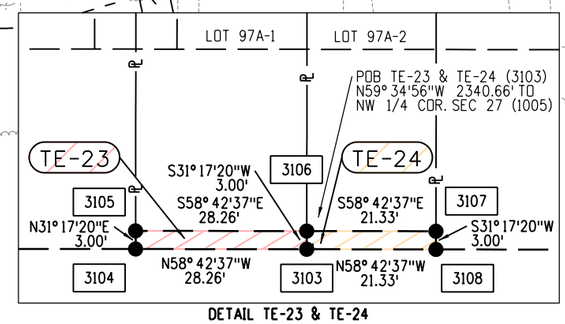
RW-25 del

CITY OF GLENWOOD SPRINGS
101 W 8TH STREET
GLENWOOD SPRINGS CO 81601
PID 218527200003
R-923254 7/25/2019

CITY OF GLENWOOD SPRINGS
101 W 8TH STREET
GLENWOOD SPRINGS CO 81601
PID 218527235008

10' GAS EASEMENT
ROCKY MOUNTAIN NATURAL GAS
DIVISION OF KN ENERGY, INC.
R-395970 10/11/1988

PE-21 TE-21
CARDIFF MESA
CONDOMINIUM ASSOCIATION
R-914127 11/14/2018
PID 218527236006



DETAIL TE-23 & TE-24

4/23/2026 MalekJA 12:15:27 pw:\\ProjectWiseAMER.jacobs.com\DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Plan709.dgn

Colorado Department of Transportation

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Region 3 JMK

Sheet Revisions		
Date	Description	Initials
02/24/25	Delete TE-14,Rename PE-14 to TE-14B	jam
02/02/26	Jacobs address update	jam
04/01/26	added proposed ROW though city property	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.10 of 7.20	7.10

Jacobs
7001 E Belleview Ave, Suite 1000
Denver, CO 80237
Phone: 720-286-2000

T.6S.,R.89W.,6th P.M.

N

0 12.5 25 37.5 50 62.5
1" = 50'

MATCHLINE SEE SHEET 7.09

MATCHLINE SEE SHEET 7.11

YEDOME, LLC
R-614496
11/13/2002
PID 218527200001

CITY OF GLENWOOD SPRINGS, COLORADO
R-614497
11/13/2002
PID 218527200021

LOT A
R-295333
6/29/1979
DAVID W. FORCE JR.

R-364340
8/20/1985
DAVID W. FORCE JR.

LOT B

LOT C

FORCE, DIANA E TRUST
0179 COUNTY ROAD 160
GLENWOOD SPRINGS CO 81601
PID: 218527107002

CITY OF GLENWOOD SPRINGS
101 W.8TH STREET
GLENWOOD SPRINGS, CO. 81601
PID 218527100045

FORCE LLC,
A COLORADO LIMITED LIABILITY COMPANY
R-977861 8/4/2022
PID 218527107001

6555 PP

6511 PP

6508 PP

6509 PP

6031 PP

2017

2018

2016

2015

3031

3032

3030

3029

TE-14B

TE-14B ren

TE-14B ren TE-14 del TE-14A

TE-14A

S54° 11'32"E
12.14'

S01° 17'28"W
52.49'

N01° 17'28"E
52.37'

POB TE-14Bren (2015)
S63° 17'13"E 2916.85' TO
1/4 COR. SECS 26/27 (1011)

Delta: 0° 16'07"
Rad: 2602.55'
ChBrng: N53° 44'46"W
Ch: 12.20'
Arc: 12.20'

S54° 10'27"E
37.99'

N41° 49'12"E
23.95'

S35° 49'33"W
28.94'

N35° 49'33"E
1.31'

POB TE-14A (3029)
S64° 54'36"E 2604.07' TO
1/4 COR. SECS 26/27 (1011)

Proposed ROW over
city property added
after plan authorization

Rc=3250.00' Δc=11° 34'43" Lc=656.77' Tc=329.51'
Cb=S41° 49'40"E Cd=655.65'

Delta: 0° 53'55"
Rad: 2602.55'
ChBrng: N46° 57'34"W
Ch: 40.81'
Arc: 40.82'

50'

Δc=22° 50'31" Lc=1275.74'
Rc=3200.00' Tc=646.45'

6013+00

6014+00

6015+00

6016+00

6017+00

6018+00

20' PRIVATE ROADWAY
ACCESS AND
UTILITY EASEMENT

CITY OF GLENWOOD SPRINGS
UTILITY EASEMENT
R-914973 12/7/2018

CITY OF GLENWOOD SPRINGS
UTILITY EASEMENT
R-912759 10/10/2018

GLENWOOD SPRINGS HISTORICAL SOCIETY INC.
1001 COLORADO AVENUE
GLENWOOD SPRINGS CO 81601
PID 218527135006

CARDIFF MESA CONDOMINIUM ASSOCIATION
R-914127 11/14/2018
PID 218527236006

NW 1/4
SEC.27

NE 1/4
SEC.27

W. Line NE 1/4 SEC.27
N02° 33'46"E 2676.47'

4/23/2026 MalekJA 12:25:16 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Plan710.dgn

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Sheet Revisions		
Date	Description	Initials
02/02/26	Jacobs address update	jam
04/01/26	added proposed ROW though city property	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet
Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.11 of 7.20	7.11

T.6S.,R.89W.,6th P.M.

N
0 12.5 25 37.5 50 62.5
1" = 50'

NE 1/4
SEC.27

GLENWOOD SPRINGS, CITY OF
101 W 8TH STREET
GLENWOOD SPRINGS CO 81601
PID 218527100045

GLENWOOD SPRINGS, CITY OF
101 W 8TH STREET
GLENWOOD SPRINGS CO 81601
PID 218527100050

Proposed ROW over city property added after plan authorization

Rc=3250.00' Δc=11° 34'43" Lc=656.77' Tc=329.51' Cb=S41° 49'40"E Cd=655.65'

S36° 02'18"E 205.30'

Δc=13° 59'56"
Rc=550.00'
Lc=134.38' Tc=67.53'
Cb=S29° 02'20"E
Cd=134.05'

50'

S36° 02'18"E
205.30'

Δc=13° 59'56"
Rc=500.00'
Lc=122.16'
Tc=61.39'

Δc=22° 50'31" Lc=1275.74'
Rc=3200.00' Tc=646.45'

MATCHLINE SEE SHEET 7.10

MATCHLINE SEE SHEET 7.12

6019+00
6020+00
6021+00
6022+00
6023+00
6024+00
6025+00

PC 6025+14.41
PT 6023+09.11

6565 PP

ACCESS ESMT (TYP)
PER COKE OVENS EXEMPTION

GLENWOOD SPRINGS HISTORICAL SOCIETY INC.
1001 COLORADO AVENUE
GLENWOOD SPRINGS CO 81601
PID 218527135006

FRONTIER HISTORICAL SOCIETY, INC.
1001 COLORADO AVE
GLENWOOD SPRINGS CO 81601-3319
PID 218527100053

COKE OVENS 2 INC
110 OAK LANE
GLENWOOD SPRINGS CO 81601
PID 218527100054

6564 PP

6563 PP

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Phone: 720-286-2000

Sheet Revisions

Date	Description	Initials
02/02/26	Jacobs address update	jam
04/01/26	added proposed ROW though city property	jam

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions

Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.12 of 7.20	7.12

0 12.5 25 37.5 50 62.5
1" = 50'

T.6S.,R.89W.,6th P.M.

