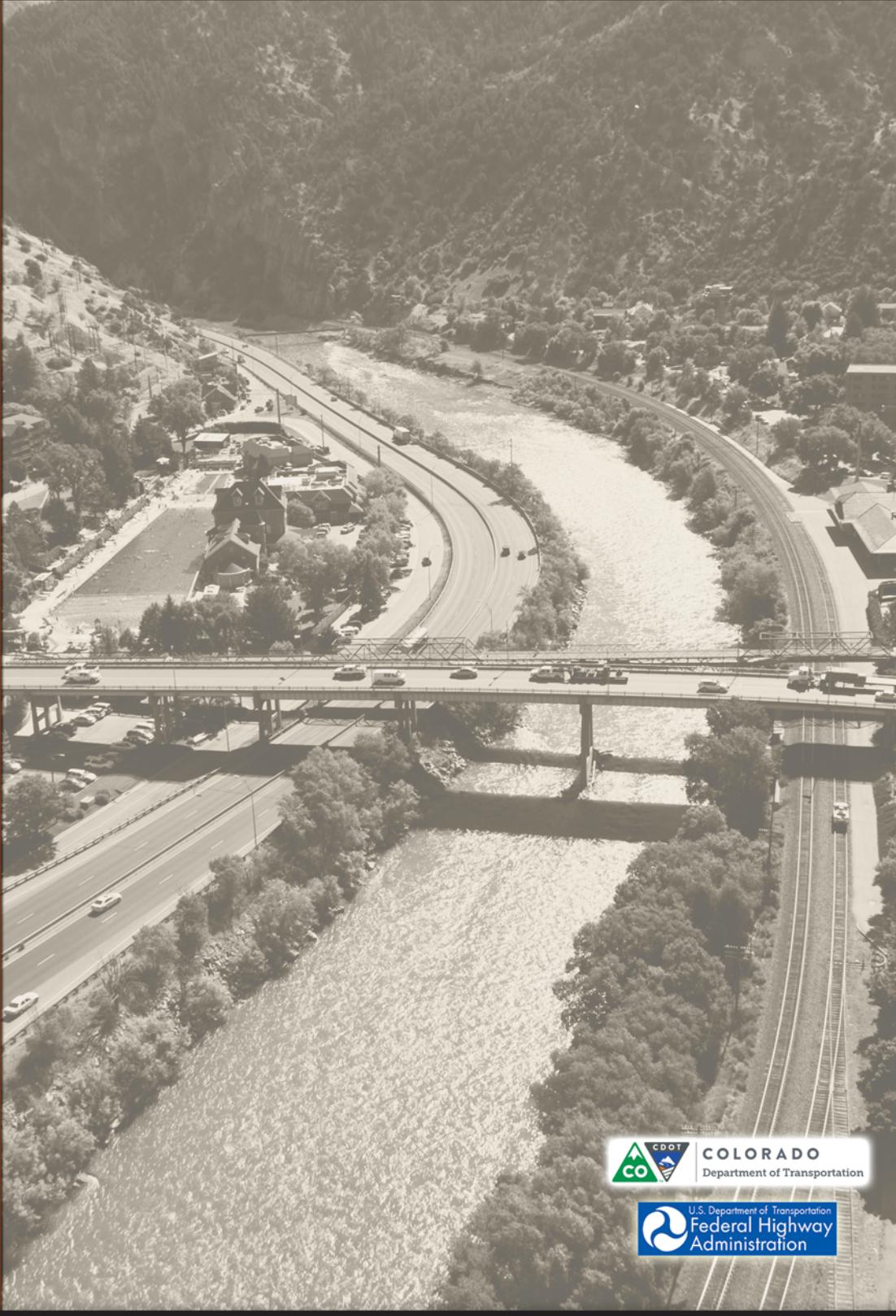
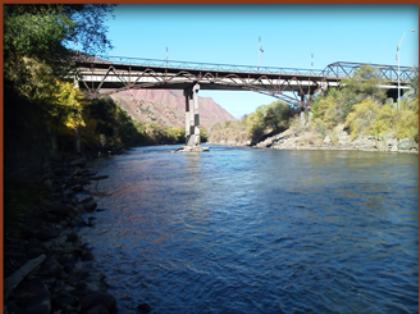




# SH82 GRAND AVENUE BRIDGE

## Modified Phase I Environmental Site Assessment Technical Report



 CDOT  
COLORADO  
Department of Transportation

 U.S. Department of Transportation  
Federal Highway Administration





# **Modified Phase I Environmental Site Assessment**

for the  
**SH 82 Grand Avenue Bridge Environmental Assessment**

Prepared by:  
**Pinyon Environmental, Inc.**

Prepared for:  
**Colorado Department of Transportation**  
**Federal Highway Administration**  
**Jacobs Engineering, Inc.**

**October 2014**



## Table of Contents

|            |  |           |
|------------|--|-----------|
| <b>1.0</b> | <b>INTRODUCTION AND SCOPE OF WORK .....</b>                          | <b>1</b>  |
| 1.1        | Site Location (see also Section 2.0) .....                           | 1         |
| 1.1.1      | Purpose and Scope of Services .....                                  | 1         |
| <b>2.0</b> | <b>Project and Site Information.....</b>                             | <b>4</b>  |
| 2.1        | Project Overview.....  | 4         |
| 2.2        | General Site Information and Current Conditions.....                 | 7         |
| <b>3.0</b> | <b>Site Description.....</b>   | <b>11</b> |
| 3.1        | Physical Setting .....   | 11        |
| 3.2        | General Site Environmental Conditions .....                          | 12        |
| 3.2.1      | Polychlorinated Biphenyls .....                                      | 12        |
| 3.2.2      | Heating/Cooling Systems.....   | 12        |
| 3.2.3      | Solid Waste Disposal .....   | 12        |
| 3.2.4      | Storage Drums .....  | 12        |
| 3.2.5      | Drains and Sumps .....   | 12        |
| 3.2.6      | Groundwater Wells .....  | 12        |
| 3.2.7      | Fill Material .....  | 12        |
| 3.2.8      | Hazardous Substances or Petroleum Product Use .....                  | 13        |
| 3.3        | Other Environmental Conditions.....                                  | 15        |
| 3.3.1      | Asbestos Containing Building Materials (ACBM) .....                  | 15        |
| 3.3.2      | Heavy-Metal Based Paint .....  | 15        |
| 3.4        | Site History .....   | 16        |
| <b>4.0</b> | <b>Adjacent and Nearby Properties .....</b>                          | <b>17</b> |
| 4.1        | General Off-Site Description .....                                   | 17        |
| 4.2        | Sensitive Environmental Off-Site Uses (Current and Historical) ..... | 18        |
| <b>5.0</b> | <b>Conclusions .....</b>   | <b>20</b> |
| 5.1        | Findings .....   | 20        |
| 5.2        | Opinion .....  | 21        |
| 5.3        | Additional Investigations .....                                      | 21        |
| 5.4        | Data Gaps .....  | 22        |
| 5.5        | Conclusions .....  | 23        |
| 5.6        | Conclusions and Recommendations Regarding Additional Services .....  | 23        |
| <b>6.0</b> | <b>References .....</b>  | <b>24</b> |
| <b>7.0</b> | <b>Limitations .....</b>   | <b>26</b> |
| 7.1        | Deletions and Deviations from Standard.....                          | 26        |

## Appendices

- Appendix A      Resumes
- Appendix B      Photographic Log
- Appendix C      Glossary of Terms
- Appendix D      Agency Database Report

## List of Tables

- Table 1 Summary of Persons and Agencies Contacted
- Table 2 Summary of General Site Observations
- Table 3 Summary of Database Search
- Table 4 Details of Identified Agency Listings

## List of Figures

- Figure 1      Site Location
- Figure 2      Site Plan
- Figure 3      Land Use Classification

## 1.0 INTRODUCTION AND SCOPE OF WORK

### 1.1 Site Location (see also Section 2.0)

Site: Includes the Grand Avenue Bridge and the intersections of I-70 and Grand Avenue, Grand Avenue and North River Drive, and Laurel Street and North River Drive; 6th Street between Laurel Street and Pine Street; Grand Avenue between 6th Street and 8th Street; and 8th Street between Pitkin Avenue and 7th Street (as described in Section 2.0 and illustrated in Figure 1).

Address: Grand Avenue and Interstate 70

City: Glenwood Springs

County: Garfield County

State: Colorado

#### 1.1.1 Purpose and Scope of Services

The purpose of this assessment is to perform an evaluation for the potential presence of hazardous or toxic materials (otherwise known as “Recognized Environmental Conditions”)<sup>1</sup> at the Site. This report is made pursuant to all appropriate inquiry into the prior ownership and uses of the Site, consistent with good commercial and customary practices.

This Modified Phase I Environmental Site Assessment (MESA) generally meets the requirements of the American Society for Testing and Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (E 1527-05)*, with the deviations noted in Section 7.1, and the Colorado Department of Transportation (CDOT) *Modified Environmental Site Assessment (M-ESA) Guidance*. The report was formatted for reading ease and does not follow the suggested ASTM format.