NE 1/4
SEC.27

GLENWOOD SPRINGS, CITY OF
101 W 8TH STREET
GLENWOOD SPRINGS CO 81601
PID 218527100050

GLENWOOD SPRINGS, CITY OF
101 W 8TH STREET
GLENWOOD SPRINGS CO 81601
PID 218527100050

MATCHLINE SEE SHEET 7.11

MATCHLINE SEE SHEET 7.13

Proposed ROW over city property added after plan authorization

Rc=550.00' Δc=13°59'56"
Lc=134.38' Tc=67.53'
Cb=S29°02'20"E Cd=134.05'

Δc=13°59'56" Lc=122.16'
Rc=500.00' Tc=61.39'

AIRPORT RD.

S22°02'22"E 461.21'

S22°02'22"E
461.21'

50'

PT 6026+36.08

6026+00

6027+00

6028+00

6028+87.92

6029+00

6030+00

6031+00

PC 6030+97.78

Δc=90°46'54"
Rc=200.00'
Lc=316.89' Tc=202.75'
Cb=S67°25'49"E
Cd=284.77'

Δc=90°46'54" Lc=396.11'
Rc=250.00' Tc=253.43'

ACCESS ESMT (TYP)
PER COKE OVENS
EXEMPTION

COKE OVENS 2 INC
110 OAK LANE
GLENWOOD SPRINGS CO 81601
PID 218527100054

S. Line NE 1/4 SEC.27
N87°17'53"W 2674.26'

20' UTILITY ESMT
PER COKE OVENS
EXEMPTION

SE 1/4
SEC.27

CARDIFF LTD LIABILITY CO
1220 COOPER AVENUE
GLENWOOD SPRINGS CO 81601
PID 218527400055

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JMK
Jacobs

Sheet Revisions		
Date	Description	Initials
02/02/26	Jacobs address update	jam
04/01/26	added proposed ROW though city property	jam

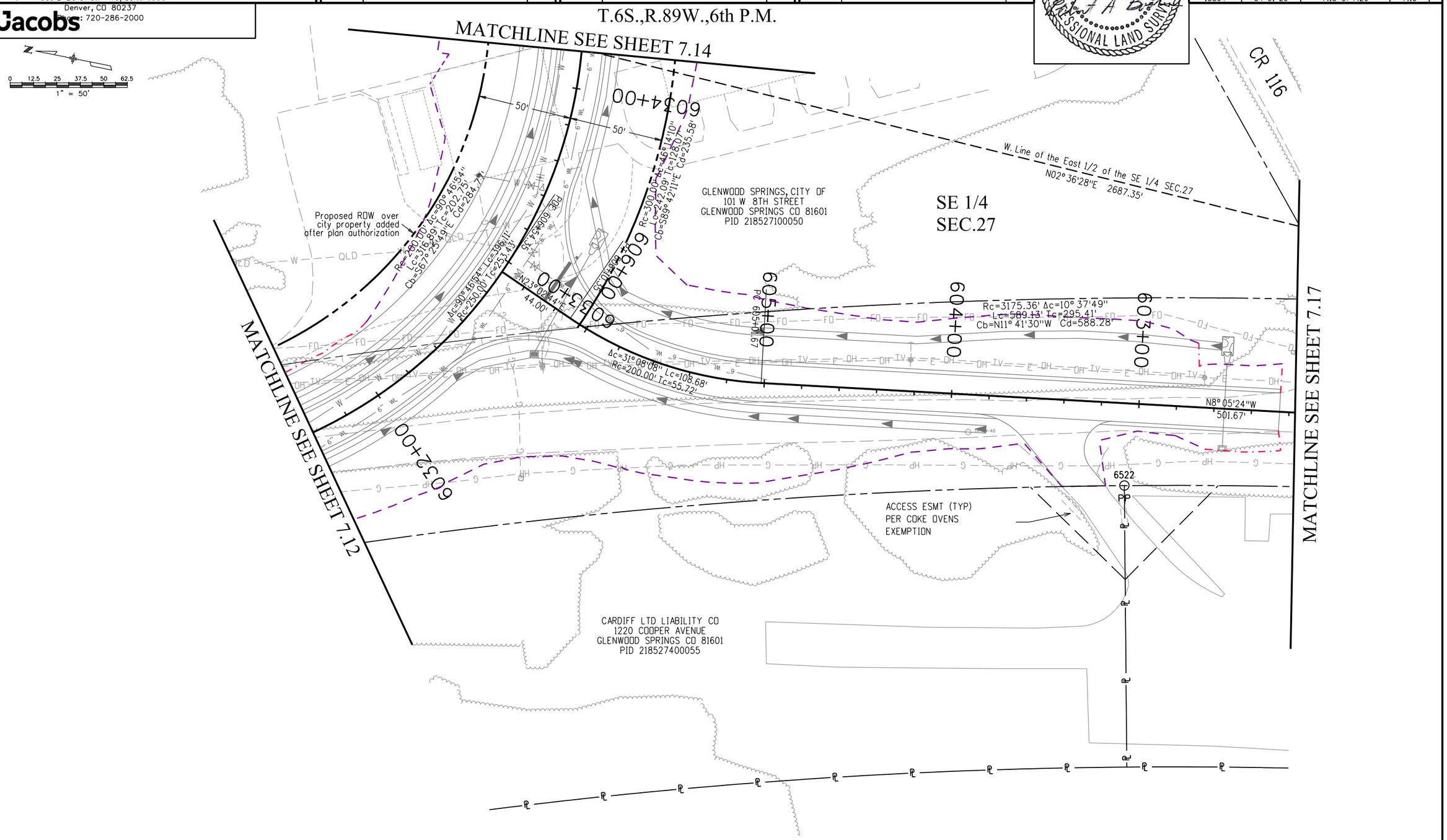
Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet
Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.13 of 7.20	7.13



4/23/2026 MalekJA 12:43:15 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Plan713.dgn

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Region 3 JMK

Sheet Revisions		
Date	Description	Initials
02/02/26	Jacobs address update	jam
04/01/26	added proposed ROW though city property	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy		XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet
Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.14 of 7.20	7.14

Jacobs
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Phone: 720-286-2000

T.6S.,R.89W.,6th P.M.

N
0 12.5 25 37.5 50 62.5
1" = 50'

MATCHLINE SEE SHEET 7.18

NE 1/4
SEC.27

SE 1/4
SEC.27

AIRPORT MINI STORAGE, LLC
A COLORADO LIMITED LIABILTY COMPANY
6874 HIGHWAY 82
GLENWOOD SPRINGS CO 81601
R-886854 12/22/2016
PID 218527100008

N87°17'53"W 2674.26'
S. Line NE 1/4 SEC.27

N12°57'51"W 169.21'
CENTER RD.
AIRPORT
Rc=475.00' Δc=09°47'01" Lc=81.11' Tc=40.63' Cb=N17°51'21"W Cd=81.01'
Rc=500.00' Le=45.12'
Δc=9° 51'25" Lc=86.02'
PC 31+35.41
PT 31+39.71
25'
3256.21'
3256.21'
6523
6561
WC
3056
491.90'
S87°17'53"E
3055
S78°13'42"E
542.21'
N78°13'42"W
182.75'
N10°59'05"E 126.15'
401'
96.77'
N14°33'27"W 100.81'
RW-2A
TE-2A
RW-3
Holy Cross Energy
R-501884 12/3/1996
PID 218527100060
JACKSON FAMILY RANCH, LLC
R-498631 09/20/96
PARCEL 3
PID 218527400059
MATCHLINE SEE SHEET 7.15

GLENWOOD SPRINGS, CITY OF
101 W 8TH STREET
GLENWOOD SPRINGS CO 81601
PID 218527100050

W Line of the East1/2 of the SE 1/4 SEC.27
N00° 36'28"E 2687.35'

Proposed ROW over city property added after plan authorization

Rc=300.00' Δc=30° 06'20"
Lc=157.63' Tc=80.68'
Cb=N82° 13'54"E Cd=155.83'
PC 30+49.39
PT 32+07.02

N22° 49'16"W 49.39'
POB 30+00.00
Rc=607+18.27'

N67° 10'44"E 145.25'
Rc=200.00' Δc=90° 46'54"
Lc=316.89' Tc=202.75'
Cb=S67° 25'49"E Cd=284.77'
50'
N67° 10'44"E 249.38'
Δc=90° 46'54" Lc=396.11'
Rc=250.00' Tc=253.43'
PT 603+93.89
Rc=300.00' Δc=46° 14'10"
Lc=242.09' Tc=128.07'
Cb=S89° 42'11"E Cd=235.58'
N67° 10'44"E 249.38'

Δc=30° 06'20"
Lc=131.36'
Rc=250.00' Tc=67.23'
PC 603+43.27
Δc=30° 06'20"
Tc=53.79'
Lc=105.09'
Rc=200.00'
Cb=N82° 13'54"E
Cd=103.88'
PT 6038+74.63
PP 6560
N14° 33'27"E 3.34'
S82° 42'56"E 102.90'
S82° 42'56"E 115.66'
S82° 42'56"E 418.86'
N78° 13'42"W 540.23'
AIRPORT ROAD (PROPOSED)

ROARING FORK RIVER
℄ Centerline River
Edge of Water
100 YEAR FLOOD LINE
100YR

6035+00
6036+00
6037+00
6038+00
6039+00
6040+00
6041+00

4/23/2026 MolekJA 12:49:41 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Plan714.dgn

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Sheet Revisions		
Date	Description	Initials
03/17/25	Delete PE-3, Revise TE-3	jam
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy		XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.15 of 7.20	7.15

T.6S.,R.89W.,6th P.M.

NE 1/4 SEC.27

SE 1/4 SEC.27

S. Line NE 1/4 SEC.27 S87°17'53"E 491.90' N87°17'53"W 2674.26'

POB TE-2A (3053)
S87°17'53"E 218.57' TO
1/4 COR. SECS 26/27 (1011)

3053

RW-2A PE-2A TE-2A PE-2C

Holy Cross Energy
R-501884 12/3/1996
PID 218527100060

S03°04'16"W 192.73'

PE-2C 2098 S86°57'13"E 42.00' 2099

TE-2A

N03°02'50"E 78.30'

S03°02'50"W 84.74'

POB PE-2C (2096)
N75°07'35"E 531.01' TO
1/4 COR. SECS 26/27 (1011)

N86°55'44"W 87.06'

N78°13'42"W 52.89'

3054

S86°55'44"E 232.07'

N86°55'44"W 179.80'

PE-2A 2026

4013

N78°13'42"W 182.75' 2097 2096 N78°13'42"W 201.87' 2025

N78°13'42"W 542.21'

4012

RW-2A

N78°13'42"W 42.49'

50'

AIRPORT ROAD (PROPOSED)

Δc=4°29'14" Lc=39.16'
Rc=500.00' Tc=19.59'

S87°08'29"E 819.35'

S78°13'42"E 191.30'

Δc=8°42'06" Lc=201.99'
Rc=1330.00' Tc=101.19'

RW-3

PC 6042+93.49

PT 6043+32.64

6043+00

6044+00

6045+00

6046+00

6047+00

PC 6045+23.95

Delta: 8°42'06"
Rad: 1380.00' Arc: 209.58'
ChBrng: S82°34'45"E
Ch: 209.38'

PT 6047+29.94

S86°55'48"E 66.74'

4015

4016

S78°13'42"E 540.23' (PT#4016 TO PT#4017)

3068

3057

S78°13'42"E 112.01'

POB TE-3rev (3068)
N66°02'44"E 579.09' TO
1/4 COR. SECS 26/27 (1011)

HOLY CROSS ELECTRIC ASSOCIATION INC.
RIGHT-OF-WAY EASEMENT
R-519660 01/28/98

N03°06'35"W 141.43'

TE-3 rev

122.93'

S20°43'53"W

RW-3

PE-3 del TE-3 rev

JACKSON FAMILY RANCH, LLC
R-498631 09/20/96
PARCEL 3
PID 218527400059

Delta: 42°46'25"
Rad: 132.00'
ChBrng: N71°41'04"E
Ch: 96.27'
Arc: 98.54'

Delta: 39°11'34"
Rad: 140.00'
ChBrng: S73°28'29"W
Ch: 93.91'
Arc: 95.77'

MATCHLINE SEE SHEET 7.14

MATCHLINE SEE SHEET 7.03

MATCHLINE SEE SHEET 7.16

N
0 12.5 25 37.5 50 62.5
1" = 50'

4/6/2026 MolekJA 13:30:47 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864RDW_Plan715.dgn

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Sheet Revisions		
Date	Description	Initials
03/17/25	Revise TE-3	jam
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet
Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	02-02-26	7.16 of 7.20	7.16

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T.6S.,R.89W.,6th P.M.

MATCHLINE SEE SHEET 7.15

N03° 06'35"W 141.43'
3067
N10° 46'34"E 70.09'
3066
S20° 43'53"W 122.93'
3058
S06° 42'59"E 28.16'
3059
S55° 49'33"E 35.13'
3060
S77° 40'36"E 72.93'
3061
N41° 22'28"E 53.44'
3114
S56° 34'05"E 36.30'
3115
N11° 06'22"E 6.98'
N74° 34'28"W 36.19'
3113
3112
S11° 06'22"W 43.37'
3062
N77° 47'35"W 115.84'
3063
TE-3 rev
N00° 30'41"E 162.31'
156.50'
S04° 55'05"W
3064
3065
N86° 18'13"W 41.72'
S13° 53'41"E 124.68'
N15° 39'35"W 138.48'
3116
TE-3A
N82° 02'31"E 220.30'
582° 02'31"W 239.70'
3110
3111
3109
PDB TE-3A (3109)
N5° 09'29"E 508.70' TO
1/4 COR. SECS 26/27 (1011)
Delta: 1° 21'35"
Rad: 1960.08'
ChBrng: S6° 41'58"W
Ch: 46.51'
Arc: 46.51'
Exist. R.O.W. DENVER & RIO GRANDE RAILROAD
N
0 12.5 25 37.5 50 62.5
1" = 50'

TE-3 TE-3A rev
JACKSON FAMILY RANCH, LLC
R-498631 09/20/96
PARCEL 3
PID 218527400059

25' - HOLY GROSSENERGY RIGHT-OF-WAY EASEMENT R-695879 04/11/06

SE 1/4
SEC.27

2/2/2026 MalekJA 17:05:06 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Plan716.dgn

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Phone: 970-384-334
FAX: 970-947-5133
Region 3 JMK

Sheet Revisions		
Date	Description	Initials
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

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COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.17 of 7.20	7.17

T.6S.,R.89W.,6th P.M.

N

0 12.5 25 37.5 50 62.5
1" = 50'

GLENWOOD SPRINGS, CITY OF
101 W 8TH STREET
GLENWOOD SPRINGS CO 81601
PID 218527100050

SE 1/4
SEC.27

CR 116

W. Line of the East 1/2 of the SE 1/4 SEC.27

N02°36'28"E 2687.35'

Rc=3175.36' Δc=10°37'49"
Lc=589.13' Tc=295.41'
Cb=N11°41'30"W Cd=588.28'

602+00

601+00

POB 600+00.00

MATCHLINE SEE SHEET 7.13

BEGIN ROW CONSTRUCTION PROJECT
STATION: 600+00

6521 PP

6520 PP

ACCESS ESMT (TYP)
PER COKE OVENS
EXEMPTION

755 AIRPORT LLC
PO BOX 1252
CARBONDALE CO 81623
PID 218527400056

4/1/2026 MalekJA 09:26:10 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Plan717.dgn

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Region 3 JMK

Sheet Revisions		
Date	Description	Initials
04/21/15	Delete PE-15,Revise TE-15	jam
12/15/15	Delete TE-15Rev	jam
02/02/26	Revise Airport Center Road ROW	
	Jacobs address update	jam
04/01/26	added proposed ROW though city property	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.18 of 7.20	7.18

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T.6S.,R.89W.,6th P.M.