The scope of services for the project included the following:

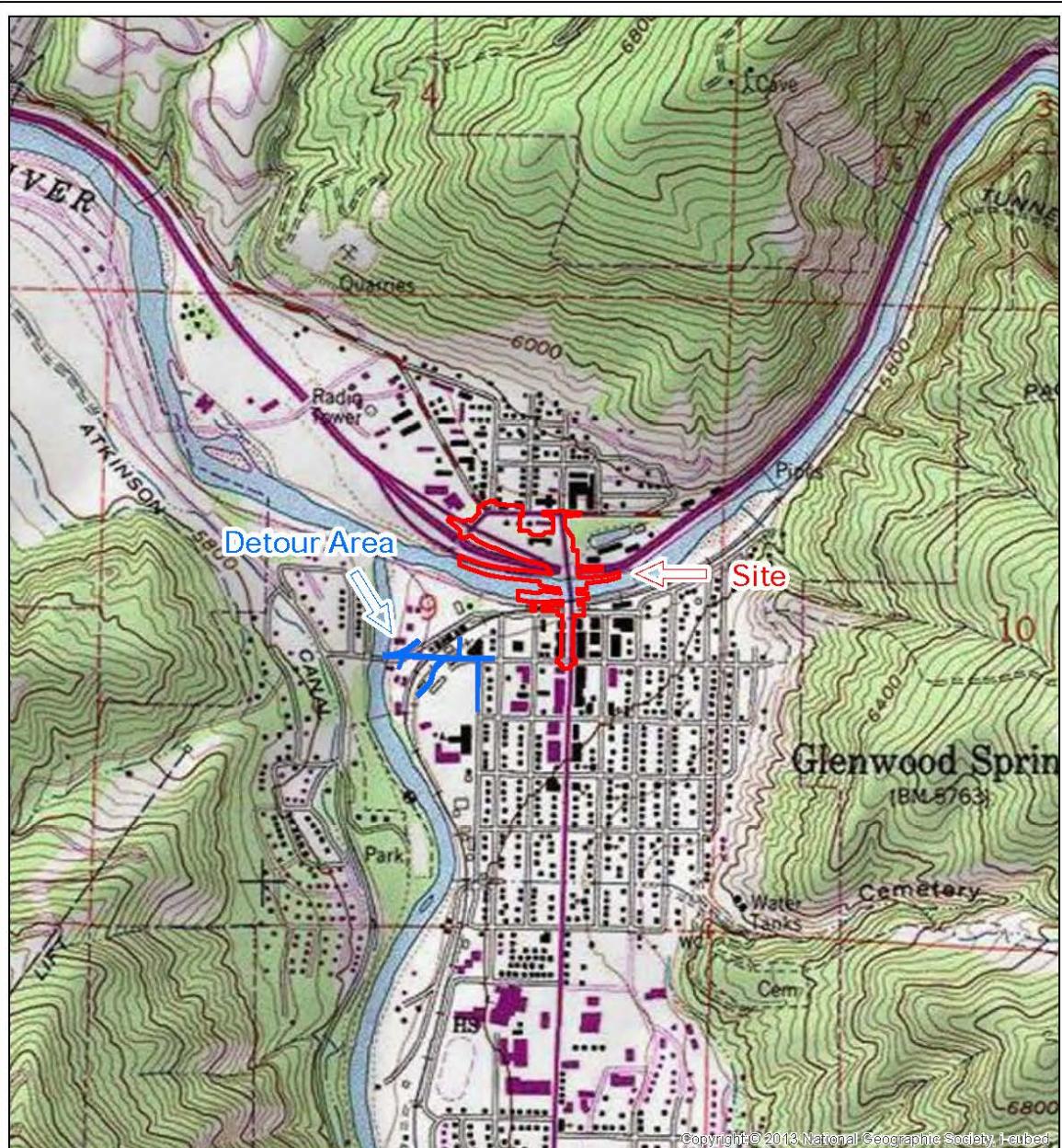
#### 1. Records Review.

- An evaluation of historical Site use, by reviewing the following sources:
  - Aerial photographs reasonably available from public sources;
  - Historical United States Geological Survey (USGS) topographic maps;
  - Fire Insurance Maps;
  - City Directories;
  - Assessor information; and
  - Zoning records.
- A review of the compliance history of the Site, and of any adjacent sites, as identified by the vendor-supplied regulatory database survey (EDR, 2013);

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<sup>1</sup> Recognized environmental conditions (RECs) are defined by ASTM as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate environmental agencies.

**Figure 1 – Site Location**



|  |  |
|--|--|
| <b>Legend</b><br><br>USGS 7.5' Topographic Map<br>Glenwood Springs, CO 1961 (revised 1987)<br> ← <b>Site</b> | <br><b>SITE LOCATION</b><br>SH82 Grand Avenue<br>Bridge Project<br>Glenwood Springs, Colorado |
| Site Location: Section 9, Township 6S, Range 89W, 6th Principal Meridian   | Drawn By: MJS  |
| Path: F:\Open Projects\Grand Avenue\ArcMap\MXD\Fig 1 Grand Avenue.mxd  | Figure 1   |
| Job No. 1/12-881-01.8001   | Reviewed By: RK  |
|  | Date: 11/13/2013   |

Source: Pinyon.

- A review of records reasonably available from appropriate federal, state, and local regulatory agencies for documented soil and/or groundwater contamination investigations conducted at the Site and the vicinity, as defined by the Colorado Department of Transportation (CDOT) MESA Guidance;
  - A review of available documents from local agencies (Table 1) to evaluate development of the Site and, where reasonably available or relevant to the Site, the adjacent properties; and
  - A review of information regarding the physical settings of the Site, including:
    - The current USGS 7.5-minute topographic map;
    - Geology and groundwater information published by the USGS and the Colorado Division of Water Resources (CDWR); and
    - Soil survey, published by the Natural Resources Conservation Service.
2. **Site Reconnaissance.** Reconnaissance surveys of the Site and surrounding areas were completed on April 24 and October 9, 2013, by Robyn Kullas with Pinyon Environmental, Inc. (Pinyon), to evaluate present conditions.
3. **Interviews.** Interviews were not conducted as part of this MESA.
4. **Additional Services.** Services beyond those required by ASTM or CDOT were not completed.
5. **Report.** Presentation of the aforementioned services in this report.

**Qualifications.** The modified environmental site assessment activities described herein were conducted in accordance with generally accepted standards, practices, and procedures (expressed or implied) in effect at the time of the project, relative to transportation projects in Colorado. Relevant information was also obtained from published sources (referenced in Section 6.0), and other public agencies.

The project was completed by an Environmental Professional, or conducted under the supervision or responsible in charge of an Environmental Professional. At a minimum, the Environmental Professional was involved in planning the Site reconnaissance and interviews, and reviewed and interpreted the information used in developing the conclusions. Pinyon declares that, to the best of our professional knowledge and belief, the Environmental Professionals involved met the definition as defined in §312.1 of 40 Code of Federal Regulations (CFR) 312. Other persons involved are qualified individuals, and have the training and experience necessary to complete their assigned tasks. These personnel have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property (Site). Resumes of the personnel involved in this project are included as Appendix A.

## 2.0 Project and Site Information

### 2.1 Project Overview

**Date of Task Order:** April 5, 2012

**Work Authorized By:** Sylvia T. Levandis, Regional Procurement Manager, Jacobs Engineering Group, Inc. (Jacobs)

#### **Purpose of Modified Phase I ESA:**

The purpose of the Modified Phase I ESA is to evaluate the potential for soil and/or groundwater contamination at the Site, due to a release of hazardous substances or petroleum products. This Modified Phase I ESA is being performed at the request of Jacobs to fulfill CDOT requirements for a National Environmental Policy Act (NEPA) Environmental Assessment (EA) of a proposed bridge replacement project. CDOT is providing funding for the project (CDOT Project # FBR 0821-094 [18158]). The Modified Phase I ESA is being prepared as a supporting document for the Hazardous Materials section of the EA.

#### **Project Background and Proposed Site Layout**

The Grand Avenue Bridge would serve as a vital link of State Highway (SH) 82 across the Colorado River, I-70, and the Union Pacific Railroad, connecting downtown Glenwood Springs with the historic Hot Springs, Hotel Colorado and I-70. The importance of the bridge to local and regional transportation underscores the following transportation needs:

1. Improve connectivity between downtown Glenwood Springs, and the Roaring Fork Valley, with the historic Hot Springs pool area and I-70.

The Grand Avenue Bridge connects the Hot Springs pool and Hotel Colorado area to the core commercial corridor located south of the bridge along Grand Avenue. However, the bridge's condition impairs this connectivity for a variety of transportation users. For example, very substandard lanes widths (9 feet 4 inches) and the absence of shoulders across the bridge pose an issue for Roaring Fork Transportation Authority's (RFTA) existing bus service, emergency service vehicles, and other large vehicles, forcing these vehicles to use both lanes. In addition, the absence of shoulders on the bridge makes for unsafe bicycling. The lack of nearby alternate routes compounds these problems. Future traffic increases will worsen the bridge's ability to provide connectivity.

2. Address the functional and structural deficiencies of the bridge to improve public safety, including emergency service response, and reliability as a critical transportation route.