0 12.5 25 37.5 50 62.5
1" = 50'

MATCHLINE SEE SHEET 7.14

MATCHLINE SEE SHEET 7.19

S. Line NE 1/4 SEC.27

E. Line of the SW 1/4 of the NE 1/4 SEC.27

NE 1/4
SEC.27

N00° 21'47"E 1351.98'

GLENWOOD SPRINGS, CITY OF
101 W 8TH STREET
GLENWOOD SPRINGS CO 81601
PID 218527100050

PE-15 del TE-15 rev del

REEVES, JOHN A.
R-250752 8/19/1971
PID 218527100009

REEVES, JOHN A.
R-250752 8/19/1971
PID 218527100009

Existing ROW revised after plan authorization

AIRPORT CENTER RD.

N12° 57'51"W 169.21'

Δc=2° 11'04" Lc=38.91'
Rc=1020.53' Tc=19.46'

N10° 44'37"W 49.30'

Δc=02° 11'04" Lc=37.96'
Tc=18.98'
Rc=995.53'

N10° 44'37"W 49.30'

Δc=6° 17'35" Lc=329.50'
Rc=3000.00' Tc=164.92'

Rc=3025.00' Δc=03° 09'46"
Lc=166.98' Tc=83.51'
CB=N12° 19'30"W Cd=166.96'

N17° 02'11"W 132.77'

Δc=2° 44'29" Lc=119.62'
Rc=2500.00' Tc=59.82'

R-900130
SLOPE
EASEMENT

PC 33+04.42
PT 33+43.34
PC 33+92.83
PC 38+55.10
PT 37+22.33

33+00 34+00 35+00 36+00 37+00 38+00 39+00

7001 PP

6524

6030 PP

AIRPORT MINI STORAGE, LLC
A COLORADO LIMITED LIABILTY COMPANY
6874 HIGHWAY 82
GLENWOOD SPRINGS CO 81601
R-886854 12/22/2016
PID 218527100008

Proposed ROW over city property added after plan authorization

4/23/2026 MalekJA 12:58:31 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Plan718.dgn

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Sheet Revisions		
Date	Description	Initials
04/21/25	Delete RW-15,RW-16,PE-15 Revise TE-15,TE-16	jam
12/15/25	Delete TE-15Rev,TE-16Rev	jam
02/02/26	Revise Airport Center Road ROW	
	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet
Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.19 of 7.20	7.19

T.6S.,R.89W.,6th P.M.

0 12.5 25 37.5 50 62.5
1" = 50'

NE 1/4
SEC.27

RW-15 PE-15 IE-15
del del rev del
REEVES, JOHN A.
R-250752 8/19/1971
PID 218527100009

RW-16 IE-16
del rev del
WAYNE G. RUDD AND
HECTOR BROWN
R-978613 8/26/2022
R-916818 1/31/2019
PID 218527100010

MATCHLINE SEE SHEET 7.18

MATCHLINE SEE SHEET 7.20

8004
8003
20' UTILITY EASEMENT
Existing ROW revised after plan authorization
AIRPORT CENTER RD.
N19°46'41"W 538.97'
Δc=2°44'29" Lc=119.62'
Rc=2500.00' Tc=59.82'
3044 N19°55'18"W 34.00' 3045
POB TE-18 (3044)
S57°58'09"E 1573.41' TO
1/4 COR. SECS 26/27 (1011)
S70°04'42"W 13.50'
6525
N70°04'42"E 13.50'
S19°55'18"E 34.00'
3047 3046
TE-18
40+00
41+00
42+00
43+00
N00°21'47"E 1351.98'
E. Line of the SW 1/4 of the NE 1/4 SEC.27

TE-18
AIRPORT MINI STORAGE, LLC
A COLORADO LIMITED LIABILTY COMPANY
R-886854 12/22/2016
PID 218527100008

United States of America
PID 218527100007

4/23/2026 MalekJA 13:03:48 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Plan719.dgn

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Region 3 JMK

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Sheet Revisions		
Date	Description	Initials
02/10/25	Delete RW-16,PE-16,PE-17, Revise TE-16	jam
12/15/25	Delete TE-16Rev	jam
02/02/26	Revise Airport Center Road ROW	
	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Plan Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	7.20 of 7.20	7.20

T.6S.,R.89W.,6th P.M.

MATCHLINE SEE SHEET 7.19

RW-16 del | PE-16 del | TE-16 rev del

WAYNE G. RUDD AND
HECTOR BROWN
R-978613 8/26/22
R-916818 1/31/2019
PID 218527100010

Parcel B

John Reed Exemption Plat

25' UTILITY EASEMENT

Existing ROW revised after plan authorization

20' UTILITY EASEMENT

8005 PP

8001 PP

8002 PP

7008 PP

7002 PP

7007 PP

7006 PP

6576 PP

N. Line of the SW 1/4 of the NE 1/4 SEC.27
S87°55'19"E 1285.28'

WAYNE G. RUDD AND
HECTOR BROWN
R-978613 8/26/22
R-916818 1/31/2019
PID 218527100010

Parcel A

NE 1/4
SEC.27

AIRPORT CENTER RD.

N19°46'41"W

Δc=34°13'33" Lc=119.47'
Rc=200.00' Tc=61.68'

3040 N19°55'18"W 35.00'
3041
3042 N70°04'42"E 7.00'
3043 S70°04'42"W 7.00'

POB TE-19 (3040)
S51°01'45"E 1876.95' TO
1/4 COR. SECS 26/27 (1011)

S19°55'18"E 35.00'

TE-19

44+00

45+00

PC 45+13.69

46+00

PT 46+33.16

POE 46+52.86

N14°26'52"W 19.70'

PE-17 del
MARINA ULLOA
R-979842 9/30/2022
PID 218527115010

LOT 10

LOT 11

Park East Subdivision

5' UTILITY EASEMENT

SKY RANCH DR.

TE-19

United States of America
PID 218527100007

END ROW
CONSTRUCTION PROJECT
STATION: 45+52.86

United States of America
PID 218527100007

N00°21'47"E 1351.98' E. Line of the SW 1/4 of the NE 1/4 SEC.27

LOT 9

0 12.5 25 37.5 50 62.5
1" = 50'

4/23/2026 MalekJA 13:08:56 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Plan720.dgn

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Sheet Revisions		
Date	Description	Initials
05/12/25	Rename PE-1,PE-1A,PE-1B to RWE*,	
	Delete PE-2B,PE-3,PE-4,PE-5,	
	Revise PE-2,TE-3,TE-4,TE-5	jam
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Ownership Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	8.01 of 8.04	8.01

T.6S.,R.89W.,6th P.M.

SEE SHEET 8.04

0 50 100 150 200 250
1" = 200'

SE 1/4
SEC.27

SW 1/4
SEC.26

NW 1/4
SEC.26

SE 1/4
NE 1/4
SEC.27

JACKSON FAMILY RANCH, LLC
R-498631 09/20/96
PARCEL 3
PID 218527400059

JACKSON FAMILY RANCH, LLC
R-498631 09/20/96
PARCEL 3
PID 218527400059

Holy Cross Energy
R-501884 12/3/1996
PID 218527100060

E. Line SE 1/4 SEC.27
(PROTRACTED)

S. Line NE 1/4 SEC.27
N87°17'53"W 2674.26'

1/4 CORNER SECTION 27
SECS 26/27 SECTION 26

E. Line of the NE 1/4 SEC.27
S01° 47'11"E 2737.64'

ROARING FORK
TRANSPORTATION AUTHORITY
PID 218526200030

82

JACKSON FAMILY RANCH LLC
R-486937 12/27/1995
PID 218526300028

Holy Cross Energy
R-501884 12/3/1996
PID 218526300029

SPENCER CHARLES
HOLDING, LLC
A COLORADO LIMITED
LIABILITY COMPANY
PID 218526200019

SIMCO OFF ROAD LLC
PID 218526200026

JSK HOLDINGS, LLC
PID 218526200008

RAYMOND E. VATH AND
ELISABETH C. VATH
R-521042 B1055 P662 3/2/1998
PID 218526200020

S. Line NW 1/4 SEC.26
RECORD BEARING
S85°48'52"E
GLEN E. EASH & INGRID T. EASH
R-282684 1/4/1978

SEE SHEET 8.02

RW-2A RW-3 RW-2 TE-1 TE-2 TE-2A TE-3 TE-3A TE-4 TE-5 TE-6 PE-2 PE-2A RWE-1 RWE-1A RWE-1B

RWE-1, RWE-1A, RWE-1B, TE-1, TE-1A	ren	ROARING FORK TRANSPORTATION AUTHORITY PID 218526200030
RW-2, PE-2, TE-2	rev	Holy Cross Energy PID 218526300029
RW-2A, PE-2A, ~~PE-2B~~, PE-2C, TE-2A	del	Holy Cross Energy PID 218527100060
RW-3, ~~PE-3~~, TE-3, TE-3A	del, rev	JACKSON FAMILY RANCH, LLC PID 218527400059
~~PE-4~~, TE-4	del, rev	RAYMOND E. VATH AND ELISABETH C. VATH PID 218526200020
~~PE-5~~, TE-5	del, rev	SPENCER CHARLES HOLDING, LLC A COLORADO LIMITED LIABILITY COMPANY PID 218526200019
TE-6		JSK HOLDINGS, LLC A COLORADO LIMITED LIABILITY COMPANY R-867891 9/14/2015 PID 218526200008

4/1/2026 MolekJA 10:47:37 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_OwnershipB01.dgn

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Region 3 JMK

Sheet Revisions		
Date	Description	Initials
02/12/25	Rename PE-11 to TE-11, Delete PE-2B,RW-9,	
	Delete PE-9 Added TE-9	jam
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Ownership Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	8.02 of 8.04	8.02

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T.6S.,R.89W.,6th P.M.

SE 1/4
NE 1/4
SEC.27

NE 1/4
NE 1/4
SEC.27

NW 1/4
SEC.26

SEE SHEET 8.01

0 50 100 150 200 250
1" = 200'

Holy Cross Energy
R-501884 12/3/1996
PID 218527100060

EL-ROCKO MOBILE
HOME PARK LLC
R-610837 9/17/2002
PID 218527100030

BUFF VALLEY LLC,
A COLORADO LIMITED
LIABILTY COMPANY
R-913161 10/18/18
PID 218527100029

N. Line of the SE 1/4 NE 1/4 SEC.27
S87°34'19"E 1285.27'

MOUNTAIN VIEW
CHURCH OF GLENWOOD
PID 218527100026

KAREN T. WELDEN
R-800078 3/16/2011
PID 218527100025

Holy Cross Energy
R-174801
BK 256 PG 261
PID 218527100024

DAVID MOLLENBERG,
A TENANT IN SEVERALTY
R-878376 6/14/2016
PID 218527100022

KATHERINE PIFFER
R-775252 9/17/2009
PID 218527100021

THE ELIZABETH ANN
MEADOR TRUST
R-881843 9/01/2016
PID 218527100020

N00°21'52"E 1353.12'
W. Line of the NE 1/4 NE 1/4 SEC.27

JOHN L. TAUFER AND
MAURINE C. TAUFER
R-377304 12/17/1986
PID 218527100023

ROARING FORK
TRANSPORTATION AUTHORITY
PID 218526200030

CR 154

82

DEPARTMENT OF HIGHWAYS
R-221281 5/1/1963

TE-1 TE-1B TE-1C

TE-11 ren

TE-10

TE-9 add

PE-7 TE-7 TE-8 TE-6

3710 HWY 82 GS, LLC,
A COLORADO LIMITED
LIABILITY COMPANY
R-927729 11/4/2019
PID 218526200004

HARVEY/NESBIT LLP
R-841397 10/1/2013
PID 218526200022

CHRISTOPHER M. JANUSZ,
AN UNMARRIED MAN
R-888030 1/23/2017
PID 218527134002

SECTION 27
SECTION 26

E. Line of the NE 1/4 SEC.27
S01°47'11"E 2737.64'

1012

SECTION 27
SECTION 22

N. Line of the NE 1/4 SEC.27
N88°31'26"W 2467.09'

DEFIANT INVESTMENTS, LLC,
A COLORADO LIMITED
LIABILITY COMPANY
R-841093 9/24/2013
PID 218526200025

HIGHWAY 82 INVESTORS, LLC,
A COLORADO LIMITED LIABILTY COMPANY
R-724465 5/31/2007
PID 218526200006

JSK HOLDINGS, LLC
A COLORADO LIMITED
LIABILITY COMPANY
R-867891 9/14/2015
PID 218526200008

TE-1 TE-1B TE-1C — ROARING FORK TRANSPORTATION AUTHORITY PID 218526200030

PE-2B del — Holy Cross Energy R-501884 12/3/1996 PID 218527100060

TE-6 — JSK HOLDINGS, LLC A COLORADO LIMITED LIABILITY COMPANY R-867891 9/14/2015 PID 218526200008

PE-7 TE-7 — DEFIANT INVESTMENTS, LLC, A COLORADO LIMITED LIABILITY COMPANY PID 218526200025

TE-8 — HARVEY/NESBIT LLP PID 218526200022

RW-9 del PE-9 del TE-9 add — 3710 HWY 82 GS, LLC, A COLORADO LIMITED LIABILITY COMPANY PID 218526200004

TE-10 — CHRISTOPHER M. JANUSZ, AN UNMARRIED MAN PID 218527134002

TE-11 ren — BUFF VALLEY LLC, A COLORADO LIMITED LIABILTY COMPANY PID 218527100029

4/1/2026 Molek.IA 10:52:35 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_OwnershipB02.dgn

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Phone: 970-384-334
FAX: 970-947-5133
Region 3 JMK

Sheet Revisions		
Date	Description	Initials
02/12/25	Delete TE-14,RW-25, Rename PE-14 to TE-14B	jam
12/15/25	TE-20 Owner Name Change	jam
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

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COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Ownership Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	8.03 of 8.04	8.03

T.6S.,R.89W.,6th P.M.

0 50 100 150 200 250
1" = 200'

ROARING FORK SCHOOL DISTRICT RE-1
1405 GRAND AVENUE
GLENWOOD SPRINGS CO 81602
PID 218527208003

VILLAGE HOMES OF COLORADO, INC.
R-650501
4/20/2004

150 AIRPORT ROAD LLC
PO BOX 129
WOODY CREEK, CO 81656
PID 218527231002

WELCHMAN, ROSAMOND
PO BOX 147
HALCOTTSVILLE, NY 12438
PID 218527231001

VILLAGE HOMES OF COLORADO, INC
R-650501
4/20/2004
PID 218527231005

VILLAGE HOMES OF COLORADO, INC
R-650501 4/20/2004
PID 218527223039

FANNING PL.
CLARK ST.
MORGAN ST.