Based on a bridge inspection and report prepared in 2013 (CDOT, 2013), CDOT classified the bridge as "functionally obsolete" because:

- The bridge width is too narrow to accommodate four standard lane widths.
- Vertical clearances are substandard at 7th Street and the UPRR tracks.
- Horizontal clearances are substandard because of the location of bridge piers related to I-70 travel lanes.
- The bridge is "scour critical," which means the bridge foundations have been determined to be unstable under certain scour (erosion) conditions. Specifically, erosion has been observed to have occurred below the concrete footing

that supports the piers in the river. Hydraulic analysis has determined the bridge to be unstable at flow rates below a 500-year flood event.

The Preferred Alternative identified in the EA would consist of several elements, described below:

- **Alignment**

The existing four-lane SH 82/Grand Avenue highway bridge would be replaced with a new four-lane bridge on a modified alignment. The new bridge would start just north of the intersection of 8th Street and Grand Avenue, and continue on the existing SH 82/Grand Avenue alignment to 7th Street. At 7th Street, the alignment would begin a curve to the west as it crosses the Union Pacific Railroad (UPRR) and the Colorado River. It would touch down on the north side of the river on the west side of the Glenwood Hot Springs parking lot and southeast of the existing 6th and Laurel intersection. From the touchdown point, the alignment would curve southwest to the existing Exit 116 and access to I-70, and would connect to a new 6th and Laurel intersection just northeast of Exit 116 for local access.

- **Cross-sections**

The new bridge would include four travel lanes with a striped median. Lanes would be widened to 11 to 12 feet to improve safety and mobility, and the southbound left turn lane to 8th Street would be lengthened. The majority of the bridge would be 12 feet wide, tapering to 11 feet wide between 7th and 8th Streets into downtown. No sidewalk would be included.

- **Intersections**

**6th and Laurel Intersection.** A new five-leg roundabout at the 6th and Laurel intersection would help distribute traffic between I-70/ SH 82 and hotels west along W. 6th Street, the Hotel Colorado and Glenwood Hot Springs along 6th Street, and local businesses and residences along Laurel Street. The fifth leg would be one-way southbound lane to the Exit 116 interchange using the existing SH 82 alignment.

**8th and Grand Avenue Intersection.** A traffic signal would provide for all movements at the 8th and Grand Avenue intersection.

- **Pedestrian/Bicycle Facilities**

**New Pedestrian Bridge.** The Build Alternative would replace the existing pedestrian bridge immediately east of the highway bridge. The following facilities would be built in conjunction with this bridge and other elements of the Build Alternative described above.

- *Connection to 7th Street.* A wider staircase with a bicycle track would take pedestrians to and from the south end of the new pedestrian bridge to 7th Street and downtown Glenwood Springs. In addition, to meet ADA requirements, the Build Alternative would include two elevators.
- *Expanded Pedestrian Plaza Under Bridge near 7th Street.* The bridge design would allow for an expanded open area under the new Grand Avenue Bridge south of 7th Street.
- *Connection to 6th Street.* The north end of the new pedestrian bridge would land at approximately where the existing SH 82 bridge lands; a sidewalk connection would continue north to the intersection of 6th Street and Pine Street; and the existing stairway would provide a direct connection to the Glenwood Hot Springs.

**6th and Laurel Intersection.** New sidewalks and crossings would be installed.

**Pedestrian/bicycle path connecting the existing Two Rivers Park Trail and 6th Street.** This new grade-separated path would start at the existing Two Rivers Park Trail just north of the I-70 underpass at Exit 116, cross the improved westbound I-70 off ramp, and continue north using an underpass/tunnel of the new SH 82/Grand Avenue Bridge alignment just west of the new bridge.

A new maintenance access and trail connection would link the new trail north of the I-70 off-ramp to the on-road bicycle route on North River Street. This trail would be open to the public.

- **Additional Roadway Improvements**

The Build Alternative would make improvements to existing facilities that would stay in place for the long term.

**North River Street.** The west end of North River Street would be raised to match the new SH 82 elevation and realigned slightly to avoid the new piers. The intersection with SH 82/Grand Avenue would be moved to the east and become a right-in/right-out intersection.

A small roundabout would be built on North River Street at the entrance to the Glenwood Hot Springs parking lot. This roundabout would enable motorists heading west on North River Street to make a U-turn to access 6th Street, which would be required to access I-70. This would be particularly beneficial for larger vehicles, such as recreational vehicles. It would also provide good traffic control at the Glenwood Hot Springs parking lot entrance. Drivers continuing west past this roundabout would turn right at SH 82 and go south over the Grand Avenue Bridge.

**Exit 116 On and Off Ramps.** Improvements to the I-70 on and off ramps at Exit 116 would be made after the existing Grand Avenue Bridge piers adjacent to them are removed.

- **Temporary SH 82 Construction Detour Route**

8th Street in downtown Glenwood Springs currently terminates just west of School Street. The 8th Street connection would connect the 8th Street Bridge over the Roaring Fork River along a new alignment through the freight rail easement controlled by the UPRR. The connection would be built to potentially accommodate the City's planned 8th Street Extension project identified in the Glenwood Springs Comprehensive Plan (City of Glenwood Springs, 2011). This would mean lowering 8th Street between its intersection at Pitkin Avenue and the 8th Street Bridge, a distance of approximately 900 feet. The connection would intersect with Defiance Avenue, 7th Street, and the Vogelaar Park access road. School Street would be closed at 8th Street during the detour. Access to properties along School Street would be from 9th Street.

The 8th Street connection would require construction of the following elements:

- Temporary removal of portions of four existing railroad tracks.
- Two 12-foot lanes on 8th Street with curb and gutter on both sides.
- Drainage and water quality infrastructure.
- Grade modifications and retaining walls, as needed, on 7th Street, Defiance Avenue, and the park access road.
- Modifications at 7th Street/8th Street to maintain bicycle access from the Rio Grande Trail along the river to downtown and sidewalk on 7th Street.

- Increased turn radius at the northeast corner of the 8th Street and Midland Avenue intersection to accommodate larger vehicles. This change would be permanent.
- If the City is successful in gaining the necessary approvals and funding for its planned 8th Street Extension project, improvements made for the detour may remain in place and become part of the ultimate design by the City.

The City would construct a new bridge structure at the railroad crossing to restore the railroad connection. If the City is unable to proceed with the permanent 8th Street Extension project by the time the detour is no longer needed, CDOT will restore the area and replace the railroad tracks.

## 2.2 General Site Information and Current Conditions

### ***Site Location (Figure 1):***

Address: SH82/Grand Avenue and Interstate 70

City: Glenwood Springs

State: Colorado

County: Garfield

Intersections: I-70 and Grand Avenue; Grand Avenue and North River Drive; North River Drive and Laurel Street; West 6th Street between Laurel Street and Maple Street; and Grand Avenue between 7th Street and 8th Street. The intersections of 8th Street and 7th Street as well as 8th Street between and an unnamed road adjacent to Vogelaar Park and Pitkin Avenue will be temporarily impacted during construction. Furthermore, the roadways of Defiance Avenue to the north of the intersection with 8th Street and the unnamed road adjacent to Vogelaar Park and School Street to the south of the intersection with 8th Street will be temporarily impacted during construction.

### ***Site Information:***

The Site is comprised of publicly-owned ROW and easement areas with no associated parcel numbers, as well as private property. The table below provides information regarding the private properties located within the Site boundary which would be impacted. Information on the property owner, and type of impact (full or partial permanent take, permanent easement or temporary) is indicated in the table.

| Owner Name                                | Parcel Size | Full or Partial Right-of-Way Acquisition (acre) | Permanent Easement (acre) | Temporary Easement (acre) |
|---|-------------|---|---------------------------|---------------------------|
| Family Restaurants, Inc. (Village Inn)    | 0.84        | 0.04  | N/A                       | 0.14                      |
| SGM Springs Properties LLC (Village Inn)  | 0.84        | 0.002   | N/A                       | 0.005                     |
| Swallow Family LLLP (Subway Restaurant)   | 0.38        | 0.02  | N/A                       | 0.05                      |
| Harvest Moon Monarch, LLC (Shell Station) | 0.60        | 0.60  | N/A                       | N/A                       |
| Edificio, LLC                             | 0.17        | 0.02  | N/A                       | 0.01                      |
| Fattor Family Limited Partnership         | 0.28        | N/A   | N/A                       | 0.01                      |
| Glenwood Hot Springs Lodge & Pool Inc.    | 8.33        | 0.76  | 1.40                      | 1.32                      |
| Union Pacific Railroad                    | 13.18       | N/A   | 0.09                      | 0.17                      |

| Owner Name                            | Parcel Size  | Full or Partial Right-of-Way Acquisition (acre) | Permanent Easement (acre) | Temporary Easement (acre) |
|---------------------------------------|--------------|---|---------------------------|---------------------------|
| Union Pacific Railroad                | 1.97         | N/A   | 0.05                      | 1.26                      |
| Union Pacific Railroad                | TBD          | N/A   | 0.01                      | 0.17                      |
| Union Pacific Railroad                | TBD          | N/A   | 0.05                      | 0.07                      |
| City of Glenwood Springs              | 2.80         | N/A   | 0.07                      | 0.51                      |
| 406 West 7th LLC                      | 1.45         | N/A   | 0.13                      | 0.11                      |
| Roaring Fork Transportation Authority | 8.35         | N/A   | 0.07                      | 0.19                      |
| <b>TOTAL</b>                          | <b>39.19</b> | <b>1.44</b>                                     | <b>1.87</b>               | <b>4.02</b>               |

NOTE: Acreages are estimates based on preliminary design and subject to change as design progresses.