TE-23
TE-24
TE-20

MELISSA MARIE BRONSON &
ERIC JONATHAN BRONSON
616 FOREST VIEW WAY
MONUMENT CO 80132
PID 218527231004

VILLAGE HOMES OF COLORADO, INC.
R-650501
4/20/2004

CARDIFF GLEN MASTER HOMEOWNERS ASSN
PO BOX 1204
GLENWOOD SPRINGS CO 81602
R-547815 6/24/1999
PID 218527209026

YEDOME, LLC
R-614496 11/13/2002
PID 218527200001

YEDOME INC,
A COLORADO CORPORATION
R-614497
11/13/2002
PID 218527200021

NW 1/4
NE 1/4
SEC.27

S. Line of the NW 1/4 NE 1/4 SEC.27
S87°55'19"E 1285.28'

DAVID W. FORCE JR.
R-295333
6/29/1979

DAVID W. FORCE JR.
R-364340
8/20/1985

FORCE, DIANA E. TRUST
0179 COUNTY ROAD 160
GLENWOOD SPRINGS CO 81601
PID: 218527107002

CITY OF GLENWOOD SPRINGS
101 W 8TH STREET
GLENWOOD SPRINGS CO 81601
PID 218527100045

TE-14B
TE-13
RW-12A
RW-12
PE-21
TE-21
TE-14A
TE-22

AIRPORT RD.

STEVEN J. OCHKO AND
GEORGIA MAIE OCHKO
R-701914 7/13/2006
PID 218527200024

JOHN CHRISTNER AND
ROXANNE CHRISTNER
R-587160 8/27/2001
PID 218527200025

MCGREGOR, HEATHER LOUISE &
SMITH, STEVEN
R-751961 7/9/2008
PID 218527200023

GLENWOOD SPRINGS
CONGREGATION OF JEHOVAH
3644 HIGHWAY 82
GLENWOOD SPRINGS CO 81601
PID 218527220001

CITY OF GLENWOOD SPRINGS
101 W 8TH STREET
GLENWOOD SPRINGS CO 81601
PID 218527200003

CITY OF GLENWOOD SPRINGS
101 W 8TH STREET
GLENWOOD SPRINGS CO 81601
PID 218527200003

FORCE, LLC, A COLORADO
LIMITED LIABILITY COMPANY
R-977861 8/4/2022
PID 218527107001

CARDIFF MESA CONDOMINIUM ASSOCIATION
R-914127 11/14/2018
PID 218527236006

GLENWOOD SPRINGS
HISTORICAL SOCIETY INC.
1001 COLORADO AVENUE
GLENWOOD SPRINGS CO 81601
PID 218527135006

FRONTIER HISTORICAL SOCIETY, INC.
1001 COLORADO AVE
GLENWOOD SPRINGS CO 81601-3319
PID 218527100053

W. Line of the NE 1/4 SEC.27
N02°53'46"E 2676.47'

NW 1/4
SEC.27

SW 1/4
NE 1/4
SEC.27

S. Line NE 1/4 SEC.27
N87°17'53"W 2674.26'

CENTER of SEC.27

SEE SHEET 8.04

RW-12	RW-12A	VILLAGE HOMES OF COLORADO, INC PID 218527231005
	TE-13	CARDIFF GLEN MASTER HOMEOWNERS ASSN PID 218527209026
TE-14B ren	~~TE-14~~ del	TE-14A FORCE LLC, A COLORADO LIMITED LIABILITY COMPANY PID 218527107001
	TE-20	MELISSA MARIE BRONSON & ERIC JONATHAN BRONSON PID 218527231004
PE-21	TE-21	CARDIFF MESA CONDOMINIUM ASSOCIATION PID 218527236006
	TE-22	HEATHER LOUISE MCGREGOR & STEVEN SMITH PID 218527200023
	TE-23	ROSAMOND WELCHMAN PID 218527231001
	TE-24	150 AIRPORT ROAD LLC PID 218527231002
	~~RW-25~~ del	CITY OF GLENWOOD SPRINGS PID 218527200003

4/23/2026 MolekJA 13:14:57 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents\WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Ownership803.dgn

Colorado Department of Transportation
202 Centennial Street
Glenwood Springs, CO 81601
Phone: 970-384-334
FAX: 970-947-5133
Region 3 JMK

Jacobs
7001 E Belleview Ave, Suite 1000
Denver, CO 80237
Phone: 720-286-2000

Sheet Revisions		
Date	Description	Initials
04/21/25	Delete RW-15,RW-16,PE-16,PE-17,PE-15	
	Revise TE-15,TE-3,TE-16,	jam
12/15/25	Delete TE-15Rev, TE-16Rev	jam
02/02/26	Jacobs address update	jam

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

Sheet Revisions		
Date	Description	Initials
mm/dd/yy	XXXXXXXX	XXX

COLORADO LICENSED
ROBERT A. BOEHM
24APR26
34992
PROFESSIONAL LAND SURVEYOR

Right of Way Plans
Ownership Sheet

Project Number: HPP M535-003
Project Location: Glenwood Springs South Bridge

Project Code:	Last Mod. Date	Subset	Sheet No.
15864	04-01-26	8.04 of 8.04	8.04

0 50 100 150 200 250
1" = 200'

T.6S.,R.89W.,6th P.M.

SEE SHEET 8.03

RW-2A TE-2A PE-2C Holy Cross Energy R-501884 12/3/1996 PID 218527100060

RW-3 TE-3 rev JACKSON FAMILY RANCH, LLC PID 218527400059

RW-15 del PE-15 del TE-15 rev del JOHN A. REEVES PID 218527100009

RW-16 del TE-16 rev del PE-16 del WAYNE G. RUDD AND HECTOR BROWN PID 218527100010

PE-17 del MARINA ULLOA PID 218527115010

TE-18 AIRPORT MINI STORAGE, LLC A COLORADO LIMITED LIABILITY COMPANY PID 218527100008

TE-19 UNITED STATES OF AMERICA PID 218527100007

W 1/2 SE 1/4 SEC.27

S. Line NE 1/4 SEC.27 N87°17'53"W 2674.26'

FRONTIER HISTORICAL SOCIETY, INC. 1001 COLORADO AVE GLENWOOD SPRINGS CO 81601-3319 PID 218527100053

COKE OVENS 2 INC 110 OAK LANE GLENWOOD SPRINGS CO 81601 PID 218527100054

GLENWOOD SPRINGS, CITY OF 101 W 8TH STREET GLENWOOD SPRINGS CO 81601 PID 218527100045

CARDIFF LTD LIABILITY CO 1220 COOPER AVENUE GLENWOOD SPRINGS CO 81601 PID 218527400055

AIRPORT RD

N. Line of the SW 1/4 NE 1/4 SEC.27 S87°55'19"E 1285.28'

NW 1/4 NE 1/4 SEC.27

WAYNE G. RUDD AND HECTOR BROWN R-978613 8/26/2022 R-916818 1/29/2019 PID 218527100010

MARINA ULLOA R-979842 9/30/2022 PID 218527115010

SW 1/4 NE 1/4 SEC.27

GLENWOOD SPRINGS, CITY OF 101 W 8TH STREET GLENWOOD SPRINGS CO 81601 PID 218527100050

755 AIRPORT LLC PO BOX 1252 CARBONDALE CO 81623 PID 218527400056

CR 163

REEVES, JOHN A. R-250752 8/19/1971 PID 218527100009

E. Line of the W 1/2 SE 1/4 SEC.27 N02° 36'28"E 2687.35'

E. Line of the SW 1/4 NE 1/4 SEC.27 N00° 21'47"E 1351.98'

E. Line of the NW 1/4 NE 1/4 SEC.27 N00° 21'52"E 1353.12'

GLENWOOD SPRINGS, CITY OF 101 W 8TH STREET GLENWOOD SPRINGS CO 81601 PID 218527100050

AIRPORT CENTER RD.