N/A = Not applicable.

<sup>a</sup> Ownership of the existing railroad area spanned by the highway bridge is currently in dispute between UPRR and Glenwood Hot Springs Lodge and Pool, Inc.

<sup>b</sup> Per previous resolution and coordination, the City will make its property available to CDOT for project improvements. Therefore, CDOT likely will not seek easements from the City but may formalize property use through other means.

<sup>c</sup> Impacts to these properties would occur during the SH 82 Detour from the full closure of Grand Avenue Bridge.

#### ***Site Reconnaissance Information:***

Dates of Site Visit: April 24, and October 9, 2013

Personnel: Robyn Kullas, Pinyon

Methodology: The Site was accessed and observed by driving or walking the entire extent of the project area. In areas where it was safe to park, the Site was physically walked and visually observed while photographs were taken. Notes regarding Site conditions were made on field aerial photographs and in a field notebook. The Site was observed entirely from public ROW. No privately-owned properties were entered during this assessment.

Inaccessible Areas: Five building structures, including a filling station, a retail facility, and four storage sheds located at the Site, were not accessible during the Site visit. The area adjacent to the railroad line ROW was not accessible during the follow-up Site visit.

Other Limiting: None.

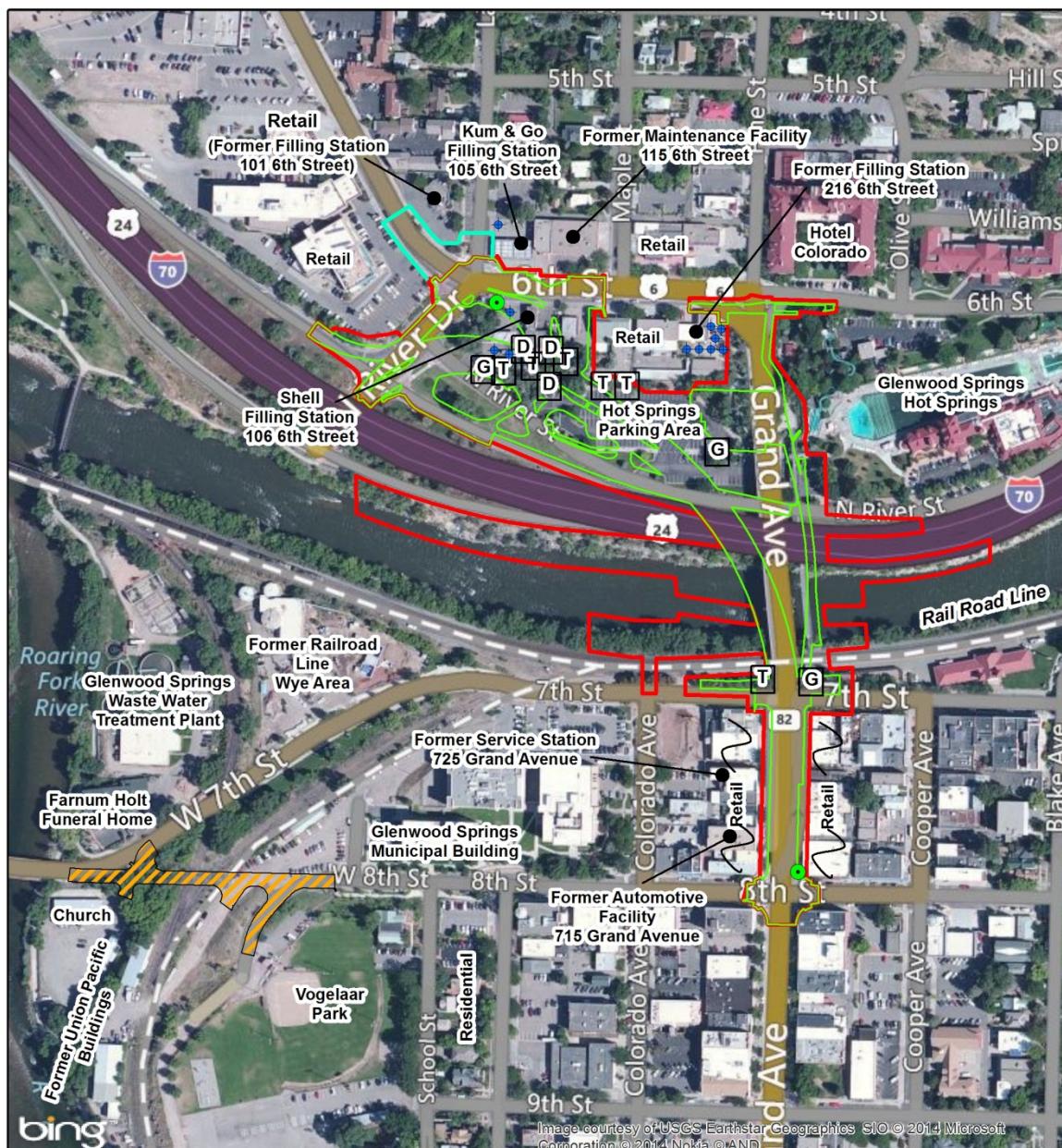
Conditions

#### ***Current Site Use and Conditions (Figure 2):***

***Buildings/Structures on Site:*** Five building structures and two filling station canopies are located at the Site:

- One 1,856-square-foot retail (filling station) structure (106 6th Street) constructed in 1958;
- One 1,000-square-foot canopy (106 6th Street) constructed in 1970;
- One 1,400-square-foot canopy (106 6th Street) constructed in 1990; and

Figure 2 – Current Site Use and Conditions



| Legend   |                             | 0 175 350 Feet           | Pinyon Environmental Inc. |
|--|-----------------------------|--------------------------|---------------------------|
|  | Permanent Construction Area | ● Drain                  |                           |
|  | Temporary Construction Area | ◆ Monitoring Well        |                           |
|  | Pad Mounted Transformer     |                          | POTENTIAL ALTERNATIVE 3A  |
|  | Dumpster                    |                          | Additional Impact Area    |
|  | Generator                   |                          | Detour Area               |
| Site Location: Section 9, Township 6S, Range 89W, 6th Principal Meridian |                             | Drawn By: TJD            | Figure 2                  |
| Path: G:\Open Projects\Grand Avenue\ArcMap\MXDs\Fig 2 Grand Avenue.mxd   |                             | Job No. 1/12-881-01.8001 | Reviewed By: RAK          |
|  |                             |                          | Date: 10/8/2014           |

Source: Pinyon.

- Four storage sheds containing a total of approximately 500 square feet (106 6th Street) constructed in 1985.

*Parking Area(s):*

- One 60,000-square-foot parking area (401 N. River Drive) constructed in 1985 (a portion of the parking area is located at the Site).

*Other Use(s):* Grand Avenue ROW, 6th Street ROW, 7th Street ROW, 8th Street ROW, Laurel Street ROW, N. River Drive ROW, unnamed road ROW adjacent to Vogelaar Park, Defiance Avenue ROW, School Street ROW, I-70 (off ramp) ROW, utility easements, commercial, and railroad line ROW.

**Site Description and Former Uses:**

**Exterior:** The Site is located along North River Drive, 6th Street, I-70 off ramp and Grand Avenue including the Grand Avenue Bridge ROW. North River Drive, 6th Street, 7th Street, 8th Street, Defiance Avenue, an unnamed road adjacent to Vogelaar Park, School Street, I-70 off ramp, and Grand Avenue are currently utilized as a roadway, which serves as local access to residential and commercial properties, emergency response, and bicycle and pedestrian mobility. The Site is commercially developed with one retail building structure, a filling station, two pump islands (canopies) and four storage sheds located at the northwest portion of the Site. The area of 8th Street between 7th Street and Pitkin Avenue is currently either vacant land or developed with roadway and railroad line ROW.

**Interior:** Building structures were not accessible during the Site reconnaissance.

**Current Uses (including unoccupied spaces):** Commercial, including a filling station/maintenance facility and retail facility, a parking area for Glenwood Hot Springs as well as vacant ROW for North River Drive, 6th Street, 7th Street, 8th Street, Laurel Street, Grand Avenue, Defiance Avenue, an unnamed road adjacent to Vogelaar Park, School Street, I-70 (off ramp), and the existing railroad line.

**Past Uses if Visible:** None

Photographs of the Site are provided in Appendix B. General Site observations required by the ASTM standard practice are summarized on Table 2. A glossary of terms is included as Appendix C.

## 3.0 Site Description

### 3.1 Physical Setting

**Topography:** The topography of the Site is relatively flat with a steep, short grade near the Colorado River bank. The northern portion of the Site grades slightly to the southwest with the southern portion of the Site grading to the northwest towards the Colorado River, located adjacent to the Site (Figure 1).

**Elevation:** The elevation of the Site ranges from approximately 5,735 feet above mean sea level (msl) to 5,785 feet above msl (USGS, 1987).

**Surficial Soil:**

Surficial soils within the project area consist of sand and gravel fill material, poorly sorted and unconsolidated at three to four feet below ground surface (bgs); clay mixed with sand and gravel, poorly sorted and unconsolidated from three to eight feet bgs; and poorly sorted sand, gravel, and boulder deposit which grades coarser with depth from six to eight feet (RMX, 1991).

**Surficial Geology:**

The surficial geology at the Site is classified as Holocene-aged younger debris-flow deposits, which are typically comprised of poorly sorted moderately well-sorted matrix- and clast-supported pebble, boulder, and cobble gravel in a sandy silt or silty sand matrix (Kirkham, R.M. et al, 2008).

**Regional Geology:**

Bedrock in the area of the Site is the Leadville Limestone, which is gray to bluish-gray, coarse to finely crystalline limestone and dolomite at the northern portion of the Site (Kirkham, R.M. et al, 2008). The Eagle Valley Evaporite which is an evaporitic sequence of gypsum, halite, and anhydrite interbedded with mudstone, fine-grained sandstone, thin carbonate beds, and black shale, is located at the southern portion of the Site.

**Nearest Surface Water Body:**

The Colorado River bisects the Site and flows in a west-northwesterly direction. Additionally, the Roaring Fork River is present to the west of Site and flows in a northerly direction.

**Groundwater Conditions:**

Typically, groundwater flow direction mimics topography. Based on the topographic conditions of the Site (Figure 1), the groundwater flow direction is likely towards the west-northwest at the southern portion of the Site. Based on previous reports (Section 3.2.6), the depth to groundwater at the northern portion of the Site is expected to be approximately 20 feet below ground surface with the groundwater flow direction to the southwest (DEC, 1995).

### **3.2 General Site Environmental Conditions**

#### **3.2.1 Polychlorinated Biphenyls**

##### *Transformers*

Approximately six pad-mounted electric transformers were identified on or in the immediate vicinity of the Site (Figure 2). All appeared to be in good condition, and are apparently owned by Glenwood Light and Power Company. Five of the six transformers were labeled as containing no polychlorinated biphenyls (PCB). No visible evidence of a release was noted near the transformers.

#### **3.2.2 Heating/Cooling Systems**

Two commercial building structures that would require heating and cooling systems were located at the northwest portion of the Site. However, the structures were not accessible during the Site reconnaissance.

#### **3.2.3 Solid Waste Disposal**

No visual evidence of waste generation or disposal was noted at the Site, except for three dumpsters located at the northwest portion of the Site. Two of the dumpsters were located adjacent to the south of Shell filling station (106 6th Street) and one dumpster located at the western portion of the Hot Springs parking area.

#### **3.2.4 Storage Drums**

No visual evidence of waste generation or disposal was noted at the Site, except for two unlabeled empty 55-gallon drums located at the northwest portion of the Site adjacent to the south of the Shell filling station. The drums appeared to be in good condition. No spills or staining was observed.

#### **3.2.5 Drains and Sumps**

No evidence of drains or sumps was noted at the Site except for stormwater drains located at the intersection of 6th Street and Laurel Street the intersection of 7th Street and Grand Avenue and along 8th Street. The commercial structures located at the Site that were not accessible during the Site reconnaissance likely contain drains for domestic wastewater.

#### **3.2.6 Groundwater Wells**

Three monitoring wells were observed at the Site adjacent to the south of the Shell filling station (106 6th Street). Seven monitoring wells were also observed adjacent to the Site, at 216 6th Street, southwest of 6th Street and Grand Avenue. A portion of the Site is located at this facility address.

#### **3.2.7 Fill Material**

The Site is located along I-70 and Grand Avenue. It is likely that areas of the Site have been altered by filling, grading, and improvement activities associated with the roadway (e.g., culvert, utilities). In addition, commercial development and existing railroad line is currently located at and adjacent to the Site. These uses have likely required some degree of grading and/or Site filling; however, there was no indication of improper filling during the Site visits.

### 3.2.8 Hazardous Substances or Petroleum Product Use

There was no visual evidence of hazardous material use or storage, or hazardous waste generation on the Site except for the following:

- *Shell Filling Station, 106 6th Street*, (EDR database number A2 and A7). A filling station (Shell [formerly Chevron and Amoco]) and auto repair facility are located at 106 6th Street, at the northwest portion of the Site. The facility currently operates as a filling station and has been present since at least 1966 according to historical records (city directories) and agency files reviewed. A review of available records indicates this facility currently operates three 10,000-gallon gasoline underground storage tanks (UST) and one 1,000-gallon waste oil UST. The USTs were installed in May 1994 and constructed of fiberglass reinforced plastic.

According to agency files reviewed, three 10,000-gallon gasoline USTs and two waste oil USTs were previously located at the Site from 1982 to April 1994. Eleven groundwater monitoring wells were installed at the Site between March 1989 and July 1990. In July 1990, groundwater sampling identified benzene, ethylbenzene, toluene and xylene (BTEX), and Total Petroleum Hydrocarbons (TPH) above regulatory action levels in eight of the monitoring wells and liquid hydrocarbons in two of the monitoring wells (WGR, 1990). The contaminants were identified in monitoring wells located upgradient of the USTs indicating a potential off-Site source. A Corrective Action Plan was generated for the contamination identified at the Site, which included the implementation of a vapor extraction system (VES) and well sparging. Groundwater monitoring occurred at the Site on a quarterly basis from 1991 to 1995. During the removal of the USTs in April 1994, soil samples were collected that indicated BTEX and TPH concentrations below regulatory action levels (RUST, 1994). However, elevated levels of oil and grease were identified above regulatory action levels. Records reviewed did not indicate contaminated soil was removed from the UST excavation area. Additional soil samples were collected from the area of the former tank pit in February 1996, and petroleum hydrocarbons were detected at levels below regulatory action levels (DEC, 1996). The most recent groundwater monitoring (1995) detected elevated levels of benzene (0.0095 milligrams per liter [mg/l]), above regulatory action levels, on Site at a monitoring well upgradient of the USTs in-use and downgradient of the former UST basin (DEC, 1995). No additional information regarding groundwater monitoring or remediation activities was available for review. According to a letter dated February 28, 1996, Department of Labor and Employment, Oil and Public Safety (OPS) issued no further action for the Site.

- *Former Red Mountain Texaco Filling Station and Automotive Maintenance Facility, 216 and 210 6th Street*, (EDR database number A6, A11 and A12). A filling station and automotive maintenance facility (formerly Red Mountain Texaco and Swallow Oil) was located at 216 6th Street, at the northeast portion of the Site. The Site includes the northeast portion of this facility. According to agency files reviewed, two 6,000-gallon and one 10,000-gasoline UST were installed at the facility in December 1990 and removed in April 2006. Historical records reviewed (city directories and fire insurance maps) indicate the facility had been present since at least 1956, and it is likely that earlier tanks had been used. According to analysis of soil samples collected during the UST removal in April 2006, TPH was present above regulatory action levels (ETT, 2012). Twelve monitoring wells (MW-1 through MW-12) and two vapor monitoring wells were installed at the facility in 2006/2007. Groundwater samples were analyzed for BTEX, methyl tert-butyl ether (MTBE), and TPH. Benzene and ethyl-benzene were identified in six of the wells above regulatory action levels, and free

product was identified in one well. Sampling results from the vapor monitoring wells indicated no vapor risk.

Groundwater monitoring has been conducted at the facility from 2006 to the present. Remediation has occurred at the facility including groundwater monitoring, three, two-day enhanced fluid recovery (EFR) events in 2009, and additional vapor monitoring. Contaminant levels have significantly reduced since groundwater sampling events have occurred. The most recent groundwater monitoring event (April 2012) identified benzene exceeding the OPS Risk Based Screening Levels (RBSL) in one well (MW-3) at 0.23 mg/l, which is consistent with the last 11 groundwater monitoring events. Ethyl benzene exceeded RBSL in four of the monitoring wells. Free product has not been detected since October 2010. Vapor monitoring has been recommended by OPS through the 2nd quarter of 2013 (OPS, 2012). Groundwater monitoring has also been recommended by OPS through the 4th quarter 2013. OPS has recommended identifying a site-specific target level (SSTL) for benzene which may allow for event closure once concentrations of benzene remain below the SSTL for four consecutive quarters.

- *Former Service Station, 6th Street and Pine Street* (EDR database number A12) - According to agency records reviewed, a service station was located at 6th Street and Pine Street (specific facility address not provided). The intersection of 6th Street and Pine Street is located adjacent to the northeast of the Site; therefore, the filling station may have been located at the Site. Two 4,000-gallon gasoline USTs of steel construction were installed at the facility in May 1966; one 2,000-gallon diesel UST of steel construction was installed in May 1976; and one 10,000-gallon gasoline UST of steel construction was installed in May 1981. The EDR report identifies the USTs at 216 6th Street; however, a specific street address was not identified in the files reviewed for this facility. Three of the four USTs were in use as of May 1986. No additional information regarding the USTs has been provided within the files reviewed.
- *Railroad Line, North of 7th Street and between 7th Street and Defiance Avenue* – A railroad line (currently Union Pacific) has extended east to west through the central portion of the Site, immediately north of 7th Street, and the area of the proposed extended 8th Street between 7th Street and Defiance Avenue since at least 1886.

In 2006, a Phase I Environmental Site Assessment (ESA) was conducted for a portion of the area that will be temporarily impacted during construction (HDR, 2006). HDR reported that, in May 1996, soil staining was noted within ‘wye area’ of the railroad line and subsequent soil sampling indicated elevated levels of TPH that ranged between 11,000 to 19,000 milligrams per Kilogram (mg/Kg). According to the report, phenols were detected from less than 5 to 9.5 mg/Kg and were considered to be ‘negligible.’ BTEX were reported as below laboratory limits. According to the report, the “vertical extent of dark soil staining is approximately 12 inches below ground surface at the sampling locations.” The staining appeared to be attributed to prior usage of petroleum products such as waste oil and rail lubricants.

The former railroad line ‘wye area’ is not included within the temporary construction area. Additionally, no releases have been reported; however, railroad cargo can include hazardous materials and petroleum hydrocarbons. Unreported releases may be associated with the rail line. In addition, railroad ties located along the rail line typically contain creosote, a hazardous material.

### **3.3 Other Environmental Conditions**

#### **3.3.1 Asbestos Containing Building Materials (ACBM)**

##### **3.3.1.1 Buildings**

One commercial building structure, two pump island canopies, and four storage sheds are located at the Site, and would be demolished as part of this project. In addition, utility lines may be relocated. Asbestos sampling was not included as part of the scope of services for the Modified Phase I ESA. Regulations require that all structures demolished be surveyed by a certified asbestos building inspector, unless an architect certifies that the building was constructed with asbestos-free building materials.

##### **3.3.1.2 Bridges**

Two bridge structures are located at the Site and would be demolished as part of this project. According to a CDOT representative, the bridge structures have not been sampled for asbestos containing materials. Regulations require that all structures demolished be surveyed by a certified asbestos building inspector, unless an architect certifies that the building was constructed with asbestos-free building materials.

### **3.3.2 Heavy-Metal Based Paint**

##### **3.3.2.1 Buildings**

One commercial building structure and one filling station canopy located at the Site were constructed prior to 1979. A heavy-metal based paint survey was not included as part of the scope of services for the Modified Phase I ESA.

##### **3.3.2.2 Bridges**

Two bridge structures constructed prior to 1979 are located at the Site and would be demolished as part of this project. Lead sampling of the Grand Avenue Bridge was conducted in 1999, which confirmed the presence of lead-containing paint on all painted bridge components except the guard rails around the gas lines on either side of the bridge (Walsh Environmental Scientists and Engineers, Inc., April 1999).

The pedestrian bridge has not been sampled for lead-based paint. A paint survey to evaluate metal content for structures proposed for demolition is not required since the concentrations of metals are calculated based on the total volume of material disposed at a landfill. As the painted surfaces generally comprise a very small percentage of the gross volume of demolition material to be disposed (which would include the substrate to which the paint is adhered, framing, flooring, foundation, etc.), licensed disposal facilities generally do not require paint sampling prior to landfill disposal of demolition debris because the risk of metals leaching from paint in the landfill is small.

### 3.4 Site History

#### *Resources*

The following resources were used in developing the Site history:

- Aerial photographs from selected years between 1960 and 2011 (1960, 1989, and 1999 aerials were of poor quality);
- Historical USGS topographic maps, from selected years between 1930 and 1987;
- City directories, from selected years between 1966 to 2012;
- Fire Insurance Maps, from selected years between 1886 and 1956;
- Site reconnaissance conducted April 24, 2013;
- Agency file review; and
- Tax assessor information, provided by Garfield Assessor.

A complete list of references is included as Section 6.0.

#### *Summary of Site History*

| From          | To            | Site Use  |
|---------------|---------------|---|
| Prior to 1886 | At least 1912 | Grand Avenue (north to south) was developed at the southern portion of the Site. A railroad extended east to west through the central portion of the Site, adjacent to the south of the Colorado River (formerly Grand River) as well as to the east of the Roaring Fork River ( <i>fire insurance maps</i> ).  |
| Prior to 1919 | At least 1956 | Retail development occurred at the Site ( <i>fire insurance maps</i> ).   |
| 1956          | Present       | A filling station (former Red Mountain Texaco) was located at the northeast portion of the Site from at least 1956 to 2006. Remediation of petroleum hydrocarbons is still occurring at this facility. General retail development has occurred at the Site since 1956 to the present. The Hot Springs parking area at the northwest portion of Site was developed in the mid-1980s. I-70 off-ramps located at the northern portion of the Site were developed in the mid-1980s. Multiple filling stations and automotive maintenance facilities have been located adjacent to the north and west of the Site since at least 1956. The railroad line continues to extend east to west through the central portion of the Site ( <i>fire insurance maps, topographic maps, aerial photographs, city directories and agency files</i> ). |

The ASTM Standard requires that Site use be documented to 1940, or first use, whichever is earlier. Pinyon has been able to verify the use of the Site since 1886, however has not been able to establish first use. This is considered a data failure, as defined by the ASTM Standard. Additional information is presented in Section 5.4.

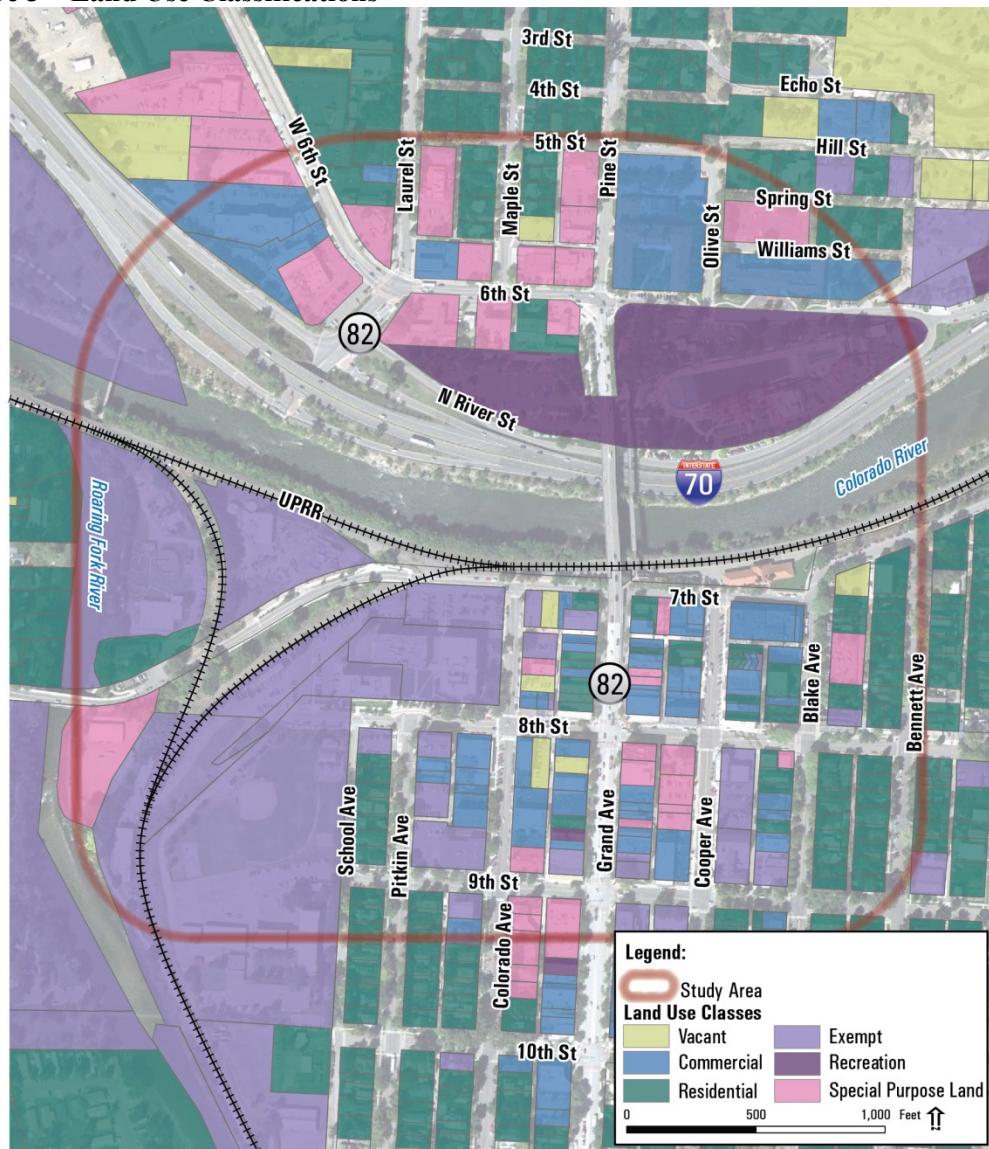
## 4.0 Adjacent and Nearby Properties

### 4.1 General Off-Site Description

#### *Zoning:*

Existing land uses in the study area are mostly commercial, mixed with some residential and public (Figure 3). In the north part of the study area, 6th Street is mostly commercial, with some light residential use; 5th Street is a residential area. Also to the north, the Glenwood Springs Hot Springs and the Hotel Colorado are popular commercial tourist destinations. South of the Colorado River is a mix of commercial, residential, and special purpose properties (e.g., parking lots) that have gone through the City's special review process. The area that will be temporarily impacted during construction is considered to be exempt property.

**Figure 3 – Land Use Classifications**



Source: Garfield County Geographic Information System, 2013.

**Adjacent Site Use:**

| Direction from Site | Adjacent Site Use   |
|---------------------|---|
| North               | <p><b>Eastern portion of Site:</b> Commercial development (retail facilities, restaurants, and marijuana distributor); Kum &amp; Go filling station (105 6th Street); vacant automotive dealership with maintenance garage (115 6th Street); and Hotel Colorado (526 Pine Street)</p> <p><b>Temporary Detour Area:</b> Glenwood Springs Municipal Building (101 West 8th Street), Glenwood Springs Wastewater Treatment Plant, Farnum Holt Funeral Home (405 West 7th Street)</p> |
| East                | <p><b>Eastern portion of Site:</b> Glenwood Hot Springs (415 East 6th Street); Commercial (retail facilities and restaurants); Railroad line</p> <p><b>Temporary Detour Area:</b> Residential development and Garfield County Building (108 8th Street)</p>   |
| South               | <p><b>Eastern portion of Site:</b> Commercial development (retail facilities and restaurants)</p> <p><b>Temporary Detour Area:</b> Residential and Vogelaar Park</p>  |
| West                | <p><b>Eastern portion of Site:</b> Commercial development (retail facilities and restaurants); Rail road line</p> <p><b>Temporary Detour Area:</b> Former buildings associated with the Union Pacific railroad line and a church (406 7th Street)</p>   |

**General Regional Property Use:**

Surrounding areas are generally comprised of commercial development including retail facilities and restaurants.

#### 4.2 Sensitive Environmental Off-Site Uses (Current and Historical)

During the off-Site reconnaissance and review of the EDR database (see Tables 3 and 4, Appendix D), regulatory agency files and historical information, or a combination thereof, five establishments with the potential to impact the Site were identified. These properties are discussed in further detail below.

| From         | To      | Address/Distance   | Use (Site Number Below)   |
|--------------|---------|--|---|
| 1968         | Present | 105 6th Street - located adjacent to the north of the Site.                              | Kum & Go - filling station (A9)                                   |
| 1967         | 1986    | 101 6th Street - located adjacent to the north of Site.                                  | Swallow Oil- filling station (E30)                                |
| At east 1966 | 1991    | 115 and 205 6th Street (addresses adjacent) – located adjacent to the north of the Site. | Sunlight Motors - filling station and automotive maintenance (A4) |
| 1919         | 1943    | 725 Grand Avenue – located adjacent to the west of the Site.                             | Service Station (not listed in database)                          |
| 1919         | 1956    | 715 Grand Avenue – located adjacent to the west of the Site.                             | Automotive Facility (not listed in database)                      |

- *Kum & Go Filling Station, 105 6th Street*, (EDR database number A9). This facility (formerly Gilcomart) is located hydrogeologically upgradient, north of the proposed Build Alternative. The facility currently operates as a filling station and has been present since at least 1968. A

review of available records indicates two gasoline (one 10,000-gallon and one 8,000-gallon) and one 6,000-gallon diesel USTs of fiberglass construction are currently in-use at the facility. The USTs were reportedly installed in January 1991. In addition, four gasoline USTs (three 3,000-gallon and one 6,000-gallon) of steel construction were installed at the facility in May 1968 and removed from the Site in May 1991. Prior to removal of the USTs, benzene (142 parts per billion [ppb]) was identified in groundwater at the facility (E-21, 1993). Three soil samples were collected in June 1993 near the area of the former USTs. BTEX (64 ppm) and Total Recoverable Petroleum Hydrocarbons (TRPH) at 8,730 ppm were identified in soil. Remediation activities including groundwater monitoring and bioremediation occurred at the facility between 1994 and 1998. Most recent groundwater sampling (1998) indicated BTEX and Total Volatile Petroleum Hydrocarbons (TVPH) below regulatory action levels (E-21, 1998). The facility was issued no further action by Department of Labor and Employment, Oil Inspection Service (OIS), currently OPS, in June 1998.

- *Swallow Oil Filling Station, 101 6th Street*, (EDR database number E30). This facility is located hydrogeologically upgradient, adjacent to the north of the Site. According to agency files reviewed, three (two 6,000-gallon and one 8,000-gallon) gasoline steel constructed USTs and one 500-gallon used oil, steel-constructed UST were located at the facility. The 6,000-gallon USTs were reportedly installed in 1967 and the 8,000-gallon UST installed in 1975. The 500-gallon waste oil UST was reportedly installed in 1978. The USTs were no longer in use as of 1986; however, information regarding the closure/removal of the USTs was not provided in the files reviewed. Historical records indicate a filling station was located at this facility from at least 1956 to 1986. No releases have been reported at the facility. No additional information was provided in the records reviewed.
- *Sunlight Motors Automotive Maintenance Facility, 115 and 205 6th Street*, (EDR database number A4). This facility (formerly Lanning Jack Motors, GMC Sales and Service, Tenneco Service and Garage, Valley Tire, Volkswagen Service, and Sunlight Motors) is located hydrogeologically upgradient, adjacent to the north of the Site. The facility is currently vacant. According to agency files reviewed, three (two 3,000-gallon and one 6,000-gallon) gasoline steel constructed USTs were located at the facility. The USTs were reportedly removed in May 1991. A soil sample was collected in the UST basin area in 1993, and TRPH was detected above regulatory action levels (E-21, 1993). Groundwater sampling at the facility was referenced indicating BTEX and TPH below regulatory action levels; however, groundwater monitoring reports were not available for review. Excavation of contaminated soil was not documented. In addition, the installation date of the USTs was not available in the records reviewed. Historical records indicate a service station and automotive facility were located at this location from at least 1956 to at least 1986. Colorado Department of Health (currently CDPHE) issued notification to the facility on October 22, 1993, that additional information regarding the extent of contamination was requested. No additional information regarding contamination or remediation activities was available for review.
- *Former Service Station, 725 Grand Avenue* - According to historical records (fire insurance maps), a service station was located adjacent to the west (hydrogeologically crossgradient) of the Site from at least 1919 at least 1943. A 200-gallon UST was located at the facility. Agency records were not available for review for this facility.
- *Former Automotive Repair Facility, 715 Grand Avenue* - According to historical records reviewed, an automotive repair facility was located adjacent to the west (hydrogeologically crossgradient) of the Site from at least 1919 to at least 1956. Agency records were not available for review for this facility.

## 5.0 Conclusions

### 5.1 Findings

Based on the information obtained and reviewed, the following were identified:

- |  |     |
|--|-----|
| <u>Recognized Environmental Conditions (REC)</u> | Yes |
|--|-----|
- *On-Site Filling Station:* A filling station (Glenwood Shell) has been located at the northwest portion of the Site (106 6th Street) since at least 1966. Benzene, a hazardous material, has been identified in groundwater at the Site above regulatory action levels. The Site has been issued closure by OPS; however, agency files reviewed did not indicate the performance of remediation activities following the identification of on-Site contamination. In addition, agency files reviewed did not include information regarding storage tanks at the facility prior to 1982, since USTs were not regulated at this time. The potential exists for contamination to be present at the facility. Given the on-Site location, identified hazardous materials (benzene), limited information regarding remediation activities, and lack of information regarding storage tanks prior to 1982, this facility is considered evidence of a REC.
  - *Former On-Site Filling Station:* A portion of a filling station (Red Mountain Texaco) was located at the northeast corner of the Site, 216 6th Street, from at least 1956 to 2006. Benzene contamination, a hazardous material, has been identified in groundwater at the facility above regulatory action levels. Remediation activities are currently being implemented at the facility, including groundwater monitoring. Based on the benzene contamination, a hazardous material identified at the facility, and current implementation of remediation activities, this facility is considered evidence of a REC.
  - *Potential Former On-Site Filling Station:* A filling station was reportedly located at 6th Street and Pine Street (specific street address not provided) from at least 1966 to 1986. Four USTs were reportedly located at the facility. Based on historical records, the USTs are likely associated with the former filling station located at 216 6th Street referenced above; however, agency records do not provide a specific street address. Based on limited information regarding the location of the facility, status of the USTs and duration of the USTs at the facility (approximately 20 years), this facility is considered evidence of a REC.
  - *Former Adjacent Automotive Maintenance Facility:* An automotive maintenance facility (Sunlight Motors) was reported located at 115 and 205 6th Street. This facility is located hydrogeologically upgradient, adjacent to the north of the Site. The facility is currently vacant. According to agency files reviewed, three USTs were located at the facility and reportedly removed in May 1991. Petroleum hydrocarbons were detected in soil above regulatory action levels. Groundwater sampling at the facility was referenced indicating petroleum hydrocarbons were below regulatory action levels; however, groundwater monitoring reports were not available for review. Excavation of contaminated soil was not documented. In addition, the installation date of the USTs was not available in the records reviewed. Historical records indicate a service station and automotive facility were located at this location from at least 1956 to at least 1986. Colorado Department of Health (currently CDPHE) issued notification to the facility on October 22, 1993, that additional information regarding the extent of contamination was requested. No additional information regarding contamination or remediation activities was available for review. Based on identified contaminants and adjacent location of the facility, limited agency records, and duration of the USTs at this facility (30 years), this finding is considered evidence of a REC.

- *Former Adjacent Filling Station:* A filling station (Swallow Oil) was located at 101 6th Street, hydrogeologically upgradient, adjacent to the north of the Site from at least 1956 to 1986. Four USTs were located at the facility. The USTs were no longer in use as of 1986. Based on limited information regarding the potential closure/removal of the USTs and duration of the USTs at the facility (approximately 30 years), this facility is considered evidence of a REC.
- *Adjacent Filling Station:* A filling station (Kum & Go) is located at 105 6th Street, hydrogeologically upgradient, adjacent to the north of the Site. The facility has been present since at least 1968. Based on the location of the facility adjacent to the north, and duration of the facility at this location (45 years), this finding is considered evidence of a REC.
- *Railroad Line:* A railroad line (currently Union Pacific) has extended east to west through the central portion of the Site, immediately north of 7th Street, and the area of the proposed extended 8th Street between 7th Street and Pitkin Avenue since at least 1886. No releases have been reported; however, rail road cargo can include hazardous materials and petroleum hydrocarbons. Unreported releases may be associated with the rail line. In addition, rail road ties located along the rail line typically contain creosote, a hazardous material. Based on the location of the rail line at the Site from at least 1886 to the present, and hazardous materials associated with rail line activity, this finding is a concern to the Site.

Historical RECs                  No

- *Adjacent Filling Station:* A filling station (Kum & Go) is located at 105 6th Street, hydrogeologically upgradient, adjacent to the north of the Site. The facility has been present since at least 1968. In the early 1990s, contaminants were identified in soil and groundwater at the facility, including BTEX, TRPH, and TVPH. Remediation activities, including groundwater monitoring and bioremediation, occurred at the facility between 1994 and 1998. Following remediation activities, contaminants were identified below regulatory action levels in 1998. The facility was issued a no further action letter by OIS, currently OPS, in June 1998. Based on the former release of petroleum products at the facility, remediation activities that resulted in contamination below regulatory action levels, and no further action issued, this finding is considered a Historical REC.

De Minimis Conditions                  Yes

- *55-Gallon Drums:* Two empty 55-gallon drums were located adjacent to the south of the Shell filling station building structure at the northwest portion of the Site. The drums appeared to be in good condition. No spills or staining were observed.

## 5.2 Opinion

There is indication that the Site is impacted by the presence of current and former on-Site and adjacent filling stations and automotive maintenance facilities. There is documentation of petroleum hydrocarbon releases at the Site that may be the subject of an enforcement action if brought to the attention of the appropriate environmental agency.

## 5.3 Additional Investigations

- An ASTM-compliant Phase I Environmental Site Assessment should be completed prior to taking any additional ownership interested in the property considered for acquisition. Based on the results of this assessment, Pinyon recommends a subsurface soil and groundwater investigation to identify potential contaminants at the Site. The subsurface investigation should target project areas where

contamination could be encountered during construction, or parcels where ROW is acquired. Petroleum hydrocarbons have been identified at the northern portion of the Site due to current and former on-Site filling stations (Glenwood Shell and Red Mountain Texaco) and may be present at the Site due to current and former adjacent filling stations/automotive maintenance facilities (Kum & Go, Swallow Oil, and Sunlight Motors) which have been located at/adjacent to the Site since at least 1956.

- Subsurface groundwater investigations for petroleum hydrocarbons are currently being conducted at the former filling station (Red Mountain Texaco) located at the northeast corner of the Site. Therefore, a subsurface investigation may not be required at this portion of the Site.
- Workers on this project must follow *CDOT Specification 250 – Environmental, Health and Safety Management* and the *CDOT Asbestos-Contaminated Soil Management Standard Operating Procedure* during excavation activities at this Site.
- In the event that suspected ACM is encountered, including with buried utilities, workers must follow CDOT Specification 250.07 – Asbestos-Containing Material Management and CDOT Asbestos-Contaminated Soil Management Standard Operating Procedure. Additionally, depending on the type of ACM, this material must also be abated in accordance with either Section 5.5 of the Solid Waste Regulations, or Regulation No. 8 of the Air Quality Control Commission Regulations.
- Monitoring wells and/or existing remediation system components impacted during construction should be properly abandoned or potentially replaced if the system is still being utilized.

### **Temporary SH 82 Construction Detour Route for the Build Alternative**

The potential exists for hazardous materials (including residual contamination associated with the on-Site filling stations as well as the former Union Pacific railroad line) to be encountered in areas where proposed construction and excavation areas approach the groundwater table (generally around 20 feet below ground surface) and within the temporary construction detour route. In addition, potential fill or demolition debris from roadway construction may be present on the Site. A Materials Management Plan should be prepared and implemented in order to specify management practices in these areas.

#### **5.4 Data Gaps**

The ASTM Standard requires that Site use be documented to 1940, or first use, whichever is earlier. Pinyon has been able to verify the Site use since 1886, however has not been able to establish first use. This is considered a data failure as defined by the ASTM Standard. However, Pinyon was able to establish the use of the Site from 1886 to the present based on aerial photographs, topographic maps, fire insurance maps, city directories, and agency information. Therefore, this data failure is not considered significant to the findings in this report.

The ASTM Standard requires that all areas of the Site be observed. Building structures were not accessed during the Site reconnaissance. Unknown on-Site hazardous materials and/or activities that indicate the potential use of hazardous materials could not be disclosed by observing the interior of the building structures. Therefore, this data failure is considered significant to the findings in this report.

The ASTM Standard requires that interviews (e.g., Site property owners/occupants, previous property owners, adjacent property owners/occupants, etc.) be conducted to obtain information regarding hazardous materials utilized, stored, or generated at the Site. Site property owners were not interviewed during this assessment. This data failure is considered significant to the findings in this report.

## 5.5 Conclusions

Pinyon has performed a Modified Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527 of Grand Avenue, including Grand Avenue Bridge between the intersection of Grand Avenue and 6th Street extending south to 8th Street as well as 8th Street extending to the west from Pitkin Avenue to the Roaring Fork River (Site). Any exceptions to, or deletions from, this practice are described in Section 7.1 of this report. This assessment has revealed evidence of RECs and historical RECs in connection with this property.

## 5.6 Conclusions and Recommendations Regarding Additional Services

Two commercial building structures, two filling station canopies, four storage sheds, and two bridge structures are located at the Site, which may be demolished as part of this project. Surveys for ACBMs must be conducted on all ten structures per state and federal regulations.

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Refer to Table 1

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Rocky Mountain Directory Co., 1965. Aspen City Directory, Loveland, Colorado, 1965.

### ***Aerial Photographs***

Pinyon obtained the following aerial photographs from EDR: 1960; 1986; 1989; 1993; 1999; 2005; 2006; 2009 and 2011.

### ***Databases***

EDR 2013. "EDR Radius Map Report with GeoCheck, Grand Avenue Bridge, Glenwood Springs, Colorado 81601", Inquiry Number: 3577315.2s, dated April 15, 2013 (Appendix D)."

## 7.0 Limitations

This report was prepared by Pinyon Environmental, Inc., at the request of and for the sole benefit of CDOT and Jacobs Engineering Group, Inc. (Jacobs), or any entity controlling, controlled by, or under common control with Jacobs. This report addresses certain physical characteristics of the Site with regards to the release or presence of hazardous materials. It is not intended to warrant or otherwise imply that the Site is or is not free from conditions, materials, or substances which could adversely impact the environment or pose a threat to public health and safety. The material in this report reflects the best judgement of Pinyon in light of the information that was readily available at the time of preparation.

This report is for the exclusive and present use of CDOT, and Jacobs, or any entity controlling, controlled by, or under common control with Jacobs, to assist with an environmental evaluation of the Site. In the event of any reuse or publication of any portion of this report, Pinyon Environmental, Inc., shall not be liable for any damages arising out of such reuse or publication. Any use a third party makes of this report, or any reliance on or decisions to be made on it, are the responsibility of such third party. Pinyon accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions taken based on this report.

The principles outlined in Section 4.5 of the ASTM Standard are an integral part of this practice and are intended to be referred to in resolving any ambiguity or exercising such discretion as is accorded the user or environmental professional in performing an environmental site assessment or in judging whether a user or environmental professional has conducted appropriate inquiry or has otherwise conducted an adequate environmental site assessment.

This report deviated from the ASTM standard, and is therefore not compliance with the ASTM standard. Discussions regarding deletions and deviations are presented in Section 7.1.

This report does not address additional requirements that must be met in order to qualify for the landowner liability protections (LLPs) (for example, the continuing obligation not to impede the integrity and effectiveness of activity and use limitations (AULs), or the duty to take reasonable steps to prevent releases, or the duty to comply with legally required release reporting obligations). Additionally, the report user has responsibilities with respect to All Appropriate Inquiry and LLPs.

### 7.1 Deletions and Deviations from Standard

This report was not completed to the requirements of the ASTM standard. The following deviations are presented:

- Owners of properties that may be acquired were not interviewed in support of this Modified Phase I ESA, and a User Questionnaire was not provided. Additionally, the local health department was not contacted.
- Any building structures located at the Site were not accessed during the Site reconnaissance.
- Any data failures encountered are discussed in Section 3.4; any data gaps are outlined in Section 5.4.