UNITED STATES OF AMERICA R-242420 12/09/1968 PID 218527100007

NE 1/4 NE 1/4 SEC.27

E 1/2 SE 1/4 SEC.27

AIRPORT MINI STORAGE, LLC 6874 HIGHWAY 82 GLENWOOD SPRINGS CO 81601 R-886854 12/22/2016 PID 218527100008

SE 1/4 NE 1/4 SEC.27

N. Line of the SE 1/4 NE 1/4 SEC.27 S87°54'19"E 1285.27'

MOUNTAIN VIEW CHURCH OF GLENWOOD PID 218527100026

100YR

RW-2A

RW-3

JACKSON FAMILY RANCH, LLC R-498631 09/20/96 PARCEL 3 PID 218527400059

Holy Cross Energy R-501884 12/3/1996 PID 218527100060

EL-ROCKO MOBILE HOME PARK LLC R-610837 9/17/2002 PID 218527100030

BUFF VALLEY LLC, A COLORADO LIMITED LIABILTY COMPANY R-913161 10/18/18 PID 218527100029

TE-2A

TE-3 rev

PE-2C

SEE SHEET 8.01

4/1/2026 Molek.JA 11:02:33 pw:\\ProjectWiseAMER.jacobs.com:DEN003\Documents.WVXV9902 - South Bridge PD\DESIGN\South Bridge\15864\ROW\Drawings\15864ROW_Ownership804.dgn

CONSERVATION LAW, P.C.
Conserving Working Landscapes and the Environment

a.k.a. Jessica E. Jay, P.C.
52 Meadowlark Drive, Evergreen, Colorado 80439
Phone 303-674-3709
Email conservationlaw@msn.com
Website www.conservationlaw.org

MAILED ELCTRONICALLY

June 17, 2026

Brad Rodenberg, TRS Corp. on behalf of the City of Glenwood Springs
Ryan Gordon, City Engineer, City of Glenwood Springs
Richard J. Peterson-Cremer, Attorney at Law for City of Glenwood Springs

Re: Proposed Condemnation of Jackson Ranch and Perpetual Conservation Easement thereon by City of Glenwood Springs

Dear Mr. Rodenberg, Mr. Gordon, and Mr. Peterson-Cremer,

Thank you for your letter to the Aspen Valley Land Trust (Land Trust) dated February 27, 2026 regarding siting construction and maintenance of public improvements on the Jackson Ranch Conservation Easement (Conservation Easement) property. Your letter does not state, but appears to imply, that there is an impending condemnation of a portion of this conservation easement. I represent the Land Trust, and I want to make you aware that because the terms of the Conservation Easement prohibit a bridge or road on the Jackson Ranch, formal judicial and condemnation proceedings will be required for the partial termination by condemnation of this perpetual Conservation Easement.

As you know, the Land Trust holds a perpetual conservation easement on the subject property (the Property). The Conservation Easement was originally donated in 1995 by the landowners and expanded in several phases with the Land Trust in 2003 and 2010, the last phase of which protected eight acres on the north end of the Property, where Southbridge is now proposed.

The Conservation Easement was given by the landowners for the perpetual protection of its public benefit, and the landowners were rewarded with federal and state tax benefits that constitute a valuable public investment in protection of this Property. The Conservation Easement requires the Land Trust to enforce its terms and protect against any actions that threaten the permanent protection of the Property's conservation values.

These conservation values include significant open space, scenic, wildlife and plant habitat, and

other aesthetic and ecological values of benefit for the public Of particular importance are the Property's scenic qualities, which the Conservation Easement protects by requiring that the Property maintain an agrarian, pastoral landscape and viewshed visible from many vantage points in the valley including from State Highway 82 and the Rio Grande Trail.

The Property is also highly valued by the public for its important river and riparian habitat, wetlands, and natural seeps for neotropical migratory song birds, breeding birds, northern leopard frogs (a species of state concern and federal sensitivity) and Ute ladies' tresses (a federally threatened orchid). It provides habitat for two state threatened species, the bald eagle and the river otter, and the upland portion and irrigated pastures of the Property seasonal and high priority habitat for elk, black bear, and mule deer. By granting this Conservation Easement, the landowners and Land Trust committed to protect these conservation values and enforce the Easement for the benefit of the public in perpetuity.

The terms of the Conservation Easement expressly prohibit the construction or installation of any non-agricultural structure or improvement, the alteration of topography, extraction of soil, rock, stone or mineral substance of any kind, any excavation, grading, cut and fill or similar topographical changes, on or below the surface of the Property or non-agricultural motorized use, all of which are essential to the construction and maintenance of public improvements cited by the City's proposal and therefore inconsistent with and prohibited by the terms and purpose of the Conservation Easement. Given that the Conservation Easement prohibits the proposed land use , the only lawful path for the City to proceed would be through formal condemnation of the Conservation Easement, which AVLT must also oppose as contrary to purpose of the Easement and damaging to the public's interest, for which state and federal dollars have already been invested in the form of tax benefits.

The tax benefits received by the donor were based on the appraised value of the Conservation Easement, which at the time of the gift to the Land Trust was worth fifty-eight percent of the value of the Property overall. Pursuant to federal law under Section 170(h) of the Internal Revenue Code Sections 1.170A-14(c)(2) and (g)(2) of the Treasury Regulations, as well as the language of Section 4 of the Conservation Easement itself, if the Conservation Easement is condemned, the condemning authority must compensate the Easement holder for the value of Easement in proportion to the total value of the land, which would equal fifty-eight percent (58%) of the payment. Accordingly, any condemnation must be based on the full fair market value of the Property as if it were unencumbered by the Conservation Easement, with fifty-eight percent (58%) of the total award allocated to the Easement holder to account for the loss of the protected conservation values.

In 2010, the fair market value of the fee simple estate of the last eight-acre parcel before it was placed under conservation easement was $6,805,000; the same eight-acre parcel was valued at $5,525,000 after the Conservation Easement encumbrance, resulting in a value of the final eight-acre Conservation Easement of $1,280,000. If the City moves forward with condemnation of this Conservation Easement, it will need to pay the appreciated value of the unencumbered property up from $6,805,000 over the intervening sixteen years. Of the appreciated unencumbered value, fifty-eight percent (58%) of this amount will be paid to the Land Trust as the Conservation

Easement holder. Your appraisal notes the Property's value is $545,100, which is well below what it would have appreciated to over the last sixteen years. The Jackson's appraisal notes that the Property's value is higher, and we believe it is a much more realistic valuation.

Further, payment shall be made to the affected parties (the landowner and Land Trust) for loss of fee land and termination of the Conservation Easement through condemnation and judicial proceedings pursuant to Section 38-30.5-107 and 107.5 of Colorado's Revised Statutes (CRS). Section 107 requires that: *If condemnation by a public authority of a part of a property or of the entire property encumbered by a conservation easement in gross renders it impossible to fulfill any of the conservation purposes outlined in the conservation easement, the conservation easement may be terminated, released, extinguished, or abandoned through* ***condemnation proceedings***. If condemnation is to culminate in the termination of the Conservation Easement, under Section 107, such termination should be by **judicial proceedings**: *If … conditions on … a property encumbered by a conservation easement in gross change so that it becomes impossible to fulfill its conservation purposes …* ***a court with jurisdiction*** *may, …, terminate, … the conservation easement*. Last, Section 107.5 requires further that valuation for any taking of a conservation easement account for such value loss based on the underlying property's unencumbered value, which valuation also shall not interfere with additional damages for other associated harms to the protected conservation values: *just compensation must be determined based on the value of the property as if unencumbered by the conservation easement in gross and must be allocated between the fee owner and the holder of the conservation easement based upon the value of their respective interests in the property. This section does not affect or limit damages to which a holder of a conservation easement in gross is entitled under section 38-30.5-108(3)*.

The City's letter emphasizes that it intends to condemn 1.194 acres of the Property (plus 1.048 acres for temporary easements) for construction and maintenance of public improvements, and its engineering research highlights the fact that it needs construction and maintenance of public improvements in support of its other condemnation goals. While the City's engineering study may suggest that the proposed site is preferred, this does not reflect the public perception and harm to the City's or the Land Trust's reputation resulting from condemning and developing a property that was preserved for the public for its natural scenery, agricultural heritage, and important ecological features and habitat. Moreover, the public has already paid for this land's perpetual conservation in the form of valuable federal and state tax incentives awarded to the landowners.

Because the Property is fulfilling a prior public purpose paid for by the public through the Conservation Easement, the subsequent taking by the City of this land and termination of the perpetual Conservation Easement for a new public use could be found by a court to be a prohibited second taking of a prior public use for a new public purpose. This was the finding by the court in the Ohio case of Columbia Gas v. Bailey, 2023-Ohio-1245 (3d Dist. 2023), confirming that a conservation easement purchased with public funds is in fact a prior public use, and any proposed condemnation must overcome the prior public use doctrine. The City's intent to supplant the scenic and natural qualities of this land with construction and maintenance of public improvements also fails to consider the public perception and ramifications of overturning

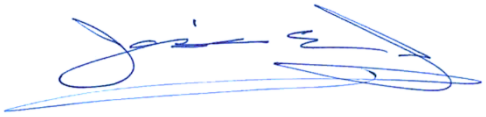
a publicly-subsidized land protection. The City, Land Trust, and public would all benefit by identifying an alternative site for the proposed public improvements that does not require extinguishment of a conservation easement held by a non-profit charity charged with protecting important land for the benefit of the public. The Land Trust presumes these issues will be addressed in the Garfield County's 1041 land use proceedings, and we are curious as to where the City is in this process.

Moreover, in addition to overcoming the prior public use doctrine and paying fair market value for the land taken to the Land Trust and landowner, the District Court order and ruling in Tri-State v. May Farms & Colorado Cattlemen's Agricultural Land Trust (CCALT), 2023CV30021 (Sept. 15, 2025) requires the condemning authority, here the City, to pay for additional damages to scenic, aesthetic, and environmental conservation values protected by the conservation easement pursuant to CRS Section 38-30.5-108. The Land Trust therefore shall be compensated for these damages for harms to the Conservation Easement's protected conservation values above and beyond the fair market value of the taking. The Land Trust can provide its estimation of this additional value to the City and the court in condemnation and judicial proceedings, should this condemnation action proceed.

For all of the foregoing reasons, the Land Trust urges you to consider alternative locations for these public improvements, as their construction and maintenance are inconsistent with the terms of the Conservation Easement, and therefore the Land Trust will be legally required not only to oppose such condemnation, but additionally to seek damages for ensuing harms to Conservation Easement's loss of conservation values. We would be happy to confer regarding the contents of this letter or other related matters going forward.

Very truly yours,

JESSICA E. JAY, P.C., dba
CONSERVATION LAW, P.C.



Jessica E. Jay, Esq.

From: Ellen Freedman <ellenfreedman7b@gmail.com>
Sent: Wednesday, June 17, 2026 12:50 PM
To: Ryan M. Muse <ryan.muse@cogs.us>
Subject: Comments for 6/18 Council Meeting

Dear Glenwood City Council Members,

Why aren't you enforcing the Glenwood Springs Planning & Zoning Commission revocation of the special use permit for the ICE detention facility at 100 Midland Avenue? The Supremacy Clause of the U.S. Constitution protects property owned by the government. 100 Midland is owned by a private landlord, JG Housing Solutions LLC, NOT the government.

In addition, the facility does not meet the International Building Code as adopted by the City, which demands rigorous safety protections for detention facilities because detained occupants are under restraint and cannot self-evacuate, choose their own means of egress, or unlock doors. Are you concerned about the health and safety of our neighbors detained in the facility, especially given that it is located in an area which has experienced major fires and during an already frightening wildfire season?

Have you served the landlord with a Cease and Desist for unauthorized use and life safety violations? Have you fined the landlord for non-compliance?

Please share your plans with the community, we are deeply concerned.

Thank you,
Ellen Freedman

From: Lisa DiMento <ladimento@gmail.com>
Sent: Wednesday, 17 June 2026 13:39:31
To: Ryan M. Muse <ryan.muse@cogs.us>; City Council <citycouncil@cogs.us>
Subject: Comment 6/18 COGS Meeting

You don't often get email from ladimento@gmail.com. Learn why this is important

To COGS June 18th Meeting,

As a 50 year resident of the Roaring Fork Valley and who has friends, family and a grandson living in GWS, I would like to express concern and want to know what steps are being done by the COGS to close the illegal ICE detention center. I am extremely concerned and would like the COGS to address the numerous concerns that your numerous constituents are proposing tonight, June 18th, regarding the unauthorized ICE detention center, Trump concentration camp, that is being run by a private landlord, JG Housing Solutions out of Florida.

Also, are you aware of plans to build a new ICE detention center? Does the GWS building department have recent plans for a new detention center in GWS? What will you do if there is one planned? The people of GWS have a right to know.

We do not want an ICE Detention facility,Trump Concentration Camp in Glenwood Springs, Carbondale, Basalt, Aspen, New Castle, Silt or Rifle or anywhere in Colorado.

I contacted all of you regarding this months ago and only two of you responded. I appreciate the ones who responded and hope the rest will listen to its constituents.

Thank you for listening to your constituents and proposing a solution to this debacle.

Best,
Lisa Amador DiMento
970 618 3649
ladimento@gmail.com

Dear Mayor and City Council:

My name is Molly Hamilton, and I am a Glenwood Springs resident and homeowner within the city limits.

I am writing to share my concerns regarding two issues related to the detention facility operating at the Midland Center.

First, the community expressed strong opposition to the facility's Special Use Permit during the Planning and Zoning Commission meeting on April 28th. After determining the conditions of the permit had been violated on multiple occasions, the Commissioners voted to revoke the facility's Permit. My understanding is neither the property owner nor tenant appealed that decision, making the revocation final. I respectfully ask the City Council to explain what steps the City intends to take to enforce its own land-use regulations and permit decisions. Residents should be able to trust when a permit is revoked through an established public process, that decision will be upheld and applied consistently. Will you enforce the City's own Municipal Codes against JG Housing Solutions LLC, a private landlord and owner of suite 210?

Second, I am concerned about reports of ongoing life-safety issues at the facility. Detention facilities have unique safety requirements due to the fact detainees cannot freely leave during an emergency. Given our community's history with wildfire and the facility's location in an area vulnerable to fire-related risks, I believe it is reasonable for residents to ask whether the building meets all applicable safety standards and what actions are being taken to ensure compliance. The Supremacy Clause does not prevent the local government from ensuring public safety requirements are being followed.

Regardless of where people stand on immigration policy, I hope we can agree local laws, public safety standards, and due process matter. Transparency matters. Accountability matters.

Therefore, I am asking the Council to provide clear answers about enforcement of the revoked permit, the status of safety compliance at the facility, and what actions the City plans to take moving forward.

Thank you for your time and continued dedication to the safety and wellbeing of our community.

Sincerely,

Molly Hamilton

City Council
STAFF REPORT
City of Glenwood Springs
June 18, 2026

Agenda Item: Social Event Announcement

Action Requested: Council will announce the location of their social event immediately following the meeting.

Department: City Clerk

Presented By:

Strategic Goals: Provide Efficient and Responsive City Government

Background Info:

Issues:

Fiscal Impact:

Legal Review:

Staff Recommendation: