

COLORADO DEPARTMENT OF TRANSPORTATION REEVALUATION FORM	Original NEPA Approval Date: 1/19/2017	Reevaluation Date: 09/18/2017	Project Code: AQC R600-165 Subaccount: 13599
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Project Name and Location: Central 70 Project: Reevaluation #1, I-70 from I-25 to Chambers Road

NEPA Document Title: I-70 East ROD 1: Phase 1 (Central 70 Project) (January 19, 2017)

Region/Program/Residency: Headquarters—Central 70 Project Office

Project Description:

The Preferred Alternative, Phase 1 (Partial Cover Lowered Alternative with Managed Lanes) selected in the January 19, 2017 Record of Decision (ROD) is the first phase of implementing the Preferred Alternative identified in the FEIS. It removes the existing Interstate 70 (I-70) viaduct between Brighton Boulevard and Colorado Boulevard and lowers the highway below grade in this area, placing a four-acre cover over a portion of the lowered highway (between the Clayton Street and Columbine Street bridges, adjacent to Swansea Elementary School), and adds additional lanes in each direction.

Project Phasing Plan and Portions Completed (if warranted):

Portions Completed: None

Project Phasing Plan: Phase 1, the Central 70 Project, is the only defined phase for the I-70 East Project at this time. Future phases have not been determined and will rely on future funding.

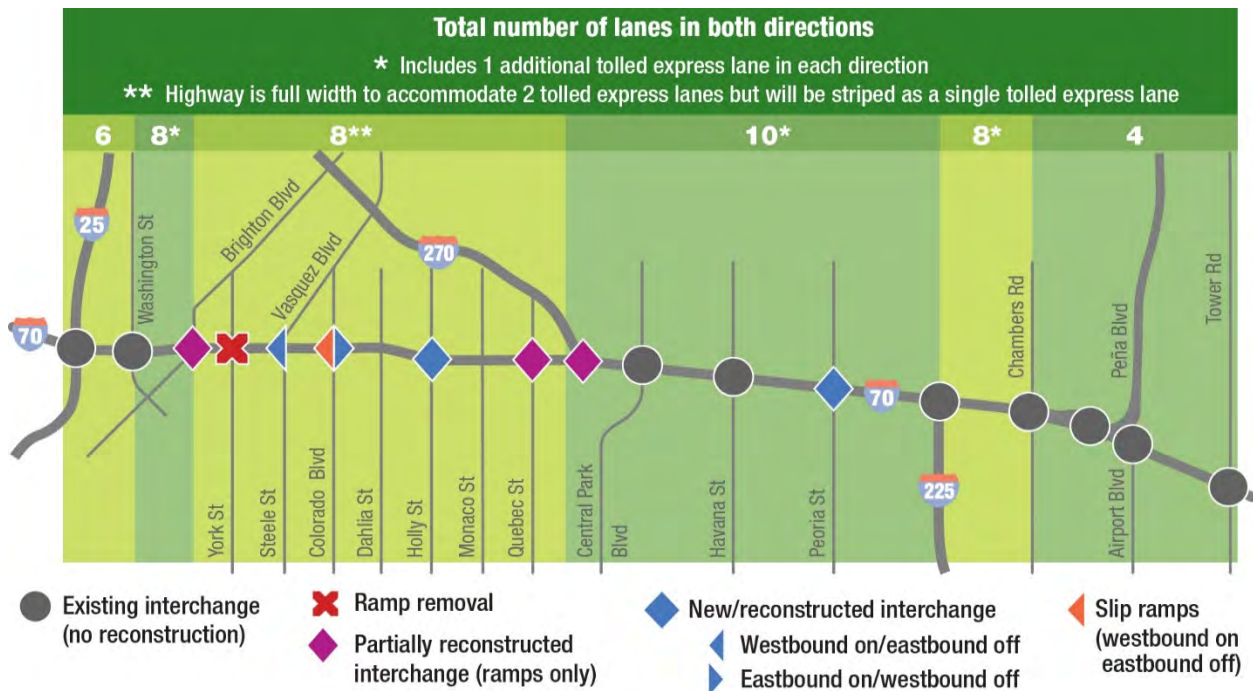
Portion of Project Currently Being Advanced:

The Central 70 Project advances the portions of the Preferred Alternative for the I-70 East Project selected in the ROD. It includes improvements to an approximately 10-mile stretch of I-70 from I-25 to Chambers Road, adding one new tolled express lane (selected as the type of managed lane) in each direction, removing the aging 50+-year-old viaduct, lowering the highway between Brighton Boulevard and Colorado Boulevard, and placing a four-acre cover over a portion of the lowered highway (between the Clayton Street and Columbine Street bridges, adjacent to Swansea Elementary School). **Figure 1** provides an overview of the Central 70 Project, and **Figure 2** shows the number of lanes and planned interchange modifications. **Attachment A** includes detailed maps of the Central 70 Project.

Figure 1, Central 70 Project Overview



Figure 2, Central 70 Project Lane Configuration and Interchange Reconstruction



Although striped for only one tolled express lane, the lowered section of the highway will be constructed to the full width of the Preferred Alternative as identified in the I-70 East Final Environmental Impact Statement (FEIS) because it is more cost effective to construct the whole width now and it is less disruptive to the community than performing additional future expansion. For lane continuity, only a single additional lane will be striped from Brighton Boulevard to Quebec Street, even though the highway in this area will be wide enough to accommodate two additional lanes.

Date(s) of Prior Reevaluations: None

I. Document Type

- Categorical Exclusion (CE)
- Environmental Assessment (EA)
- Finding of No Significant Impacts (FONSI)
- Draft Environmental Impact Statement (DEIS)
- Final Environmental Impact Statement (FEIS)
- Supplemental Environmental Impact Statement (SEIS)
- Record of Decision (ROD)
- Other (such as: local funding, etc.) _____

II. Reason for Reevaluation

- Project is proceeding to the next major approval or action [23 CFR 771.129(c)]
- Project changes such as laws, policies, guidelines, design, environmental setting, impacts or mitigation (describe: Changes in project design, existing conditions, and mitigation as described in Section IV below)
- Greater than three years have elapsed since FHWA's approval of the DEIS [23 CFR 771.129(a)] or FHWA's last major approval action for the FEIS [23 CFR 771.129(b)]
- Other: _____

III. Conclusion and Recommendation

- The above environmental document has been reevaluated as required by 23 CFR 771.129 and it was determined that no substantial changes have occurred in the social, economic, or environmental impacts of the proposed action that would substantially impact the quality of the human, socio-economic, or natural environment. Therefore, the original environmental document or CE designation remains valid for the proposed action. It is recommended that the project identified here-in be advanced to the next phase of project development. A summary of the review is documented in Section IV.
- The above environmental document has been reevaluated as required by 23 CFR 771.129 and it was determined that the environmental document or CE designation is no longer valid or more information is required. Additional required documentation is identified in Section VII.

Vanessa Henderson

Regional Planning Environmental Manager or Designee

9/18/17

Date

Julie M. Cat

Federal Highway Administration Division Administrator or Designee

9/18/17

Date

IV. Evaluation

- Level 1: Less than three years since last major step to advance the action (e.g. approval of NEPA document, authority to undertake final design, authority to acquire significant portion of ROW, approval of PS&E) and there are no changes in project scope, environmental conditions, environmental impacts or regulations and guidelines. - OR - The document being re-evaluated is a programmatic Categorical Exclusion regardless of time since the last major step to advance the action (as long as the project would still be covered by a programmatic Categorical Exclusion). All decisions in the prior NEPA document remain valid. No FHWA concurrence is required. Note to file and to distribution below.
- Level 2: Less than three years since last major step to advance action and there are only minor changes in the project scope and/or updates or explanation needed for one or more resource areas. FHWA concurrence is required.
- Level 3: More than three years since last major step to advance action and there are only minor changes in the project scope and/or updates or explanation needed for one or more resource areas. FHWA concurrence is required.
- Level 4: Major changes in project scope or environmental commitments, or for EISs when greater than three years have elapsed since the last major project action. Updates or new studies maybe required. A Level 4 Reevaluation may require a separate document. FHWA concurrence is required.

ENVIRONMENT SETTING, AFFECTED ENVIRONMENT, AND ENVIRONMENTAL IMPACT ASSESSMENT:

Document changes to human, socio economic, or natural environment for environmental setting or circumstances.

Document changes in impact status. Place check-mark or description where relevant. Note: this list may be expanded or adjusted to match the headings in the original environmental document reviewed.

Setting/Resource/Circumstance	Change in Affected Environment or Setting		Change in Environmental Impact		Date Reviewed	Highlight Section VI Additional Studies Required or Section IX Attachments
	Yes	No	Yes	No		
Transportation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	
Social and Economic Conditions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	
Environmental Justice	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	
Land Use and Zoning	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	
Relocations and Displacements	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	
Historic Preservation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	August 2017	See Attachment C
Paleontological Resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	
Visual Resources and Aesthetic Qualities	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	
Parks and Recreation Resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	August 2017	See Attachment C
Air Quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	See discussion below
Energy	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	
Noise	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	
Biological Resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	August 2017	
Floodplains and Drainage/Hydrology	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	August 2017	
Wetlands and Other Waters of the U.S.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	
Water Quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	
Geology and Soils	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	
Hazardous Materials	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	August 2017	See Attachment D
Utilities	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	August 2017	
Human Health Conditions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	
Section 4(f)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	August 2017	See Attachment C
Cumulative Impacts	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	
Other(s):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	August 2017	

DESIGN ALTERATIONS: *Document changes to project scope and or design criteria:*

This reevaluation assesses the impacts of three categories of design alterations: (1) modification to the construction limits determined through coordination with the Union Pacific Railroad (UPRR); (2) changes to the offsite drainage system for the Central 70 Project due to anticipated reduction of stormwater flow volume; and (3) other miscellaneous and slight design adjustments throughout the corridor completed to advance the project. **Attachment B** shows the locations where construction limits have been modified, along with details on each change. A general description of the design alterations is listed below.

(1) UPRR construction limit changes: (See Figure 1 at the end of **Attachment B**, labeled 1 through 4 for the changes listed below. Changes to the construction limits are shown in detail in **Attachment A**.)

The closure of the existing 46th Avenue under the UPRR during construction of the new railroad bridge pushes additional traffic to the existing at-grade crossing on York Street. Current conflicts between trains and auto/pedestrian traffic at the crossing are expected to increase temporarily as track construction associated with the Central 70 Project will push train switching operations closer to the crossing. Because of this increase in conflicts, the UPRR has requested additional yard track storage capacity in their 36th Yard extending south of I-70. The additional track will provide an alternate location for switching movements away from the York Street crossing and reduce train traffic at that location. The UPRR has indicated that two additional yard tracks need to be added and one existing track rehabilitated to have adequate storage space at the yard during construction. Space necessary for the two additional tracks requires shifting of two adjacent existing tracks. In all, three existing tracks will be reconstructed, plus two tracks will be added (see Figure 2 at the end of **Attachment B**). Included with the track work will be the replacement of 12 to 14 existing yard lights and poles with two new high-mast lighting structures. Minor storm flows will be addressed with the construction of a small storm drain system that will connect to the existing Denver stormwater system. These improvements to the railyard will remain in place after the completion of the project.

As designed, the Central 70 Project's track construction within UPRR right of way extends north of the York Street crossing. In this area, there is minimal space adjacent to the existing tracks for track construction staging and assembly necessary for track crews who will perform all ballast, rail, and tie construction. Specifically, off-line assembly of new switches must be performed directly adjacent to their respective proposed permanent locations. With this, an assembly/staging area 40 feet in width is needed north of the York Street crossing, extending approximately 500 feet northeast of Josephine Street and 48th Avenue. Temporary easements will be required to cover the assembly area and the area will be returned to pre-construction conditions once it is no longer needed.

Space is required at the Nestlé Purina PetCare Company for a new temporary UPRR easement needed for a shoofly track on the UPRR mainline (see below for additional changes at Purina due to drainage design).

(2) Changes to offsite drainage system: (See Figure 1 at the end of **Attachment B**, labeled 2, 5, 6, and 7 for the changes listed below. Changes to the drainage system also are shown on page 21 of **Attachment A**, along with construction limit changes in the rest of **Attachment A**.)

As approved in the ROD, the Central 70 Project's design includes an offsite drainage system capable of independently conveying the water from a 100-year storm event away from the lowered section of the freeway and discharging it into the South Platte River. In light of recent progress by the City and County of Denver (Denver) with its drainage improvement projects south of the Central 70 Project—the Platte to Park Hill: Stormwater Systems program—the maximum volume of stormwater the freeway drainage system must be able to convey will be reduced. As such, the capacity and layout of the freeway's independent system is being adjusted in response to this change of condition.

Denver has been developing and implementing its own projects to address broad-scale flood control and stormwater management needs across northern Denver through the Platte to Park Hill: Stormwater Systems program. As described by Denver in its *Two Basin Drainage Project Conceptual Planning Alternatives Analysis Report* (December 2016) (Contained in Attachment E):

The Platte to Park Hill: Stormwater Systems program is focused in the near-term on the northern neighborhoods of Elyria, Swansea, Cole, Clayton, Skyland, Whittier, Five Points and Northeast Park Hill. These neighborhoods are within two of the top priority drainage basins, the Montclair Basin and the Park Hill Basin, within the City and County of Denver. The Montclair Basin is the city's largest basin (10.9 square miles) without a defined open waterway. The Park Hill Basin is approximately 5.75 square miles and also is served by a deficient storm drainage system. Both of these basins experience a high flood risk because they are large in size, fully developed, relatively flat, and both lack an adequate 'backbone' drainage system. Stormwater modeling shows that during moderate to large storm events, the existing pipe systems reach capacity and the excess runoff is carried on the surface at depths of three feet or more on many streets over multiple city blocks. Several hundred properties are shown to be at-risk during a major event. The estimated flood risk in the Montclair Basin alone is in the hundreds of millions of dollars. The estimated flood risk during lesser storms is also significant for both basins.

Four projects are part of the Platte to Park Hill: Stormwater Systems program. As Denver states on its project website, each project is being designed independently, but is part of a coordinated construction process to realize cost savings and project efficiencies, as well as ensure compatibility with other nearby improvements. Collectively, these four coordinated projects will increase

neighborhood connectivity, improve water quality, add new park and recreation spaces, as well as provide critical flood protection. The four projects are:

1. *Globeville Landing Outfall (GLO) and Park*
2. *City Park Golf Course Redesign*
3. *39th Avenue Greenway and Open Channel*
4. *Park Hill Detention*

Denver has already started construction of the GLO and Park. In addition, since the ROD, Denver has made progress implementing the City Park Golf Course Redesign, 39th Avenue Greenway, and City Park Golf Course Redesign portions of the Platte to Park Hill: Stormwater Systems program that connect into the GLO. This progress includes:

- On November 10, 2016, Denver issued \$115,000,000 in Wastewater Enterprise Revenue Bonds, Series 2016 to fund a portion of the Platte to Park Hill: Stormwater Systems program.
- On August 14, 2017, the Denver City Council approved a design build contract for the construction of the City Park Golf Course Redesign Project; program management contracts for the 39th Avenue Greenway and Open Channel projects; and Phase V construction contracts related to the Park Hill Detention project.

See **Attachment E** for copies of Denver contract and approval documents.

The demonstrated progress made on the Platte to Park Hill: Stormwater Systems program since the ROD shows a clear commitment by Denver to complete its drainage program, changing the existing conditions related to drainage in the project area. This change in existing conditions supports a reanalysis of the I-70 offsite drainage system because Denver's projects will reduce flood flows throughout the Montclair and Park Hill basins that include portions of I-70, thus reducing the volume of flows the Central 70 drainage system will need to capture.

CDOT is making two changes to the Central 70 Project's offsite drainage system to account for expected storm water flow reductions caused by Denver's drainage projects.

- 1) Eliminate offsite system connection to GLO through Coliseum property - because Denver's drainage projects will capture and convey most of the surface flows that would otherwise flow towards the lowered section of I-70, the Central 70 Project can eliminate the offsite system's connection into the GLO through the Denver Coliseum parking lot. Instead, all water in the offsite system will be directed through the city drainage culvert under Brighton Boulevard to the GLO and into the South Platte. The Central 70 Project's limits of construction therefore are being reduced to remove the areas associated with the pipe through the Denver Coliseum's parking lot, reducing impacts to the Denver Coliseum parking lot and Globeville Landing Park
- 2) Eliminate connection from Pond 7 to Brighton Boulevard - the design of the offsite system discussed in the ROD included a connection to the Brighton Boulevard culvert from Pond 7, located in the southeast corner of the I-70 and Brighton Boulevard interchange. The design of the offsite system is being changed so that the connection of the Brighton box culvert is to Pond 7a only, located in the southwest corner of the I-70 and Brighton Boulevard interchange (see page 21 of **Attachment A**). Pond 7a is the last detention pond in the offsite system and will serve as the conduit through which all offsite system water will flow before entering the culvert. As discussed below, these two changes will reduce the Central 70 Project's impacts to historic properties, parks, and hazardous materials sites.

Additionally, we are making several changes to the Central 70 Project's offsite drainage system unrelated to the lower anticipated stormwater.

- 1) Convert box culvert to pipes - the layout of the offsite outfall is being changed from a single box culvert to a series of pipes to better interface with the outfall system, which will widen the project footprint.
- 2) Increase easements at Nestlé Purina property - the size of the easements needed at the Nestlé Purina PetCare Company have increased due to the revisions made to the offsite drainage along the property and across the UPRR right of way. The permanent easement increased from 735 square feet to 1,225 square feet. Temporary easements increased from 890 square feet to 1,696 square feet.
- 3) York Street drainage improvements - continued analysis of drainage on York Street north of the UPRR crossing indicates surface ponding issues in existing conditions for the 100-year storm event. Proposed reconstruction of York Street from the UPRR crossing to 48th Avenue will improve conveyance of surface drainage along York Street; however, there is no existing collection system to intercept the surface drainage and direct it into an existing storm system. The Central 70 Project's limits of construction therefore are being

extended along 48th Avenue west from York Street approximately 250 feet to accommodate construction of a storm drain extension east to York Street and 48th Avenue, where new storm inlets to collect surface drainage will be constructed.

(3) Other construction limit changes: (See Figure 1 at the end of **Attachment B**, labeled 8 through 28 for the changes listed below. Changes to the construction limits are shown in detail in **Attachment A**.)

There have been additional minor adjustments and refinements to the design of the Central 70 Project. The changes resulted from advanced design and include the following types of modifications:

- Adjusting construction limits to match existing right-of-way boundaries to allow for additional space for buffer areas and staging or construction activities
- Creating additional buffer area between private property and retaining walls and barriers, and between the frontage road and sidewalk as a result of more advanced design.
- Expanding construction limits near Safeway to reflect the full construction of detention ponds
- Minor tweaks to sidewalk widths and driveways between Colorado Boulevard and Dahlia Street in coordination with Denver to allow for wider sidewalks and driveways

REGULATORY CHANGES: Document changes to laws, regulations, and/or guidelines:

There have been no applicable changes to laws, regulations, and/or guidelines since the completion of the ROD.

IMPACTS ASSESSMENT: For items checked as changed above, assess the affected natural and socio-economic environment, impacts, and new issues/concerns which may now exist.

Resources that have not experienced a change in the affected environment or setting or a change in environmental impacts since the ROD, but which still have relevant mitigation that is required for environmental impacts identified in the FEIS and the ROD, include:

- Transportation
- Social and Economic Conditions
- Environmental Justice
- Land Use and Zoning
- Relocations and Displacements
- Paleontological Resources
- Visual Resources and Aesthetics
- Air Quality
- Energy
- Noise
- Wetlands and Other Waters of the U.S.
- Water Quality
- Geology and Soils
- Human Health Conditions
- Cumulative Impacts

The mitigation measures for these resources are included in Chapter 5 of the ROD and still apply.

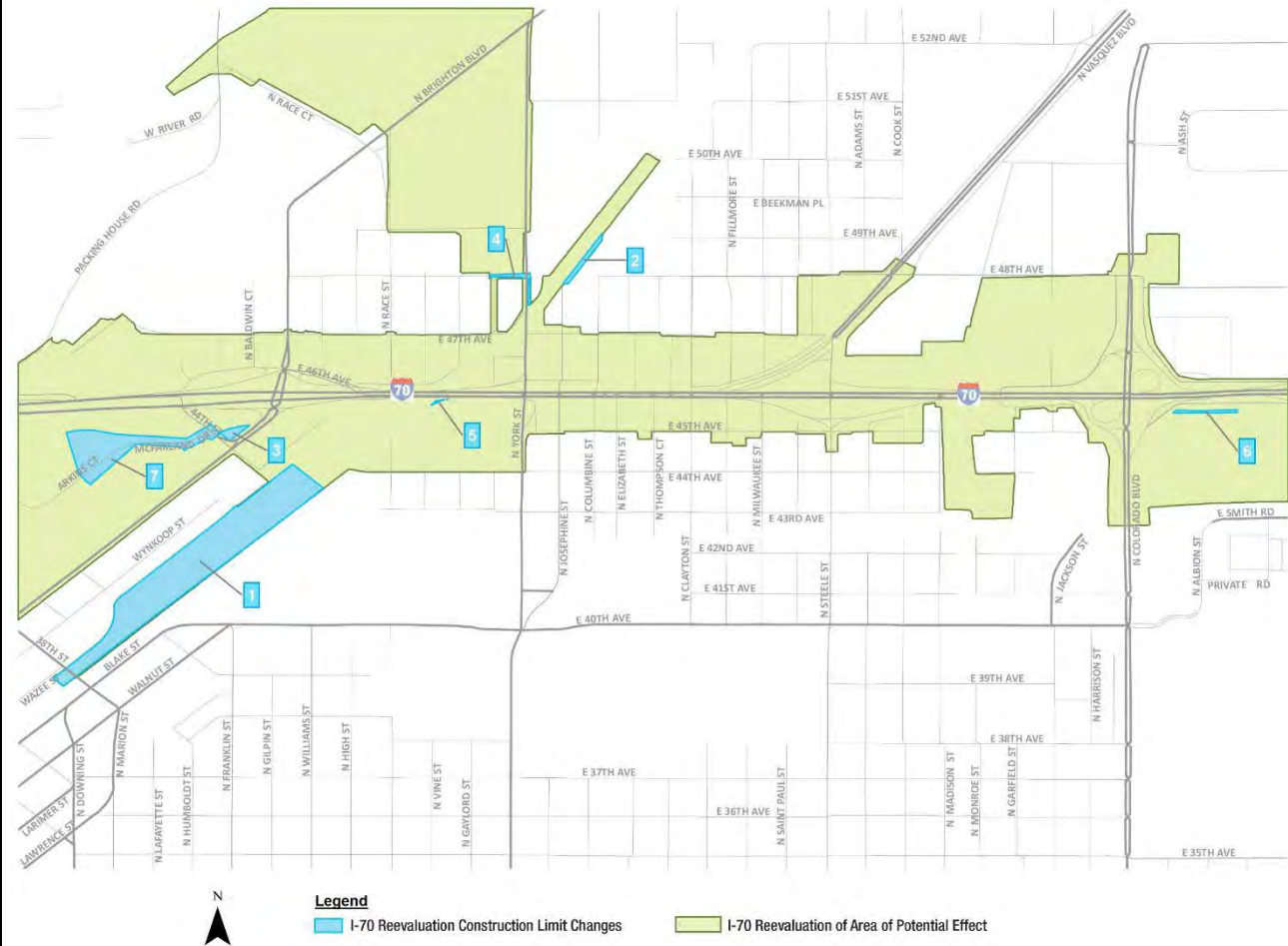
Historic Preservation

The ROD identified 87 historic properties to evaluate for effects. The reevaluation includes minor construction limit changes that are on or adjacent to six properties listed below:

1. 38th Avenue and Blake Street, Union Pacific Railroad Railyard (5DV.6248.3)
2. 48th Avenue and Josephine Street, Union Pacific Railroad Segment (5DV.6248.4)
3. 44th Avenue and Brighton Boulevard, Union Pacific Railroad Segment (5DV.6248.10)
4. 48th Avenue and York Street, Union Pacific Railroad Segment (Adjacent to 5DV.6248.4)
5. Ralston Purina Plant/Nestlé Purina PetCare Company (5DV.9245)
6. Safeway Distribution Center (5DV.9232)
7. Denver Coliseum parking lot (within National Western Historic District, 5DV.10050)

This resulted in adjustments to the Area of Potential Effect (APE), which is shown in **Figure 3**. Modification numbers listed above match the labels in **Figure 3**.

Figure 3, Revised APE and Impacts (Modification numbers shown in blue text boxes.)



One of the changes results in a change in effect determination since the ROD, as listed below in **Table 1**. There are no other changes to effect determinations. These effect determinations were concurred upon by SHPO on June 2, 2017.

Table 1, Updated Historic Properties Effect Determinations

Site Number	Property Name and Address	ROD Impact and Effect Determination	Reevaluation Impact and Effect Determination
5DV.6248	Union Pacific Railroad	See impacts for resource segments 5DV.6248.3, 5DV.6248.4, and 5DV.6248.10 below Adverse Effect	See impacts for resource segments 5DV.6248.3, 5DV.6248.4, and 5DV.6248.10 below Adverse Effect
Resource segment 5DV.6248.3	Union Pacific Railroad Railyard 38th Avenue and Blake Street	No impact No Adverse Effect	Reconstruction of 5,400 linear feet of existing yard tracks, and the addition of approximately 8,000 linear feet of new track within the yard to mitigate rail traffic conflicts during project construction. Adverse Effect

Resource segment 5DV.6248.4	Union Pacific Railroad Segment 48th Avenue and Josephine Street	Existing railroad bridge will be replaced with a multi-span bridge that will carry the railroad over the reconstructed I-70 and eastbound and westbound lanes of 46th Avenue. Temporary relocation of 12,500 linear feet, and approximately 2,000 square feet of permanent easements. Adverse Effect	Activities are the same as reported in the ROD Adverse Effect
Resource segment 5DV.6248.10	Union Pacific Railroad Segment 44th Avenue and Brighton Boulevard	1,552 square feet would be obtained to install new track panels at the crossing with Brighton Boulevard. GLO would cut a segment of track to place a pipe below it, then replace it. No Adverse Effect	Although the activities are the same as the ROD, property 5DV.6248 should have one effects finding. The activities in this segment do not contribute to the adverse effect. Adverse Effect
5DV.9245	Ralston Purina Plant/Nestlé Purina PetCare Company 2151 East 45th Avenue	Acquisition of 735 square feet from the very northwest corner of the property to accommodate the construction of the drainage system. Temporary easement measuring 890 square feet is required to construct and operate a temporary railroad shoofly track that would travel east of the existing Union Pacific Railroad right of way. No Adverse Effect	Acquisition of 735 square feet from the very northwest corner of the property to accommodate the construction of the drainage system. Temporary easement measuring 890 square feet is required to construct and operate a temporary railroad shoofly track that would travel east of the existing Union Pacific Railroad right of way. Additional small temporary easement (1,696 square feet) and permanent easement (1,225 square feet) are needed from the rail right of way near Purina. The easements will include only vacant land. No Adverse Effect
5DV.9232	Safeway Distribution Center Historic District	By expanding the highway footprint, the Stapleton Drive South alignment is pushed farther into the historic district and results in the permanent incorporation of 2.1 acres of the district into a transportation facility, the right-of-way acquisition is primarily located on the northern edge of the parking lot. No Adverse Effect	By expanding the highway footprint, the Stapleton Drive South alignment is pushed farther into the historic district and results in the permanent incorporation of 2.4 acres of the district into a transportation facility, the right-of-way acquisition is primarily located on the northern edge of the parking lot. No Adverse Effect
5DV.10050	National Western Historic District (Denver Coliseum parking lot)	A stormwater outfall pipe would be installed south of the Denver Coliseum underneath the pavement of the parking lot between the Coliseum and the South Platte River. Temporary or permanent easements may be required, but there would be no right of way acquisition of any portion of the historic district. No Adverse Effect	Stormwater pipes are no longer necessary and will not create any impact. Temporary or permanent easements may be required (same ones evaluated in the ROD), but there would be no right of way acquisition of any portion of the historic district for the GLO open channels. No Adverse Effect

Many of the construction limit changes involve segments of the UPRR (5DV.6248). The finding of effect for the overall resource remains Adverse Effect, as described in the ROD. However, Section 106 consultation addresses activities to each segment of the resource, designated by the decimal number, and whether that segment contributes to the significance of the overall resource or not. Therefore, each segment is listed in Table 1 with the activities occurring in that segment. Before these modifications, the only activities that contributed to the adverse effect to the property occurred to 5DV.6248.4, where 12,500 feet of temporary relocation occurs.

Changes in construction limits and additional activities increased the project's impact to one segment, 5DV.6248.3. The project will require the UPRR to realign some of the current tracks within the railyard located in segment 5DV.6248.3. Because these are associated features that contribute to the eligibility of the historic resource, the removal of the tracks

and changing the alignment will be a direct impact to the contributing segment. The previous concurrences for the project concluded that there was **no adverse effect** to the segment (letter to Steve Turner, Oct. 17, 2016; concurrence from S. Turner Oct. 25, 2016). The consultation should have resulted in one effect finding for the whole property. Since the additional activities impact the railyard of segment 5DV.6248.3 and include changes to the rail alignment, FHWA has determined that this contributes to the **adverse effect** to the resource 5DV.6248.

To mitigate the **adverse effect**, CDOT will complete a reevaluation survey and Level II documentation before construction, consistent with the *Programmatic Agreement Among Federal Highway Administration, Colorado State Historic Preservation Officer, and Colorado Department of Transportation Regarding Implementation of the Interstate 70 East Corridor Project – Interstate 25 to Tower Road* (April 2016).

Consultation with the State Historic Preservation Office (SHPO) and its concurrence with the changes and determination was completed June 2, 2017, and copies of the letters are available in **Attachment C**, Coordination and Correspondence. Consulting Party letters also are available in **Attachment C**, Coordination and Correspondence.

For copies of the SHPO and Consulting Party consultation letters, see **Attachment C**, Coordination and Correspondence. In addition, notification of the change in adverse effects due to additional activities in Segment 5DV.6248.3 was submitted to the Advisory Council on Historic Preservation (ACHP) on July 18, 2017 for their files; copies of the materials are available in **Attachment C**, Coordination and Correspondence.

Additional environmental justice mitigation for dust and noise impacts during construction was incorporated into the project, which triggered additional Section 106 consultation on April 12, 2017 and SHPO concurred with the findings of No Adverse Effect on April 18, 2017. Consultation materials are included in **Attachment C**, Coordination and Correspondence; for information on the additional mitigation, please see the mitigation section of this document on Page 11.

Parks and Recreation

Since the elimination of the Central 70 Project's offsite drainage system pipe through the Denver Coliseum parking lot, the limits of construction were reduced to remove the areas associated with that pipe, which included the Coliseum parking lot and Globeville Landing Park. Due to these changes, the Section 6(f) temporary non-conforming use has been eliminated in Globeville Landing Park. Letters were sent to Denver Parks and Recreation, Colorado Parks and Wildlife, and the National Park Service on August 31, 2017, to notify them of this change, and copies of the letters are available in **Attachment C**, Coordination and Correspondence. The work associated with the GLO drainage project was determined to be an enhancement to the Globeville Landing Park. Those enhancements do not change.

Air Quality

The changes identified in this reevaluation will not affect the air quality conclusions in the conformity determination, ROD or FEIS. The changes will not affect the I-70 roadway in any way and, therefore, not have any effects on any of the operational emissions inputs or assumptions. The changes will also reduce total excavation and construction activity by reducing the scope of the Central 70 drainage system, so will reduce total construction emissions.

Biological Resources

Because of the construction limit changes, permanent direct impacts to wildlife habitat have increased from 369.2 acres to 369.3 acres. The impact increase results from the addition of a sidewalk along the east side of Quebec Street, near the Quebec Street/I-70 interchange, which is within the white-tailed deer activity area.

Floodplains and Drainage/Hydrology

(See Figure 1 at the end of **Attachment B**, labeled 5, 6, and 7 for the changes listed below. Changes to the drainage system also are shown on page 21 of **Attachment A**, along with construction limit changes in the rest of **Attachment A**.)

As approved in the ROD, the Central 70 Project's design includes an offsite drainage system capable of independently conveying the water from a 100-year storm event away from the lowered section of the freeway and discharging it into the South Platte River. As discussed in the "Design Alterations" section above, anticipated reductions in the amount of stormwater flow volume reaching the project area have prompted the need for design modifications to the freeway's offsite drainage system. (See Figure 1 at the end of **Attachment B**, labeled 5 and 6, and page 21 of **Attachment A**.) For impact changes associated with these drainage changes, please see each resource-specific section. These modifications do not alter the analysis in Chapter 8.5 of the ROD concerning connected actions or the April 2016 Connected Actions Findings by FHWA and CDOT.

There are no changes to floodplains as a result of the existing conditions changes or design modifications.

Hazardous Materials

Design modifications to the Central 70 Project resulted in approximately 25 additional acres of disturbance as shown in **Table 2**; however, no additional hazardous material facilities of concern identified in the Environmental Records Search database obtained for the FEIS will be impacted because of the modifications.

Table 2, Updated Hazardous Materials Sites Affected and Acres Disturbed

	ROD Impacts	Reevaluation Impacts
Number of sites affected	34	34
Acres disturbed	750	775

In addition to the database report, railyards typically are associated with contamination related to operations and materials used onsite, as well as any unreported spills. Design modifications will result in impacts to the UPRR railyard located in the southwestern portion of the project area near 40th Avenue and Blake Street which results in 22.7 acres of disturbance.

Design modifications that resulted in a slight expansion of the construction limits within the identified superfund area will result in an additional 0.40 acre of impacts to the Vasquez Boulevard and I-70 Superfund Site. For changes to the construction limits, see **Attachment D**, Known Hazardous Materials Locations.

The remainder of the 25 additional acres is associated with the design modifications may result in additional encounters with hazardous materials because the likelihood of encountering hazardous materials is proportional to the amount of ground disturbance.

Based on the design modifications, approximately 6.4 acres near the Denver Coliseum will no longer be impacted. A former landfill is located under a large portion of the Coliseum parking lot and hydrocarbons (benzo(a)pyrene) and arsenic were identified in soil in this area. Reducing impacts to this portion of the project area will reduce the likelihood of encountering the hazardous materials identified in this area.

Utilities

There are no changes to the existing conditions; however, with the changes in design, there would be adjustments due to the installation of the storm sewer extension to two water lines and a fiber line at 48th Avenue and York Street and an existing fiber line in the UPRR 36th Yard near 40th Street. The storm sewer changes are described above in Design Alterations, and were not identified previously in the ROD.

Section 4(f)

Design modifications affect three Section 4(f) resources. Additional easements, described in Table 3, are necessary at the Ralston Purina Plant/Nestlé Purina PetCare Company (5DV.9245). Also, subsurface pipe and related easements are no longer necessary in the Denver Coliseum parking lot (which is within the National Western Historic District). For both resources, the FHWA had determined the impact to be *de minimis* in the ROD. After these modifications, the impact is still *de minimis*.

The changes in construction limits increases the amount of property used from the UPRR (5DV.6248) property. The additional land associated with the UPRR property that will be used is the land from segment 5DV.6248.3, the UPRR railyard. Because this segment is a portion of the larger resource that was previously identified as having a Section 4(f) use in the ROD and FEIS, it is considered an incremental increase in the use of the property (see **Table 3**).

Table 3, Updated Section 4(f) Use

Site Number	Name	Section 4(f) Use in ROD	Section 4(f) Use in Reevaluation
5DV.6248 (Includes 5DV.6248.3, 5DV.6248.4, 5DV.6248.10)	Denver and Kansas Pacific/Union Pacific Railroad	Use. Temporary relocation of, 12,500 linear feet, and approximately 2,000 square feet of permanent easements to 5DV.6248.4.	Use. Temporary relocation of, 12,500 linear feet, and approximately 2,000 square feet of permanent easements to 5DV.6248.4. Reconstruction of 5,400 linear feet of existing yard tracks, and the addition of approximately 8,000 linear feet of new track within the yard (5DV.6248.3) to mitigate rail traffic conflicts during project construction. This will be a permanent

			change. The property will stay in the ownership of the UPRR and function for rail activity. The features that contribute to the historic eligibility of the segment will be reconstructed and no longer eligible (rail, ballast, lighting and alignment).
5DV.9245	Ralston Purina Plant/Nestlé Purina PetCare Company 2151 East 45th Avenue	<i>De minimis.</i> Acquisition of 735 square feet from the very northwest corner of the property to accommodate the construction of the drainage system. Temporary easement measuring 890 square feet is required to construct and operate a temporary railroad shoofly track that would travel east of the existing UPRR right of way.	<i>De minimis.</i> The permanent easement increases from 735 square feet to 1,225 square feet. Temporary easements increase from 890 square feet to 1,696 square feet.
5DV.10500 and 5DV.9162	National Western Historic District and Denver Coliseum	<i>De minimis.</i> The project included a drainage pipe under the Coliseum parking lot, and the Denver GLO project also creates two open channels. The impact includes easements for both the pipes and channels.	<i>De minimis.</i> Since the ROD, one of the underground pipes in the parking lot is no longer necessary and has been removed from the project's design. The impact is still <i>de minimis</i> .

The use of 5DV.6248 occurs in two segments: 5DV.6248.3 and 5DV.6248.4. Before approving the use of a Section 4(f) property, FHWA must determine there are no feasible and prudent avoidance alternatives (as defined in 23 CFR 774.17). Avoidance alternatives to the use of the 5DV.6248.4 segment were evaluated in the FEIS, and concluded that there were no feasible and prudent avoidance alternatives (see **Figure 4** below). For the reasons described below, the use of the 5DV.6248.3 segment also has no feasible and prudent avoidance alternatives.

Figure 4, Avoidance Alternatives



The use arises from construction of a rail bridge over the future I-70 (the 5DV.6248.4 segment), which will temporarily remove tracks from the rail yard. Those tracks are needed for storage. The proposed action to replace that storage will create two new tracks, and will require shifting two other adjacent tracks. In all, three existing tracks will be reconstructed and two new tracks will be added. Supplemental work associated with the track construction includes the replacement of 12 to 14 existing yard lights and poles with two new high-mast lighting structures.

A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property. An alternative is not feasible if it cannot be built as a matter of sound engineering judgement. There are six criteria for assessing prudence. One of those states that an alternative is not prudent if "it results in unacceptable safety or operational problems."

One avoidance alternative to the proposed action is the No Action Alternative, in which no replacement storage is created and UPRR must store cars on the rail line at York Street. This is not feasible and prudent for several reasons. First, it creates unacceptable rail operations impacts. By not having space in the rail yard, long queues of rail cars must wait for entry to the yard for servicing. UPRR has indicated that this results in unacceptable operations. Second, it creates conflicts with street traffic that have adverse impacts to congestion in the area. Rail cars would straddle York Street, blocking through movements. UPRR has informed the project that Denver has indicated this creates unacceptable traffic operations. Third, it creates an unsafe condition for school children walking to and from Swansea Elementary School. The rail cars queueing on York Street block 47th Avenue, which is a popular access to the school. When rail cars block 47th, children climb over and under the cars, which is unsafe, and creates a liability for UPRR. For these reasons, the FHWA has determined that avoidance alternative would result in unacceptable safety and operational problems, and is not prudent.

Other avoidance alternatives are limited by the unique role of the rail yard, and access to it. There are no other yards in this area of the city, and so many of the UPRR's cars are serviced by it. There are also no other rail lines servicing it from this direction. All access from the northeast is limited to the single line that crosses York Street.

As described above, the use results from the construction of a UPRR bridge over future I-70 (the 6248.4 segment). As discussed in the FEIS and Final Section 4(f) Evaluation, there are no feasible and prudent alternatives to this impact. That reconstruction is unavoidable necessitates this use of the 6248.3 segment.

Because of the yard's unique situation, there are no other storage options for UPRR's rail cars during construction. The railroad line described above runs northeast-southwest into the rail yard. It is the only line serving that yard from that direction, and there is no siding between York Street and the railyard. This means there is no additional existing storage space outside the railyard. Adding space to the line north of the railyard would not avoid the safety and operational concerns with York Street described above, and is therefore not prudent.

The conflict was identified by UPRR, and the changes to their railyard to create more storage is their proposed solution. Considering the avoidance alternatives discussed above, the FHWA has determined there is no feasible and prudent avoidance to the use of 5DV.6248.3.

Considering the new modifications, FHWA finds that the Selected Alternative still presents the least overall harm alternative (23 CFR §§774.3(c)(1)(i)-(vii)). The ability to mitigate adverse impacts to each Section 4(f) property is still highest for the Partial Covered Lowered Alternative for the reasons provided in the FEIS (pages 7-107 to 7-116) and ROD (pages 205-206).

The Selected Alternative has greater ability to mitigate for impacts, and lessens the magnitude of remaining harm for both Section 4(f) properties and non-Section 4(f) properties. In particular, it is expected to lessen the harm to low-income and minority populations better by providing a public space on top of the highway cover, and removing the viaduct and lowering the highway to reduce visual intrusion and improve neighborhood cohesion. In addition, Swansea Elementary School will benefit from increased space for recreation, better air quality, and lower noise levels. In addition, the Selected Alternative's revised drainage system provides significant mitigation for the use of Globeville Landing Park. The GLO project provides a number of features for the park that provide greater public benefit. Once the GLO is constructed, the entire park would be rehabilitated, removing all existing park facilities and replacing them with enhanced park amenities that have been identified through public outreach efforts conducted by Denver. The GLO project will add significant recreational space to the area and provide for a more appealing setting than currently exists. The features of the historic property of the railyard that will be affected by the increased use of 5DV.6248 will be mitigated with recordation per the Section 106 Programmatic Agreement. The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection has not changed since the ROD, as harm is mitigated through the Section 106 Programmatic Agreement. The relative significance of each Section 4(f) property remains the same as described in the FEIS and ROD. The additional incremental use of the railyard does not alter the degree to which each alternative meets the purpose and need for the I-70 East Project. The magnitude of any adverse impacts to resources not protected by Section 4(f) remains the same

and there are no substantial differences in cost among the alternatives. The views of officials with jurisdiction also remains unchanged, as the Section 106 effects were concurred with by SHPO. It should be noted that the changes to the railyard to increase storage space is the UPRR's preferred solution to the storage conflict discussed above. For these reasons, the Selected Alternative still presents the least overall harm.

A notification was sent to the US Department of the Interior on August 30 2017, to notify them of this change, and a copy of the notification is available in **Attachment C**, Coordination and Correspondence.

MITIGATION:

- All mitigation commitment(s) from NEPA document remain the same (discuss status and compliance):
- Mitigation commitment(s) have changed from NEPA document.

Mitigation measures remain the same as documented in the ROD for all resources. However, based on comments received regarding the mitigation for dust and noise impacts during construction, CDOT has added additional mitigation measures as part of the environmental justice mitigation being provided for the homes between 45th Avenue and 47th Avenue from Brighton Boulevard to Colorado Boulevard. These additional mitigation measures include:

- Attic insulation: this would involve insulating attic spaces to improve energy efficiency and address temporary noise effects and may include insulation in walls
- Air sealing: this work involves caulking and weather stripping
- Programmable thermostat and carbon monoxide detectors

Additionally, clarification has been added to the environmental justice mitigation measures previously committed to for noise and dust impacts during construction. This clarification adds that there will be no installation of mitigation measures for the homes between 45th Avenue and 47th Avenue from Brighton Boulevard to Colorado Boulevard without consent from both the owner(s) and occupant(s) and reasonable attempts will be made to contact both parties. Section 106 consultation for these changes was completed in April 2017 and is available in **Attachment C**, Coordination and Correspondence.

Based on these changes, the mitigation table in the ROD is updated and amended with the following:

Mitigation #	Mitigation Category	Impact	Mitigation Commitment	Responsible Branch	Timing/Phase of Construction Mitigation	Source Document
21	Environmental Justice	Increasing noise and dust during construction	Provide residents close to the highway construction—between 45th Avenue and 47th Avenue from Brighton Boulevard to Colorado Boulevard—interior storm windows. There will be no installation of mitigation measures for the homes between 45th Avenue and 47th Avenue from Brighton Boulevard to Colorado Boulevard without consent from both the owner(s) and occupant(s). All reasonable attempts will be made to contact both parties.	CDOT Engineering and Environmental	Pre-construction	ROD, Page 47; Reevaluation #1, Page 11 (September 2017)

22	Environmental Justice	Increasing noise and dust during construction	Provide residents close to the highway construction—between 45th Avenue and 47th Avenue from Brighton Boulevard to Colorado Boulevard—furnace filters. There will be no installation of mitigation measures for the homes between 45th Avenue and 47th Avenue from Brighton Boulevard to Colorado Boulevard without consent from both the owner(s) and occupant(s). All reasonable attempts will be made to contact both parties.	CDOT Engineering and Environmental	Pre-construction	ROD, Page 47; Reevaluation #1, Page 11 (September 2017)
22a	Environmental Justice	Increasing noise and dust during construction	Provide residents close to the highway construction—between 45th Avenue and 47th Avenue from Brighton Boulevard to Colorado Boulevard—attic insulation, air sealing, programmable thermostats, and carbon monoxide detectors. There will be no installation of mitigation measures for the homes between 45th Avenue and 47th Avenue from Brighton Boulevard to Colorado Boulevard without consent from both the owner(s) and occupant(s). All reasonable attempts will be made to contact both parties.	CDOT Engineering/ Developer	Prior to construction	Reevaluation, #1, Page 10 (September 2017)

V. Public/Agency Involvement (optional)

If any, document public meetings, notices, and websites, and/or document agency coordination. For each, provide dates and coordination, where applicable:

There were no public meetings during the completion of this Reevaluation.

Coordination with Denver has been ongoing since the ROD.

Section 6(f) notifications were provided to Denver Parks and Recreation, Colorado Parks and Wildlife, and the National Park Service on August 31, 2017, and are available in **Attachment C**, Coordination and Correspondence.

Section 106 consultation with SHPO and the Consulting Parties occurred April through July 2017, and copies of the consultation materials are available in **Attachment C**, Coordination and Correspondence.

Notification of the change in adverse effects due to additional activities in Segment 5DV.6248.3 was submitted to ACHP on July 18, 2017 for their files; copies of the materials are available in **Attachment C**, Coordination and Correspondence.

Section 4(f) notification was provided to the US Department of the Interior on August 30, 2017, and is available in **Attachment C**, Coordination and Correspondence.

VI. Additional Studies Required for Proposed Action

None

VII. Additional Requirements for Proposed Action

- An SEIS is required, because the changes to the proposed action will result in significant impacts not evaluated in the EIS.
- An SEIS is required, because new information or circumstances will result in significant environmental impacts not evaluated in the EIS.
- A revised ROD is required, because an alternative is recommended that was fully evaluated in an approved FEIS but was not identified as the preferred alternative.
- Appropriate environmental study or an EA is required, because the significance of new impacts is uncertain.
- A revised FONSI is required, because an alternative is recommended that was fully evaluated in an approved EA but was not identified as the preferred alternative.
- Other _____
- None

VIII. Permits Updated (optional)

This section is only required when the next stage of a project is going to construction. List permits:

IX. Attachments Listed

List permits, studies, background data, etc.

Attachment A: Detailed maps of the Central 70 Project

Attachment B: Design Alterations

Attachment C: Coordination and Correspondence

Attachment D: Known Hazardous Materials Locations

Attachment E: Denver drainage project documents



Central 70

CENTRAL 70 PROJECT

ATTACHMENT A **ALTERNATIVE MAPS**

September 2017

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ATTACHMENT A – ALTERNATIVE MAPS

Central 70 Project	3
Drainage	19

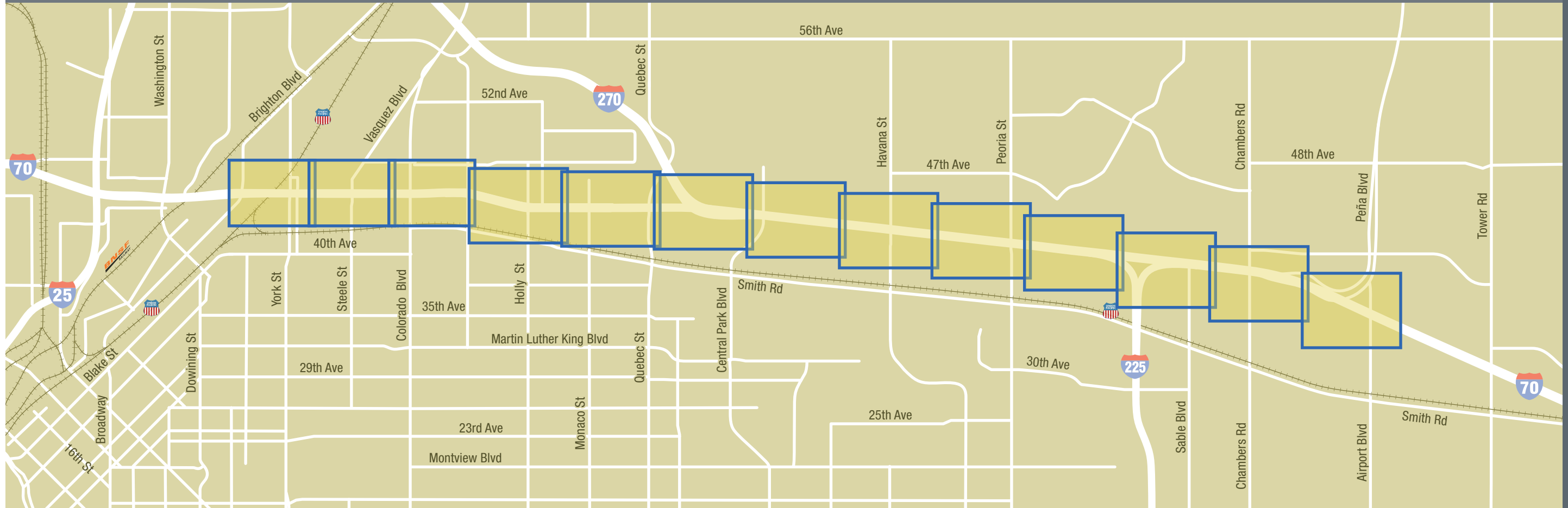
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Central 70 Project

Due to funding restrictions, Phase 1, the Central 70 Project, is the only defined phase for the I-70 East Project at this time. Future phases have not been determined and will rely on future funding.

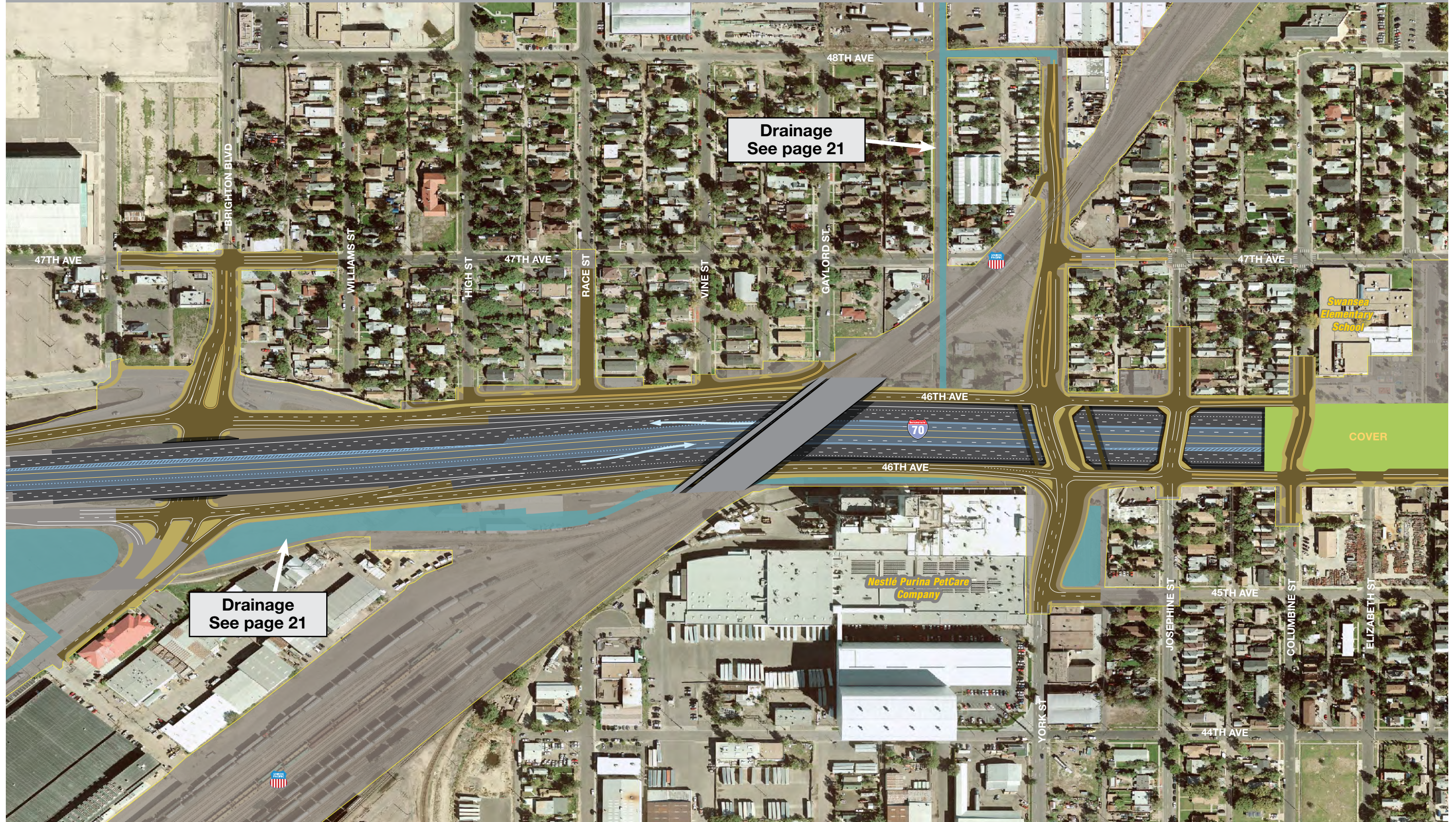
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Central 70 Project • Brighton Boulevard to Chambers Road



The Central 70 Project is the Selected Alternative in the ROD and incorporates portions of the identified Preferred Alternative. The following maps show the Central 70 Project but also include the changes as outlined in the Reevaluation. Below are some of the highlights of the alternative:

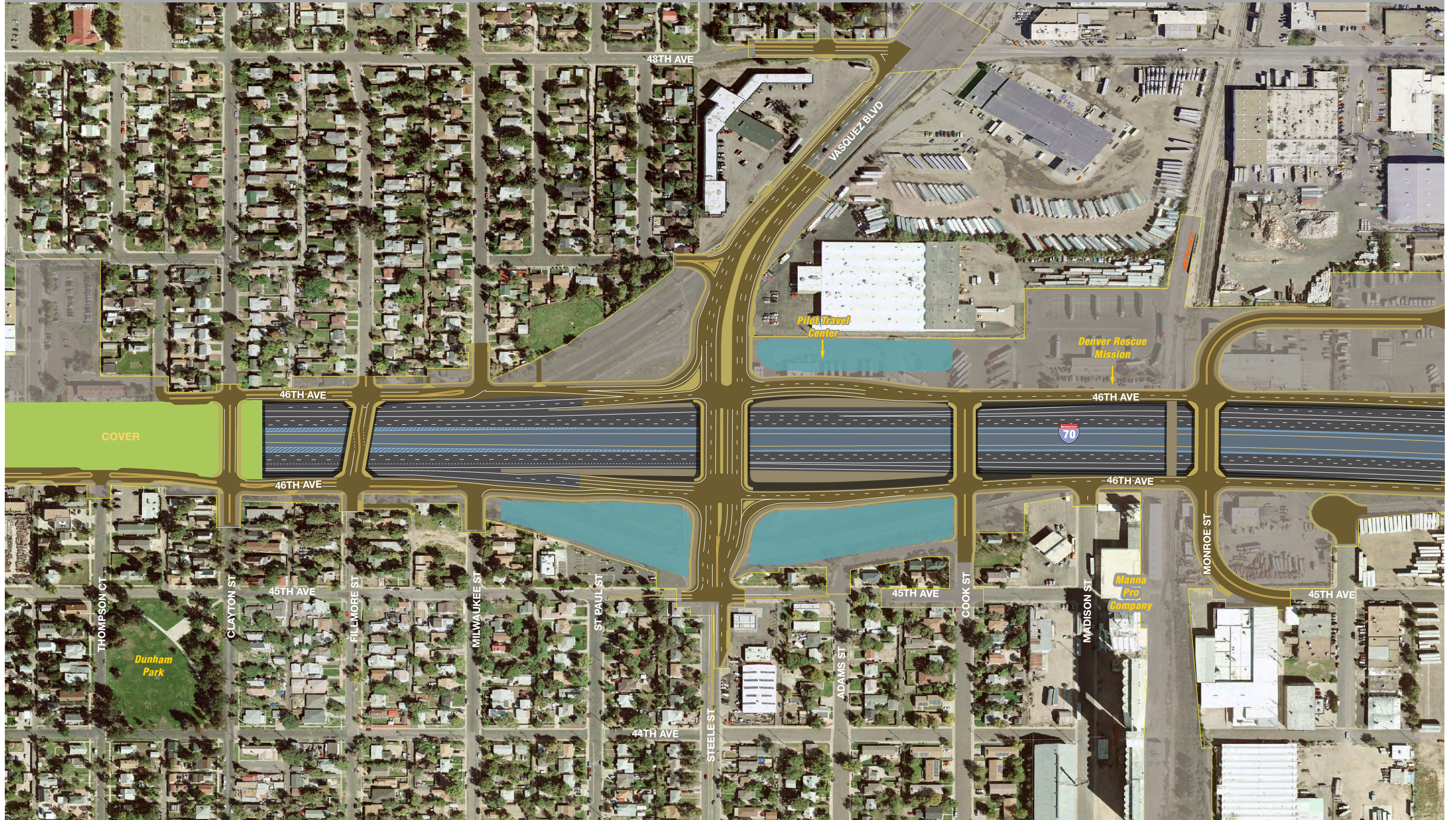
- Restriping from I-25 to Brighton Boulevard to add one tolled express lane
- Remove the viaduct, lower the highway between Brighton and Colorado Boulevards, and construct a four-acre cover over a portion of the lowered highway between Clayton and Columbine Streets. Section will be constructed to full width of the Preferred Alternative; however, only one tolled express lane will be striped and open for use on opening day.
- Complete reconstruction from Brighton Boulevard to I-270 with pavement width for the addition of two tolled express lanes in each direction; only one lane will be striped and open for use on opening day
- Widening from I-270 to Chambers Road to accommodate one tolled express lane in each direction



- | | | | | |
|----------------------|---------------------|--------------------------|-----------------------|----------------|
| Highway and ramps | Existing pavement | Construction limits | General-purpose lanes | Striped buffer |
| Street configuration | Sidewalk and median | Ingress/egress locations | Drainage | Managed lanes |

The maps provided in this attachment are graphical representations of the alternatives. The information presented in this attachment is intended for illustration purposes only and is not suitable for site specific decision making or impact determinations.





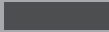
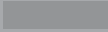


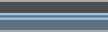


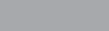
- Highway and ramps
- Existing pavement
- Construction limits
- General-purpose lanes
- Street configuration
- Sidewalk and median
- Drainage
- Striped buffer
- Managed lanes

The maps provided in this attachment are graphical representations of the alternatives. The information presented in this attachment is intended for illustration purposes only and is not suitable for site specific decision making or impact determinations.



MAP 3 Central 70 Project • Brighton Boulevard to Chambers Road



- | | | | | |
|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
|  Highway and ramps |  Existing pavement |  Construction limits |  General-purpose lanes |  Striped buffer |
|  Street configuration |  Sidewalk and median |  Drainage |  Managed lanes | |

The maps provided in this attachment are graphical representations of the alternatives. The information presented in this attachment is intended for illustration purposes only and is not suitable for site specific decision making or impact determinations.





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|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
|  Highway and ramps |  Existing pavement |  Construction limits |  General-purpose lanes |  Striped buffer |
|  Street configuration |  Sidewalk and median |  Ingress/egress locations |  Managed lanes | |

The maps provided in this attachment are graphical representations of the alternatives. The information presented in this attachment is intended for illustration purposes only and is not suitable for site specific decision making or impact determinations.



MAP 5 Central 70 Project • Brighton Boulevard to Chambers Road



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|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
|  Highway and ramps |  Existing pavement |  Construction limits |  General-purpose lanes |  Striped buffer |
|  Street configuration |  Sidewalk and median |  Ingress/egress locations |  Managed lanes | |

The maps provided in this attachment are graphical representations of the alternatives. The information presented in this attachment is intended for illustration purposes only and is not suitable for site specific decision making or impact determinations.





**THE SHOPS AT
NORTHFIELD
STAPLETON**

- Highway and ramps
- Existing pavement
- Construction limits
- General-purpose lanes
- Street configuration
- Sidewalk and median
- Striped buffer
- Managed lanes

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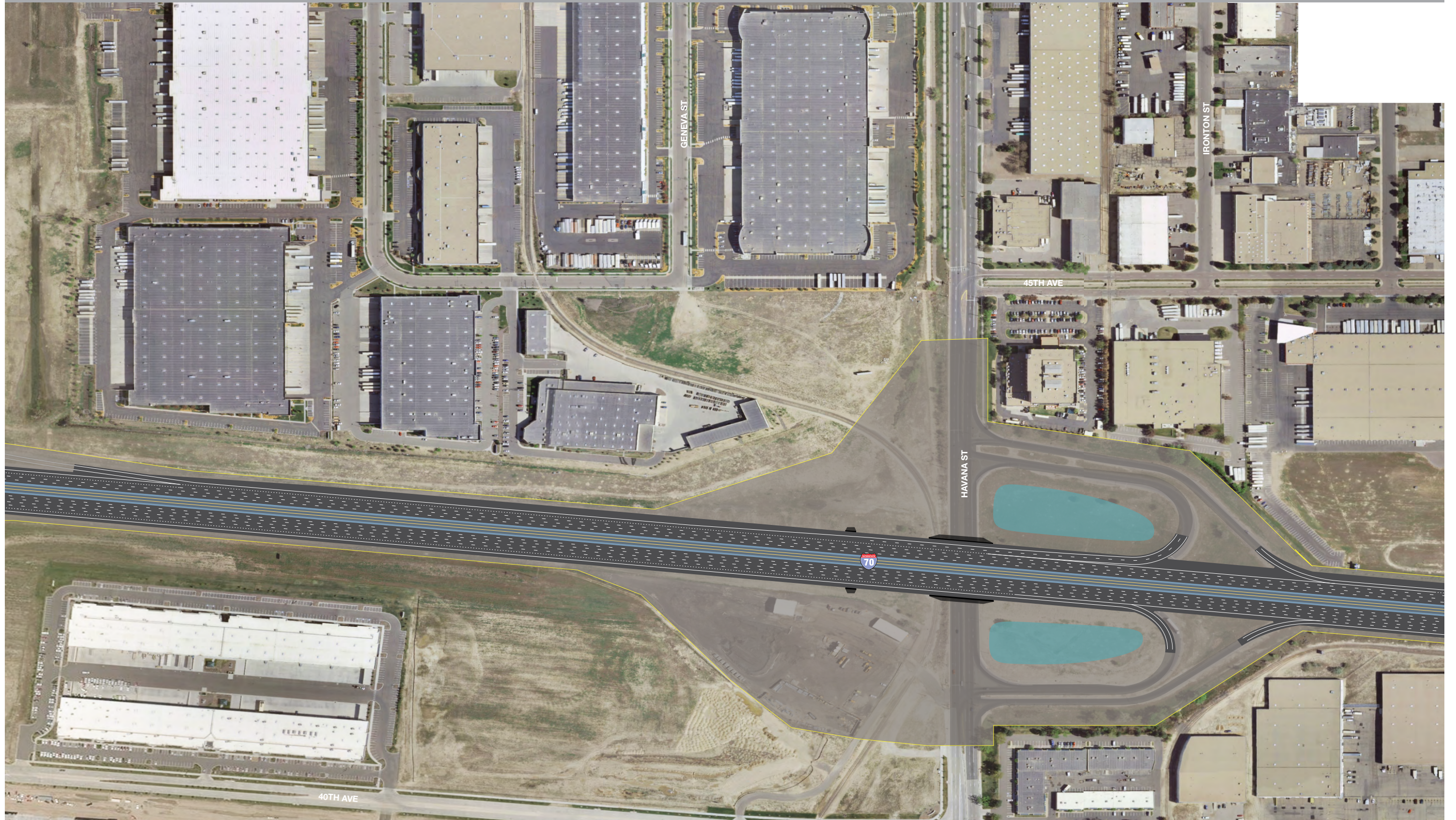
MAP 7 Central 70 Project • Brighton Boulevard to Chambers Road



- Highway and ramps
- Existing pavement
- Construction limits
- General-purpose lanes
- Striped buffer
- Street configuration
- Sidewalk and median
- Managed lanes

The maps provided in this attachment are graphical representations of the alternatives. The information presented in this attachment is intended for illustration purposes only and is not suitable for site specific decision making or impact determinations.





- Highway and ramps
- Existing pavement
- Construction limits
- General-purpose lanes
- Street configuration
- Sidewalk and median
- Striped buffer
- Managed lanes

The maps provided in this attachment are graphical representations of the alternatives. The information presented in this attachment is intended for illustration purposes only and is not suitable for site specific decision making or impact determinations.





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|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
|  Highway and ramps |  Existing pavement |  Construction limits |  General-purpose lanes |  Striped buffer |
|  Street configuration |  Sidewalk and median |  Ingress/egress locations | |  Managed lanes |

The maps provided in this attachment are graphical representations of the alternatives. The information presented in this attachment is intended for illustration purposes only and is not suitable for site specific decision making or impact determinations.





- Highway and ramps
 - Street configuration
- Existing pavement
 - Sidewalk and median
- Construction limits
 - Ingress/egress locations
- General-purpose lanes
 - Striped buffer
 - Managed lanes

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|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
|  Highway and ramps |  Existing pavement |  Construction limits |  General-purpose lanes |  Striped buffer |
|  Street configuration |  Sidewalk and median |  Ingress/egress locations |  Managed lanes | |

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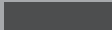



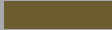

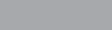


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|----------------------|---------------------|--------------------------|-----------------------|----------------|
| Highway and ramps | Existing pavement | Construction limits | General-purpose lanes | Striped buffer |
| Street configuration | Sidewalk and median | Ingress/egress locations | | Managed lanes |

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|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
|  Highway and ramps |  Existing pavement |  Construction limits |  General-purpose lanes |  Striped buffer |
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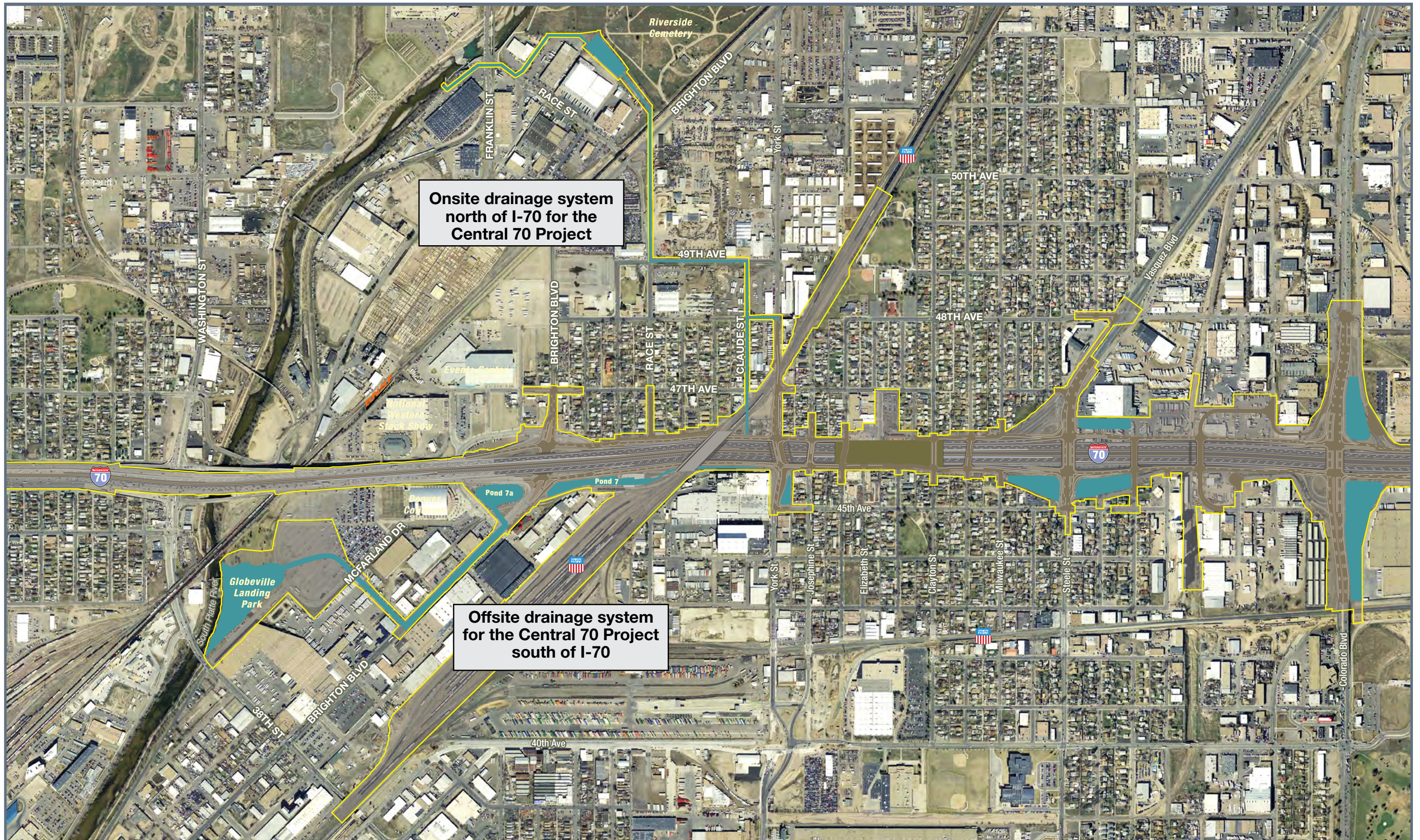
The maps provided in this attachment are graphical representations of the alternatives. The information presented in this attachment is intended for illustration purposes only and is not suitable for site specific decision making or impact determinations.



Drainage

The Central 70 Project includes drainage improvements on the north side of I-70 to capture and convey the onsite water runoff. The Project also includes an offsite drainage system on the south side of I-70 to capture the offsite surface water before it enters the lowered section of the highway.

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**Onsite drainage system
north of I-70 for the
Central 70 Project**

**Offsite drainage system
for the Central 70 Project
south of I-70**

Legend

- Drainage
- Construction limits

The maps provided in this attachment are graphical representations of the alternatives. The information presented in this attachment is intended for illustration purposes only and is not suitable for site specific decision making or impact determinations.



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Central 70

CENTRAL 70 PROJECT
ATTACHMENT B
Design Alterations

September 2017

Design Alterations

Design alterations included in Reevaluation #1 of the Central 70 Project include modification to the construction limits due to design changes determined through coordination with the Union Pacific Railroad (UPRR), changes to the drainage system, and other slight design adjustments throughout the corridor completed to advance the project.

Figure 1 at the end of this attachment (page 4) shows the locations where construction limits have been modified, and details on each change can be found by number below.

Union Pacific Railroad (UPRR) construction limit changes:

1. Proposed design changes by the UPRR will require the Central 70 Project's construction limits to extend approximately 3,100 feet south into the 36th Avenue UPRR yard (See **Figure 2**, page 5).
2. Area is required due to a new temporary UPRR easement needed for a shoofly track on the UPRR mainline (see below for additional changes due to drainage design).
3. Design changes to the railroad require the construction limits to be extended slightly in this area.
4. Proposed trackwork north of the UPRR York Street crossing, extends to approximately East 48th Avenue. This area offers minimal space for staging and assembly for track crews. The UPRR has requested an assembly and staging area 40 feet in width north of the York Street crossing, extending approximately 500 feet northeast of Josephine Street and 48th Avenue. Temporary easements to cover the assembly area are expected from two private property parcels.

Changes to offsite drainage system:

2. Additional area is required due to revised drainage design which causes an increased permanent easement from what was needed with the Record of Decision (ROD) (see above for changes due to railroad design). The layout of the offsite outfall went from a single box culvert to a series of pipes that widened the footprint, which are necessary to interface with the outfall system.
5. Additional impacts will result north of the UPRR York Street crossing to capture existing drainage surface flow, due to the modification of the York Street UPRR crossing. The 0.42-acre additional impact area is within public ROW.
6. Limits of construction were reduced to remove the areas associated with the pipe through the Coliseum property, reducing impacts to the Denver Coliseum parking lot and Globeville Landing Park.
7. The design of the offsite system has been changed so that the connection with the Brighton Boulevard culvert is with Pond 7a only. Pond 7a is located in the southwest corner of the I-70 and Brighton Boulevard interchange (see **Attachment A**, page 21). Portions of two parcels, owned by the UPRR and CDOT, previously not required for the Central 70 Project are now impacted. The Central 70 Project's limits of construction, were extended to include the portions of the parcels described.

Other construction limit changes

8. This remains a full acquisition; however, the parcel line has been revised and will add an additional 0.006 acre of impacts.
9. This remains a full acquisition; however, the parcel line has been revised and will add an additional 0.02 acre of impacts.

10. An additional buffer space behind the wall have been revised to 10 feet instead of the previous 5 feet. Additional impacts will total 0.006 acre and will remain a partial acquisition.
11. Right-of-way (ROW) boundary has been revised to reflect further acquisition resulting in an additional impact of 0.003 acre. This remains a partial acquisition.
12. The construction limits in this location are being extended to the edge of existing CDOT ROW to add a barrier between the frontage road and sidewalk. The extension does not result in any new private property acquisitions. The new area is 0.19 acres.
13. The parcel boundary has been revised slightly resulting in 0.02 acre of additional impact and no change to the property acquisition.
14. The construction limits in this location are being extended to the edge of pavement to reflect the full construction of detention ponds. The existing ponds near Safeway will be replaced in kind and have additional space for operations. Additional impacts will total 0.34 acre and remain a partial acquisition.
15. Design has been refined, resulting in minor tweaks to sidewalk widths and driveways between Colorado Boulevard and Dahlia Street. Additional impacts will total 0.01 acre and will remain partial acquisitions.
16. Driveway design has been revised and construction limits have been extended to add 0.0007 acre of additional impact.
17. ROW boundary has been revised to reflect further acquisition resulting in an additional impact of 0.003 acre. This remains a partial acquisition.
18. The construction limits in this location are being extended to the edge of existing CDOT ROW for construction phasing. There is no change in design and the extension does not result in any new private property acquisitions; however, the extension will add an additional 0.27 acre of impact.
19. Design has been refined to accommodate sidewalk and intersection design within public ROW. Additional impacts will total 0.005.
20. Design has been refined to accommodate sidewalk design. Additional impacts will total 0.0044 acre and each will remain a partial acquisition.
21. ROW boundary has been revised to reflect further acquisition resulting in an additional impact of 0.007 acre. This remains a partial acquisition.
22. ROW boundary has been revised to reflect further acquisition resulting in an additional impact of 0.002 acre. This remains a partial acquisition.
23. Design has been refined to accommodate sidewalk and intersection design within public ROW. Additional impacts will total 0.004.
24. ROW boundary has been revised to reflect further acquisition resulting in an additional impact of 0.002 acre. This remains a partial acquisition.
25. The construction limits have been extended to widen the roadway to maintain the 5-foot buffer of sidewalk to construction limit. Additional impact will total 0.09 acre between Monaco Street and Oneida Street, and will remain partial acquisitions.
26. Design has been modified to add a sidewalk in this location. Additional impact will total 0.05 acre and will remain a partial acquisition.
27. Design has been modified to add a sidewalk in this location within public ROW. Additional impact will total 0.02 acre.

28. Design has been modified to add a sidewalk and a raised median in this location within public ROW. Additional impact will total 0.14 acre.

Figure 1 Design Alterations

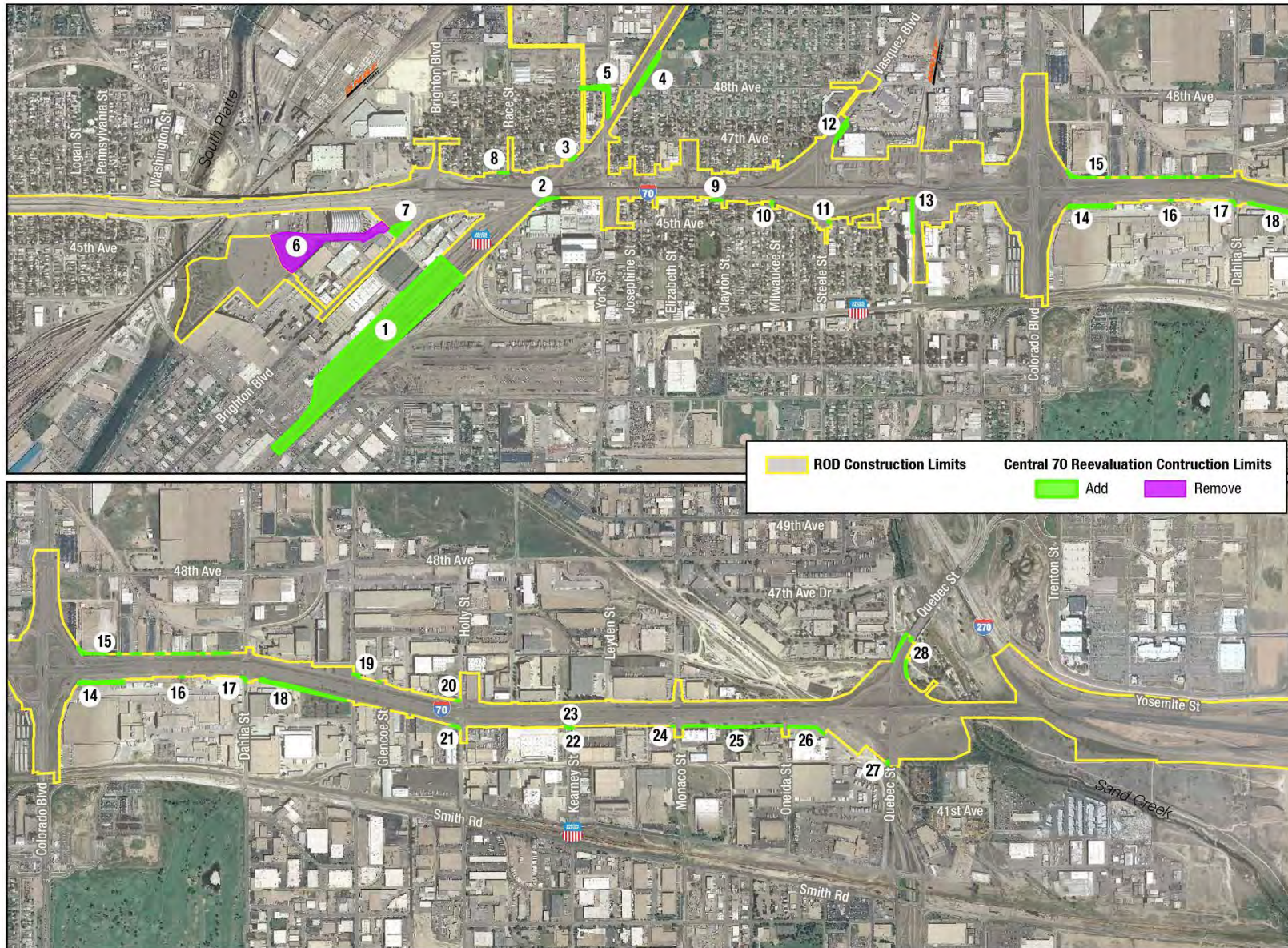
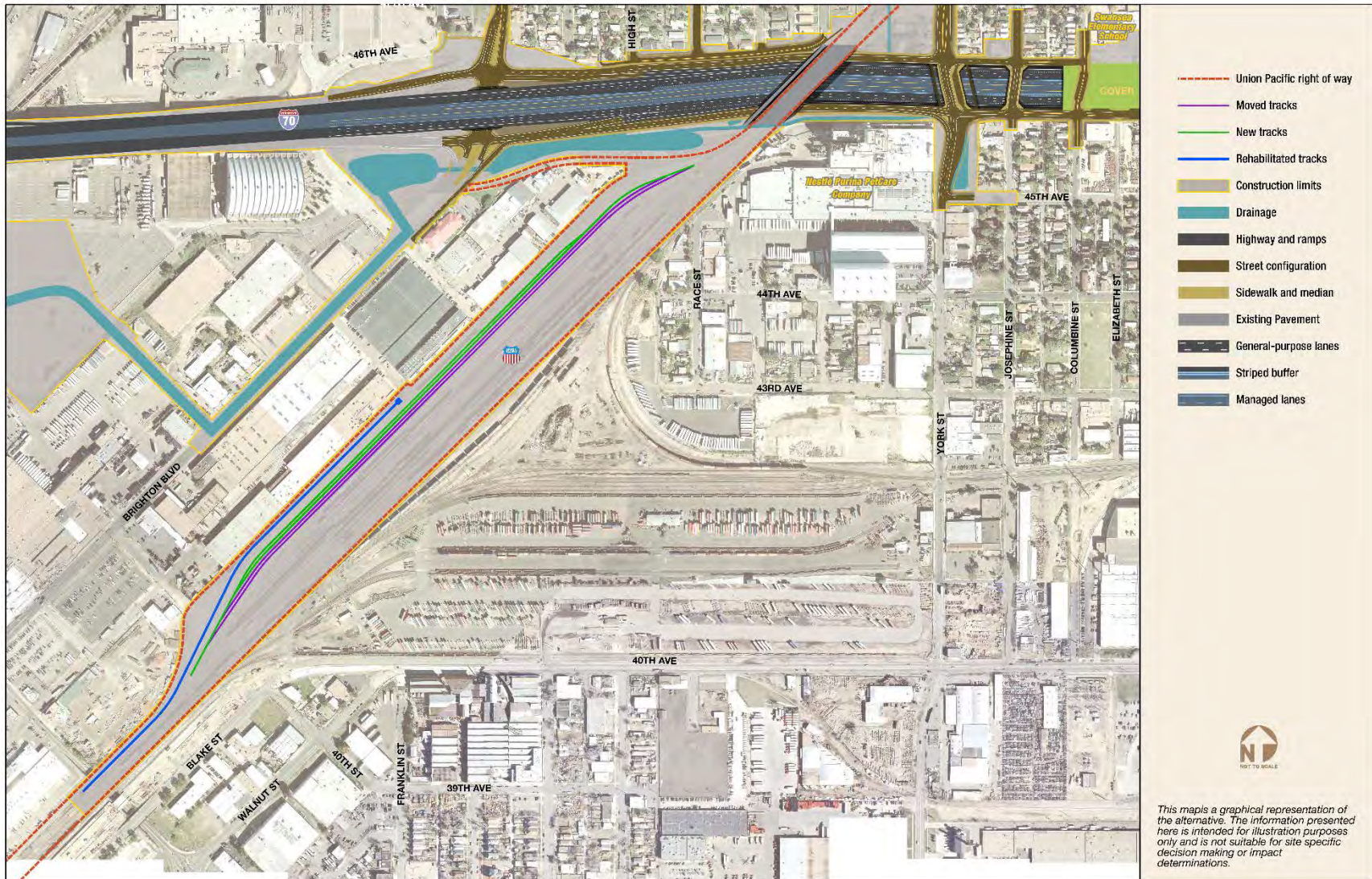


Figure 2 36th Avenue UPRR yard





Central 70

CENTRAL 70 PROJECT
ATTACHMENT C
COORDINATION &
CORRESPONDENCE

September 2017

This attachment lists the key documents used to support and document the agency coordination activities with the State Historic Preservation Office (SHPO), consulting parties for Section 106, Advisory Council on Historic Preservation (ACHP), Department of Interior (DOI), Denver Parks and Recreation, National Park Service (NPS), and Colorado Parks and Wildlife (CPW) performed during the Central 70 Reevaluation.

Correspondence in this attachment is listed by agency and presented chronologically, with the most recent documents listed last. For information on consultation prior to this reevaluation, please refer to the Draft Environmental Impact Statement (EIS), Supplemental Draft EIS, Final EIS, and Record of Decision (ROD).

Date	Recipient	Submitter	Subject
4/12/2017	Steve Turner, Colorado Historical Society (SHPO)*	Jane Hann, CDOT	Updated Section 106 Effects Determinations and Application of Section 4(f) Transportation Enhancement and Mitigation Exception, I-70 East Corridor Record of Decision Re-Evaluation, Denver County (CHS #41831)
4/18/2017	Jane Hann, CDOT	Steve Turner, SHPO	Re: Updated Section 106 Effects Determinations and Application of Section 4(f) Transportation Enhancement and Mitigation Exception, I-70 East Corridor Record of Decision Re-Evaluation, Denver County (CHS #41831)
5/17/2017	Steve Turner, SHPO *	Jane Hann, CDOT	Updated Section 106 Information, I-70 East Corridor Record of Decision Re-Evaluation, Denver County (CHS #41831)
5/30/2017	Steve Turner, SHPO *	Jane Hann, CDOT	APE Modifications, Additional Effects Determinations, I70 East Environmental Impact Statement, Denver and Adams Counties (CHS #41831)
6/2/2017	Jane Hann, CDOT	Steve Turner, SHPO	Re: APE Modifications, Additional Effects Determinations, I70 East Environmental Impact Statement, Denver and Adams Counties (CHS #41831)
6/30/17	Lisa Schoch, CDOT	Abigail Brown, Moye White, LLP	Re: Colorado Department of Transportation Letter Dated June 1, 2017 Concerning APE Modifications to the I-70 East Environmental Impact Statement (CHS # 41831)
7/5/17	Lisa Schoch, CDOT	Patricia Carmody	Re: APE Modification, Additional Effects Determinations (CHS #41831)
7/18/17	Reid Nelson, ACHP	Monica Pavlik, FHWA	Updated Documentation for Finding of Adverse Effect, Colorado Department of Transportation (CDOT), Reevaluation of I-70 East Record of Decision: Phase 1 (Central 70 Project)
8/30/17	Courtney Hoover, DOI	Monica Pavlik, FHWA	Section 4(f) DOI Notification
8/31/17	Megan Barton, Colorado Parks and Wildlife	Vanessa Henderson, CDOT	Section 6(f) Update – Changes to the temporary non-conforming use of Globeville Landing Park
8/31/17	Cincere Eades, Denver Parks and Recreation	Vanessa Henderson, CDOT	Section 6(f) Update – Changes to the temporary non-conforming use of Globeville Landing Park

**Consulting parties (Historic Denver, Inc., Colorado Preservation, Inc., City and County of Denver Landmark Preservation Commission, Fairmount Heritage Foundation, Fairmount Cemetery Company, and Ms. Patricia Carmody) also received a copy of this correspondence.*



COLORADO
Department of Transportation
Division of Transportation Development

Environmental Programs Branch
4201 E. Arkansas Ave., Shumate Building
Denver, CO 80222-3400
(303) 757-9281

April 12, 2017

Mr. Steve Turner
State Historic Preservation Officer
Colorado Historical Society
1200 Broadway
Denver, CO 80203

SUBJECT: Updated Section 106 Effects Determinations and Application of Section 4(f)
Transportation Enhancement and Mitigation Exception, I-70 East Corridor
Record of Decision Re-Evaluation, Denver County (CHS #41831)

Dear Mr. Turner:

This letter and attached materials constitute a request for concurrence on updated effects determinations for the project referenced above. This submittal concerns historic properties located between Brighton Boulevard to the west, Colorado Boulevard to the east, East 45th Avenue to the south, and East 47th Avenue to the north (Attachment A). The properties are subject to Environmental Justice mitigation related to noise and dust impacts created by construction activities. As outlined in the ROD, CDOT's mitigation for temporary construction impacts includes installation of interior storm windows and two portable or window-mounted air conditioning units to residences in this part of the Area of Potential Effects (APE).

We consulted with you regarding mitigation for dust and noise in correspondence dated September 2, 2015, and September 15, 2015. At that time, we approximated that there were about ninety (90) properties within this part of the APE that would be subject to the mitigation, and determined that the interior storm window installation and air conditioning units would result in *no adverse effect* to the historic properties. You concurred with this finding in correspondence dated September 15, 2015.

We subsequently clarified that there are forty-four (44) historic properties, including one historic district, in this area that will be subject to the mitigation. Of these, thirty-four (34) properties result in a finding of *no adverse effect* under the Preferred Alternative and are included in Attachment B (only properties resulting in a finding of *no adverse effect* under the Preferred Alternative are included). Properties that will receive the proposed mitigation but will be adversely affected by the Preferred Alternative were not included because the *no adverse effect* determination related to this mitigation does not change the effects determination for these properties. For example, the Arthur R. Wessel Historic District (5DV10126) contains thirty-two contributing properties within this part of the APE and will be adversely affected by the Preferred Alternative. While some of the district's contributing properties will receive the proposed mitigation, they were not included in Attachment B since there is already a finding of *adverse effect* for the broader district.

The City of Denver Office of Economic Development has developed its own plan to address dust related to the construction of the I-70 East project, and has approached CDOT to request funding assistance for select options outlined in their plan. As part of this collaboration, the City will coordinate the labor force

needed to fulfill its broader plan and the options funded and approved by CDOT, so that home owners will only be contacted once for the mitigation measures.

CDOT has reviewed the City of Denver plan and agreed to fund the options that meet the Secretary of Interior's Standards for Rehabilitation and Sustainability Guidelines (Guidelines), and would result in *no adverse effect* to the properties within the APE noted above (as reflected in Attachment A). We are only funding the City of Denver options that meet CDOT's requirements to mitigate temporary dust and noise effects related to project construction, and recognize these options as mitigation for the temporary effects. In addition, this consultation addresses only the properties in the APE affected by the CDOT mitigation and the City options funded by CDOT. It does not address the effects of any additional measures implemented by the City as part of its larger plan and cannot be used by the City to fulfill its obligations under Section 106.

Following is a description of the City of Denver options CDOT will fund:

1. *Attic insulation*: This would involve insulating attic spaces to improve energy efficiency and address temporary noise effects, and may include insulation in walls. The Guidelines recommend that the installation of insulation would not involve the removal or damage to any historic materials or would not be considered reversible, so it would not involve use of wet-spray or spray-in insulation. The following are recommendations outlined in the Sustainability Guidelines:
 - a. Understand the inherent thermal properties of the historic building materials and the actual insulating needs for the specific climate and building type before adding or changing insulation.
 - b. Insulate unfinished spaces, such as attics, basements, and crawl spaces first.
 - c. Use the appropriate type of insulation in unfinished spaces and ensure the space is adequately ventilated.
 - d. Ensure that air infiltration is reduced before adding wall insulation.
2. *Air sealing*: This work involves caulking and weather stripping, both of which meet the Guidelines provided the work would not involve removal of wall material or any alteration or removal of historic materials.
3. *Programmable Thermostat and Carbon Monoxide Detectors*: This would involve mounting programmable thermostat systems and carbon monoxide detectors on interior walls. This work is reversible and will not result in alterations to historic materials or any structural changes to structures.

All of these proposed options are reversible, will not result in changes to or removal of historic materials, and meet the Secretary of Interior's Standards for Rehabilitation and the associated Sustainability Guidelines. Based on this understanding, CDOT has determined that these options result in *no adverse effect* to the historic properties in this area of the APE and identified in Attachment B. If the scope of work changes, CDOT will re-open consultation to address any changes to properties or effects to additional properties not identified in this consultation.

These mitigation activities are exempt from Section 4(f) provided your office agrees that use of the historic properties is solely for the purpose of preserving or enhancing the activities, features, and



Mr. Turner
April 12, 2017
Page 3 of 3

attributes that qualify these properties for Section 4(f) protection (23 CFR 774.13(g)). We request your agreement that the uses outlined above meet these criteria.

This information has been forwarded to the consulting parties previously identified for this project. We will forward any responses we receive from those groups.

We request your concurrence with the updated Determinations of Effects and your agreement in writing regarding the application of the Transportation Enhancement and Mitigation Exception for Section 4(f), as outlined above. If you require additional information, please contact CDOT Senior Historian Lisa Schoch at (303) 512-4258, or lisa.schoch@state.co.us.

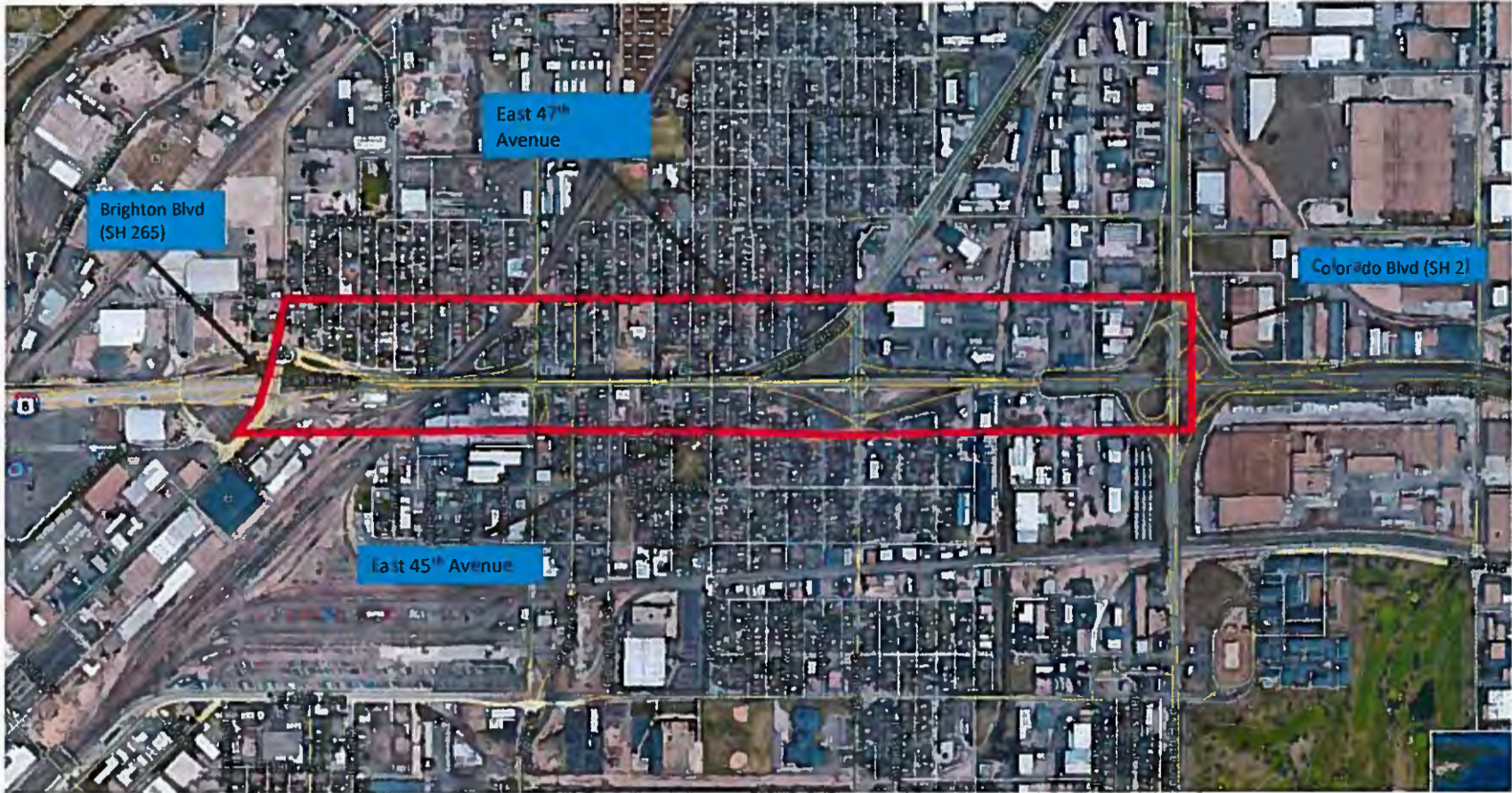
Very truly yours,


 Jane Hann, Manager
Environmental Programs Branch

Attachments:

Attachment A: Map of mitigation area
Attachment B: Historic Properties List

cc: Vanessa Henderson, CDOT
Monica Pavlik, FHWA



Attachment A

I-70 East Corridor Record of Decision Re-Evaluation
Limits of area where dust and noise mitigation will occur

4/12/2017

Attachment B

Historic Property List for Dust and Noise Mitigation (No Adverse Effect under Preferred Alternative)

4665/4669 N. Williams Street (duplex) (5DV9828)

4645 N. Williams Street (5DVV9795)

4662/4664 N. Williams Street (5DV10085)

4675 N. Williams Street (5DV9823)

4695 N. High Street (5DV10040)

4668 N. High Street (5DV10034)

4681 N. Race Street (5DV12306)

2000 E. 47th Avenue (5DV12302)

4684 N. Race Street (5DV12303)

4691 N. Vine Street (5DV12311)

4683 N. Vine Street (5DV12305)

4679 N. Vine Street (5DV10135)

4681 Josephine Street (5DV9761)

4673 Josephine Street (5DV1172)

4628 Josephine Street (5DV9748)

4647 Josephine Street (5DV9751)

4696 Josephine Street (5DV5623/5DV9765)

4632 Josephine Street (5DV5677)

4633 Josephine Street (5DV9706)

4651 Josephine Street (5DV9753)

4682 Josephine Street (5DV9762)

4653 Columbine Street (5DV9996)

4631 Columbine Street (5DV9705)

4625 Thompson Court (5DV9787)

4690 Fillmore Street (5DV12312)

4680 Fillmore Street (5DV12310)

4695 Milwaukee Street (5DV12308)

4685 Milwaukee Street (5DV12313)

4529 Josephine Street (5DV9745)

4502 Josephine Street (5DV9742)

4515 Columbine Street (5DV9994)

4541 Clayton Street (5DV9679)

Attachment B

4539 Clayton Street (SDV9678)

4503 Fillmore Street (SDV9714)



April 18, 2017

Jane Hann, Manager
Environmental Programs Branch
Colorado Department of Transportation
4201 E. Arkansas Avenue
Denver, CO 80222

Re: Updated Section 106 Effects Determinations and Application of Section 4(f) Transportation Enhancement and Mitigation Exception, I-70 East Corridor Record of Decision Re-Evaluation, Denver County (CHS #41831)

Dear Ms. Hann:

Thank you for your correspondence dated April 12, 2017 and received on April 13, 2017 by our office regarding the review of the above-mentioned project under Section 106 of the National Historic Preservation Act (Section 106). After review of the provided scope of work related to the proposed Environmental Justice mitigation for the noise and dust associated with the proposed I-70 East project and assessment of adverse effect, we concur with the finding of *no adverse effect* [36 CFR 800.5(d)(1)] under Section 106 for the three options identified in conjunction with the City and County of Denver. These three options are attic insulation, provided the insulation follows the recommendations outlined in the Sustainability Guidelines, air sealing, and the installation of programmable thermostat and carbon monoxide detectors for those resources listed in Attachment B of the above-mentioned letter. We also note that any actions taken by the City and County of Denver which are not consistent with the mitigation identified above are subject to independent review between the City and County of Denver and our office and are not identified as part of the Colorado Department of Transportation's I-70 East Project.

We acknowledge that FHWA intends to apply exception 23 CFR 774.13(g) in respect to the requirements of Section 4(f) as the use of the historic properties in question is for the sole purpose of preserving or enhancing the activities, features, and attributes that qualify these properties for Section 4(f) protection.

Should unidentified archaeological resources be discovered in the course of the project, work must be interrupted until the resources have been evaluated in terms of the National Register eligibility criteria (36 CFR 60.4) in consultation with our office pursuant to 36 CFR 800.13. Also, should the consulted-upon scope of the work change please contact our office for continued consultation under 36 CFR 800.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings. Please note that our compliance letter does not end the 30-day review period provided to other consulting parties.

If we may be of further assistance, please contact Jennifer Bryant, our Section 106 Compliance Manager, at (303) 866-2673.

Sincerely,


fr Steve Turner, AIA
State Historic Preservation Officer



COLORADO
Department of Transportation
Division of Transportation Development

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4201 E. Arkansas Ave.
Shumate Building
Denver, CO 80222-3400
(303) 757-9281

May 17, 2017

Mr. Steve Turner
State Historic Preservation Officer
History Colorado
1200 Broadway
Denver, CO 80203

SUBJECT: Updated Section 106 Information, I-70 East Corridor Record of Decision Re-Evaluation, Denver County (CHS #41831)

Dear Mr. Turner:

This letter provides clarification regarding our recent Section 106 consultation for the project referenced above. In a letter dated April 12, 2017, we consulted on historic properties subject to Environmental Justice mitigation for noise and dust impacts created by construction activities in the area bounded by Brighton Boulevard on the west, Colorado Boulevard on the east, East 45th Avenue on the south, and East 47th Avenue on the north.

In that correspondence we noted that there are forty-four (44) historic properties, including one historic district that will be subject to mitigation for noise and dust. Of those, thirty-four (34) properties result in a finding of *no adverse effect* under the Preferred Alternative. We referenced CDOT's noise and dust mitigation as outlined in the ROD, and summarized CDOT's intention to fund select options from the City of Denver Office of Economic Development's plan to address dust related to construction of the I-70 East project. You agreed with our finding that these options will result in *no adverse effect* to the historic properties in the mitigation area.

Since that time, we have finalized the list of properties that will receive mitigation and determined there was an error in the April 12 letter. We indicated the property at 4633 *Josephine* (5DV9706) would be subject to mitigation; however, the actual property is 4633 *Columbine* Street (5DV9706). This discrepancy does not alter the effects determination for this or any other property, and we are notifying you for informational purposes only.

If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303) 512-4258, or lisa.schoch@state.co.us.

Very truly yours,

Jane Hann, Manager
Environmental Programs Branch

cc: Vanessa Henderson, CDOT
Monica Pavlik, FHWA
Dominick Sekich, Moye, White
Kelly Briggs, Fairmount Cemetery Company
Jim Cavato, Fairmount Heritage Foundation

John Olson, Historic Denver, Inc.
Jennifer Orrigo-Charles, CPI
Patricia Carmody
Kara Hahn, Denver Landmark Preservation Services



COLORADO
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(303) 757-9281

May 30, 2017

Mr. Steve Turner
State Historic Preservation Officer
History Colorado
1200 Broadway
Denver, CO 80203

SUBJECT: APE Modifications, Additional Effects Determinations, and Section 4(f) *De Minimis* Notification, I-70 East Environmental Impact Statement, Denver and Adams Counties (CHS #41831)

Dear Mr. Turner:

This letter and attached materials constitute a request for comments on modifications to the Area of Potential Effects (APE), and an update regarding effects determinations for properties within the APE boundary for the project referenced above. These modifications have occurred since the Record of Decision was signed in January 2017.

Modifications

The following summarizes proposed modifications to the APE boundary and updates to historic properties within the APE. No new resources were identified in the areas where the APE boundary has been modified but there are some changes to previously-documented resources within these expanded APE locations. Items 1, 2 and 4 below describe changes to the APE boundary, and Items 3, 5, 6 and 7 include updates to specific properties already identified in the APE. Also see attached Figures 1 through 8, which are referenced herein.

Figure 1 illustrates the areas where the APE boundary will be modified or where there are updated effects to specific properties. Each modification is summarized below with the numbers keyed to the locations on the map. More details regarding effects are also included on pages 2-4, below.

1. *38th Avenue and Blake Street, Union Pacific Railroad Railyard:* In this location, the Union Pacific Railroad (UPRR) has determined that it requires more storage space in its railyard during construction, so the APE boundary will be extended to include the entire UPRR Railyard (5DV6248.3), rather than just the northeast portion as previously intended. This will result in changes to the effects to the railroad segment, as described in more detail below.
2. *Between 48th Avenue & Josephine Street and Swansea Park/Recreation Center:* The APE boundary needs to be modified to accommodate a request by the UPRR to include a staging area for the railroad work. This APE change is adjacent to, but does not include, UPRR segment 5DV6248.4. No historic properties are within this updated APE location.
3. *44th Avenue and Brighton Boulevard:* Due to changes in drainage, there will be a new impact to an existing detention basin, which impacts a non-contributing spur of the UPRR (5DV6248.10). There is no APE change at this location.

4. *48th Avenue at York Street*: The APE boundary needs to be extended on 48th Ave. to address the installation of a drainage pipe to York Street. The APE will be expanded to encompass the pipe and existing drainage surface flow. All work is planned to stay within existing right-of-way.
5. *Purina Plant, 2151 E. 45th Avenue, (5DV9245), northeast corner*: This property was addressed previously and is within the APE boundary. The project will now require a minor temporary easement.
6. *Safeway Distribution Center (5DV9232), north end*: The project now requires increased construction limits within the existing APE to facilitate grading and additional space for detention ponds. This will involve an additional temporary easement on the Safeway Distribution Center property. The APE does not require modification at this location.
7. *Denver Coliseum Parking Lot (and National Western Historic District 5DV10050)*: The project has redesigned some of its drainage needs, and has reduced the area of impact to this site. The APE does not need to be modified at this location.

Eligibility Status of Properties in the Modified APE

There were no changes to the eligibility of historic properties in the modified APE. Table 1 lists the status of properties in the modified APE and properties where there are updated effects.

Table 1

APE Location	Location	Resource Number	Resource Name	Eligibility Determination
1	38 th Avenue and Blake Street	5DV6248.3	Union Pacific Railroad Railyard	Supports the Eligibility of Entire Resource, 2006
2	48 th Avenue and Josephine Street	5DV6248.4	Union Pacific Railroad, Segment	Supports the Eligibility of the Entire Resource, 2007/2013
3	44 th Avenue and Brighton Boulevard	5DV6248.10	Union Pacific Railroad, Segment	Non-Supporting of the Eligibility of the Entire Resource.
4	48 th Avenue and York Street	Adjacent to 5DV6248.4	Union Pacific Railroad, Segment	Supports the Eligibility of the Entire Resource, 2007/2013
5	Purina Plant 2151 E. 45 th Avenue	5DV6248.4	Union Pacific Railroad, Segment	Eligible, Officially, 2007/2013
6	Safeway Distribution Center	5DV9232	Safeway Distribution Center, 4200-4600 E. 46 th Avenue	Eligible, Officially 2007/20013
7	Denver Coliseum parking lot	5DV10050	Denver Coliseum (within National Western Historic District)	Eligible, Officially

Effects Updates

Modification 1 (See Figure 2)

Union Pacific Railroad (5DV6248.3): The railroad is within an area of the APE that has been expanded. Work will require the UPRR to extend reconstruction of 5,400 linear feet of existing yard tracks, and the addition of approximately 8,000 linear feet of new track within the yard to mitigate rail traffic conflicts during project construction. Since impacts to the railyard will include changes to the historic railroad alignment in this segment, CDOT has determined that this results in an *adverse effect* to the overall resource, including segment 5DV6248.3.

The adverse effect requires mitigation, and we propose—consistent with the project’s Section 106 Programmatic Agreement—a re-evaluation survey and Level II documentation be completed before construction.

Modification 2 (See Figure 3)

Union Pacific Railroad (5DV6248.4): The railroad is within an area of the APE that has been expanded. The railroad segment is adjacent to the modified APE. There are no direct effects to the railroad or contributing features, so CDOT has recommends a finding of *no historic properties affected* for the overall railroad, including segment 5DV6248.4.

Modification 3 (See Figure 4)

Union Pacific Railroad (5DV.6248.10): This is an area where no change was made to the APE. The project involves removing and replacing the rails during construction. The segment is non-supporting, so CDOT has determined that this work results in *no adverse effect* to the overall resource, including segment 5DV6248.10.

Modification 4 (See Figure 5)

Union Pacific RR (5DV.6248.4): The APE is extended east-west on 48th to accommodate construction of a storm drain extension east to York and 48th Avenue, where new storm inlets to collect surface drainage are proposed. Changes at the York Street location will accommodate drainage improvements adjacent to the buildings on the west side of this property, but will not have any direct effect on them. Proposed reconstruction of York Street from the crossing to 48th Avenue will improve conveyance of surface drainage along York Street; there is no existing collection system to intercept the surface drainage and direct it into an existing storm system. The street will be returned to existing conditions with only slight changes to profile. UPRR segment 5DV6248.4 is within the APE and near these improvements but will not be affected. As a result, the proposed work results in *no historic properties affected* with regard to the overall railroad, including 5DV6248.4.

Modification 5 (See Figure 6)

Ralston-Purina Plant/Nestle Purina Petcare Company (5DV9245): No APE boundary modification was needed at this location, but an additional temporary easement from the Purina property is needed for construction. The easement is located in an area of the property that is vacant near the railroad alignment, and it will not affect any significant features of the historic property, as noted in Figure 6. For these reasons, CDOT has determined that the additional easement results in *no adverse effect* to the property.

Modification 6 (See Figure 7)

Safeway Distribution Center (5DV9232): No APE boundary modification was needed at this location. The project will require the acquisition of a temporary easement in the parking lot in the northern part of the parcel shown in blue. There will be no impact to any significant features of the distribution center. The easement is for reconstruction of existing drainage and containment ponds and the associated storm drain system, and for reconstruction of parking and driveways. The existing ponds will be replaced in kind, and will result in minimal visual and setting changes. It will not impact the character-defining features of the resource, and the existing determination of *no adverse effect* remains valid.

Modification 7 (See Figure 8)

Denver Coliseum and National Western Historic District (5DV10050): No APE boundary modification was needed at this location. Denver Public Works’ recent decision to develop and construct the Denver Two-Basins project with connection to the Globeville Landing Outfall (GLO), and subsequent reanalysis of the proposed I-70 off-site outfall have resulted in modifications to the original design. Included in the redesign is the elimination of a separate storm pipe outfall to the Platte River at Globeville Landing Park, and elimination of a low-flow connection to the GLO Phase 2 project at Brighton Boulevard and the Pepsi facility. The Central 70 limits of construction were reduced to remove the areas of the GLO project

Mr. Turner
May 30, 2017
Page 4 of 4

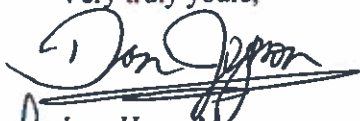
previously covered, including the Coliseum parking lot, Globeville Landing Park, Pepsi facility property and Brighton Boulevard from Pepsi to 44th Street. Due to the reduction of impact, the existing determination of *no adverse effect* to this resource remains valid.

Section 4(f) *De Minimis* Notification

The Section 4(f) regulations (23 CFR 774) provide FHWA an opportunity to make a *de minimis* impact finding under Section 4(f), if the Section 106 finding is no adverse effect. This serves as notification that, pursuant to 23 CFR 774.5(b)(ii) regarding coordination, FHWA may make a *de minimis* finding for the properties referenced above that result in a finding of no adverse effect.

We request your comments on the revised APE, concurrence with the Determinations of Eligibility and Effects, and acknowledgement of the Section 4(f) *De Minimis* notification outlined above. If you have questions or require additional information, please contact Senior Historian Lisa Schoch at (303) 512-4258 or via email at lisa.schoch@state.co.us.

Very truly yours,



Jane Hann, Manager
Environmental Programs Branch

Enclosures: Figures 1-8

cc: Vanessa Henderson, Central 70

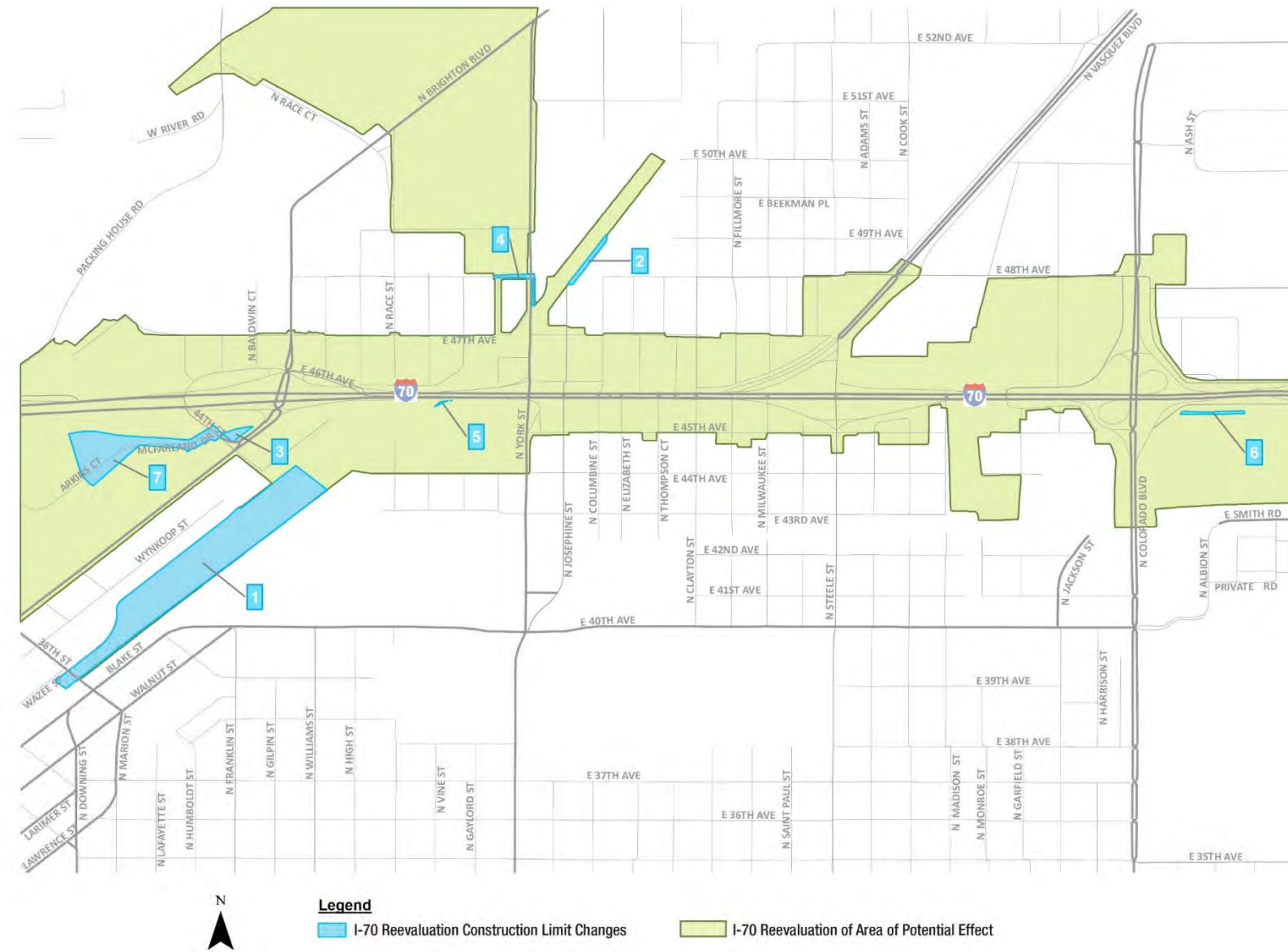


Figure 1. Revised APE and impacts. Modification numbers shown in blue text boxes.



Figure 2. Updated APE for Union Pacific Railroad Railyard (5DV.6248.3).



Figure 3. Modification between Josephine Street and 48th Avenue.

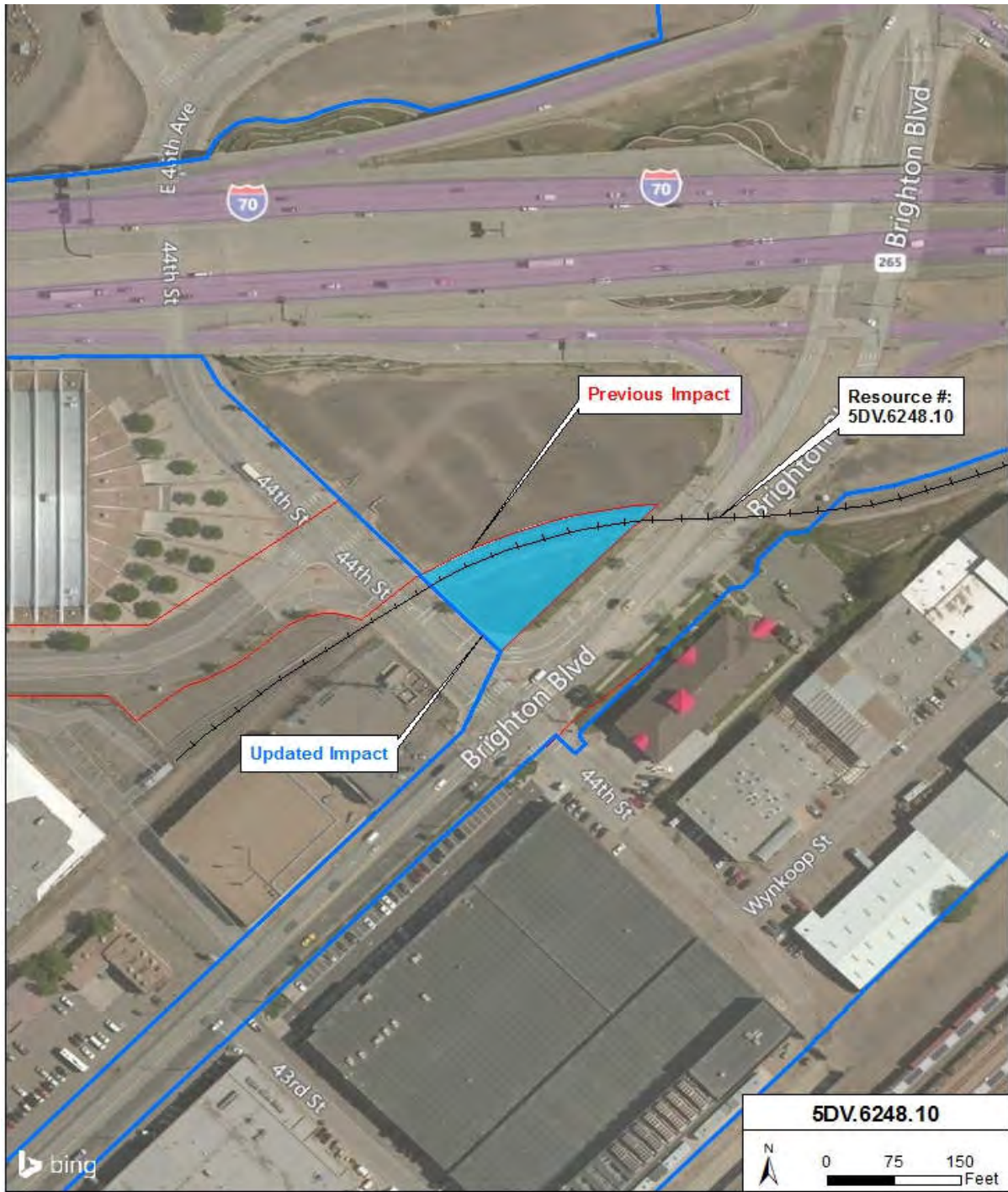


Figure 4. Modification at 44th Avenue and Brighton Boulevard

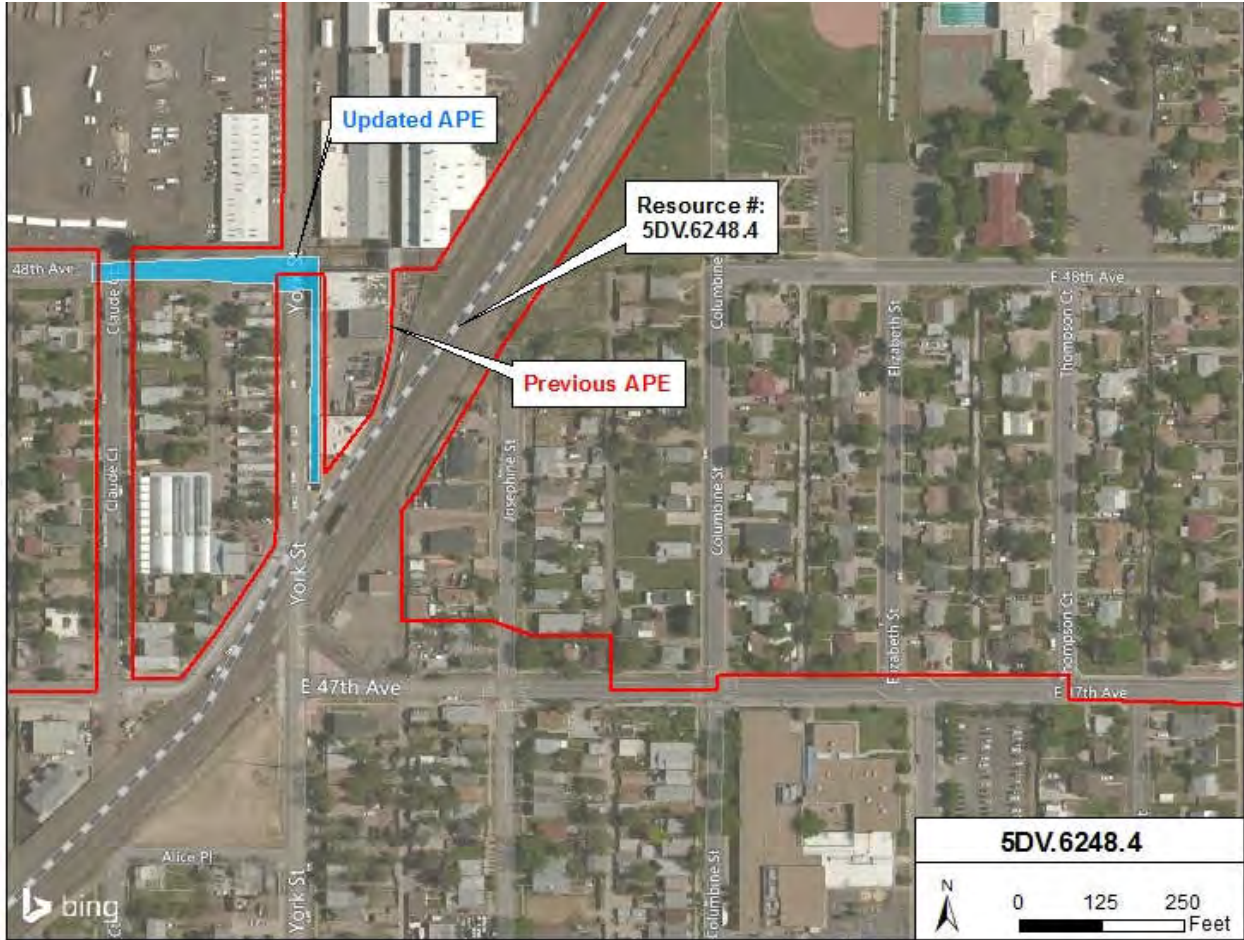


Figure 5. Modifications at 48th Avenue and York Street

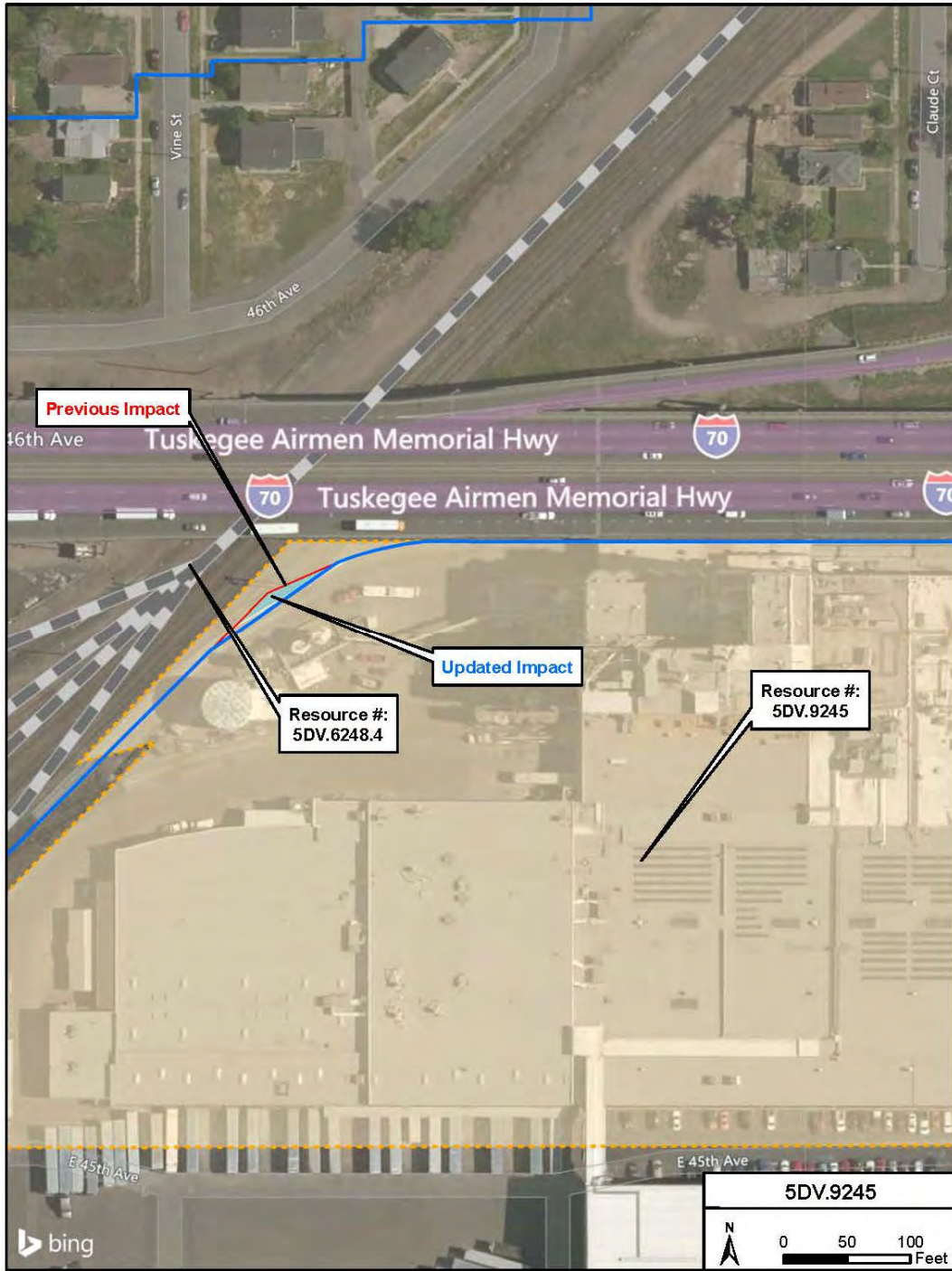


Figure 6. Modification at Purina Plant (5DV.9245)

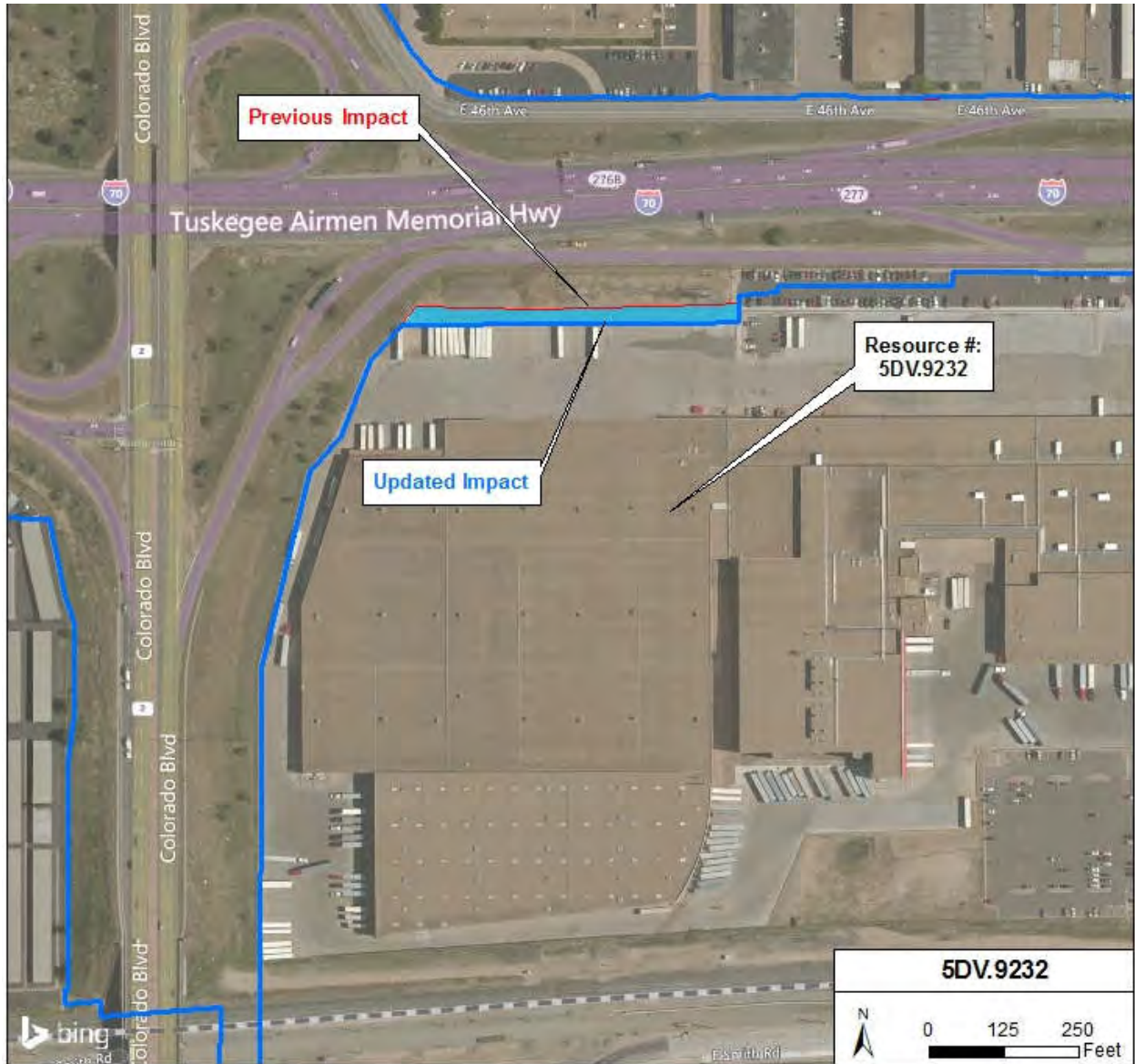


Figure 7. Modification at Safeway Distribution Center (5DV.9332)

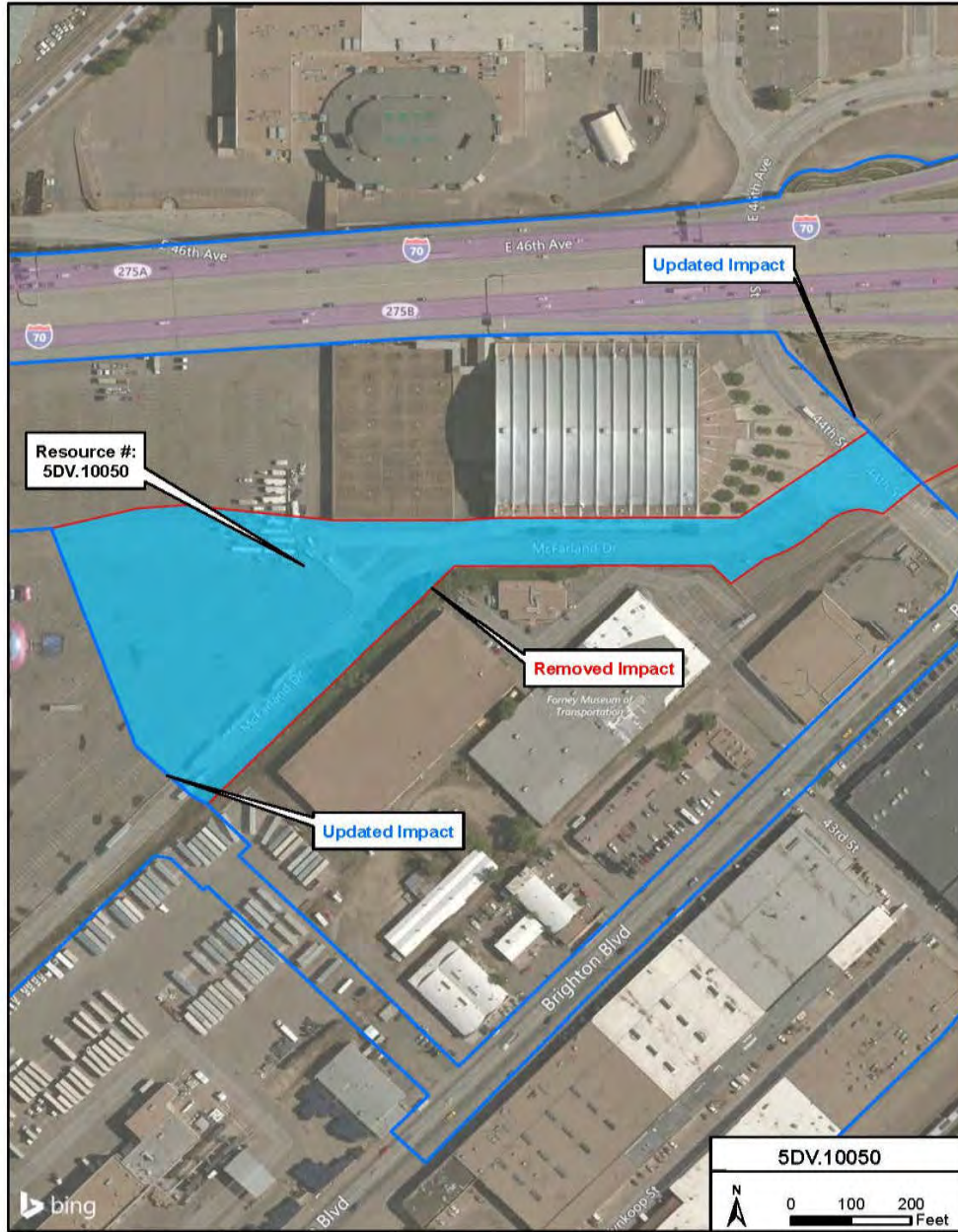


Figure 8. Modification at Denver Coliseum and National Western Historic District (5DV.10050)



HISTORY Colorado

June 2, 2017

Jane Hann, Manager
Environmental Programs Branch
Colorado Department of Transportation
4201 E. Arkansas Ave.
Denver, CO 80222 3400

Re: APE Modifications, Additional Effects Determinations, and Section 4(f) *De Minimis* Notification, I-70 East Environmental Impact Statement, Denver and Adams Counties (HC #41831)

Dear Ms. Hann:

Thank you for your correspondence dated and received on May 30, 2017 by our office regarding the consultation of the above mentioned project under Section 106 of the National Historic Preservation Act (Section 106).

After review of the provided information, we do not object to the proposed Area of Potential Effects (APE) modifications for the proposed project.

After review of the provided information, our previous eligibility concurrences remain. After review of the revised scope of work and assessment of adverse effect, we concur with the recommended finding of *no historic properties affected* [36 CFR 800.4(d)(1)] under Section 106 for resource 5DV.6248, including segment 5DV.6248.4.

We also concur with the recommended finding of *no adverse effect* [36 CFR 800.5(d)(1)] under Section 106 for the following resources.

- 5DV.6248.10
- 5DV.9245
- 5DV.9232
- 5DV.10050

We also concur that the proposed alterations to segment 5DV.6248.3 will result in an *adverse effect* [36 CFR 800.5(d)(2)] under Section 106 to resource 5DV.6248, including segment 5DV.6248.3. We concur that re-evaluation survey and Level II documentation of the segment, consistent with the project's Section 106 Programmatic Agreement will serve to appropriately mitigate the adverse effect to this resource.

We acknowledge that FH/WQ may make a *de minimis* determination in respect to the requirements of Section 4(f) for those resources above that result in a finding of no adverse effect.

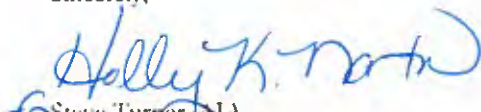
Should unidentified archaeological resources be discovered in the course of the project, work must be interrupted until the resources have been evaluated in terms of the National Register eligibility criteria (36 CFR 60.4) in consultation with our office pursuant to 36 CFR 800.13. Also, should the consulted-upon scope of the work change please contact our office for continued consultation under 36 CFR 800.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings.

Please note that our compliance letter does not end the 30 day review period provided to other consulting parties.

If we may be of further assistance, please contact Jennifer Bryant, our Section 106 Compliance Manager, at (303) 866 2673 or jennifer.bryant@state.co.us.

Sincerely,


Steve Turner, MA
State Historic Preservation Officer

June 30, 2017

VIA EMAIL ONLY (lisa.schoch@state.co.us)

Lisa Schoch, Senior Historian
Colorado Department of Transportation
Environmental Programs Branch
4201 E. Arkansas Ave., Shumate Bldg.
Denver, CO 80222

Re: Colorado Department of Transportation Letter Dated June 1, 2017 Concerning APE
Modifications to the I-70 East Environmental Impact Statement (CHS # 41831)

Dear Ms. Schoch:

This correspondence is in response to the Colorado Department of Transportation's ("CDOT") letter to Moye White LLP, dated June 1, 2017, advising of the APE Modifications to the I-70 East Environmental Impact Statement (CHS # 41831). Moye White represents Fairmount Cemetery Company ("Fairmount"), a consulting party, on this matter. Fairmount owns and operates, Riverside Cemetery, which is located within the current APE.

I reached out to you via email on June 12, 2017 to seek clarification regarding the scope of the APE modifications as it related to the drainage improvements located at York Street and 48th Avenue. In your response on June 23, 2017, you advised that the modification to the drainage system at the York Street and 48th Avenue location addressed drainage issues only at that specific location. You also confirmed that the drainage along Riverside Cemetery's boundary has not changed from what was previously identified in the prior consultation.

Based on this understanding, Fairmount has no comments at this time on the revised APE or Determinations of Eligibility and Effects set forth in the CDOT's letter.

Best regards,



Abigail L. Brown

cc: Rebecca DeCook

4850-6314-8619.1

From: **Patricia Carmody** <pc@patriciacarmody.com>

Date: Wed, Jul 5, 2017 at 2:04 PM

Subject: APE Modification, Additional Effects Determinations (CHS #41831)

To: "Schoch - CDOT, Lisa" <lisa.schoch@state.co.us>

I have no comments or questions at this time.

Thank you.

Patricia

Patricia Carmody Consulting

[303-968-6447](tel:303-968-6447)

From: Pavlik, Monica (FHWA) [<mailto:Monica.Pavlik@dot.gov>]

Sent: Tuesday, July 18, 2017 12:42 PM

To: e106@achp.gov

Cc: Schoch - CDOT, Lisa <lisa.schoch@state.co.us>; Vanessa Henderson (vanessa.henderson@state.co.us) <vanessa.henderson@state.co.us>; Gibson, Stephanie (FHWA) <Stephanie.Gibson@dot.gov>; Wallis, Carrie <Carrie.Wallis@atkinsglobal.com>

Subject: I-70 East - Documentation for Finding of Adverse Effect - Update

Dear Mr. Nelson,

Attached please find an update to the documentation for Adverse Effect for the I-70 East Project in Colorado. FHWA is in the process of completing a re-evaluation for the Central 70 project, which is the first phase of the I-70 East Project. Included is a Transmittal letter with additional project information.

If you have any questions, please contact me.

Monica Pavlik, PE

FHWA Major Project Oversight Manager
12300 W. Dakota Ave Suite 180
Lakewood, CO 80228
office - (720) 963-3012
CELL# (303) 941-2717



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

Colorado Division

July 18, 2017

12300 W. Dakota Ave., Suite #180
Lakewood, Colorado 80228
720-963-3000

Mr. Reid Nelson
Advisory Council Historic Preservation (ACHP)
Director of Office of Federal Agency Programs
401 F Street NW, Suite 308
Washington, DC 20001

Attn: MaryAnn Naber

SUBJECT: Updated Documentation for Finding of Adverse Effect, Colorado Department of Transportation (CDOT), Reevaluation of I-70 East Record of Decision 1: Phase 1 (Central 70 Project)

Dear Mr. Nelson:

Transmitted herewith is an update to the Documentation for Finding of Adverse Effect for the CDOT project referenced above. Federal Highway Administration (FHWA) previously submitted the Documentation for Finding of Adverse Effect for the project in May 2015 and an update dated December 2016 and received notifications that ACHP declined to participate.

The documentation included herewith consists of an updated report that includes new information about the Union Pacific Railroad (5DV6248), including 5DV6248.3, a railyard that is a supporting part of the larger railroad resource. The project resulted in an adverse effect to the overall railroad in previous consultation. 5DV6248.3 is a newly-identified feature within the Area of Potential Effect where there are additional effects. Given that the effect to the overall railroad has not changed and is still adverse, this update is for informational purposes and no response from ACHP is required.

FHWA is submitting this updated Documentation for Finding of Adverse Effect pursuant to the Advisory Council Regulations, 36 CFR 800.6(a)(1). In accordance with the process set forth in the regulations, CDOT has identified mitigation measures for the project as indicated in Item 11 of the enclosed documentation.

If there are any questions regarding this project, please contact CDOT Senior Staff Historian Lisa Schoch at (303) 512-4258.

Sincerely,

John M. Cater, P.E.
Division Administrator

By: Monica C. Pavlik
Major Projects Oversight Manager

Enclosures (Electronic copy of DAE)

cc: Monica Pavlik, FHWA Major Project Oversight Manager
Vanessa Henderson, I-70 Mountain Corridor Environmental Manager
Lisa Schoch, CDOT Environmental Programs Branch
Stephanie Gibson, FHWA Environmental Program Manager
Lisa Schoch, CDOT Environmental Programs Branch



Advisory Council on Historic Preservation
Electronic Section 106 Documentation Submittal System (e106) Form
MS Word format

Send to: *e106@achp.gov*

I. Basic information

- 1. Name of federal agency** (If multiple agencies, state them all and indicate whether one is the lead agency): Federal Highway Administration (Lead Agency responsible for Section 106)
- 2. Name of undertaking/project** (Include project/permit/application number if applicable):
Reevaluation of I-70 East ROD 1: Phase 1 (Central 70 Project) (January 19, 2017)
- 3. Location of undertaking** (Indicate city(s), county(s), state(s), land ownership, and whether it would occur on or affect historic properties located on tribal lands):

The I-70 East Environmental Impact Statement (EIS) is a joint effort between the Federal Highway Administration (FHWA) and the Colorado Department of Transportation (CDOT). The project proposes to construct improvements along I-70 in the Denver metropolitan area between I-25 and Tower Road. The project area covers neighborhoods within Denver, Commerce City, and Aurora including but not limited to Globeville, Elyria and Swansea, Northeast Park Hill, Stapleton, Montbello and Aurora. The project is located in both Denver and Adams Counties.

The Record of Decision (ROD) selected the portion of the I-70 East Project, known as the Central 70 Project, which was introduced as Phase I of the Preferred Alternative in the Final EIS, for implementation. The Central 70 Project has independent utility and logical termini and can operate as a stand-alone project. The Central 70 Project includes improvements to an approximately 10-mile stretch of I-70 East from Interstate 25 to Chambers Road, adding one new tolled express lane in each direction, removing the aging viaduct, lowering the highway between Brighton Boulevard and Colorado Boulevard, and placing a four-acre cover over a portion of the lowered highway. See ROD Exhibit 8 below for an overview of the project location. Construction is due to start in 2018.

ADVISORY COUNCIL ON HISTORIC PRESERVATION

401 F Street NW, Suite 308 □ Washington, DC 20001-2637
Phone: 202-517-0200 Fax: 202-517-6381 achp@achp.gov www.achp.gov

Exhibit 8 Central 70 Project Overview



4. Name and title of federal agency official and contact person for this undertaking, including email address and phone number:

Monica Pavlik, Federal Highway Administration: monica.pavlik@dot.gov (720) 963-3012

5. Purpose of notification. Indicate whether this documentation is to:

- Update the previous notification to the ACHP that an undertaking will adversely affect historic properties

II. Information on the Undertaking*

6. Describe the undertaking and nature of federal involvement (if multiple federal agencies are involved, specify involvement of each):

The I-70 East Environmental Impact Statement (EIS) is a joint effort between FHWA and CDOT. The project proposes to construct improvements along I-70 in the Denver metropolitan area between I-25 and Tower Road. The project area covers neighborhoods within Denver, Commerce City, and Aurora including but not limited to Globeville, Elyria and Swansea, Northeast Park Hill, Stapleton, Montbello and Aurora. Improvements to this corridor are necessary to improve safety, access, and mobility and address congestion on I-70 in the project area, which is one of the most heavily traveled and congested highway corridors in not only the region, but the state as well.

The I-70 East Draft Environmental Impact Statement and Section 4(f) Evaluation was published in November 2008 followed by the I-70 East Supplemental Draft EIS and Section 4(f) Evaluation in August 2014. The I-70 East Final Environmental Impact Statement and Section 4(f) Evaluation was published in January 2016, and the Record of Decision (ROD) was signed in January 2017. As noted above, the ROD selected the portion of the I-70 East Project, known as the Central 70 Project, which was introduced as Phase I of the Preferred Alternative in the Final EIS, for implementation. The Central 70 project has independent utility and logical termini and can operate as a stand-alone project.

A Finding for Documentation of Adverse Effect report was initially submitted to the Advisory Council on Historic Preservation (ACHP) in May 2015; the ACHP responded in a letter dated July 6, 2015 and declined the opportunity to participate. An updated report was sent in December 2016 and the ACHP

notified FHWA via Email that they would not be participating. A Programmatic Agreement was signed by the agencies in April 2016 and was filed with the ACHP in November 2016.

Section 106 consultation was re-opened in May 2017 to address modifications to the project Area of Potential Effects (APE) and updated effect determinations. These modifications have occurred since the ROD as signed in January 2017. This additional consultation not only outlined changes to the APE but resulted in additional effects to a section of 5DV6248 that was previously adversely affected. Section 5DV6248.3, which is a railyard of the Union Pacific Railroad, was previously identified within the project APE in March 2016 and was evaluated separately in updated consultation in October 2016. In the ROD, the Preferred Alternative (Partial Cover Lowered Alternative and Managed Lane Option) resulted in a finding of *no adverse effect* with regard to 5DV6248.3. However, the same overall railroad (of which 5DV6248.3 is a part) was adversely affected based on effects to another segment, so there is already an adverse effect to the overall railroad property for this undertaking. The property 5DV6248 is still adversely affected, but there are additional unavoidable effects to the property in the section identified under site number 5DV6248.3.

7. Describe the Area of Potential Effects:

The overall project APE was described in the 2015 Documentation for Finding of Adverse Effect report. The following summarizes proposed modifications to the APE boundary and updates to historic properties within the APE. No new resources were identified in the areas where the APE boundary was modified, but there are some changes to previously-documented resources within these expanded APE locations. Items 1, 2 and 4 below describe changes to the APE boundary, and Items 3, 5, 6 and 7 include updates to specific properties already identified in the APE. Also see attached Figures 1 through 8, which are referenced herein. For the purposes of this update, Item 1 below describes the area where there is an APE change and where there are new effects to an additional section of 5DV6248. 5DV6248.3 of the Union Pacific Railroad (UPRR).

Figure 1 illustrates the areas where the APE boundary will be modified or where there are updated effects to specific properties. Each modification is summarized below with the numbers keyed to the locations on the map. More details regarding effects are also included on pages 2-4, below.

1. *38th Avenue and Blake Street, Union Pacific Railroad Railyard:* In this location, the Union Pacific Railroad (UPRR) has determined that it requires more storage space in its railyard during construction, so the APE boundary will be extended to include the entire UPRR Railyard (5DV6248.3), rather than just the northeast portion as previously intended. These additional activities will result in changes to the effects to the railroad property, and the overall railroad property will still have an adverse effect.
2. *Between 48th Avenue & Josephine Street and Swansea Park/Recreation Center:* The APE boundary needs to be modified to accommodate a request by the UPRR to include a staging area for the railroad work. This APE change is adjacent to, but does not include, UPRR segment 5DV6248.4. No historic properties are within this updated APE location.
3. *44th Avenue and Brighton Boulevard:* Due to changes in drainage, there will be a new impact to an existing detention basin, which impacts a non-contributing spur of the UPRR (5DV6248.10). There is no APE change at this location.
4. *48th Avenue at York Street:* The APE boundary needs to be extended on 48th Ave. to address the installation of a drainage pipe to York Street. The APE will be expanded to encompass the pipe and existing drainage surface flow. All work is planned to stay within existing right-of-way.

5. *Purina Plant, 2151 E. 45th Avenue, (5DV9245), northeast corner*: This property was addressed previously and is within the APE boundary. The project will now require a minor temporary easement.
6. *Safeway Distribution Center (5DV9232), north end*: The project now requires increased construction limits within the existing APE to facilitate grading and additional space for detention ponds. This will involve an additional temporary easement on the Safeway Distribution Center property. The APE does not require modification at this location.
7. *Denver Coliseum Parking Lot (and National Western Historic District 5DV10050)*: The project has redesigned some of its drainage needs, and has reduced the area of impact to this site. The APE does not need to be modified at this location.

8. Describe steps taken to identify historic properties:

As was noted in the 2015 report, extensive efforts were made to identify historic properties along I-70 in the Denver metropolitan area between I-25 and Tower Road. Between 2006 and 2015, a series of field surveys were conducted within the APE during which all standing structures built in 1965 or earlier were evaluated. The identification efforts have been documented in several reports, including the 2007 *I-70 East Cultural Resources Survey Report* and the 2013 Eligibility correspondence. Additional properties were also identified in correspondence from October 2013 and December 2013. Finally, a modification to the Partial Cover Lowered Alternative necessitated the survey of eight additional resources, and the historic resource boundary expansion of one resource. Appropriate Colorado Office of Archaeology and Historic Preservation site forms were completed for all of the properties. Copies of the 2007 *I-70 East Cultural Resources Survey Report* and the 2013, 2014, and 2015 eligibility correspondences were included on a DVD with the 2015 report to your office.

In October 2016, a total of 17 historic resources are present within the modified APE. All resources were identified and evaluated for eligibility to the National Register of Historic Places (NRHP) in previous consultation for the I-70 East project. No new historic properties were identified within the modified APE, and eligibility determinations for previously evaluated resources were reviewed by the Colorado SHPO, as outlined below. The proposed effects to these resources resulting from inclusion in the I-70 East project will largely be the same as described in previous consultations. All of the eligibility determinations and findings of effect within the modified I-70 East APE in October 2016 were evaluated and concurred with as part of the following projects:

- I-70 East Section 106 Consultation (Ongoing since 2005)
- Colorado State Register of Historic Places Review, Globeville Landing Park Outfall Project, City and County of Denver (March 2016)
- City and County of Denver/U.S. Army Corps of Engineers (USACE), Globeville Landing Park Outfall Project (January 2016)

For the May 2017 Section 106 update, no new resources were identified within the areas where the APE boundary was modified, but there are changes to previously-documented resources within the expanded APE locations. There were no changes to the eligibility of historic properties in the modified APE. Table 1 lists the status of properties in the modified APE and properties where there are updated effects. This information is being included here for information purposes only since the subject of this update is the Union Pacific Railroad section 5DV6248.3.

Table 1

APE Location	Location	Resource Number	Resource Name	Eligibility Determination
1	38 th Avenue and Blake Street	5DV6248.3	Union Pacific Railroad Railyard	Supports the Eligibility of Entire Resource, 2006
2	48 th Avenue and Josephine Street	5DV6248.4	Union Pacific Railroad, Segment	Supports the Eligibility of the Entire Resource, 2007/2013
3	44 th Avenue and Brighton Boulevard	5DV6248.10	Union Pacific Railroad, Segment	Non-Supporting of the Eligibility of the Entire Resource.
4	48 th Avenue and York Street	Adjacent to 5DV6248.4	Union Pacific Railroad, Segment	Supports the Eligibility of the Entire Resource, 2007/2013
5	Purina Plant 2151 E. 45 th Avenue	5DV6248.4	Union Pacific Railroad, Segment	Eligible, Officially, 2007/2013
6	Safeway Distribution Center	5DV9232	Safeway Distribution Center, 4200-4600 E. 46 th Avenue	Eligible, Officially 2007/20013
7	Denver Coliseum parking lot	5DV10050	Denver Coliseum (within National Western Historic District)	Eligible, Officially

9. Describe the historic property (or properties) and any National Historic Landmarks within the APE (or attach documentation or provide specific link to this information):

Union Pacific Railroad Railyard (5DV6248/5DV6248.3): The overall railroad is significant under NRHP Criterion A for its role in the commercial development of metropolitan Denver and Colorado. 5DV6248.3 is a railyard that retains integrity and *supports* the overall significance of the railroad.

10. Describe the undertaking's effects on historic properties:

5DV6248.3 is a railyard of the Union Pacific Railroad and is within an area of the APE that was expanded. Work will require the UPRR to extend reconstruction of 5,400 linear feet of existing yard tracks, and the addition of approximately 8,000 linear feet of new track within the railyard to mitigate rail traffic conflicts during project construction.

11. Explain how this undertaking would adversely affect historic properties (include information on any conditions or future actions known to date to avoid, minimize, or mitigate adverse effects):

5DV6248.3 is a railyard in the Union Pacific Railroad is within an area of the APE that has expanded. Work will require the UPRR to extend reconstruction of 5,400 linear feet of existing railyard tracks, and the addition of approximately 8,000 linear feet of new track within the railyard to mitigate rail traffic conflicts during project construction. Since impacts to the railyard will include changes to the historic railroad alignment, CDOT determined that the project results in an adverse effect to the overall railroad resource, including 5DV6248.3.

A Programmatic Agreement was signed by the agencies in April 2016 and was filed with the ACHP in November 2016. Mitigation options for the corridor are outlined in this agreement. Per Stipulation II.5, individual Memoranda of Agreement (MOA) will not be executed for new adverse effects; rather, the PA will be used in lieu of a standard MOA and all resolutions of adverse effects discovered under re-evaluations of the FEIS and ROD shall be appended to this Agreement.

12. Provide copies or summaries of the views provided to date by any consulting parties, Indian tribes or Native Hawai'ian organizations, or the public, including any correspondence from the SHPO and/or THPO.

Copies of the correspondence to SHPO and the consulting parties, and the responses are attached. CDOT received comments from consulting parties including Moyer White LLP representing the Fairmount Cemetery Company and from Patricia Carmody, but no other comments from consulting parties were received within the 30-day review time frame.

III. Optional Information

13. Please indicate the status of any consultation that has occurred to date. Are there any consulting parties involved other than the SHPO/THPO? Are there any outstanding or unresolved concerns or issues that the ACHP should know about in deciding whether to participate in consultation?

Consultation Status Update

In August 2016, CCD's Office of Economic Development (OED) approached FHWA and CDOT with a proposal to coordinate efforts on home improvements in the Globeville-Elyria-Swansea area to address air and noise effects associated with the construction of I-70 East. FHWA and CDOT already plan to provide mitigation appropriate for the impacts associated with the project, which include temporary dust and noise during construction. No permanent air quality or noise impacts are anticipated as part of the I-70 East Project, therefore, no additional mitigation was determined to be necessary for the project. FHWA and CDOT are committing to the following mitigation for the I-70 East Project for the homes between 45th and 47th Avenues from Brighton Boulevard to Colorado Boulevard:

1. Provide interior storm windows
2. Provide two portable or window-mounted (homeowner's choice) air conditioning units with air filtration and assistance to pay for the additional utility costs during construction.
3. Provide high-efficiency furnace filters (not in the Environmental Impact Statement, but something FHWA and CDOT plan to do)

This mitigation was already evaluated under the Section 106 process and was determined reversible and that it would result in *no adverse effect*.

The CCD OED proposal involves additional improvements, including attic insulation; air sealing; programmable thermostats; carbon monoxide detectors; window and door replacements; central forced air heating/cooling w/filtration; positive pressure air ventilation with filtration; and MERV filters that would involve additional survey and evaluation under Section 106. Given the level of effort to complete the additional property evaluations, the potential for additional Section 106 and Section 4(f) issues, and the implications for the schedule to complete the Record of Decision (ROD), FHWA and CDOT initially determined that they would not participate in Denver's proposed home improvement plan since it is not necessary mitigation for project impacts. OED continued to evaluate how FHWA and CDOT could participate in this improvement plan without affecting the ROD schedule. Initially, FHWA and CDOT decided to move forward with mitigation plan outlined in the Final EIS, which will be official mitigation commitments in the ROD.

However, in subsequent meetings with the State Historic Preservation Office (SHPO) and CCD OED, FHWA and CDOT agreed to fund those options in the CCD OED plan that meet the Secretary of Interior's Standards for Rehabilitation and Sustainability Guidelines and would result in *no adverse*

effect to the properties in the APE eligible for mitigation for temporary dust and noise. These options include attic insulation, air sealing, and the installation of programmable thermostat and carbon monoxide detectors. FHWA and CDOT consulted with SHPO and the consulting parties regarding this work in correspondence dated April 12, 2017 and SHPO concurred that this work would result in *no adverse effect* in a response dated April 18, 2017.

General Update

The ROD was signed on January 19, 2017, and the Statute of Limitations period ended on July 10, 2017. Two lawsuits were filed during that period against FHWA – one from Sierra Club, Elyria and Swansea Neighborhood Association, Chafee Park Neighborhood Association, and Colorado Latino Forum, which is mostly related to air quality and health impacts. Another lawsuit was filed by Kyle Zeppelin, Brad Evans, Christine O’Connor, Kimberly Morse, and Jacqueline Lansing, which is primarily related to a perceived connected action with the City of Denver’s Platte to Park Hill Stormwater Systems Program drainage project, hazardous materials, health impacts, cost of the project, and Sections 106 and 4(f). The project is continuing to move forward.

14. Does your agency have a website or website link where the interested public can find out about this project and/or provide comments? Please provide relevant links:

I-70 East website (contains all of the environmental documents that are publically available to date): www.i-70east.com

Central 70 website (currently contains fact sheets, information on the procurement process, and links to the I-70 East website; will be the only website post-NEPA):
<https://www.codot.gov/projects/i70east>

15. Is this undertaking considered a “major” or “covered” project listed on the Federal Infrastructure Projects Permitting Dashboard or other federal interagency project tracking system? If so, please provide the link or reference number:

N/A

The following are attached to this form (check all that apply):

- Section 106 consultation correspondence
- Maps, photographs, drawings, and/or plans
- Additional historic property information
- Other:



COLORADO
Department of Transportation
Division of Transportation Development

Environmental Programs Branch
4201 E. Arkansas Ave., Shumate Bldg.
Denver, CO 80222-3400
(303) 757-9281

May 30, 2017

Mr. Steve Turner
State Historic Preservation Officer
History Colorado
1200 Broadway
Denver, CO 80203

SUBJECT: APE Modifications, Additional Effects Determinations, and Section 4(f) *De Minimis* Notification, I-70 East Environmental Impact Statement, Denver and Adams Counties (CHS #41831)

Dear Mr. Turner:

This letter and attached materials constitute a request for comments on modifications to the Area of Potential Effects (APE), and an update regarding effects determinations for properties within the APE boundary for the project referenced above. These modifications have occurred since the Record of Decision was signed in January 2017.

Modifications

The following summarizes proposed modifications to the APE boundary and updates to historic properties within the APE. No new resources were identified in the areas where the APE boundary has been modified but there are some changes to previously-documented resources within these expanded APE locations. Items 1, 2 and 4 below describe changes to the APE boundary, and Items 3, 5, 6 and 7 include updates to specific properties already identified in the APE. Also see attached Figures 1 through 8, which are referenced herein.

Figure 1 illustrates the areas where the APE boundary will be modified or where there are updated effects to specific properties. Each modification is summarized below with the numbers keyed to the locations on the map. More details regarding effects are also included on pages 2-4, below.

1. *38th Avenue and Blake Street, Union Pacific Railroad Railyard:* In this location, the Union Pacific Railroad (UPRR) has determined that it requires more storage space in its railyard during construction, so the APE boundary will be extended to include the entire UPRR Railyard (5DV6248.3), rather than just the northeast portion as previously intended. This will result in changes to the effects to the railroad segment, as described in more detail below.
2. *Between 48th Avenue & Josephine Street and Swansea Park/Recreation Center:* The APE boundary needs to be modified to accommodate a request by the UPRR to include a staging area for the railroad work. This APE change is adjacent to, but does not include, UPRR segment 5DV6248.4. No historic properties are within this updated APE location.
3. *44th Avenue and Brighton Boulevard:* Due to changes in drainage, there will be a new impact to an existing detention basin, which impacts a non-contributing spur of the UPRR (5DV6248.10). There is no APE change at this location.

4. *48th Avenue at York Street*: The APE boundary needs to be extended on 48th Ave. to address the installation of a drainage pipe to York Street. The APE will be expanded to encompass the pipe and existing drainage surface flow. All work is planned to stay within existing right-of-way.
5. *Purina Plant, 2151 E. 45th Avenue, (5DV9245), northeast corner*: This property was addressed previously and is within the APE boundary. The project will now require a minor temporary easement.
6. *Safeway Distribution Center (5DV9232), north end*: The project now requires increased construction limits within the existing APE to facilitate grading and additional space for detention ponds. This will involve an additional temporary easement on the Safeway Distribution Center property. The APE does not require modification at this location.
7. *Denver Coliseum Parking Lot (and National Western Historic District 5DV10050)*: The project has redesigned some of its drainage needs, and has reduced the area of impact to this site. The APE does not need to be modified at this location.

Eligibility Status of Properties in the Modified APE

There were no changes to the eligibility of historic properties in the modified APE. Table 1 lists the status of properties in the modified APE and properties where there are updated effects.

Table 1

APE Location	Location	Resource Number	Resource Name	Eligibility Determination
1	38 th Avenue and Blake Street	5DV6248.3	Union Pacific Railroad Railyard	Supports the Eligibility of Entire Resource, 2006
2	48 th Avenue and Josephine Street	5DV6248.4	Union Pacific Railroad, Segment	Supports the Eligibility of the Entire Resource, 2007/2013
3	44 th Avenue and Brighton Boulevard	5DV6248.10	Union Pacific Railroad, Segment	Non-Supporting of the Eligibility of the Entire Resource.
4	48 th Avenue and York Street	Adjacent to 5DV6248.4	Union Pacific Railroad, Segment	Supports the Eligibility of the Entire Resource, 2007/2013
5	Purina Plant 2151 E. 45 th Avenue	5DV6248.4	Union Pacific Railroad, Segment	Eligible, Officially, 2007/2013
6	Safeway Distribution Center	5DV9232	Safeway Distribution Center, 4200-4600 E. 46 th Avenue	Eligible, Officially 2007/20013
7	Denver Coliseum parking lot	5DV10050	Denver Coliseum (within National Western Historic District)	Eligible, Officially

Effects Updates

Modification 1 (See Figure 2)

Union Pacific Railroad (5DV6248.3): The railroad is within an area of the APE that has been expanded. Work will require the UPRR to extend reconstruction of 5,400 linear feet of existing yard tracks, and the addition of approximately 8,000 linear feet of new track within the yard to mitigate rail traffic conflicts during project construction. Since impacts to the railyard will include changes to the historic railroad alignment in this segment, CDOT has determined that this results in an *adverse effect* to the overall resource, including segment 5DV6248.3.

The adverse effect requires mitigation, and we propose—consistent with the project’s Section 106 Programmatic Agreement—a re-evaluation survey and Level II documentation be completed before construction.

Modification 2 (See Figure 3)

Union Pacific Railroad (5DV6248.4): The railroad is within an area of the APE that has been expanded. The railroad segment is adjacent to the modified APE. There are no direct effects to the railroad or contributing features, so CDOT has recommends a finding of *no historic properties affected* for the overall railroad, including segment 5DV6248.4.

Modification 3 (See Figure 4)

Union Pacific Railroad (5DV.6248.10): This is an area where no change was made to the APE. The project involves removing and replacing the rails during construction. The segment is non-supporting, so CDOT has determined that this work results in *no adverse effect* to the overall resource, including segment 5DV6248.10.

Modification 4 (See Figure 5)

Union Pacific RR (5DV.6248.4): The APE is extended east-west on 48th to accommodate construction of a storm drain extension east to York and 48th Avenue, where new storm inlets to collect surface drainage are proposed. Changes at the York Street location will accommodate drainage improvements adjacent to the buildings on the west side of this property, but will not have any direct effect on them. Proposed reconstruction of York Street from the crossing to 48th Avenue will improve conveyance of surface drainage along York Street; there is no existing collection system to intercept the surface drainage and direct it into an existing storm system. The street will be returned to existing conditions with only slight changes to profile. UPRR segment 5DV6248.4 is within the APE and near these improvements but will not be affected. As a result, the proposed work results in *no historic properties affected* with regard to the overall railroad, including 5DV6248.4.

Modification 5 (See Figure 6)

Ralston-Purina Plant/Nestle Purina Petcare Company (5DV9245): No APE boundary modification was needed at this location, but an additional temporary easement from the Purina property is needed for construction. The easement is located in an area of the property that is vacant near the railroad alignment, and it will not affect any significant features of the historic property, as noted in Figure 6. For these reasons, CDOT has determined that the additional easement results in *no adverse effect* to the property.

Modification 6 (See Figure 7)

Safeway Distribution Center (5DV9232): No APE boundary modification was needed at this location. The project will require the acquisition of a temporary easement in the parking lot in the northern part of the parcel shown in blue. There will be no impact to any significant features of the distribution center. The easement is for reconstruction of existing drainage and containment ponds and the associated storm drain system, and for reconstruction of parking and driveways. The existing ponds will be replaced in kind, and will result in minimal visual and setting changes. It will not impact the character-defining features of the resource, and the existing determination of *no adverse effect* remains valid.

Modification 7 (See Figure 8)

Denver Coliseum and National Western Historic District (5DV10050): No APE boundary modification was needed at this location. Denver Public Works’ recent decision to develop and construct the Denver Two-Basins project with connection to the Globeville Landing Outfall (GLO), and subsequent reanalysis of the proposed I-70 off-site outfall have resulted in modifications to the original design. Included in the redesign is the elimination of a separate storm pipe outfall to the Platte River at Globeville Landing Park, and elimination of a low-flow connection to the GLO Phase 2 project at Brighton Boulevard and the Pepsi facility. The Central 70 limits of construction were reduced to remove the areas of the GLO project

Mr. Turner
May 30, 2017
Page 4 of 4


previously covered, including the Coliseum parking lot, Globeville Landing Park, Pepsi facility property and Brighton Boulevard from Pepsi to 44th Street. Due to the reduction of impact, the existing determination of *no adverse effect* to this resource remains valid.

Section 4(f) De Minimis Notification

The Section 4(f) regulations (23 CFR 774) provide FHWA an opportunity to make a *de minimis* impact finding under Section 4(f), if the Section 106 finding is no adverse effect. This serves as notification that, pursuant to 23 CFR 774.5(b)(ii) regarding coordination, FHWA may make a *de minimis* finding for the properties referenced above that result in a finding of no adverse effect.

We request your comments on the revised APE, concurrence with the Determinations of Eligibility and Effects, and acknowledgement of the Section 4(f) *De Minimis* notification outlined above. If you have questions or require additional information, please contact Senior Historian Lisa Schoch at (303) 512-4258 or via email at lisa.schoch@state.co.us.

Very truly yours,



Jane Hann, Manager
Environmental Programs Branch

Enclosures: Figures 1-8

cc: Vanessa Henderson, Central 70



HISTORY Colorado

June 2, 2017

Jane Hann, Manager
Environmental Programs Branch
Colorado Department of Transportation
4201 E. Arkansas Ave.
Denver, CO 80222 3400

Re: APE Modifications, Additional Effects Determinations, and Section 4(f) *De Minimis* Notification, I-70 East Environmental Impact Statement, Denver and Adams Counties (HC #41831)

Dear Ms. Hann:

Thank you for your correspondence dated and received on May 30, 2017 by our office regarding the consultation of the above-mentioned project under Section 106 of the National Historic Preservation Act (Section 106).

After review of the provided information, we do not object to the proposed Area of Potential Effects (APE) modifications for the proposed project.

After review of the provided information, our previous eligibility concurrences remain. After review of the revised scope of work and assessment of adverse effect, we concur with the recommended finding of *no historic properties affected* [36 CFR 800.4(d)(1)] under Section 106 for resource 5DV.6248, including segment 5DV.6248.4.

We also concur with the recommended finding of *no adverse effect* [36 CFR 800.5(d)(1)] under Section 106 for the following resources.

- 5DV.6248.10
- 5DV.9245
- 5DV.9232
- 5DV.10050

We also concur that the proposed alterations to segment 5DV.6248.3 will result in an *adverse effect* [36 CFR 800.5(d)(2)] under Section 106 to resource 5DV.6248, including segment 5DV.6248.3. We concur that re-evaluation survey and Level II documentation of the segment, consistent with the project's Section 106 Programmatic Agreement will serve to appropriately mitigate the adverse effect to this resource.

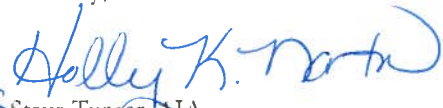
We acknowledge that FHWA may make a *de minimis* determination in respect to the requirements of Section 4(f) for those resources above that result in a finding of no adverse effect.

Should unidentified archaeological resources be discovered in the course of the project, work must be interrupted until the resources have been evaluated in terms of the National Register eligibility criteria (36 CFR 60.4) in consultation with our office pursuant to 36 CFR 800.13. Also, should the consulted-upon scope of the work change please contact our office for continued consultation under 36 CFR 800.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings. Please note that our compliance letter does not end the 30-day review period provided to other consulting parties.

If we may be of further assistance, please contact Jennifer Bryant, our Section 106 Compliance Manager, at (303) 866-2673 or jennifer.bryant@state.co.us.

Sincerely,


Steve Turner, NIA
State Historic Preservation Officer



June 30, 2017

VIA EMAIL ONLY (lisa.schoch@state.co.us)

Lisa Schoch, Senior Historian
Colorado Department of Transportation
Environmental Programs Branch
4201 E. Arkansas Ave., Shumate Bldg.
Denver, CO 80222

Re: Colorado Department of Transportation Letter Dated June 1, 2017 Concerning APE Modifications to the I-70 East Environmental Impact Statement (CHS # 41831)

Dear Ms. Schoch:

This correspondence is in response to the Colorado Department of Transportation's ("CDOT") letter to Moye White LLP, dated June 1, 2017, advising of the APE Modifications to the I-70 East Environmental Impact Statement (CHS # 41831). Moye White represents Fairmount Cemetery Company ("Fairmount"), a consulting party, on this matter. Fairmount owns and operates, Riverside Cemetery, which is located within the current APE.

I reached out to you via email on June 12, 2017 to seek clarification regarding the scope of the APE modifications as it related to the drainage improvements located at York Street and 48th Avenue. In your response on June 23, 2017, you advised that the modification to the drainage system at the York Street and 48th Avenue location addressed drainage issues only at that specific location. You also confirmed that the drainage along Riverside Cemetery's boundary has not changed from what was previously identified in the prior consultation.

Based on this understanding, Fairmount has no comments at this time on the revised APE or Determinations of Eligibility and Effects set forth in the CDOT's letter.

Best regards,

Abigail L. Brown

cc: Rebecca DeCook

4850-6314-8619.1

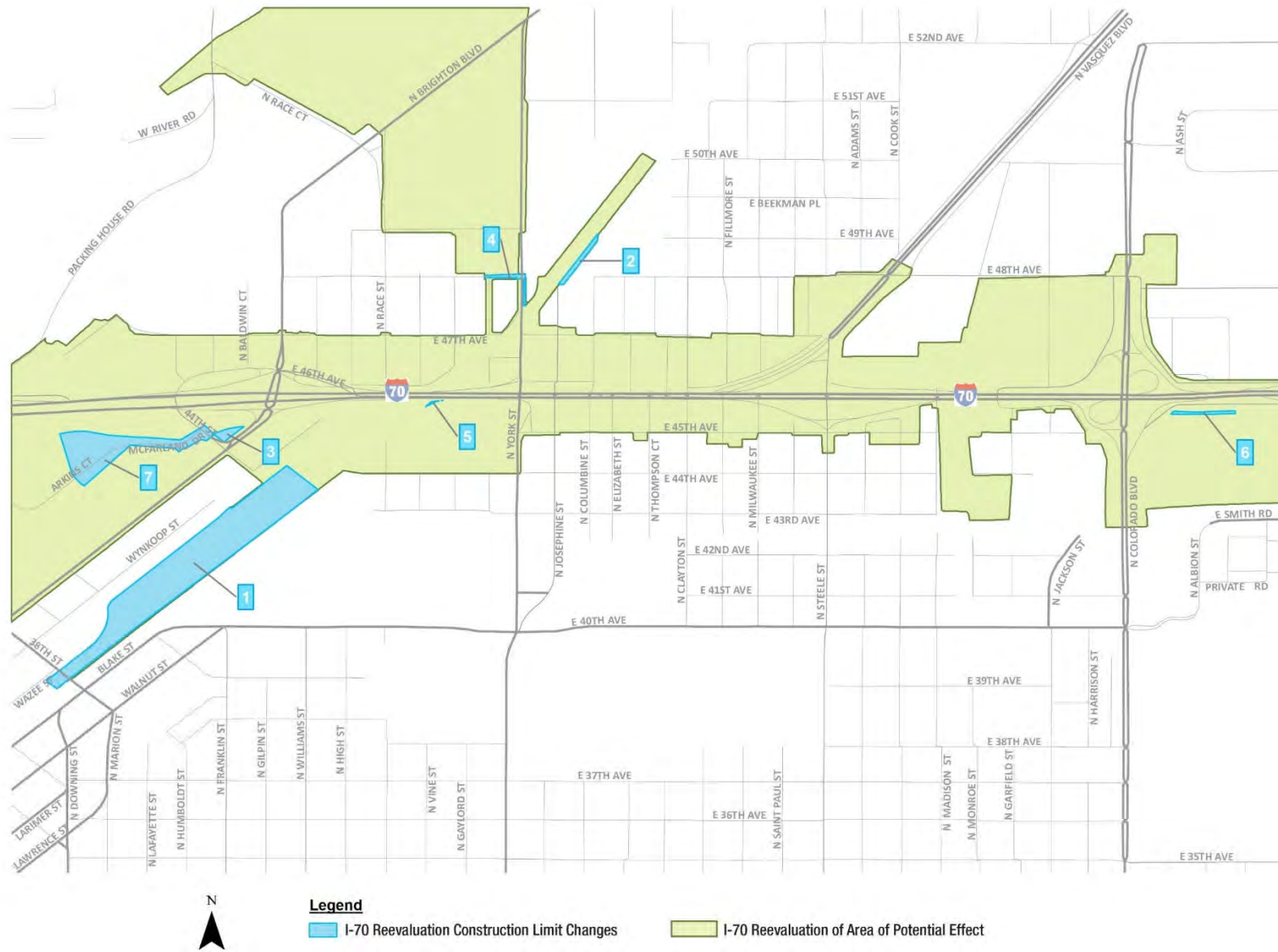


Figure 1. Revised APE and impacts. Modification numbers shown in blue text boxes.



Figure 2. Updated APE for Union Pacific Railroad Railyard (5DV.6248.3).



Figure 3. Modification between Josephine Street and 48th Avenue.

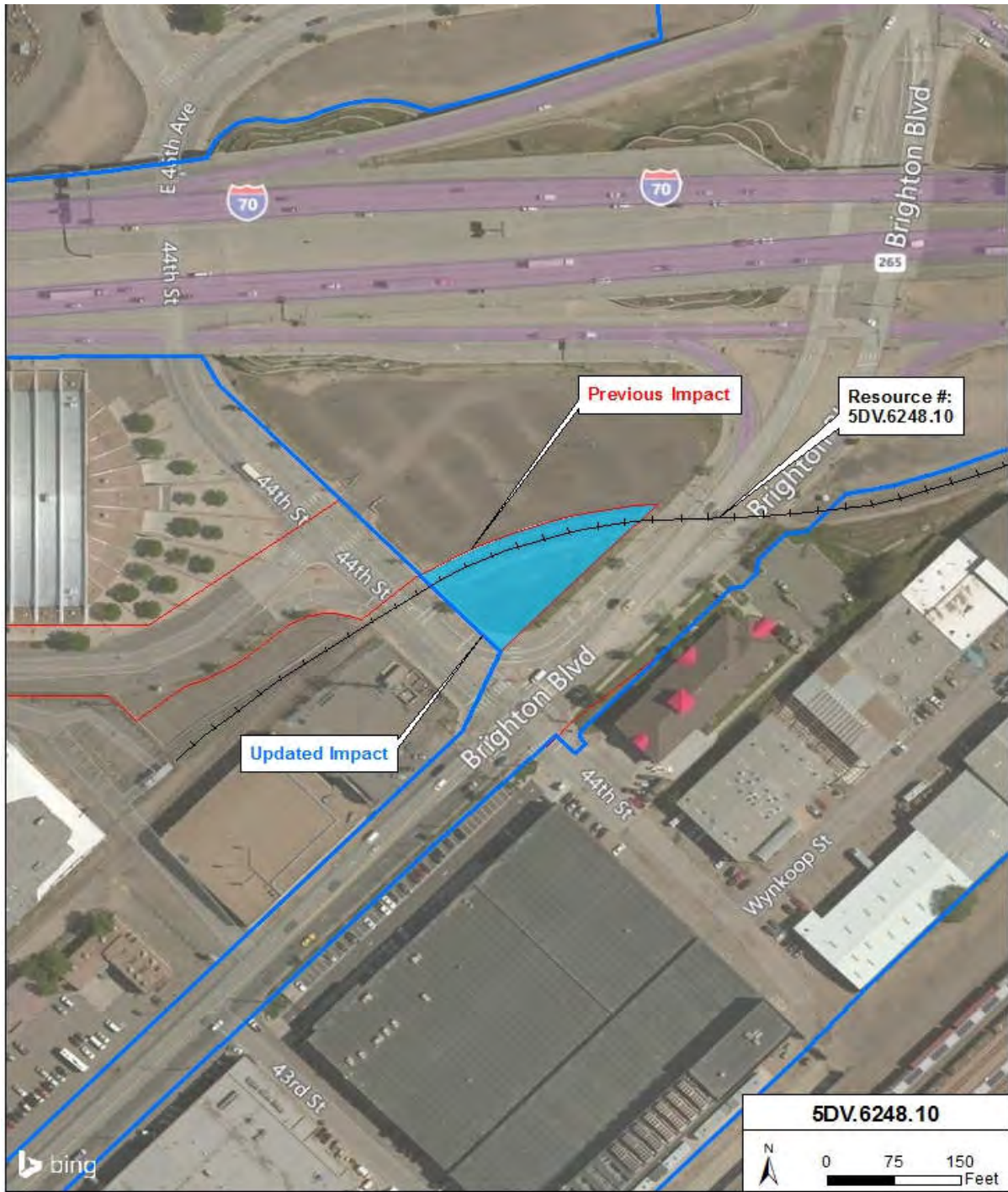


Figure 4. Modification at 44th Avenue and Brighton Boulevard

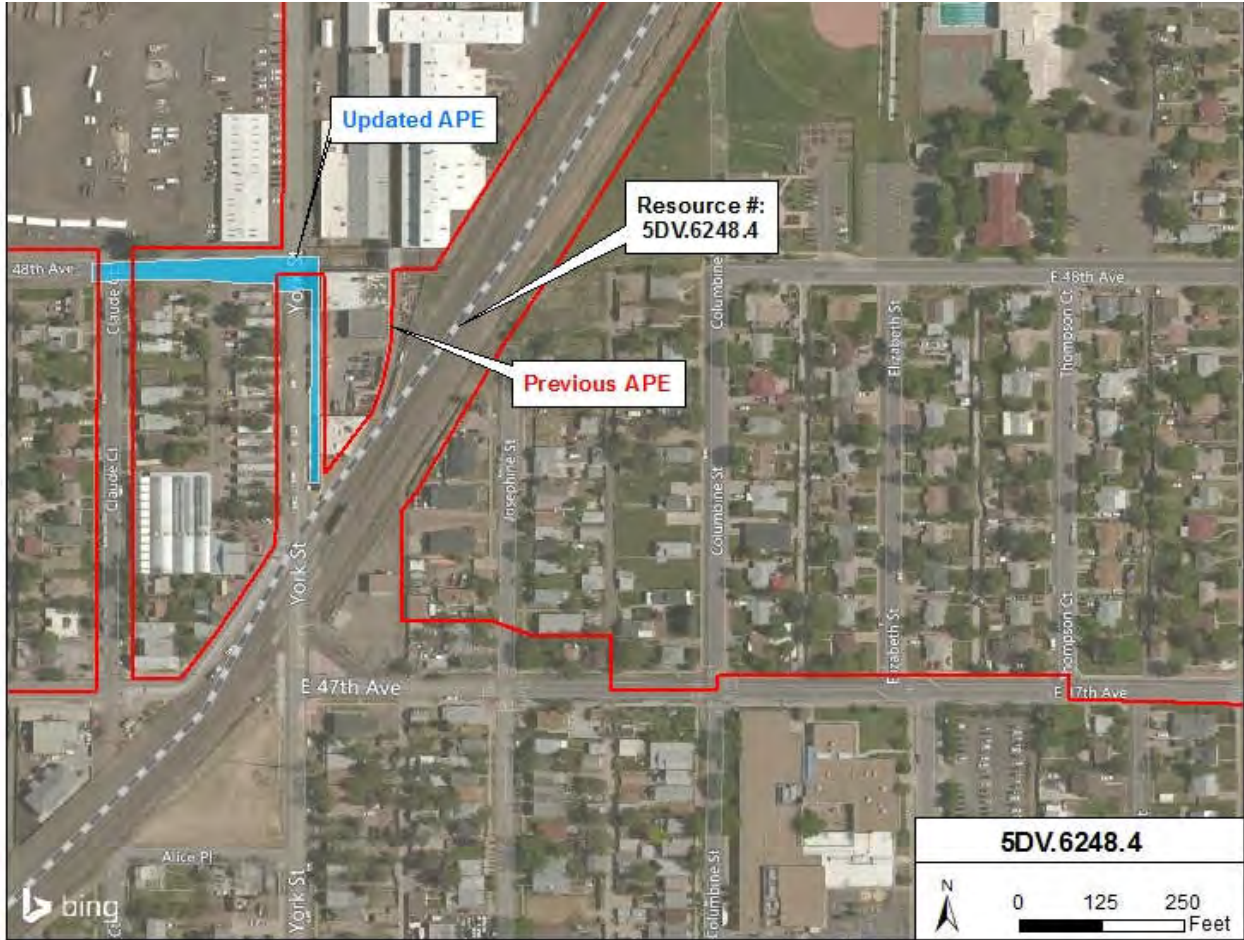


Figure 5. Modifications at 48th Avenue and York Street

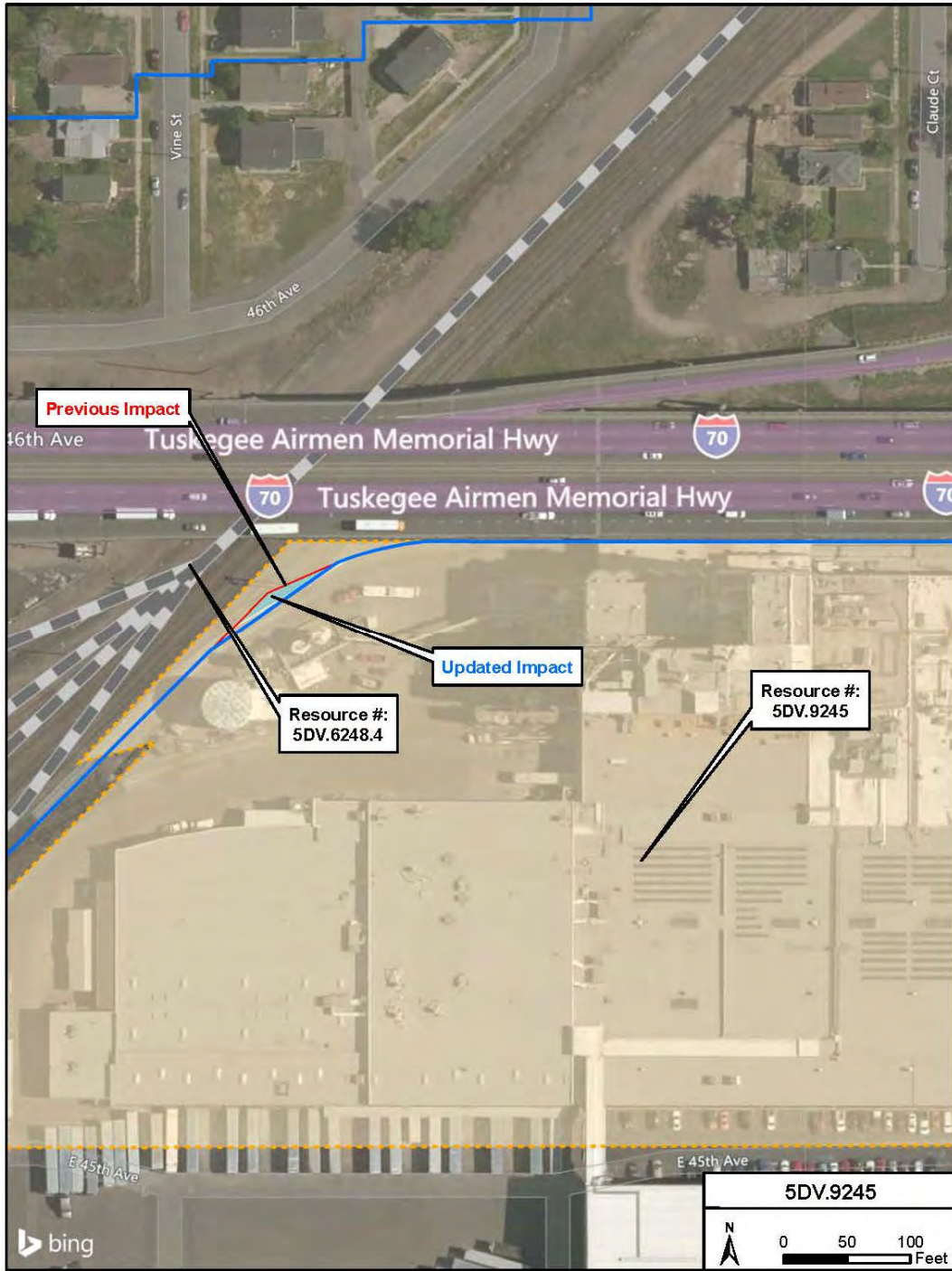


Figure 6. Modification at Purina Plant (5DV.9245)

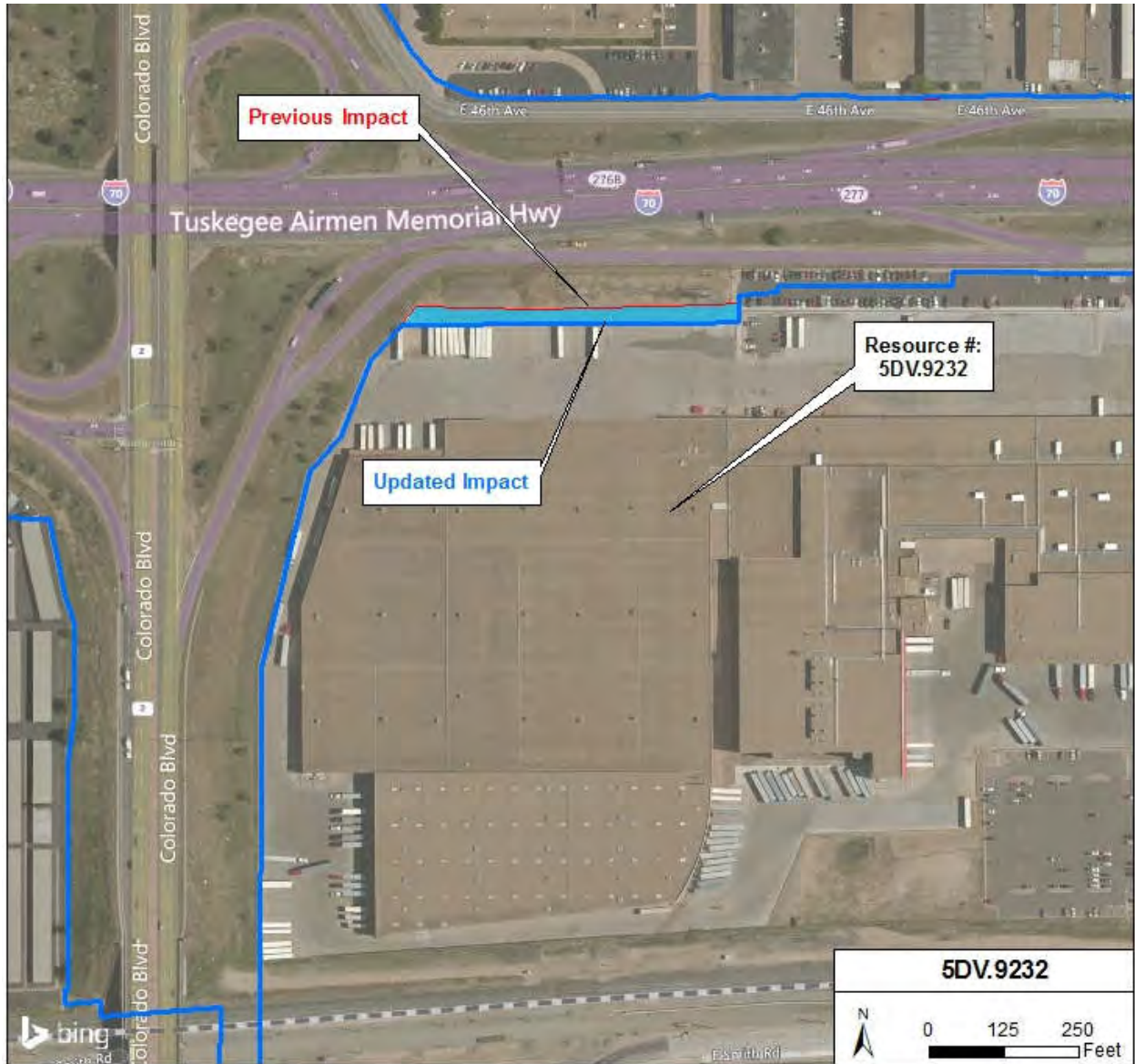


Figure 7. Modification at Safeway Distribution Center (5DV.9332)

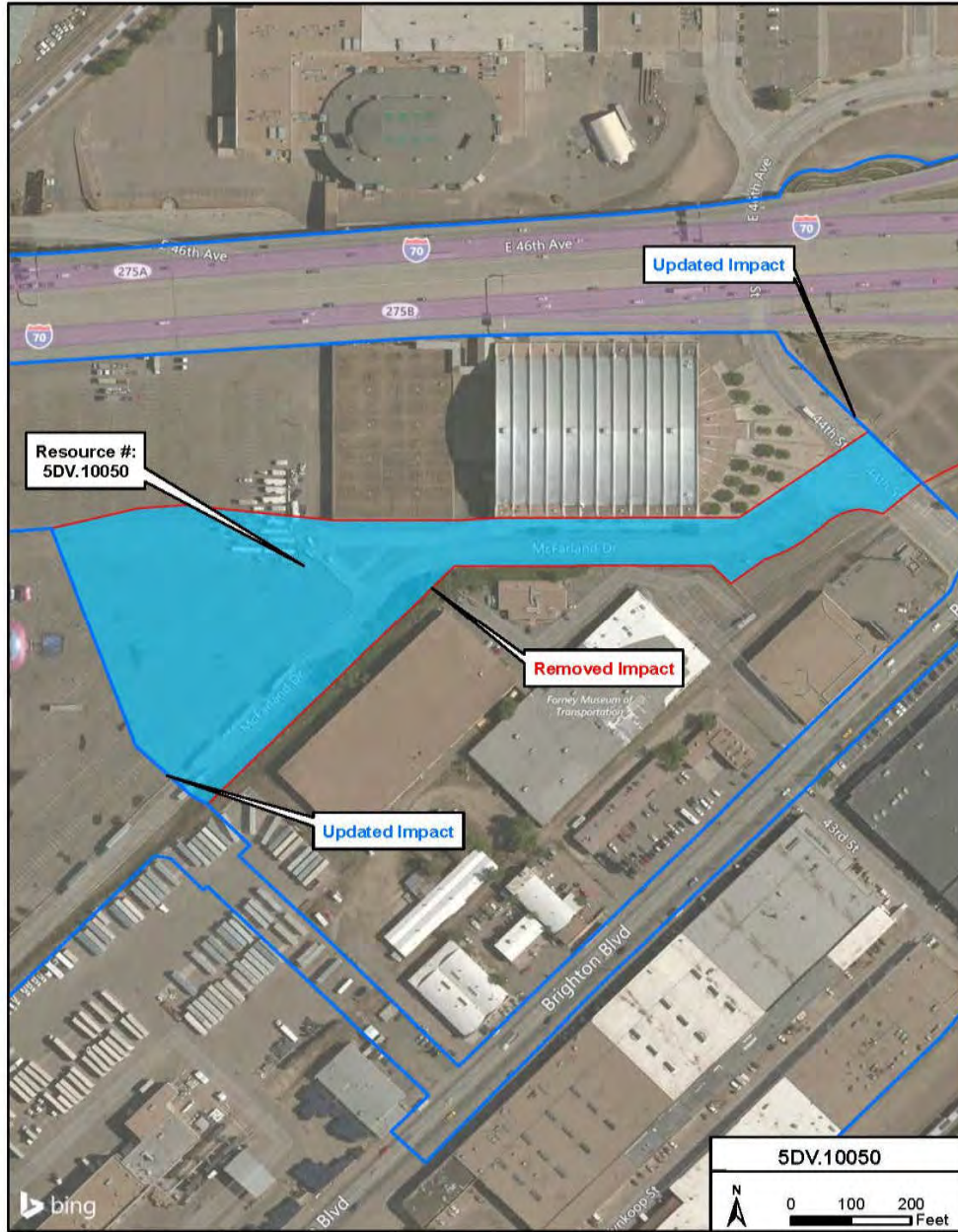


Figure 8. Modification at Denver Coliseum and National Western Historic District (5DV.10050)



STATE OF
COLORADO

Henderson - CDOT, Vanessa <vanessa.henderson@state.co.us>

I-70 East changes in 4(f) use notification

1 message

Pavlik, Monica (FHWA) <Monica.Pavlik@dot.gov>

Wed, Aug 30, 2017 at 9:56 AM

To: "courtney_hoover@ios.doi.gov" <IMCEAINVALID-

courtney+5Fhoover+40ios+2Edoi+2Egov@namprd09.prod.outlook.com>

Cc: "Gibson, Stephanie (FHWA)" <Stephanie.Gibson@dot.gov>, "Vanessa Henderson (vanessa.henderson@state.co.us)" <vanessa.henderson@state.co.us>, "Schoch - CDOT, Lisa" <lisa.schoch@state.co.us>

Courtney,

Stephanie Gibson contacted you in July regarding the process to provide this update to the DOI. We are updating our impacts based on changes to the I-70 East/Central 70 project. There are some changes in the 4(f) uses. There are no new uses. We have reduced/avoided in some areas and increased in others. Attached is a document that explains these changes in detail. If I need to provide more information or take another avenue for coordination, please let me know.

Thank you,

Monica Pavlik, PE

FHWA Major Project Oversight Manager

12300 W. Dakota Ave Suite 180

Lakewood, CO 80228

Cell - (303) 941-2717

office - (720) 963-3012

fax - (720) 963-3001



I-70E Section 4(f) DOI Notification.docx
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I-70 East

Notification of Change in Section 4(f) Use

FEDERAL HIGHWAY ADMINISTRATION

In January of 2016, the Colorado Department of Transportation (CDOT) and Federal Highway Administration (FHWA), completed a Final Environmental Impact Statement (EIS) and Section 4(f) Evaluation for the I-70 East project. A Record of Decision (ROD) was issued in January of 2017. Since the ROD signing, CDOT has made minor revisions to the design of the project, based on changes in the existing conditions that necessitated changes to the project’s drainage system, and design changes that include modification to the construction limits determined through coordination with the Union Pacific Railroad (UPRR) and other slight design adjustments throughout the corridor completed to advance the project. Due to the existing condition changes and design modifications, CDOT and FHWA are preparing a re-evaluation of these changes pursuant to the regulations codified at 23 CFR 771.130(c).

FHWA provided copies of the Section 4(f) Evaluation at the time of the Draft, Supplemental and Final EISs, as well as the ROD, pursuant to 23 CFR 774.5(a). In keeping with this coordination, this letter is to notify you of the minor changes in use to three Section 4(f) resources that result from changes to the project. Please note that these changes do not alter the type of use determined in the most recent Section 4(f) Evaluation, which was completed with the ROD.

The following table lists the three impacted properties and outlines the changes since the last Section 4(f) determination included with the ROD. Subsequent discussion provides further details to the information provided below.

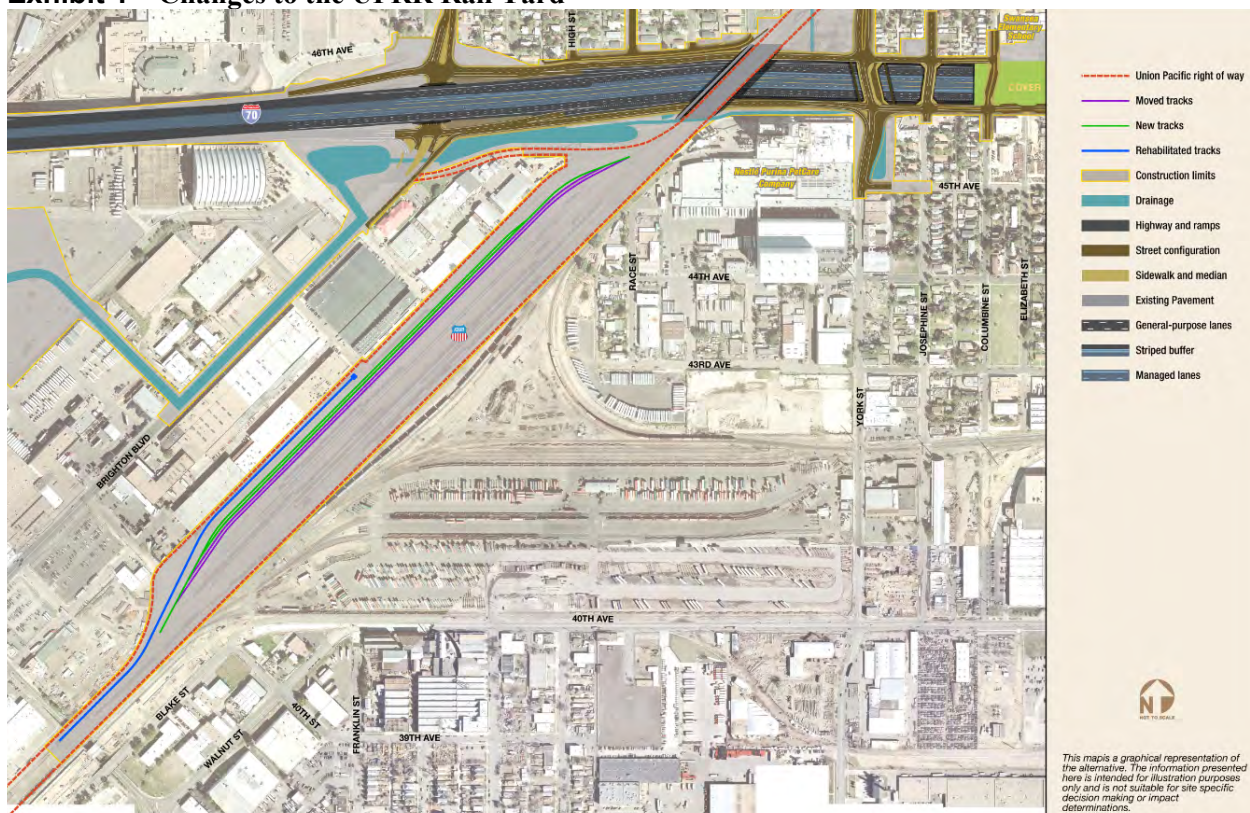
Site Number	Name	Section 4(f) Use in ROD	Section 4(f) Use in Reevaluation
5DV.6248 (Includes 5DV.6248.3, 5DV.6248.4, 5DV.6248.10)	Denver and Kansas Pacific/Union Pacific Railroad	Use. Temporary relocation of; 12,500 linear feet, and approximately 2,000 square feet of permanent easements to 5DV.6248.4.	Use. Temporary relocation of; 12,500 linear feet, and approximately 2,000 square feet of permanent easements to 5DV.6248.4. Additional reconstruction of 5,400 linear feet of existing yard tracks, and the addition of approximately 8,000 linear feet of new track within the yard (5DV.6248.3) to mitigate rail/traffic conflicts during project construction. This will be a permanent change. The property will stay in the ownership of the UPRR and function for rail activity.
5DV.9245	Ralston Purina Plant/Nestlé Purina PetCare Company 2151 East 45th Avenue	De minimis. Acquisition of 735 square feet from the very northwest corner of the property to accommodate the construction of the drainage system. Temporary easement measuring 890 square feet is required to construct and operate a temporary railroad shoofly track that would travel east of the existing UPRR right of way.	De minimis. The permanent easement increases from 735 square feet to 1,225 square feet. Temporary easements increase from 890 square feet to 1,696 square feet.

5DV.10500 and 5DV.9162	National Western Historic District and Denver Coliseum	De minimis. The project included a drainage pipe under the Coliseum parking lot, and the Denver GLO project also creates two open channels. The impact includes easements for both the pipes and channels.	De minimis. Since the ROD, one of the underground pipes in the parking lot is no longer necessary and has been removed from the project's design. The impact is still <i>de minimis</i> .
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Denver and Kansas Pacific/Union Pacific Railroad

The use of 5DV.6248 occurs in two segments: 5DV.6248.3 and 5DV.6248.4. The original Section 4(f) use (Segment 5DV.6248.4 only) arises from construction of a rail bridge over the future I-70, which is currently at grade. The railroad identified a need for storage during construction. The tracks that will be displaced during construction are needed for storage during regular railroad operations. The change being evaluated replaces that storage by creating two new tracks. This requires shifting two other adjacent tracks in the railyard of segment 5DV.6248.3. In all, three existing tracks will be reconstructed and two new tracks will be added. Supplemental work associated with the track construction includes the replacement of 12 to 14 existing yard lights and poles with two new high-mast lighting structures (See Exhibit 1).

Exhibit 1 – Changes to the UPRR Rail Yard



Avoidance alternatives to the use of the 5DV.6248.4 segment were evaluated in the FEIS, and concluded that there were no feasible and prudent avoidance alternatives (see **Exhibit 2** below). For the reasons described below, the use of the 5DV.6248.3 segment also has no feasible and prudent avoidance alternatives.

Exhibit 2, Avoidance Alternatives to Segment 5DV.6248.4



A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property. An alternative is not feasible if it cannot be built as a matter of sound engineering judgement. There are a six criteria for assessing prudence. One of those

states that an alternative is not prudent if “it results in unacceptable safety or operational problems.”

One avoidance alternative to the use of Segment 5DV.6248.3 is the No Action Alternative, in which no replacement storage is created and UPRR must to store cars on the rail line at York Street. This is not feasible and prudent for several reasons. First, it creates unacceptable rail operations impacts. By not having space in the rail yard, long queues of rail cars must wait for entry to the yard for servicing. UPRR has indicated that this results in unacceptable operations. Second, it creates conflicts with street traffic that have adverse impacts to congestion in the area. Rail cars would straddle York Street, blocking through movements. UPRR has informed the project that the City and County of Denver has indicated this creates unacceptable traffic operations. Third, it creates an unsafe condition for school children walking to and from Swansea Elementary School. The rail cars queueing on York Street block 47th Avenue, which is a popular access to the school. When rail cars block 47th, children climb over and under the cars, which is unsafe, and creates a liability for UPRR. For these reasons, the FHWA has determined that avoidance alternative would result in unacceptable safety and operational problems, and is not prudent.

Other avoidance alternatives are limited by the unique role of the rail yard, and access to it. There are no other yards in this area of the city, and so many of the UPRR’s cars are serviced by it. There are also no other rail lines servicing it from this direction. All access from the northeast is limited to the single line that crosses York Street.

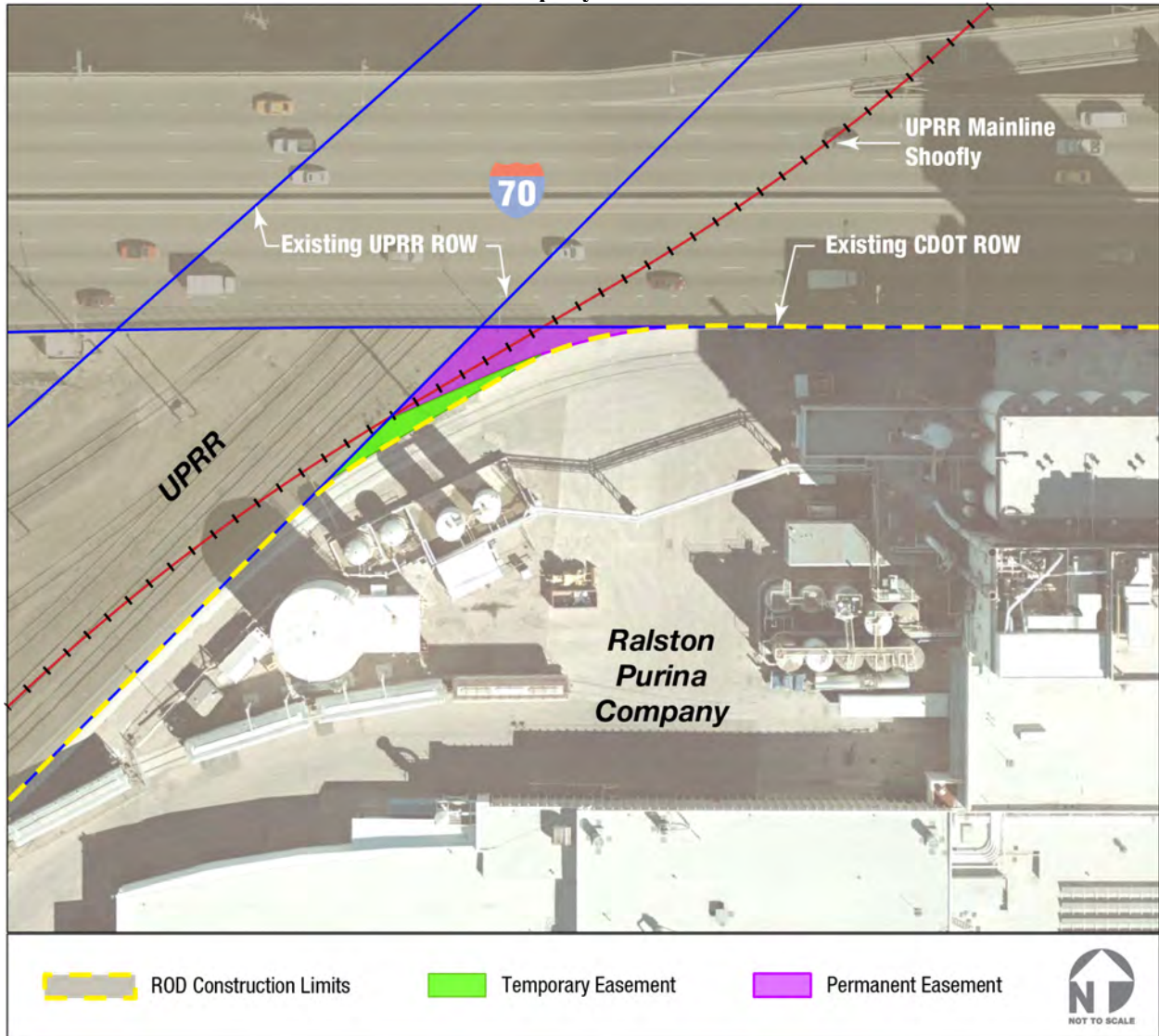
As described above, this increased of 5DV.6248 use results from the construction of a UPRR bridge over future I-70 (the 5DV.6248.4 segment). As discussed in the FEIS and Final Section 4(f) Evaluation, there are no feasible and prudent alternatives to this impact. That reconstruction is unavoidable necessitates this use of Segment 5DV.6248.3.

Because of the yard’s unique situation, there are no other storage options for UPRR’s rail cars during construction. The railroad line described above runs northeast-southwest into the rail yard. It is the only line serving that yard from that direction, and there is no siding between York Street and the railyard. This means there is no additional existing storage space outside the railyard. Adding space to the line north of the railyard would not avoid the safety and operational concerns with York Street described above, and is therefore not prudent.

The conflict was identified by UPRR, and the changes to their railyard to create more storage is their proposed solution. Considering the avoidance alternatives discussed above, the FHWA has determined there is no feasible and prudent avoidance to the increased use of 5DV.6248.

The size of the easements needed at the Nestlé Purina PetCare Company have increased due to the revisions made to the offsite drainage along the property and across the UPRR right of way. The permanent easement increased from 735 square feet to 1,225 square feet. Temporary easements increased from 890 square feet to 1,696 square feet. The easements will include only vacant land (See Exhibit 3).

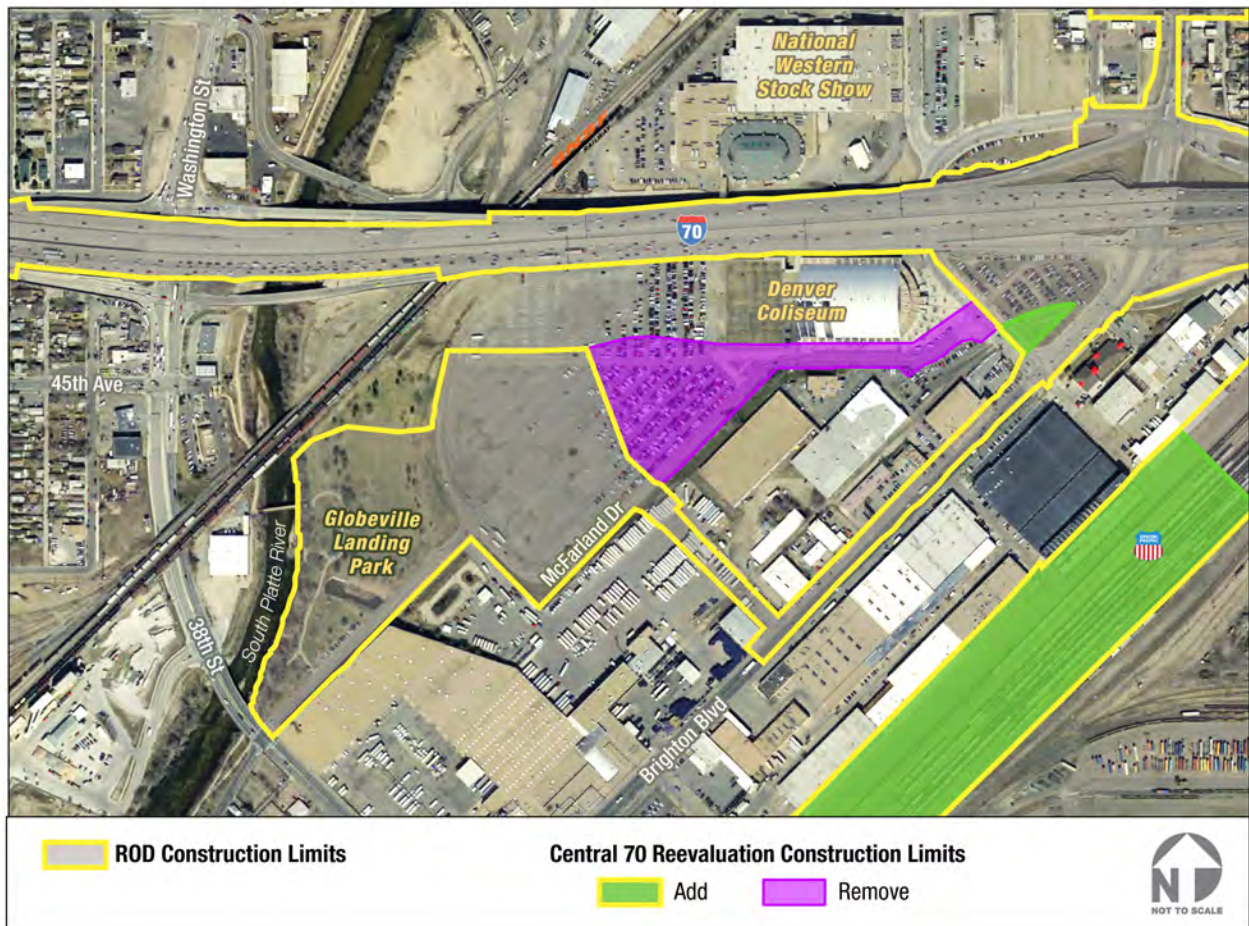
Exhibit 3 – Use of Nestlé Purina PetCare Company



National Western Historic District and Denver Coliseum

Because Denver's Platte to Park Hill: Stormwater Systems Program will capture and convey most of the surface flows that would otherwise flow towards the lowered section of I-70, the I-70 East Project can eliminate the offsite system's connection into the Globeville Landing Outfall through the Denver Coliseum parking lot. The I-70 East Project's limits of construction were reduced to remove the areas associated with the pipe through the Denver Coliseum's parking lot, reducing impacts to the Denver Coliseum parking lot. Exhibit 4 shows the area that will now be avoided and no longer require a Section 4(f) use by the I-70 East Project's drainage through the Denver Coliseum.

Exhibit 4 – Changes to the Construction Limits



Least Harm Discussion

Considering the changes described above, FHWA finds that the Selected Alternative still presents the least overall harm alternative (23 CFR §§774.3(c)(1)(i)-(vii)). The ability to mitigate adverse impacts to each Section 4(f) property is still highest for the Partial Covered Lowered Alternative for the reasons provided in the FEIS (pages 7-107 to 7-116) and ROD (pages 205-206). <http://www.i-70east.com/reports.html#rod>

The Selected Alternative has greater ability to mitigate for impacts, and lessens the magnitude of remaining harm for both Section 4(f) properties and non-Section 4(f) properties. In particular, it is expected to lessen the harm to low-income and minority populations better by providing a public space on top of the highway cover, and removing the viaduct and lowering the highway to reduce visual intrusion and improve neighborhood cohesion. In addition, Swansea Elementary School will benefit from increased space for recreation, better air quality, and lower noise levels. In addition, the Selected Alternative's revised drainage system provides significant mitigation for the use of Globeville Landing Park. The GLO project provides a number of features for the park that provide greater public benefit. Once the GLO is constructed, the entire park would be rehabilitated, removing all existing park facilities and replacing them with enhanced park amenities that have been identified through public outreach efforts conducted by Denver. The GLO project will add significant recreational space to the area and provide for a more appealing setting than currently exists. The features of the historic property of the railyard that will be affected by the increased use of 5DV.6248 will be mitigated with recordation per the Section 106 Programmatic Agreement. The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection has not changed since the ROD, as harm is mitigated through the Section 106 Programmatic Agreement. The relative significance of each Section 4(f) property remains the same as described in the FEIS and ROD. The additional incremental use of the railyard does not alter the degree to which each alternative meets the purpose and need for the I-70 East Project. The magnitude of any adverse impacts to resources not protected by Section 4(f) remains the same and there are no substantial differences in cost among the alternatives. The views of officials with jurisdiction also remains unchanged, as the Section 106 effects were concurred with by SHPO. It should be noted that the changes to the railyard to increase storage space is the UPRR's preferred solution to the storage conflict discussed above. For these reasons, the Selected Alternative still presents the least overall harm.

August 31, 2017

Ms. Megan Barton
Non-motorized Trails Grants Administrator
Colorado Parks and Wildlife
13787 South Highway 85
Littleton, CO 80125

RE: I-70 East Highway Project
Section 6(f) update – Changes to the temporary non-conforming use of Globeville Landing Park

Dear Ms. Barton:

The Colorado Department of Transportation (CDOT), in coordination with the Federal Highway Administration (FHWA), completed the National Environmental Policy Act (NEPA) process for the proposed improvements to I-70 in the Denver metropolitan area between I-25 and Tower Road and is in the process of reevaluating the impacts due to changes in the existing conditions and design of the project.

On December 20, 2016, CDOT submitted a letter to your office stating that “the I-70 East Project will have minor regrading associated with construction of the offsite drainage system where it will tie into the Globeville Landing Outfall project, but the impacts are temporary and will be returned to existing conditions once construction is complete. These activities are considered non-recreation activities that will last less than a six-month duration within the Section 6(f)(3) protected area and are a temporary non-conforming use.” Your office concurred with this determination as did the National Park Service.

Figure 1 shows the design that was included in the December 2016 letter to your office as a reference.

Following the completion of NEPA with a Record of Decision in January 2017, the City and County of Denver (Denver) has made progress implementing their Platte to Park Hill: Stormwater Systems program that connects into the Globeville Landing Outfall. This has changed the existing conditions related to drainage in the project area. This change in existing conditions required a reanalysis of the I-70 East Project’s offsite drainage system.

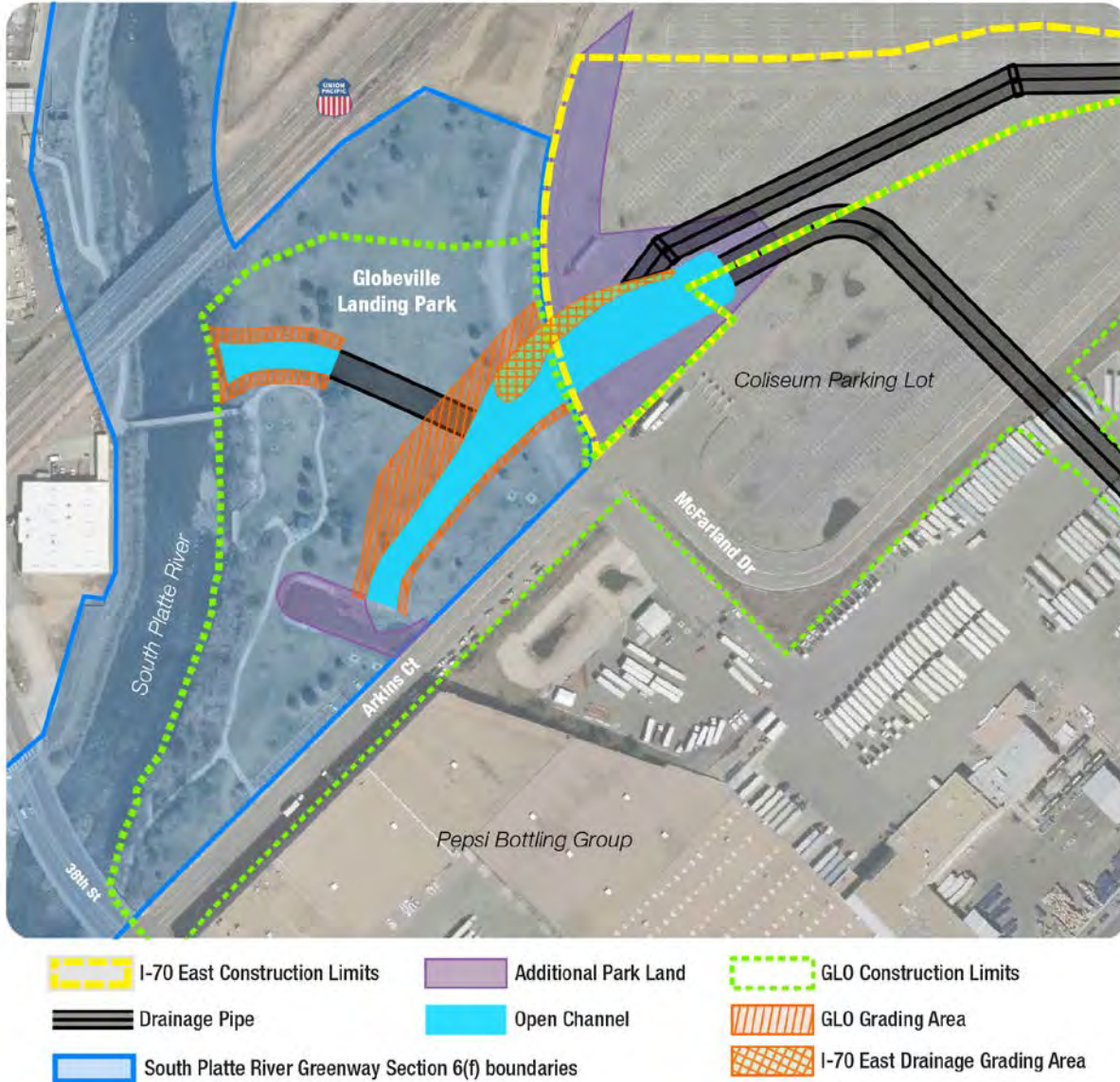
Since the beginning of the I-70 East project, the design included an offsite drainage system along the south side of I-70 to protect the lowered highway from 100-year storm events and Denver neighborhood surface drainage, which currently flows under the I-70 viaduct.

Because Denver’s Platte to Park Hill: Stormwater Systems program will capture and convey most of the surface flows that would otherwise flow towards the lowered section of I-70, the I-70 East Project can eliminate the offsite system’s connection into the Globeville Landing Outfall through the Denver Coliseum parking lot. The I-70 East Project’s limits of construction were reduced to remove the areas associated with the pipe through the Denver Coliseum’s parking lot, reducing impacts to the Denver Coliseum parking lot and Globeville Landing Park.

Since the need for construction activities within Globeville Landing Park has been eliminated, there is no longer a temporary non-conforming use to the Section 6(f)(3) protected area as a result of the I-70 East project. **Figure 2** shows the removed elements of the I-70 East drainage, which include the pipe through the Denver Coliseum parking lot and grading within the open channel in the park. Please note that the impacts remaining in Globeville Landing Park are a result of the Globeville Landing Outfall project, which were determined to be park enhancements as described in the December 2016 letter.



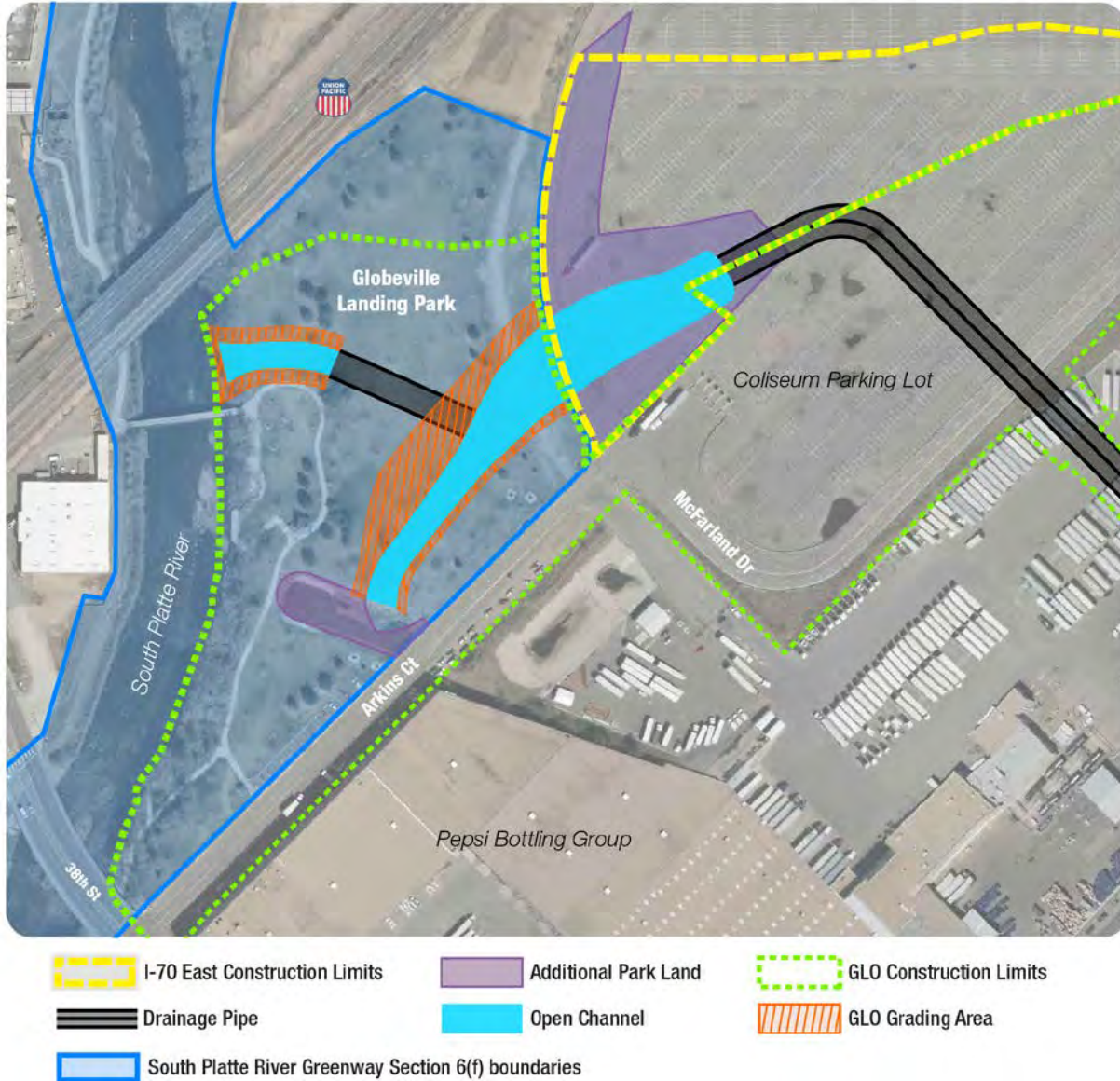
Figure 1. I-70 East Project offsite drainage from Record of Decision



Notes: Exhibit illustrates the drainage identified in the Record of Decision and explained in the previous correspondence on December 20, 2016.
 GLO - Globeville Landing Outfall



Figure 2. I-70 East Project offsite drainage after reanalysis due to changes in existing conditions



Notes: Exhibit illustrates the removal of pipe through Denver Coliseum parking lot and the grading within the open channel as a result of changes in the existing conditions that required a reanalysis of the I-70 East Project's offsite drainage system.
 GLO - Globeville Landing Outfall



Notification of this change has also been provided to the official with jurisdiction, which in this case is Denver Parks and Recreation, and **Attachment A** contains a copy of that notification. If I can provide additional materials or assistance, or if you have any further questions, please contact me at 720.497.6924 or vanessa.henderson@state.co.us. Please forward this information to the National Park Service.

Sincerely,



Vanessa Henderson
I-70 East Environmental Manager
Colorado Department of Transportation

Cc: Troy Halouska, CDOT R1
Cincere Eades, Denver Parks and Recreation
Project Files



ATTACHMENT A
Notification to Denver Parks and Recreation



August 31, 2017

Ms. Cincere Eades
Denver Parks and Recreation
201 West Colfax Avenue, Dept. 601
Denver, CO 80202

RE: I-70 East Highway Project
Section 6(f) update – Changes to the temporary non-conforming use of Globeville Landing Park

Dear Ms. Eades:

The Colorado Department of Transportation (CDOT), in coordination with the Federal Highway Administration (FHWA), completed the National Environmental Policy Act (NEPA) process for the proposed improvements to I-70 in the Denver metropolitan area between I-25 and Tower Road and is in the process of reevaluating the impacts due to changes in the existing conditions and design of the project.

On December 7, 2016, CDOT submitted a letter to your office outlining the I-70 East Project's impacts to Globeville Landing Park as a result of the offsite drainage pipe through the Denver Coliseum parking lot that would tie into the Globeville Landing Outfall, resulting in some additional grading that would be necessary that would be returned to pre-construction conditions. This was determined to be a temporary non-conforming use under Section 6(f). Your office concurred with this determination as did Colorado Parks and Wildlife and the National Park Service.

Figure 1 shows the design that was included in the December 2016 letter to your office as a reference.

Following the completion of NEPA with a Record of Decision in January 2017, the City and County of Denver (Denver) has made progress implementing their Platte to Park Hill: Stormwater Systems program that connects into the Globeville Landing Outfall. This has changed the existing conditions related to drainage in the project area. This change in existing conditions required a reanalysis of the I-70 East Project's offsite drainage system.

Since the beginning of the I-70 East project, the design included an offsite drainage system along the south side of I-70 to protect the lowered highway from 100-year storm events and Denver neighborhood surface drainage, which currently flows under the I-70 viaduct.

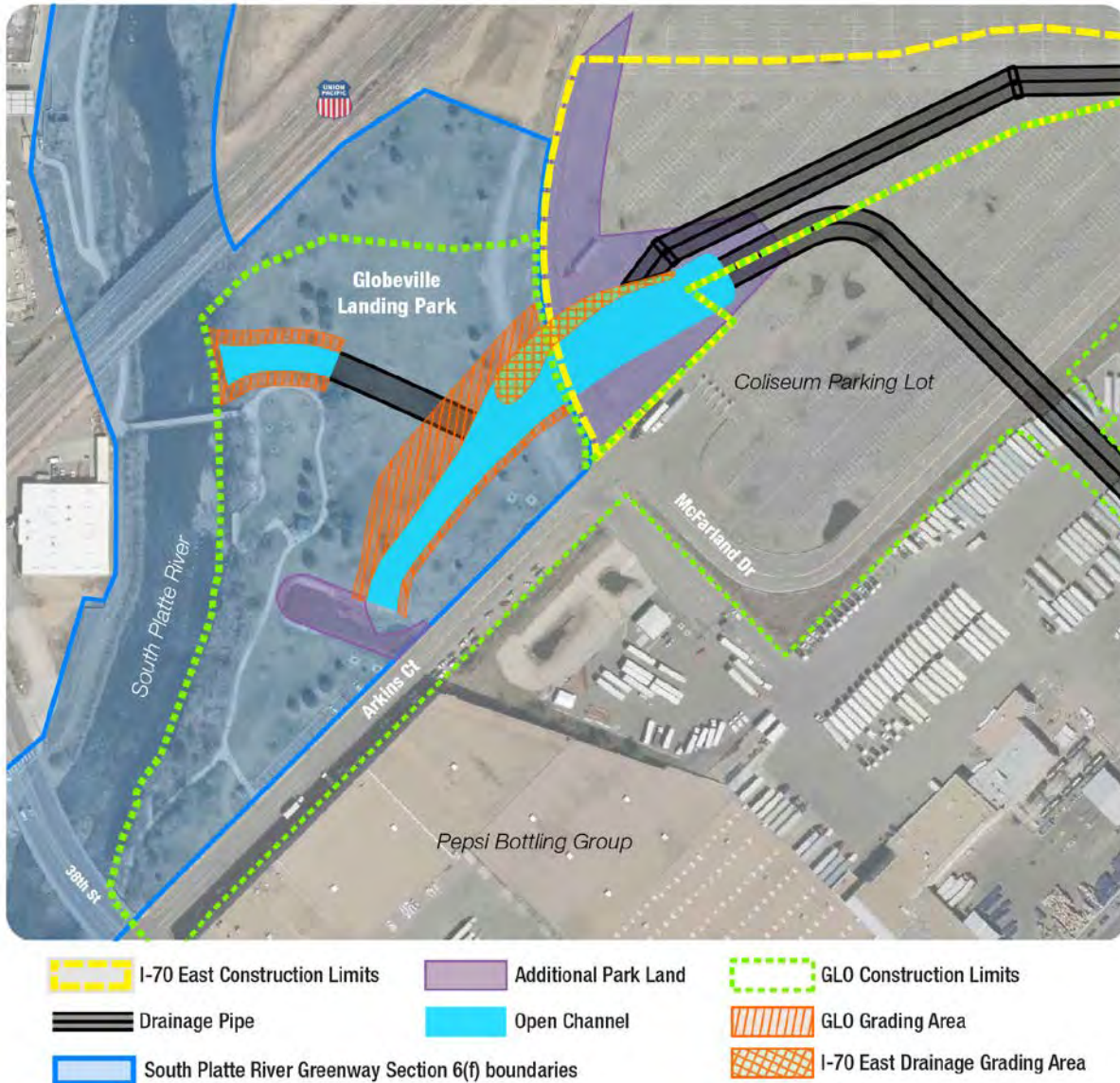
Because Denver's Platte to Park Hill: Stormwater Systems program will capture and convey most of the surface flows that would otherwise flow towards the lowered section of I-70, the I-70 East Project can eliminate the offsite system's connection into the Globeville Landing Outfall through the Denver Coliseum parking lot. The I-70 East Project's limits of construction were reduced to remove the areas associated with the pipe through the Denver Coliseum's parking lot, reducing impacts to the Denver Coliseum parking lot and Globeville Landing Park.

Since the need for construction activities within Globeville Landing Park has been eliminated, there is no longer a temporary non-conforming use to the Section 6(f)(3) protected area as a result of the I-70 East project. **Figure 2** shows the removed elements of the I-70 East drainage, which include the pipe through



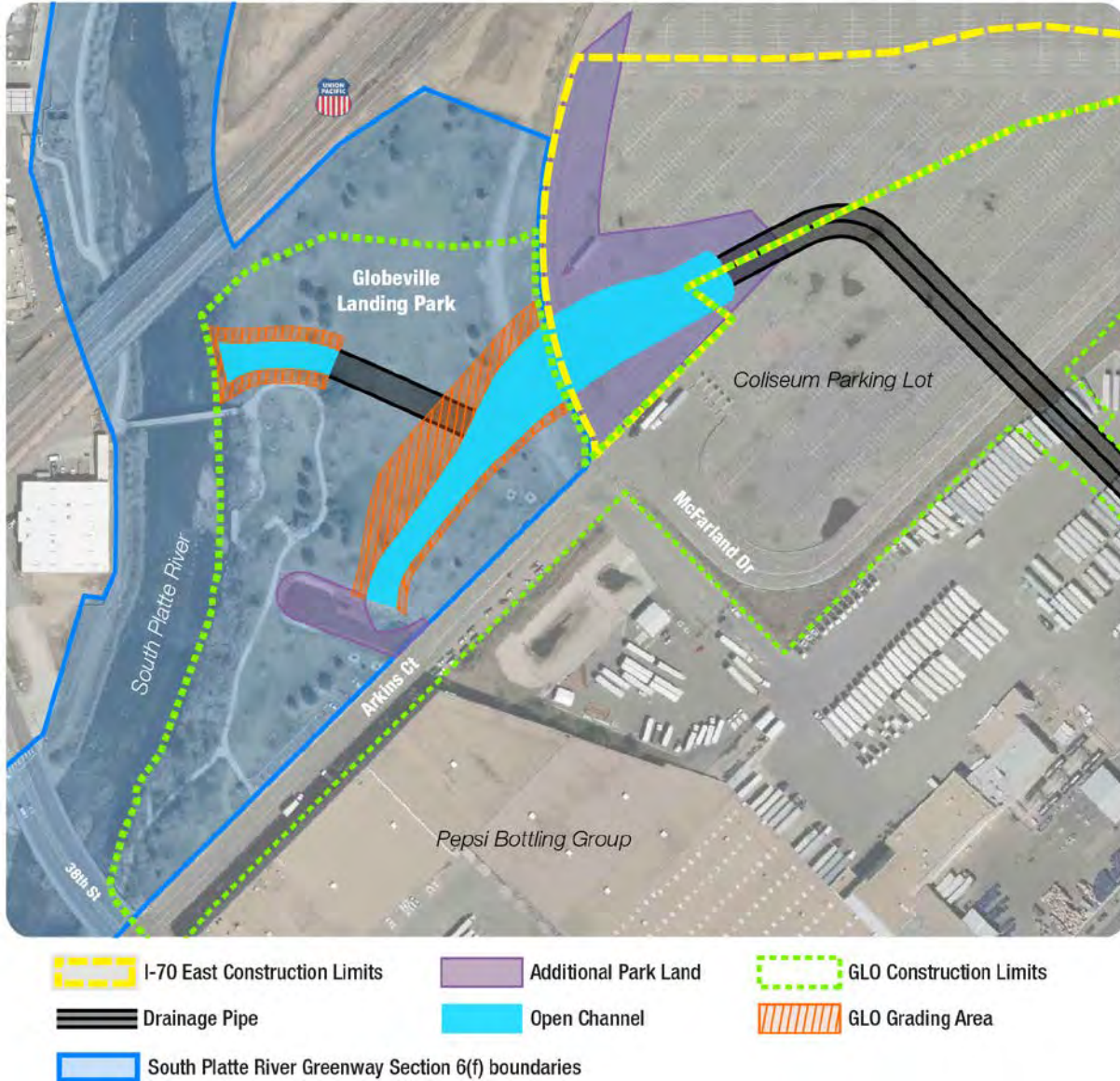
the Denver Coliseum parking lot and grading within the open channel in the park. Please note that the impacts remaining in Globeville Landing Park are a result of the Globeville Landing Outfall project, which were determined to be park enhancements as described in the December 2016 letter.

Figure 1. I-70 East Project offsite drainage from Record of Decision



Notes: Exhibit illustrates the drainage identified in the Record of Decision and explained in the previous correspondence on December 20, 2016.
 GLO - Globeville Landing Outfall

Figure 2. I-70 East Project offsite drainage after reanalysis due to changes in existing conditions



Notes: Exhibit illustrates the removal of pipe through Denver Coliseum parking lot and the grading within the open channel as a result of changes in the existing conditions that required a reanalysis of the I-70 East Project's offsite drainage system.
 GLO - Globeville Landing Outfall

If I can provide additional materials or assistance, or if you have any further questions, please contact me at 720.497.6924 or vanessa.henderson@state.co.us.

Sincerely,



Vanessa Henderson
I-70 East Environmental Manager
Colorado Department of Transportation

Cc: Troy Halouska, CDOT R1
Project Files



August 31, 2017

Ms. Cincere Eades
Denver Parks and Recreation
201 West Colfax Avenue, Dept. 601
Denver, CO 80202

RE: I-70 East Highway Project
Section 6(f) update – Changes to the temporary non-conforming use of Globeville Landing Park

Dear Ms. Eades:

The Colorado Department of Transportation (CDOT), in coordination with the Federal Highway Administration (FHWA), completed the National Environmental Policy Act (NEPA) process for the proposed improvements to I-70 in the Denver metropolitan area between I-25 and Tower Road and is in the process of reevaluating the impacts due to changes in the existing conditions and design of the project.

On December 7, 2016, CDOT submitted a letter to your office outlining the I-70 East Project's impacts to Globeville Landing Park as a result of the offsite drainage pipe through the Denver Coliseum parking lot that would tie into the Globeville Landing Outfall, resulting in some additional grading that would be necessary that would be returned to pre-construction conditions. This was determined to be a temporary non-conforming use under Section 6(f). Your office concurred with this determination as did Colorado Parks and Wildlife and the National Park Service.

Figure 1 shows the design that was included in the December 2016 letter to your office as a reference.

Following the completion of NEPA with a Record of Decision in January 2017, the City and County of Denver (Denver) has made progress implementing their Platte to Park Hill: Stormwater Systems program that connects into the Globeville Landing Outfall. This has changed the existing conditions related to drainage in the project area. This change in existing conditions required a reanalysis of the I-70 East Project's offsite drainage system.

Since the beginning of the I-70 East project, the design included an offsite drainage system along the south side of I-70 to protect the lowered highway from 100-year storm events and Denver neighborhood surface drainage, which currently flows under the I-70 viaduct.

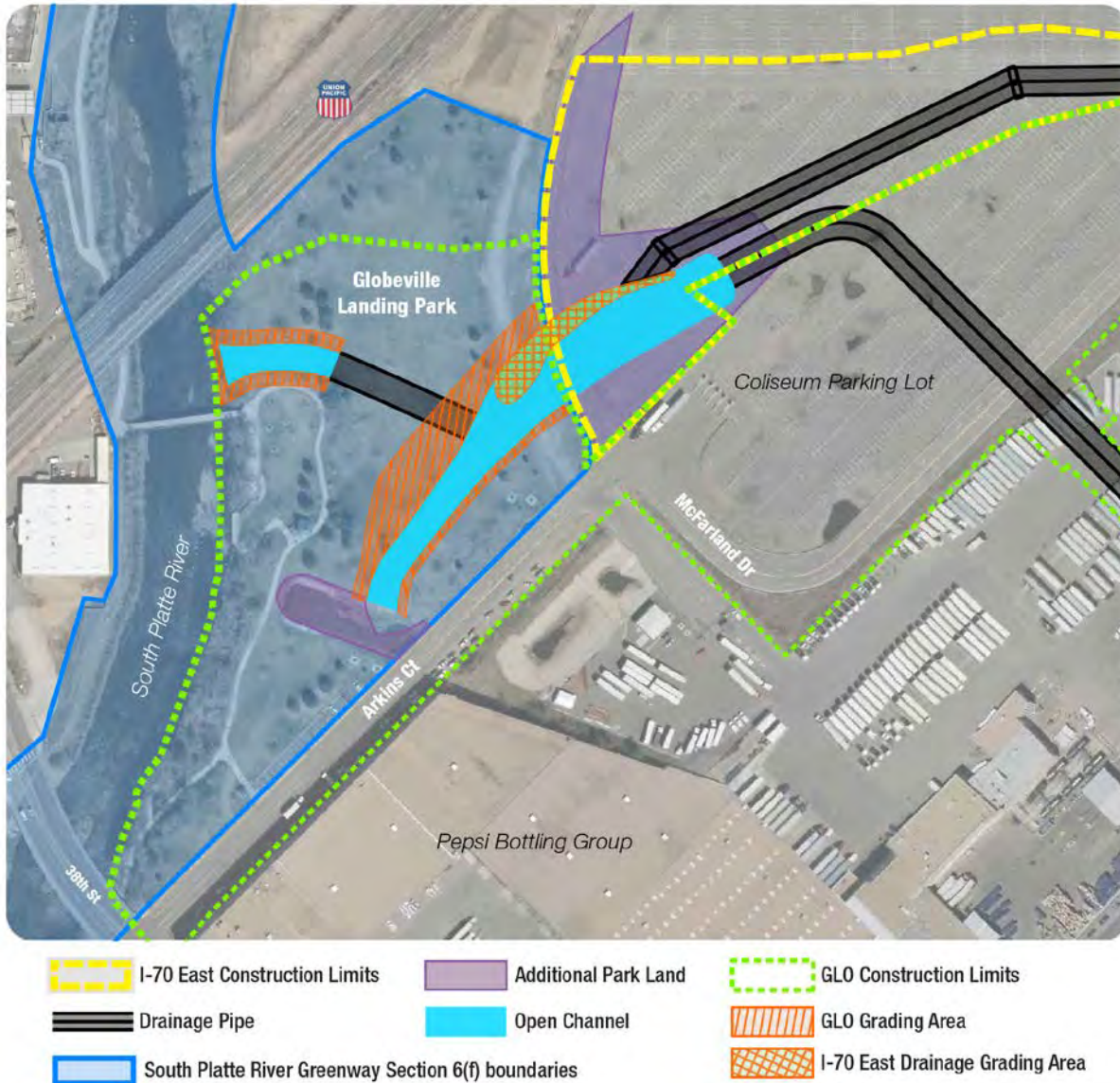
Because Denver's Platte to Park Hill: Stormwater Systems program will capture and convey most of the surface flows that would otherwise flow towards the lowered section of I-70, the I-70 East Project can eliminate the offsite system's connection into the Globeville Landing Outfall through the Denver Coliseum parking lot. The I-70 East Project's limits of construction were reduced to remove the areas associated with the pipe through the Denver Coliseum's parking lot, reducing impacts to the Denver Coliseum parking lot and Globeville Landing Park.

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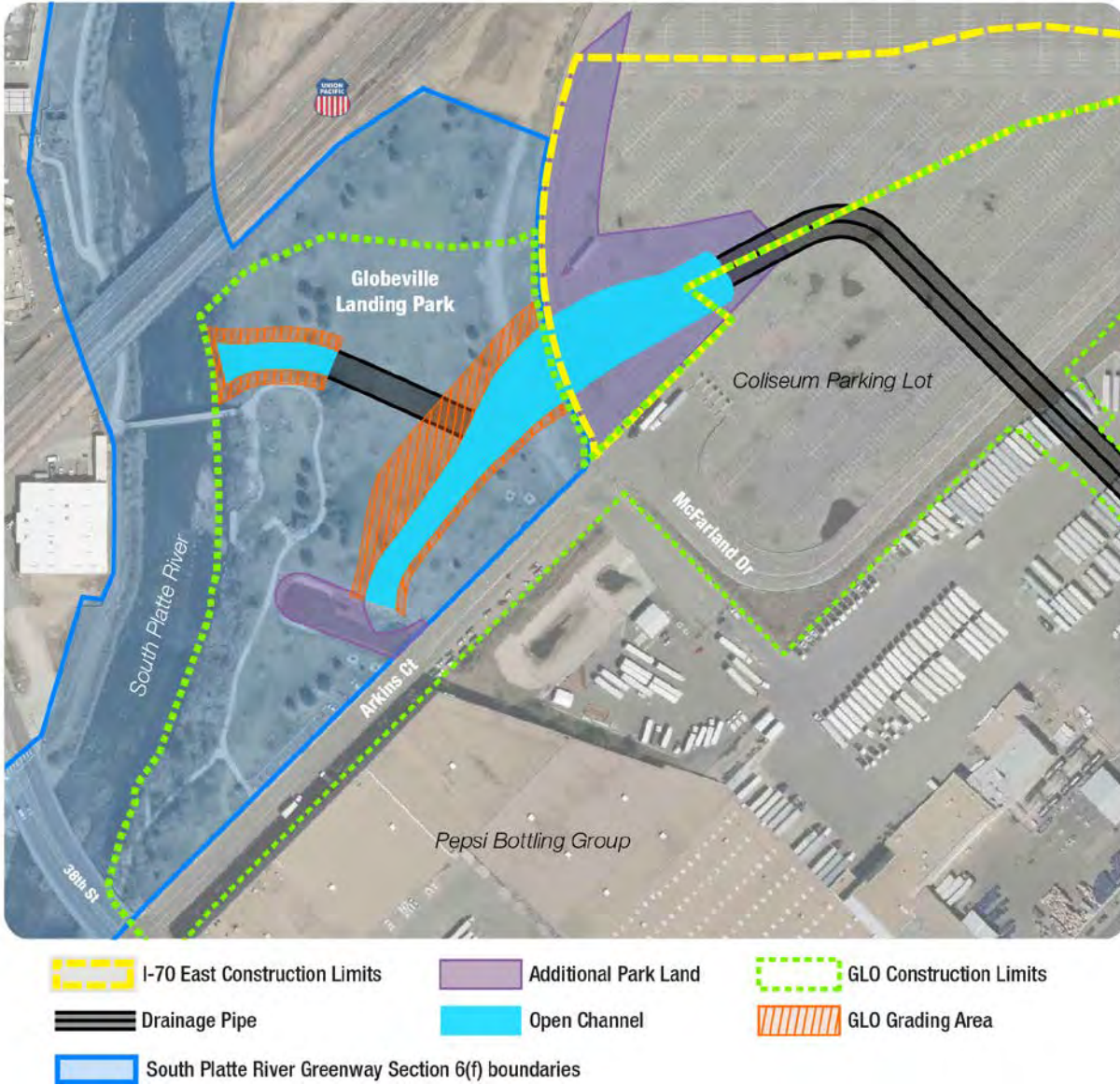
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 GLO - Globeville Landing Outfall

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Notes: Exhibit illustrates the removal of pipe through Denver Coliseum parking lot and the grading within the open channel as a result of changes in the existing conditions that required a reanalysis of the I-70 East Project's offsite drainage system.
 GLO - Globeville Landing Outfall

If I can provide additional materials or assistance, or if you have any further questions, please contact me at 720.497.6924 or vanessa.henderson@state.co.us.

Sincerely,



Vanessa Henderson
I-70 East Environmental Manager
Colorado Department of Transportation

Cc: Troy Halouska, CDOT R1
Project Files



Central 70

CENTRAL 70 PROJECT

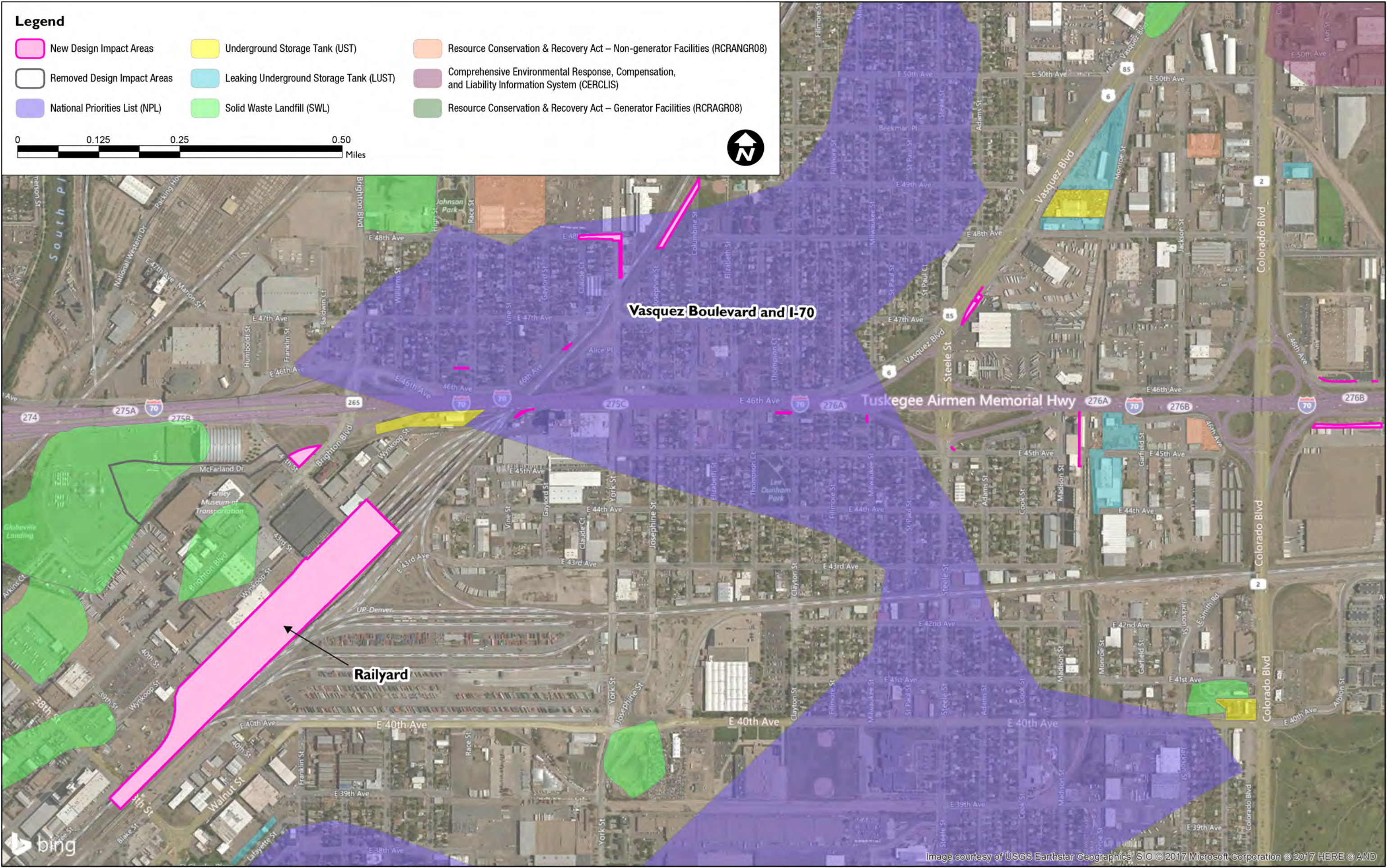
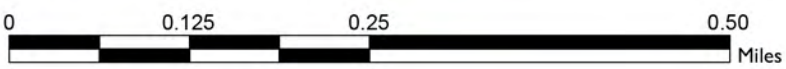
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Known Hazardous Materials Locations

September 2017

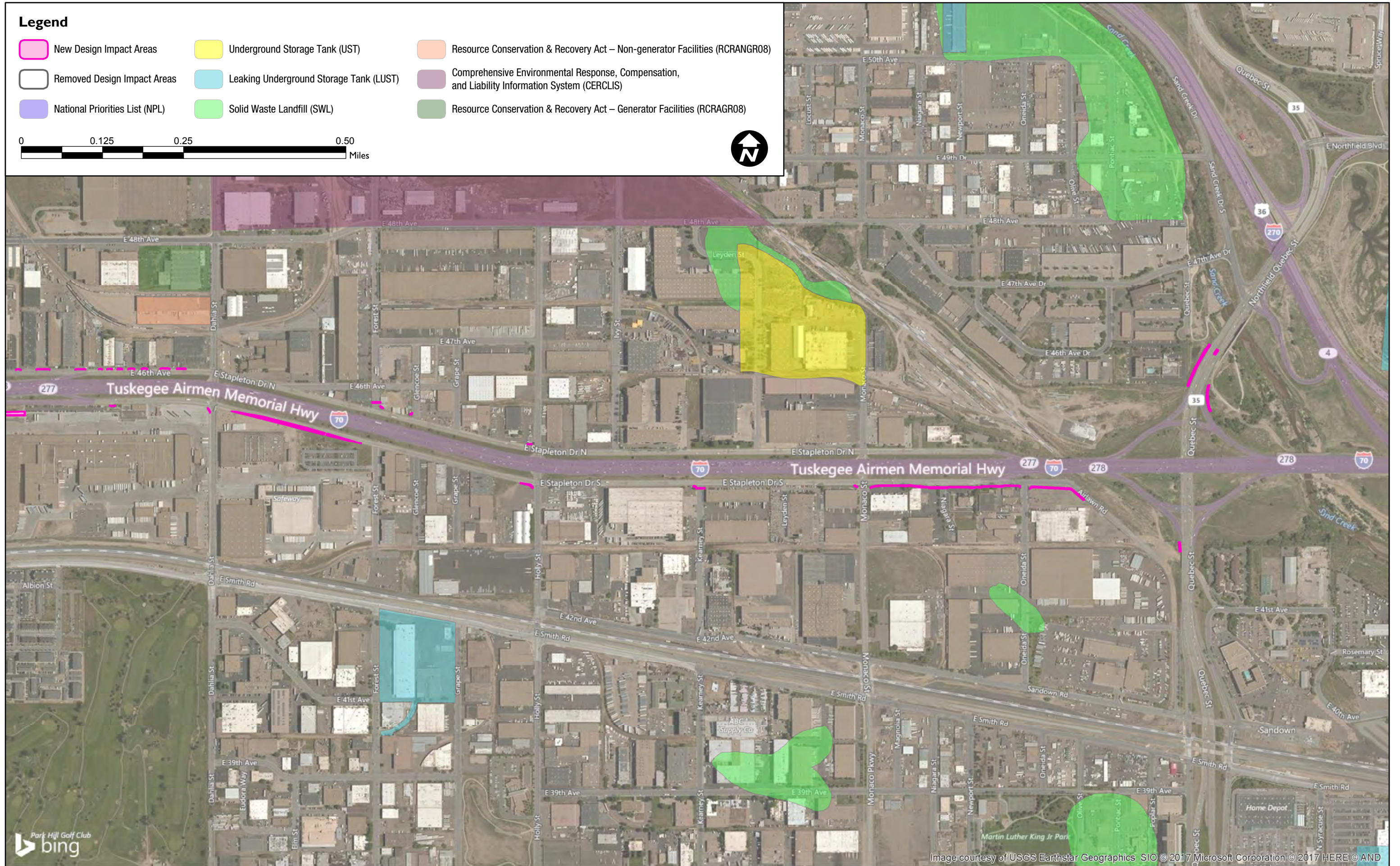
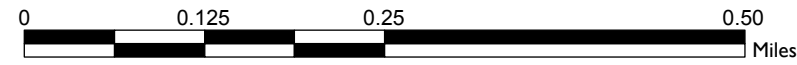
Legend

-  New Design Impact Areas
-  Underground Storage Tank (UST)
-  Resource Conservation & Recovery Act – Non-generator Facilities (RCRANGR08)
-  Removed Design Impact Areas
-  Leaking Underground Storage Tank (LUST)
-  Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)
-  National Priorities List (NPL)
-  Solid Waste Landfill (SWL)
-  Resource Conservation & Recovery Act – Generator Facilities (RCRAGR08)



Legend

- New Design Impact Areas
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Central 70

CENTRAL 70 PROJECT
ATTACHMENT E
DENVER DRAINAGE
PROJECT
DOCUMENTS

September 2017

Two Basin Drainage Project

Conceptual Planning Alternatives Analysis Report

December 2016



Acknowledgements

This project was supported and developed by the efforts of leaders and staff at the City and County of Denver, a consulting team, and numerous stakeholders and citizens.

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Design Workshop, Inc.	GBSM
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Executive Summary

Background

The Platte to Park Hill Stormwater Systems program is focused in the near-term on the northern neighborhoods of Elyria, Swansea, Cole, Clayton, Skyland, Whittier, Five Points and Northeast Park Hill. These neighborhoods are within two of the top priority drainage basins, the Montclair Basin and the Park Hill Basin, within the City and County of Denver. The Montclair Basin is the city's largest basin (10.9 square miles) without a defined open waterway. The Park Hill Basin is approximately 5.75 square miles and also is served by a deficient storm drainage system. Both of these basins experience a high flood risk because they are large in size, fully developed, relatively flat, and both lack an adequate 'backbone' drainage system. Stormwater modeling shows that during moderate to large storm events, the existing pipe systems reach capacity and the excess runoff is carried on the surface at depths of three feet or more on many streets over multiple city blocks. Several hundred properties are shown to be at-risk during a major event. The estimated flood risk in the Montclair Basin alone is in the hundreds of millions of dollars. The estimated flood risk during lesser storms is also significant for both basins.

The Platte to Park Hill Stormwater Systems program is made up of four distinct projects under the Two Basin Drainage Project and the Globeville Landing Outfall project. The collective aim of these projects is to provide improved flood protection, better control stormwater, provide community amenities/parkland (where appropriate), and improve water quality. The four projects are detailed below.

Globeville Landing Outfall Project

1. **Globeville Landing Outfall** – Drainage design, park re-design, and water quality.

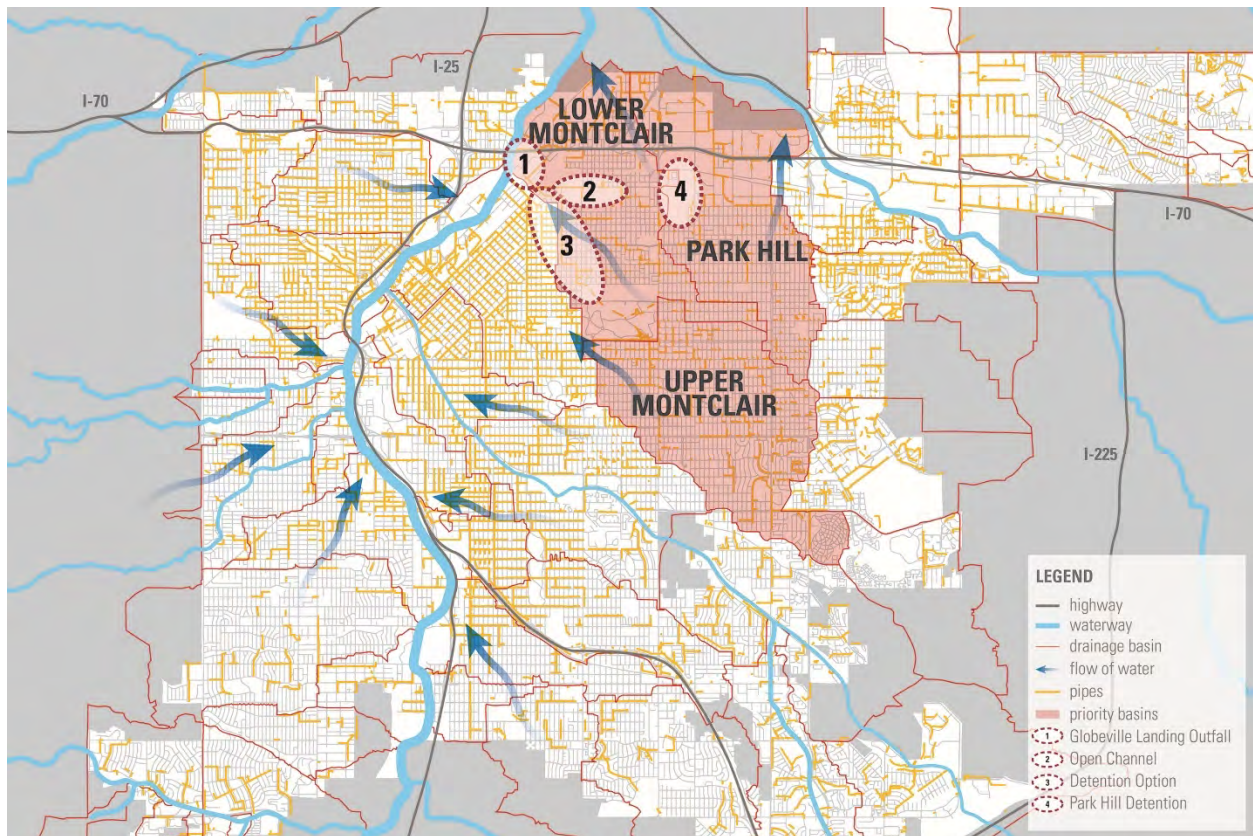
Two Basin Drainage Project

2. **39th Avenue Open Channel and Greenway** - Linear open space and greenway incorporating an open stormwater channel, recreational trail and water quality in the Cole and Clayton neighborhoods.
3. **Montclair Basin detention** – Location to collect, control, and temporarily hold stormwater and provide water quality.
4. **Park Hill Basin detention and conveyance** – Location to collect, control, and temporarily hold stormwater and provide water quality.

Figure 1 below graphically depicts the general location of the Two Basin Drainage Project and the Globeville Landing Outfall project. The focus of this alternatives analysis is on the Two Basin Drainage projects. However, information on the Globeville Landing Outfall is referenced within this document from a technical standpoint because it is hydrologic and hydraulically connected to the Two Basin

Drainage project's alternatives and solutions. This alternatives analysis focuses only on the 39th Avenue Open Channel, Montclair Basin Detention and Park Hill Basin Detention. Collectively, these three projects are known as the Two Basin Drainage Project.

Figure 1. Platte to Park Hill Stormwater Systems Project Context Map



Project Goals

Project goals were established to guide the decision-making throughout the process. From discussions with stakeholders and through many community and public meetings, a series of goals were established for the projects. These goals informed the preferred plan.

1. *Provide a base system for the protection of areas of the Elyria, Swansea, Cole, Clayton, Skyland, Whittier, Five Points, River North and Northeast Park Hill neighborhoods impacted by the Montclair and Park Hill drainage basins up to and including a 100-year flood event.*
2. *Provide new community amenities that are integrated into the urban context.*
3. *Enhance multimodal connectivity.*

4. *Restore functionality to the Montclair and Park Hill drainage basins and increase nature and ecology within these basins to the South Platte River.*
5. *Involve and engage the community in an inclusive process and gear the project toward their neighborhood well-being and best interests.*
6. *Keep the project on schedule and on budget.*

Public Process

A three phase public process was conducted with a strong emphasis on stakeholder and neighborhood involvement. These phases included 1) information gathering, analysis and project framework, 2) establishing potential design criteria and creation of alternatives, and 3) screening alternatives and development of a preferred plan. Throughout the process, feedback from over 1,700 stakeholders was received. Additionally, a Stakeholder Working Group helped guide the process and input at five community/public meetings that was incorporated into the project.

Feedback received during the process included the concern about property impacts, desire for water quality, need for neighborhood connectivity, and the desire for a transparent and collaborative on-going relationship.



Alternatives Analysis

Extensive hydrologic analysis, environmental evaluations and neighborhood planning were completed on both the Montclair and Park Hill Basins to develop alternatives.

Through the extensive hydrologic analysis, the project identified two key drainage concepts to manage the Montclair Basin's runoff from the area upstream (south) of 39th Avenue:

- Provide stormwater capture and conveyance within the Cole and Clayton neighborhoods in order to intercept and convey surface flows toward the South Platte River. The stormwater will outlet to pipes under the railroad tracks at approximately 40th Street and Blake Street, to the Globeville Landing Outfall Project.
- Provide stormwater detention within the middle to lower portion of the basin to slow down and temporarily hold stormwater. The two feasible locations for stormwater detention are within the Cole neighborhood (between 39th and 40th) or at City Park Golf Course.

Additionally, two key drainage concepts were identified to handle the Park Hill Basin's 100-year runoff from the area upstream (south) of Smith Road:

- Provide formalized regional detention at the northeast corner of the privately owned Park Hill Golf Club. A majority of the surface flow within the western portion of the drainage basin naturally flows north through the golf course to this existing low point where water naturally collects. This project proposes to utilize this natural collection point and provide enough detention volume to allow the planned 84-inch Park Hill Phase V pipe to handle the 100-year event west of Forest Street. The owner of the golf club property, the Clayton Trust, is a willing land owner in this discussion.
- From the low point detention area near 38th and Holly Street, an east-west storm drain system is proposed to convey flows in excess of the existing Forest Street outfall's capacity. The pipe will convey stormwater to the west into the proposed Park Hill Golf Club detention facility. This diversion of stormwater will allow the Forest Street outfall to handle the 100-year event from the east.

Preferred Plan

The recommended plan is comprised of elements of work in the Park Hill Basin, at City Park Golf Course, and in the 39th Avenue area of the Cole neighborhood in the lower Montclair Basin.

Montclair Basin

The team recommends City Park Golf Course to temporarily hold and slow stormwater during major storm events. Outside of periods during and immediately after rainfall events, the golf course area will remain dry. The detention area will be integrated into an updated design of the golf course. Detention in the golf course will significantly protect more homes and businesses, minimize property impacts, and create a better opportunity to minimize future infrastructure cost, and provide more opportunity for water quality.

In addition, the team recommends the 39th Avenue open channel from Franklin Street to Steele Street in the Cole and Clayton neighborhoods to safely collect and convey the stormwater to the South Platte River.

Park Hill Basin

In addition to the formalized detention needed within the Park Hill Golf Club, the team recommends implementation of 39th Avenue pipe alignment alternative to convey the stormwater from the Holly detention area to the new Park Hill Golf Club detention area.

Introduction

Preface

In the summer of 2015, the City and County of Denver (City) began the Platte to Park Hill Stormwater Systems program. This program is the overarching structure for multiple projects examining improvements to storm drainage and flood protection in the neighborhoods north and east of downtown Denver. The Platte to Park Hill Stormwater Systems program encompasses multiple drainage and flood protection projects including the Two Basin Drainage Project and the Globeville Landing Outfall Project. Through these projects, the City is taking a comprehensive approach to better protect people, facilities, infrastructure and property against flooding through better management of stormwater while improving water quality in the neighborhoods of Elyria, Swansea, Cole, Clayton, Skyland, Whittier, Five Points and Northeast Park Hill.

When rain falls on the neighborhoods in the Montclair and Park Hill Basins, the water generally flows south to north through the neighborhoods trying to make its way to the South Platte River. Both the Montclair and Park Hill Basins are fully developed and all of the natural waterways that would typically slow and control the stormwater have been built over during the City's early development. While the existing storm sewer system works to address water from typical storms, medium and larger storms have the potential to overwhelm these systems. This results in flooding of the low lying areas in many neighborhoods throughout the Montclair and Park Hill Basins. With no natural waterways, changing weather patterns, and limited natural areas to collect stormwater; the likelihood of catastrophic flooding persists. Therefore, the City is taking this opportunity to advance projects to begin to prepare for storm events in the City's most at-risk neighborhoods north and east of downtown.

Report Purpose

The purpose of this report is to document the Two Basin Drainage Project's Conceptual Planning Alternatives Analysis (part of the Platte to Park Hill Stormwater Systems program). The Two Basin Drainage project is specifically focused on identifying technical solutions to improve flood protection and manage stormwater in both the Montclair and Park Hill drainage basins. Drainage basins are large geographic areas where rainfall collects and flows because the shape of the land (topography) directs the stormwater to low lying areas (typically rivers, gulches, and other waterways).

An alternatives analysis is a process where multiple potential solutions are evaluated to eliminate options that do not adequately meet the goals of the project or other criteria set by the project team and stakeholders. This narrowing of options ultimately results in the identification of the preferred plan of technical solutions. The evaluation process utilizes both quantitative and qualitative criteria to compare and contrast the benefits of each option. Each criterion is developed based on the projects'

purpose and need. The process is further informed by input received from project stakeholders at key milestone points in the evaluation.

The alternatives analysis for the Two Basin Drainage project followed a multi-stepped process including:

- Clarifying the project problem, purpose, and need and establishing goals.
- Researching context information, background, existing and planned drainage improvements, and modeling potential future flooding potential.
- Seeking public and stakeholder input to inform the evaluation process at key decision points throughout the process.
- Identifying the full range of potential technical solutions to improve flood protection and better manage stormwater within the two drainage basins.
- Comparing and contrasting the potential solutions to ultimately identify the recommended set of technical solutions (the preferred plan).

Report Organization

This alternatives analysis document is structured in six core chapters with additional technical backup included in the appendices. The information in each chapter provides context for the subsequent chapters. A brief description of each chapter is provided below as a preface to the document.

- **Introduction** – The first chapter provides a general guide to the alternatives analysis and the key considerations that led to the development of this analysis.
- **Project Context and Process** – The chapter presents the project study area and documents the background information and studies researched to fully understand the study area. This chapter also presents the multi-stepped process of the alternatives analysis to arrive at the recommended technical solutions.
- **Project Purpose and Need** – This chapter defines the flooding problem that the Two Basin Drainage project is focused on beginning to solve. Additional research and data are presented related to the City’s existing flood protection needs, existing flooding, and the modeling of future flood potential.
- **Alternatives Description** – This chapter details the criteria used to compare and contrast the concepts considered to address the projects’ purpose and need.
- **Montclair Basin Alternative Analysis and Evaluation** – Montclair Basin alternative concepts are described, analyzed and evaluation outcomes are provided.
- **Park Hill Basin Alternative Analysis and Evaluation** – Park Hill Basin alternative concepts are described, analyzed and evaluation outcomes are provided.
- **Preferred Plan** –The chapter sets out the priority solutions identified through the evaluation process. A summary of the key technical points and stakeholder input that informed the process is provided.

Background

The Platte to Park Hill Stormwater Systems program is focused in the near-term on the northern neighborhoods of Elyria, Swansea, Cole, Clayton, Skyland, Whittier, Five Points and Northeast Park Hill. These neighborhoods are within the two priority drainage basins, the Montclair Basin and the Park Hill Basin. The Montclair Basin is the city's largest basin (10.9 square miles) without a defined open waterway. The Park Hill Basin is approximately 5.75 square miles and also is served by a deficient storm drainage system. Both of these basins experience a high flood risk because they are large in size, fully developed, relatively flat, and both lack an adequate 'backbone' drainage system. Stormwater modeling shows that during moderate to large storm events, the existing pipe systems reach capacity and the excess runoff is carried on the surface at depths of three feet or more on numerous streets over multiple city blocks. Several hundred properties are shown to be at-risk during a major event. The estimated flood risk in the Montclair Basin alone is in the hundreds of millions of dollars and the estimated flood risk during lesser storms is also significant for both basins.

The Platte to Park Hill Stormwater Systems program is made up of four distinct projects under the Two Basin Drainage Project and the Globeville Landing Outfall project. The collective aim of these projects is to provide improved flood protection, better control stormwater, provide community amenities/parkland (where appropriate), and improve water quality. The four projects are detailed below.

Globeville Landing Outfall Project

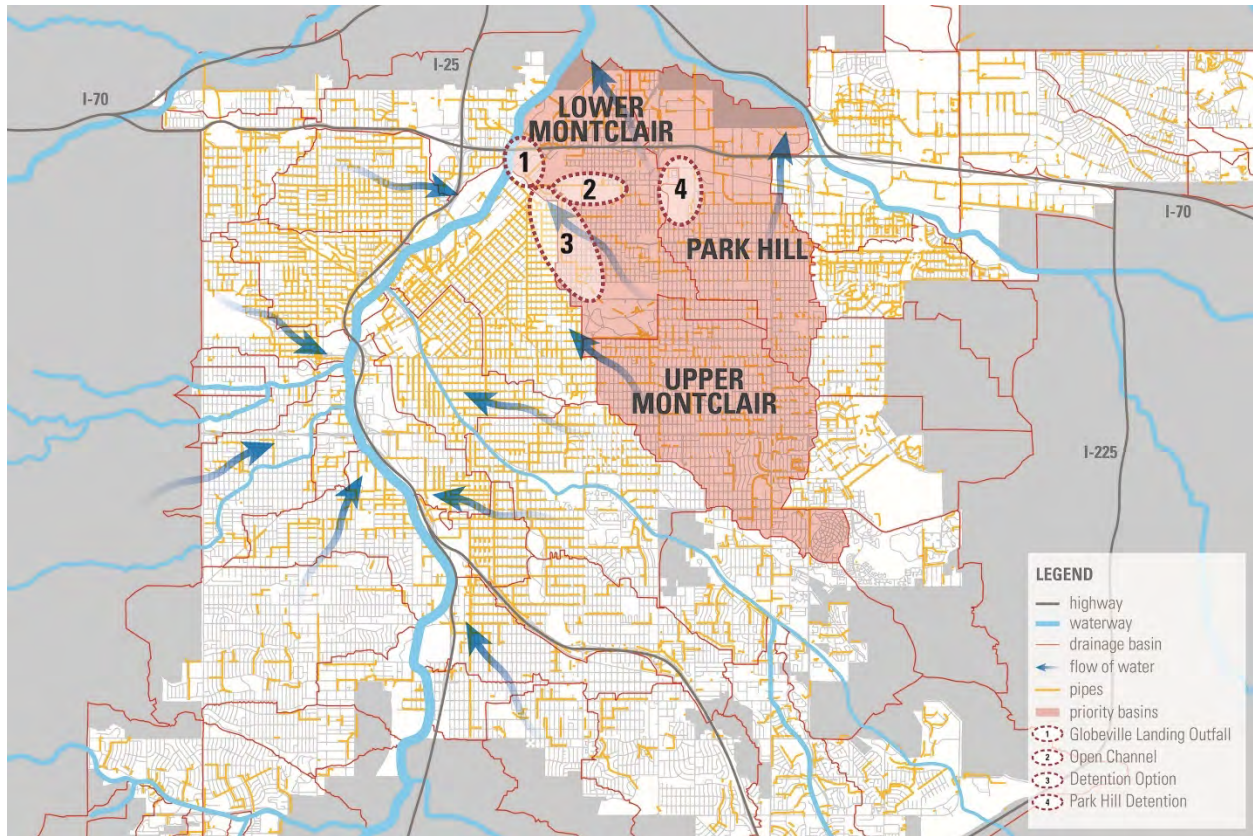
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Two Basin Drainage Project

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Figure 2 graphically depicts the general location of the Two Basin Drainage project and the Globeville Landing Outfall project. The focus of this alternatives analysis is on the Two Basin Drainage project. However, information on the Globeville Landing Outfall is referenced within this document from a technical standpoint because it is hydrologic and hydraulically connected to the Two Basin Drainage project's alternatives and solutions. This alternatives analysis focuses only on the 39th Avenue Open Channel, Montclair Basin Detention and Park Hill Basin Detention. Collectively, these three projects are known as the Two Basin Drainage Project.

Figure 2. Platte to Park Hill Stormwater Systems Project Context Map



Project Goals

The Two Basin Drainage Project include conceptual planning for drainage improvements that are near-term and have funding identified. The outcomes of this alternatives analysis focuses not only on addressing the drainage challenges in the Montclair and Park Hill Basins, but also, using these drainage projects as a catalyst for other community improvements like pedestrian and bicycle connectivity, new park space, and other amenities. All of these considerations are reflected in the goals for the Two Basin Drainage Project.

The key goals of the project include:

- 1. Provide a base system for the protection of areas of the Elyria, Swansea, Cole, Clayton, Skyland, Whittier, Northeast Park Hill and River North neighborhoods impacted by the Montclair and Park Hill drainage basins up to and including a 100-year flood event.**
- 2. Provide new community amenities that are integrated into the urban context.**
- 3. Enhance multimodal connectivity.**

- 4. Restore functionality to the Montclair and Park Hill drainage basins and increase nature and ecology within these basins to the South Platte River.**
- 5. Involve and engage the community in an inclusive process and gear the project toward their neighborhood well-being and best interests.**
- 6. Keep the project on schedule and on budget.**

A 100-year flood event is a potentially catastrophic flood if appropriate drainage facilities and open drainageways are not in place to effectively manage and control the stormwater. A 100-year flood event has a 1% change of happening in any given year. Managing a 100-year flood event in the Montclair and Park Hill Basins can be accomplished by developing a series of related stormwater improvements including natural open channels to control and move stormwater, new stormwater pipes, and detention areas (typically green spaces designed to collect and temporarily hold stormwater).

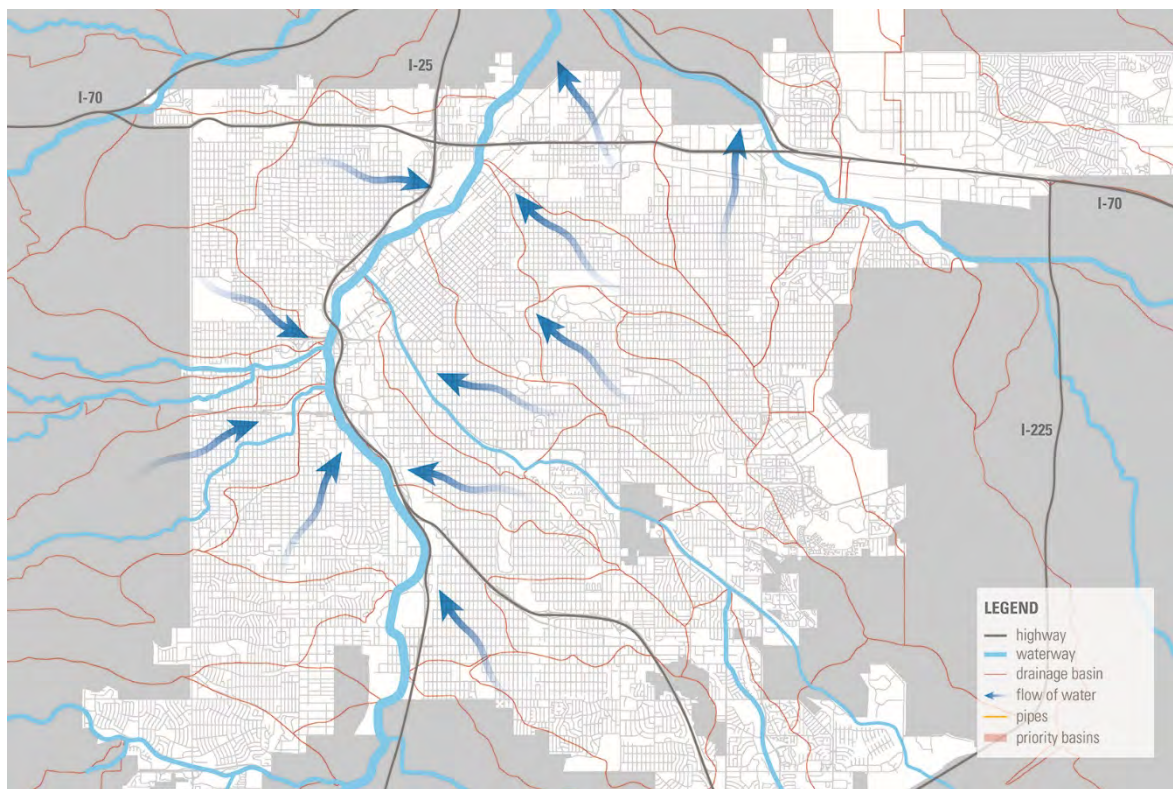
Additional details on the project goals are provided in the Alternatives Description chapter.

Project Context and Process

Study Areas

The Platte to Park Hill Stormwater System program is aimed at addressing stormwater issues within two distinct drainage basins – the Montclair Basin and the Park Hill Basin. These two basins sit adjacent to each other and exhibit similar physical characteristics, drainage patterns, and land uses. Figure 3 generally shows how stormwater moves across the multiple drainage basins within the City. The topography of an area defines the basin and attempts to move stormwater to the low points, typically towards rivers, gulches, and other waterways.

Figure 3. Denver Drainage Basins



Montclair Basin

The Montclair Basin encompasses a total area of approximately 10.9 square miles. Flows from the basin generally travel from southeast to northwest, with the upstream limit of the watershed located at the Fairmount Cemetery near the intersection of South Quebec Street and East Alameda Avenue.

The Montclair Basin is fully developed and land use varies from primarily residential in the upper reaches to commercial and industrial in the lower reaches. City Park, an approximately 320-acre urban

park that contains the Denver Zoological Gardens, the Denver Museum of Nature & Science, and the City Park Golf Course, is located near the center of the basin. The overall imperviousness of the basin is measured at 48% based on the City's "Imperviousness layer" in Geographic Information Systems (GIS) database.

The basin maintains a fairly consistent width of approximately 1.5 miles with a length of approximately 6 miles. Soils within the basin are generally classified as being part of hydrologic soil group C throughout the basin, which have low infiltration rates when thoroughly wetted and consist primarily of soils with a layer that impedes downward movement of stormwater. Topography within the study area is generally flat with grades ranging from 1% to 5%.

Stormwater runoff in smaller events is conveyed through the basin through an existing system of storm pipes. During larger storm events the existing pipes reach capacity and excess runoff is conveyed primarily by the streets as surface flow. Most of the basin lacks a formal drainageway to convey this excess stormwater. In the lower basin there are numerous obstacles that impede drainage and split surface runoff in at least two directions, such as railroad embankments, local roadways, highways, and underpasses. These surface flow "splits" combined with the basin's outfall pipes conveying stormwater in various directions creates a relatively complex lower drainage basin. In general, at 40th Avenue, storm drain pipes convey stormwater west under the Union Pacific rail yards and under Brighton Boulevard to the South Platte River. Surface flows continue to the north through the Elyria and Swansea residential neighborhoods and surrounding commercial/industrial areas.

In the center portion of the basin, stormwater is conveyed through City Park, where Ferril Lake detains a portion of the excess runoff during moderate to large storms.

In the upper basin, generally described as south of Ferril Lake, there exists a series of underground pipes, many of which capture and convey less than the 1-year storm event. In addition, there are two primary surface flow paths – one along Hale Parkway, and the other along 16th/Colfax Avenues and Monaco Parkway.

Montclair Basin Outfall and Detention Descriptions

The Montclair Basin discharges to the South Platte River through a single outfall, a 10' x 10' reinforced concrete box culvert, located in Globeville Landing Park approximately 500 feet northeast of the intersection of 38th Street and Arkins Court. Just upstream of the Park along 40th Street, the outfall pipe is comprised of a 120-inch diameter circular brick pipe which was constructed in 1933. The Globeville Landing Outfall project includes pipe upgrades, water quality improvements and a park re-design which are considered existing conditions for the purposes of this report.

During flood events, surface flows that bypass this primary outfall at Globeville continue to the north under I-70 through the Elyria and Swansea neighborhoods.

Two regional detention ponds are located within the Montclair Basin. The first is Ferril Lake located in the southern end of City Park. Improvements were made to Ferril Lake in 2006/2007 to provide a 5-year

detention volume for the basin. Low flows bypass the lake through a 96-inch diversion pipe and continue north, but as the pipe surcharges during larger storm events, excess stormwater enters the lake through an underground spillway structure. After the lake acts as a peak-shaving facility during the storm event, excess stormwater stored in the lake flows back out the inflow pipe into the 96-inch diversion pipe once hydraulic pressures in the pipe subside. The second detention facility is a relatively small facility in Crestmoor Park near the upper end of the basin at Monaco Parkway and Cedar Avenue.

There are many local private detention ponds in Montclair as well. Most of these ponds are the result of new developments which are greater than 1.0 acres in size with an increased imperviousness; the ponds are necessary for the development to conform to city code to not adversely impact downstream properties with increased runoff and to provide water quality. These detention ponds are not accounted for in the hydrologic modeling because they are typically too small to have a regional benefit, and more importantly, because the City cannot guarantee that they are maintained and functioning properly.

Park Hill Basin

The Park Hill Basin encompasses a total area of approximately 5.75 square miles with majority located within the City boundaries and is fully developed. Topography within the study area is generally mild with grades ranging from 0.5% to 2%. Existing pipe systems collect and convey stormwater generally north to outlets at Park Hill Pond (near 53rd Avenue & Steele) as well as at Sand Creek near Dahlia Street. When the area's stormwater pipes are at capacity and cannot accept more water, stormwater flows overland through streets, yards, parks, businesses, etc. The overland flows of stormwater generally travel from south to north, entering the South Platte River approximately 2,500 feet downstream of Brighton Boulevard, east of York Street.

Most of the basin lacks a formal drainageway to convey stormwater. Several of the existing storm drain pipes terminate at the Denver city limit, where a small and somewhat informal drainage channel moves stormwater through Adams County to the South Platte River. However, throughout the basin there are numerous obstacles that impede drainage and split surface stormwater flows in at least two directions, such as railroad embankments, local roadways, highways, and underpasses.

The Park Hill Basin includes a mix of industrial and residential land uses. The upper portion of the basin above (south of) 38th Avenue is primarily residential, while the lower basin (north of 38th Avenue) includes mostly industrial and commercial land use. The overall imperviousness of the basin is measured at 63% based on the City's GIS "Imperviousness layer" and Blueprint Denver's anticipated land uses.

Park Hill Basin Outfall and Detention Descriptions

The Park Hill Basin has one primary surface flow outfall to the South Platte River through Adams County along the Union Pacific and Rock Island Railroads east of York Street. The outfall channel is relatively small with an approximate bottom width of 10 feet and depth of approximately 2 feet, and it crosses several railroad embankments and the Burlington Ditch through a series of small culverts before

reaching the South Platte River. There are several other pipe conveyance outfalls that serve the Park Hill Basin, including a 120-inch diameter pipe in Magnolia Street, a 90-inch diameter Park Hill storm drain system, and a 42-inch diameter pipe along York Street serving the western portion of the lower basin.

Within the Park Hill Basin, two regional detention ponds have been constructed by the City in the past several years to help reduce peak flow rates. The first was the 38th and Holly Detention Pond which was constructed in 2007 which outfalls to the Magnolia Street storm drain system. The second was the Park Hill (Triangle) detention pond, which is designed to reduce flow rates leaving the City jurisdictional boundary and heading into Commerce City.

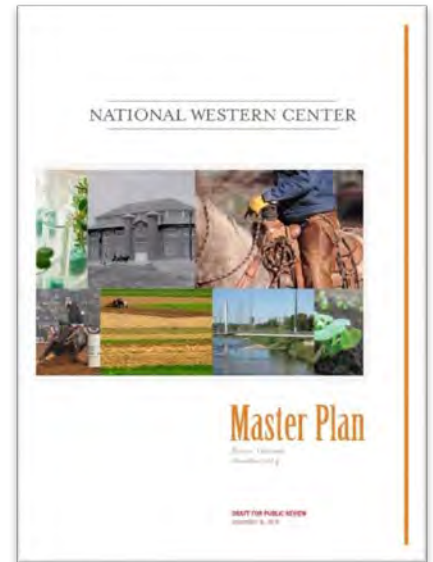
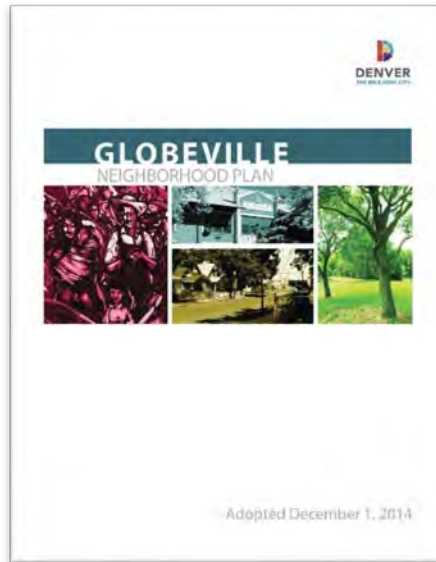
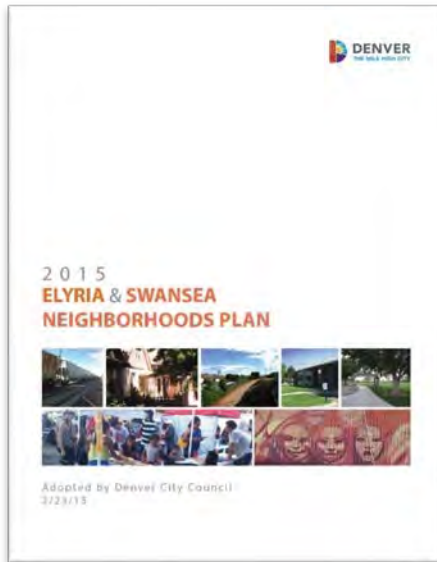
There are many local private detention ponds in Park Hill as well. Most of these ponds are the result of new developments which are greater than 1.0 acre in size with an increased imperviousness; the ponds are necessary for the development to conform to city code to not adversely impact downstream properties with increased runoff and to provide water quality. These detention ponds are not accounted for in the hydrologic modeling because they are typically too small to have a regional benefit, and more importantly, because the city cannot guarantee that they are maintained and functioning properly.

Related Planning Efforts, Studies and Reports

Related Planning Efforts

The following related planning efforts were either ongoing or completed recently within or adjacent to the study areas. The planning team coordinated with each of these efforts to ensure consistency:

- **Elyria & Swansea Neighborhoods Plan (2015)**
- **Globeville Neighborhood Plan (2015)**
- **National Western Center Master Plan (2015)**
- **40th & Colorado Next Steps Study (ongoing)**
- **38th & Blake Height Amendments Planning Process (ongoing)**
- **Brighton Boulevard Design and Construction (ongoing)**



Technical Studies and Reports Referenced

Park Hill Basin

Drainage studies, as-built plans for storm drains, and regional detention facilities designs were gathered from local agencies and the following were used as references for this study:

- 38th Avenue and Holly Street Detention Pond and Storm Drain, Matrix Design Group, March 13, 2007.
- Park Hill Storm, Phase III As-Built, Falcon Surveying, August 20, 2007.
- East Corridor Drainage Master Plan, RTD, October 2008.
- Park Hill (Triangle) Detention Pond Design, PBS&J and Enginuity, 2006 and 2009.
- North Metro Corridor Draft Environmental Impact Statement, RTD, November 2009.
- Lower Montclair Basin Flow Path Analysis Memorandum, Enginuity, March 29, 2010.
- Sand Creek (4400-02) and Upper Park Hill (0060-01, 4400-02, & 4500-01) Basins Final Drainage Study, Atkins, July 2011.
- Park Hill (North of Smith Road) Drainage Outfall Systems Plan Conceptual Design Report, Enginuity, January 24, 2012.
- RTD East Corridor Storm Sewer Plan and Profile, Denver Transit Partners, May 16, 2012.
- City and County of Denver Storm Drainage Design & Technical Criteria Manual, November 2013.

- I-70 PCL MATT Technical Memorandum – Park Hill Drainage Basin Hydrologic Analysis, Enginuity, August 1, 2014.
- City and County of Denver Storm Drainage Master Plan (SDMP), September 2014.
- Park Hill Storm, Phase V, Draft 65% Construction Plans, the City, December 3, 2015.

Montclair Basin

Drainage studies, as-built plans for storm drains, and regional detention facilities designs were gathered from local agencies and the following were used as references for this study:

- 40th Avenue Corridor Infrastructure Improvement Study, Sellards & Grigg, July 2002.
- East Corridor Drainage Master Plan, RTD, October 2008.
- I-70 PCL MATT Technical Memorandum – Montclair Drainage Basin Hydrologic Analysis, Enginuity, August 1, 2014. Lower Montclair Basin Flow Path Analysis Memorandum, Enginuity, March 29, 2010.
- RTD East Corridor Storm Sewer Plan and Profile, Denver Transit Partners, May 16, 2012.
- City and County of Denver Storm Drainage Design & Technical Criteria Manual, November 2013.
- Montclair Creek Drainage Feasibility Evaluation, Denver Public Works, June 30, 2014.
- City and County of Denver Storm Drainage Master Plan (SDMP), September 2014.
- National Western Center Master Plan, March 9, 2015.
- *DRAFT- Lower Montclair Basin Outfall Systems Plan (ongoing/in-progress), Enginuity, May 2016.*
- *DRAFT – the City and Urban Drainage and Flood Control District (UDFCD) Globeville Landing Outfall Design Report, Merrick, (ongoing/in-progress).*

Planning Process

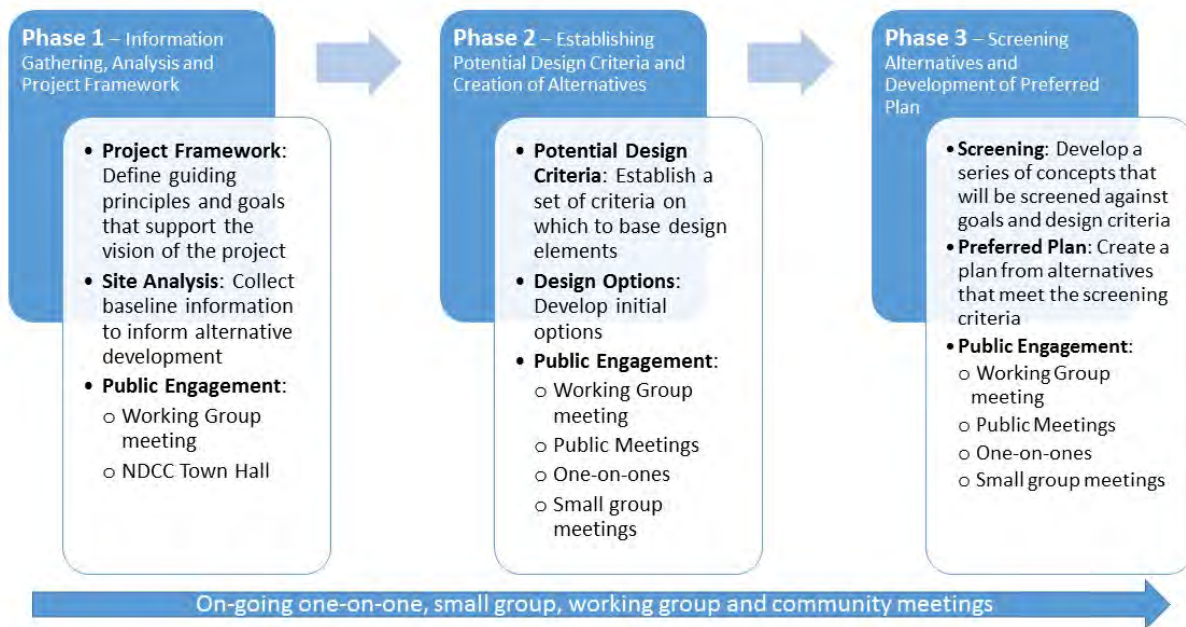
The conceptual planning process began in summer 2015 and lasted approximately nine months continuing through early 2016 and included three primary phases of work (see Figure 4):

1. Information gathering, analysis and developing a project framework.
2. Establishing potential design criteria and creation of alternatives.
3. Screening of alternatives and development of the preferred plan.

A key part of the process involved gathering stakeholders together for multiple community meetings, small group meetings, and one-on-ones for stakeholders to bring their unique thoughts, perspectives and priorities to the planning process. The stakeholders provided input in multiple ways at each step in

the process helping to establish potential design criteria, select alternatives and influence the preferred plan.

Figure 4. Planning Process



Information Gathering, Analysis and Project Framework

The first step in the process involved gathering all available information and data relating to the project areas, conducting an in-depth analysis, and identifying goals and objectives to guide the process and decision making.

Information was gathered through a variety of methods including meetings with City staff, reviewing past planning efforts and reviewing previous technical analysis. Base mapping information was collected using GIS layers that were obtained from the City, UDFCD, and from other public sources including the Colorado Department of Transportation (CDOT) and the U.S. Geological Survey.

Analysis was conducted through an iterative process compiling and overlaying base information in order to better understand existing conditions, environmental considerations and the opportunities and constraints within all alternatives.

Lastly, during this phase of work, a project framework was established that identified project principles, goals and objectives to guide the process and inform decision-making during the analysis of the alternatives.

Establishing Potential Design Criteria and Creation of Alternatives

The second phase of work included establishing potential design criteria for the alternatives to be analyzed and the creation and development of alternatives.

- An initial broad look was completed throughout the entire general study area to identify drainage improvement alternatives to address our project needs. From there, detention locations were further studied and analyzed to identify the feasible locations.
- The goals and objectives created during the first phase of work directly informed the creation of the potential design criteria which were used to screen the alternatives.
- Final design criteria will be established in the next phase of the project.

Screening Alternatives and Development of Preferred Plan

The third phase of work began with screening the conceptual planning alternatives and initial screening was completed and more detailed design alternatives were developed which were also screened. Finally, the preferred plan emerged and next steps were outlined.

Public Outreach and Engagement

The planning and public engagement process included meetings and input from over 1,700 community members. At key milestones during the process, Stakeholder Working Groups (SWG) meetings were held, as well as five (5) public/community meetings.

Additionally, the outreach strategy included other methods used to both inform and engage the public. More information on each of these methods can be found in the appendix.



- Stakeholder interviews and one-on-one outreach
- Community leader engagement
- Stakeholder Working Group meetings
- Public meetings
- Registered Neighborhood Organization and community organization meetings
- Block information sessions
- Community tours
- Program webpage and digital resources
- E-Newsletters
- Media outreach
- Community partnership program
- Multicultural outreach

The 9-month process was organized into three major tasks: Information Gathering and Analysis, Creation of Alternatives and Preferred Plan. Precedent projects, plans, sections, three-dimensional renderings of the proposed concepts were developed to convey the design ideas.

Throughout the process, the team gathered extensive feedback on all aspects of the Platte to Park Hill Stormwater Systems program. Through comment forms, emails, telephone hotline messages and input at meetings, the following themes emerged:



- **Cole Neighborhood Detention:** Prior to the removal of option 1B¹ (see Alternative Development and Evaluation chapter), a great number of community members were concerned with the amount of homes that could be impacted with this alternative. They stated the Cole Neighborhood option should not be considered and prefer the alternative with the least amount of impact to homes.
- **City Park Golf Course Detention:** Community members expressed some preference for this alternative over detention in Cole because it has less impact to homes and private property and protects a larger area from flooding, while others were concerned about the potential impact associated with detention in the golf course including its historic designation and impact to trees.
- **Connectivity Enhancement:** Numerous community members stated the importance of increasing and prioritizing bicycle/pedestrian connections, specifically in the Cole/Clayton neighborhoods.
- **Program Communication and Program Pace:** Prior to the outreach extension in the last two months of the alternatives analysis phase, community members were concerned that this is a fast-paced program and there was not sufficient time to provide adequate feedback.
- **Environmental Justice:** Several community members expressed concern that the program was targeting the Cole neighborhood because of its ethnic diversity and lower socio-economic residents.
- **Water Quality and Environmental Health:** Community members are interested in how stormwater improvements will affect water quality and what type of environmental and public safety considerations need to be made.

¹ Since the removal of option 1B concerns over loss of private property have subsided

- **Alternative Development:** Community members were curious if all possible detention options had been vetted before narrowing to the two known alternatives in the Lower Montclair Basin.
- **Relationship to Other Projects:** Many community members raised questions about how the program relates to other significant infrastructure projects in the area like the expansion of I-70, RTD's A-Line, future development at the National Western Center and private development in the area.
- **Partnership and Communication:** Attendees believed an ongoing, transparent, collaborative relationship with the City is crucial to the success of the program (beyond the conceptual planning phase).

This stakeholder feedback and the key themes that emerged guided the project team and City on the decision of the preferred plan.

Purpose and Need

Two Basin Drainage Project Purpose and Needs Statements

Purpose Statement:

The purpose of the Two Basin Drainage Project is to provide drainage system improvements resulting in increased flood protection within portions of the Elyria, Swansea, Cole, Clayton, Skyland, Whittier, Five Points and Northeast Park Hill neighborhoods. The focus of the project is to provide up to 100-year flood protection where practicable. The infrastructure improvements created through these projects will form a ‘backbone’ drainage system for projects (planned or future) to continue to build upon with additional improvements to provide more areas within the Montclair and Park Hill Basins with 100-year flood protection.

Needs Statement:

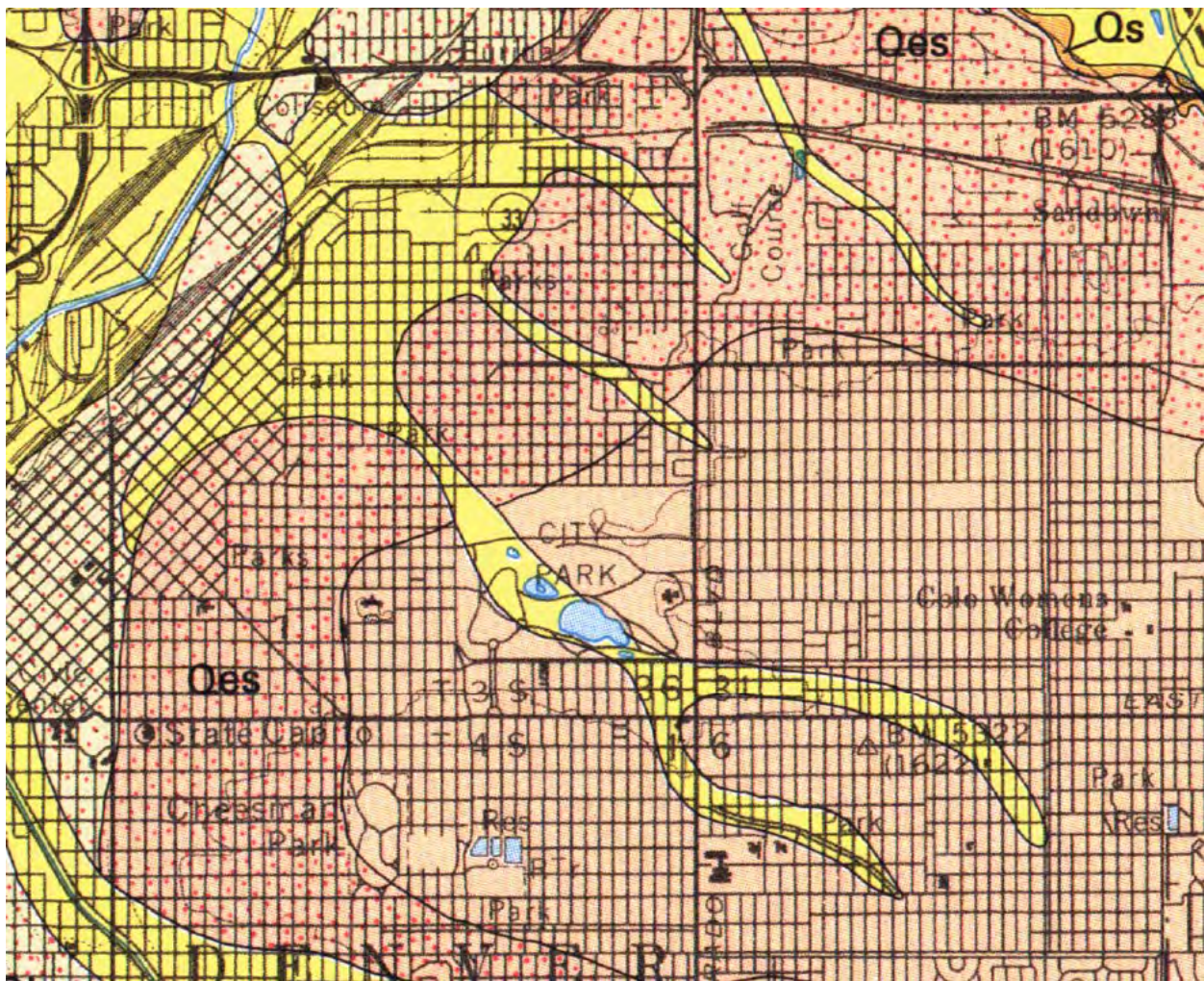
The needs for the Two Basin Drainage Project is documented in multiple planning documents, historic flooding reports, multiple drainage project assessments, and future flood modeling conducted by the project team. Past planning efforts have identified historic flooding and inadequacies in the existing stormwater system as referenced in the Elyria/Swansea Neighborhood Plan, the 2014 Stormwater Master Plan, and the Draft Lower Montclair Outfall Systems Plan. As the largest drainage basins in the City with limited or no open drainageway to collect and move stormwater flows, the Montclair and Park Hill Basins have been identified as the most at-risk for catastrophic flooding. The Montclair Basin is fully urbanized and the Park Hill Basin has limited undeveloped lands. While the City is implementing a program city wide to develop green infrastructure (City streets, buildings, etc.) and new development/redevelopment must address their individual stormwater impacts on site; these efforts are simply not significant enough on their own to address the stormwater challenges present in the Montclair and Park Hill Basins. The probability of a storm that may cause significant impacts to property and life grows each day and the City must begin to address these challenges as quickly and responsibly as possible.

Purpose and Needs - Supporting Research, Analysis, and Documentation

Before the founding of Denver, the Montclair and Park Hill Basin areas had open creeks and gulches that moved stormwater through the basins to the South Platte River (where Elyria and Swansea neighborhoods are today). But as Denver has grown from a city of about 130,000 in 1900, to over

660,000 today, the demand for property has increased. Homes, businesses, streets, and industry have developed over these naturally flowing drainageways. Figure 5 shows the alluvial sand, silt, clay and gravel within the Montclair and Park Hill Basins which is typical streambed material. Most basins in Denver still have creeks and gulches that provide natural open channel drainage for stormwater; however, this is not true of the Montclair and Park Hill basin. The natural drainageways were replaced with pipe systems which may have been adequate at the time, but are no longer sized to safely handle today's flows. The pipes collect only the minor events, or less depending on location. The larger events are conveyed by the streets generally along their natural paths. The difference today is that stormwater flows through densely populated residential and commercial neighborhoods at levels that can flood property and have severe impacts to the surrounding neighborhoods.

Figure 5. USGS Geological Survey (USGS, 1979). Alluvial soils shown in yellow.



Stormwater deficiencies are not confined to only Montclair and Park Hill. There are numerous other drainage basins and drainageways across the city that require major upgrades as well. However,

Montclair and Park Hill have been identified as a high priority because they have the highest flood risk to life and property.

Flood History

Park Hill Basin

On August 17, 2000, Denver Firefighter Bob Crump died in the line of duty after rescuing a woman from floodwaters in the vicinity of East 49th Avenue and Colorado Boulevard. Bob and fellow firefighters were directing traffic during a flash flood at East 50th Avenue and Colorado Boulevard when they saw a woman stranded and clinging to a metal post. The two waded into the intersection to retrieve the woman, but Crump was pulled under by the swirling stormwaters of a submerged 36-inch storm drain.

Less than a month before Crump's death, local business people had complained to the City about drainage problems and flooding near the site. They were told that the storm sewer system for that area was not due for overhaul for several more years. Crump's death has prompted significant talks among the City staff and fire chiefs about safety practices.

Elsewhere in the basin, major drainage problems have been experienced along Vasquez Boulevard near Sand Creek, along York Street, and at the Denver Water Recycle Plant located in Adams County just downstream of the City's boundary. The Smith Road corridor has also experienced flooding, including failure of the Union Pacific Railroad embankment on August 18, 2004 west of Colorado Boulevard. Further upstream in the basin, several extensive flooding events have been observed at 38th and Holly, along 36th Avenue, along Niagara Street, along the 3300 block of Olive Street, and at 30th and Quebec.

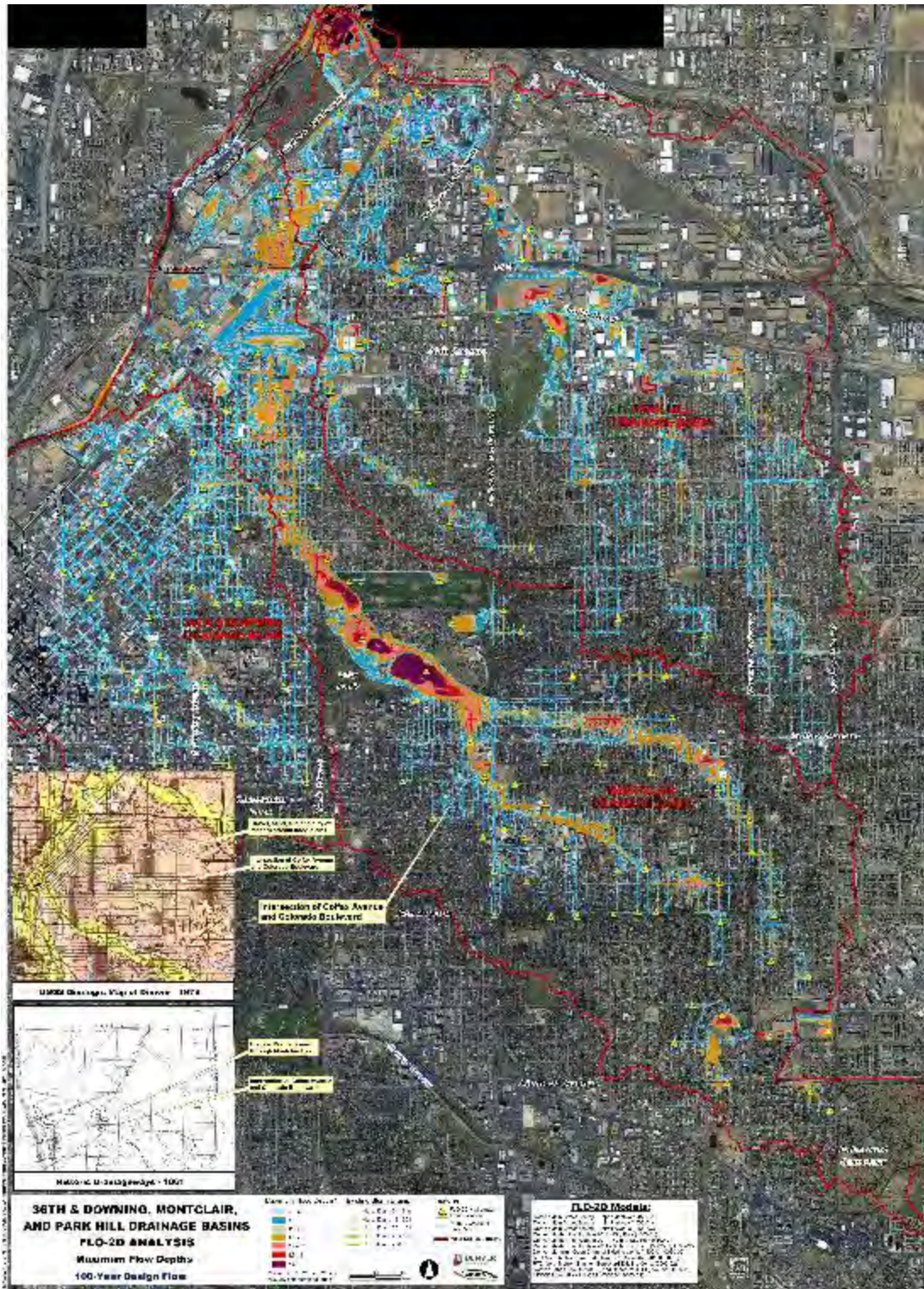
Montclair Basin

Widespread flooding has been documented throughout much of the Montclair Basin over the past 100-years including the significant flood events in 1912, 1933 and 1965. In 1886, construction began on both City Park and the Denver Union Stock Yard Company stockyards, and since this time, the Montclair Basin has continued to urbanize. Because watershed science was not part of the planning and design process when these significant public investments were constructed and the urbanization began, little thought was put into regional stormwater management. It wasn't until after the flood of 1965 that regional approaches were considered.

Within the basin, there are numerous sump areas that exist today and experience relatively frequent flooding. Most notably, the Coca-Cola bottling plant located near the intersection of Race Street and 38th Avenue has reported frequent flooding at their facility. Also, frequent street flooding is reported along High Street north of City Park and along 17th Avenue on the south side of City Park. Higher in the basin, flooding has been reported on East Severn Place between Jersey Street and Jasmine Street, along 16th Avenue between Dahlia Street and Glencoe Street, Colfax Avenue between Glencoe Street and Ivy Street, and along 14th Avenue between Jasmine Street and Krameria Street. Stormwater surging out of manholes along Hale Parkway has also been reported.

The evolution of hydrologic modeling software has advanced significantly over recent years. In 2009 the first application of FLO-2D (see Figure 6) software was used to map flood risk in Denver's urban areas. This advancement allowed experts and city officials to understand the flood risk in much greater detail and this type of analysis is what was used for this process.

Figure 6. Montclair and Park Hill FLO-2D



Storm Drainage Master Plan

The City's Storm Drainage Master Plan (SDMP) is updated every 5 years to capture and memorialize the findings of studies that are ongoing during the intervening years between updates. The SDMP identifies high level needs (i.e. larger pipe systems), however these are based upon city-wide, master plan level guidelines that can fall short of providing the City's desired level of service in large basins without defined open waterways. In those cases, it is necessary to evaluate in more detail, on a smaller scale, to determine more precise basin-level system needs that meet the City's stormwater criteria. These next level studies are called Outfall Systems Plans (or OSPs) and are typically co-sponsored with the UDFCD and the recommendations and findings for system needs and upgrades are incorporated in the next master plan.

The SDMP is not a static document. For example, the 2014 SDMP update captured and memorialized the findings of studies that were done after the 2009 SDMP was adopted, including studies on Cherry Creek, the Marston Lake North Drainageway, and the analysis of the Park Hill drainage basin (finalized in 2011).

The ongoing Montclair Outfall Systems Plan, which includes Platte to Park Hill Stormwater Systems as a backbone drainage system, will be finalized in 2017 and the recommendations of this plan will fold into the 2019 SDMP. Similarly, the 2019 SDMP update will capture and memorialize the findings of studies that are currently underway, including those for Dry Gulch, Harvard Gulch, Weir Gulch, and the Montclair and Park Hill drainage basins.

For several years, the City has been working on a number of ways to address the stormwater issues and has been increasing the size of storm sewer pipes, requiring developers to address stormwater associated with their properties, slowing stormwater down in parks/open space, and requiring reconstructed or new streets to incorporate methods to slow and address stormwater. While these efforts have a benefit, and are helping, they do not have a large enough impact by themselves to solve the drainage issues the City is facing (especially in the Montclair and Park Hill Basins). The City must be prepared for major storms to avoid loss of life, homes, and businesses. The lack of storm drainage facilities to slow and better manage larger storms not only causes damage and is expensive, but can be dangerous. Therefore, the City is taking a comprehensive approach to better protect people and property against flooding which improving water quality.

Alternatives Description

Project Description

The project team developed a cohesive project description to unify and align the project's alternatives and evaluation process and to identify that this effort would be aligned with past and concurrent efforts and would leverage the mutual benefit of other agencies' partnerships with the City. The statement was developed by the team and then reviewed with the City leadership and project stakeholders.

PROJECT DESCRIPTION

The Two Basin Drainage Project will provide enhanced multimodal connectivity, innovative placemaking and urban design, much needed 100-year flood event protection, and other neighborhood improvements to portions of the Elyria, Swansea, Cole, Clayton, Skyland, Whittier, Five Points, and Northeast Park Hill communities. The project is a collaborative effort being led by the City and County of Denver and capitalizes on partnerships with the Colorado Department of Transportation, the Regional Transportation District, and the Urban Drainage and Flood Control District.

Montclair Basin

Existing Conditions

The Montclair Basin has an existing 120-inch storm drain that runs diagonally northwest under City Park, the Denver Zoo and City Park golf course. From 26th Avenue, the backbone drain conveys flow north in High Street to Franklin Street. At Franklin Street, the pipe turns north/northwest and runs in 39th Avenue to Blake Street. The backbone system is then tunneled under the railroad tracks, underneath Brighton Boulevard at roughly 41st Avenue, through the Pepsi Bottling Plant, and into Globeville Landing Park where there is an outfall, over the Metro Wastewater Sewer Lines, to the South Platte River. The existing 120-inch backbone drain is capable of handling only minor storms; in some locations this is less than the 2-year event. During larger events, the existing system fills to capacity and excess runoff spills into the neighborhood streets.

In the Cole neighborhood, to the east of the pipe system in High Street and along 39th Avenue, exists an abandoned railroad line, known as the "Market Lead," which was between York and Steele Streets and then turns to the north near Monroe Street. This former rail alignment has been purchased by the City to provide east/west connectivity for storm infrastructure and multimodal transportation.

Drainage Concepts

The Platte to Park Hill Stormwater Systems program proposes to manage the Montclair Basin's runoff from the area upstream (south) of 39th Avenue utilizing two key drainage concepts:

- Provide stormwater capture and conveyance within the Cole and Clayton neighborhoods in order to intercept and convey surface flows toward the South Platte River. The stormwater will outlet to pipes under the railroad tracks at approximately 40th Avenue and Blake Street, to the Globeville Landing Outfall Project.
- Provide stormwater detention within the middle to lower portion of the basin to slow down and temporarily hold stormwater.

Within the Cole and Clayton neighborhoods, the collection and conveyance of stormwater was identified to be approximately along the 39th Avenue alignment due to the ability to utilize that City-owned property and the proximity to the pipe connection and outfall to the South Platte River. For this alignment, pipe (closed) system and open channel system options for the following segments of 39th Avenue were evaluated:

- Blake to Franklin
- Franklin to High
- High to Race
- Race to York
- York to Steele

The collection of stormwater was also identified in the north/south segments of Clayton Street just north of 40th Avenue and along the north/south alignment of the Market Lead tying into the 39th Avenue alignment. Analysis and evaluations were also completed for these segments.

Figure 7. Montclair Basin Drainage Concept



Park Hill Basin

Existing Conditions

Since 2000, the City has spent millions of dollars to improve drainage in the Park Hill Basin. The previous drainage systems had capacity in some locations to convey less than the 1-year storm event to the outfall. Major outfall systems are commonly constructed from downstream to upstream and since 2000, seven projects in northeast Elyria/Swansea and Northeast Park Hill have been constructed on an incremental basis, starting at Sand Creek and the South Platte River, and moving upstream (south) into the basin. The Park Hill projects have consisted of detention and pipe conveyance, and extend to 48th Avenue and Dahlia. The next phase of construction, called Park Hill Phase V, is proposed on Dahlia Street from 48th Avenue to Smith Road.

Additional stormwater detention is also needed in the Park Hill Basin to retain excess runoff and meter it out slowly within the capacity of the storm pipes. The privately owned Park Hill Golf Club is at an ideal location to detain stormwater due to its location as a natural low point in the basin.

Drainage Concepts

The Platte to Park Hill Stormwater Systems program proposes to handle the Park Hill Basin's 100-year runoff from the area upstream (south) of Smith Road utilizing two key drainage concepts:

- Provide formalized regional detention at the northeast corner of the privately owned Park Hill Golf Club. A majority of the surface flow within the western portion of the drainage basin

naturally flows north through the golf course to this existing low point where water naturally collects. This project proposes to utilize this natural collection point and provide enough detention volume to allow the planned 84-inch Park Hill Phase V pipe to handle the 100-year event west of Forest Street. The owner of the golf club property, the Clayton Trust, is a willing land owner in this discussion.

- From the low point detention area near 38th Avenue and Holly Street, an east-west storm drain system is proposed to convey flows in excess of the existing Forest Street outfall's capacity. The pipe will convey stormwater to the west into the proposed Park Hill Golf Club detention facility thereby allowing the Forest Street outfall to handle the 100-year event from the east. The pipe alignments identified and studied as part of this analysis include the following:
 - Pipe alignment within Smith Road
 - Pipe alignment within 41st Avenue and Forest Street
 - Pipe alignment within 39th Avenue and Forest Street

Figure 8. Park Hill Basin Drainage Concept



Criteria and Constraints

The following criteria and constraints were considered as part of the alternative development and evaluation process.

Criteria

Prior to beginning work on the alternatives, the project team also developed a focused mission statement along with project goals and objectives built off of the purpose and need. These items were used by the team throughout the alternative development process as criteria for the evaluation process.

MISSION STATEMENT

To create an innovative community amenity for North Denver that reduces flood potential, creates a vibrant public realm, provides enhanced multimodal connectivity, and reconnects the Montclair and Park Hill drainage basins and their ecologies to the South Platte River.

Project Goals and Objectives

1. Provide a foundation for the protection of areas of the Elyria, Swansea, Cole, Clayton, Skyland, Whittier, Five Points and Northeast Park Hill neighborhoods impacted by the Montclair and Park Hill drainage basins up to and including a 100-year flood event.

- Integrate innovative stormwater management strategies while improving water quality and increasing public safety.
- Be imaginative when reconfiguring of the right of way, public and private lands.
- Provide detention that is a community asset and multi-functional.



2. Provide new community amenities that are integrated into the urban context.

- Be responsive to existing land uses, existing businesses and future development.
- Provide a vibrant public realm and active edges with economic development opportunities.
- Include urban design elements that are responsive to the character of the neighborhoods.
- Increase outdoor spaces for recreation and gathering.
- Create flexible, multi-functional spaces to be used year-round.
- Recognize and respond to historic resources in the study area.



3. Enhance multimodal connectivity.

- Improve the quality and comfort of the pedestrian environment.
- Increase connectivity to existing bike and trail systems.
- Increase connectivity to transit.
- Look for opportunities to improve and reconnect the urban grid.



4. Restore functionality to the Montclair and Park Hill basins and increase nature and ecology within these basins to the South Platte River.

- Where possible, create an open channel corridor that recreates the historic drainage basin that was lost to development.
- Increase the quality and quantity of habitat for urban ecologies.
- Improve water quality to contribute to the restoration of the health of the South Platte River.
- Provide water quality green infrastructure enhancements throughout the drainage basins.



5. Involve and engage the community in an inclusive process and gear the project development toward their neighborhood well-being and best interests.

- Create a unified vision that is supported equally by residents, businesses and developers.
- Be mindful of the community fabric.
- Cultivate ownership of the plan so that the community can take pride in it as their own.



6. Keep the project on schedule and on budget.

- Identify the community's interests and needs and make decisions to help achieve those interests and needs.
- Consider the interrelationships between this and other projects.
- Strategically phase project elements to achieve best long-term community benefit.
- Thoroughly analyze all feasible (technical, constructible) options to understand the comparative benefits and costs.



Constraints

Implementation of alternatives may face multiple challenges including, but not limited to, right-of-way acquisition, cost, constructability, long term maintenance issues, technical feasibility, environmental impacts, and public acceptance. These constraints have been considered as part of the development process. In some cases, avoidance of one or more of these challenges may not be possible, but solutions to these challenges presented in this document will allow for implementation when available.

Montclair Basin Alternative Analysis and Evaluation

Detention Alternatives

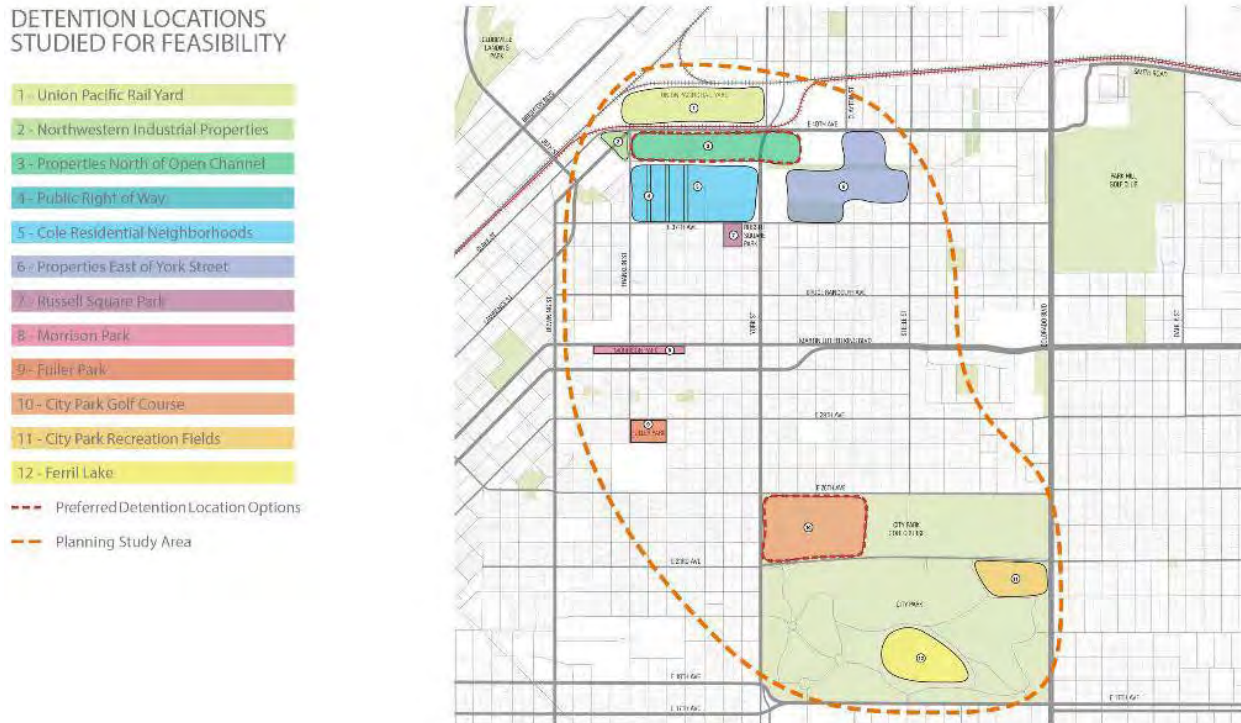
As stated previously, stormwater detention in the Montclair Basin is a requirement in order for the City to control, capture, and manage the flow of stormwater through the basin. The amount of stormwater that flows through this basin in a 100-year event requires approximately 200 acre-feet of detention within the basin. (An acre-foot is a volume of water equal to one-foot depth of water over one acre.) This approximate amount of detention is a baseline value from stormwater modelling and assumes basic fundamentals like formalized detention in large open areas along the major thalwegs (line of lowest elevation within the drainageway), not dissected into smaller detention basins and/or onto high lands where efficiency in storage and timing can be lost and additional volume may be required.

Providing detention within the Montclair Basin allows for the following potential benefits to the community:

- Opportunities for water quality: With the poorest water quality in Denver, this basin would significantly benefit from the chance to incorporate water quality elements into new facilities.
- Opportunity to reduce flooding for neighborhoods: Depending upon the location and design of the detention facility, the proposed improvements may provide flood reduction potential for portions of the basin.
- Opportunity to create new public open space amenities: Detention facilities require large amounts of land, which in turn provides opportunity for the creation of open space amenities for surrounding neighborhoods.

As part of the initial development of the Two Basin Drainage Project, a range of stormwater detention location options within the Cole and City Park neighborhoods were studied and narrowed to the feasible options. (See Figure 9) Once the feasible options were determined, a more detailed evaluation was completed.

Figure 9. Locations of Detention Options



These neighborhoods were studied due to their location as low points within the Montclair basin and can be identified in the map and a description of each area’s suitability is as follows:

- 1 - Union Pacific Railroad (UPRR) Intermodal Rail Yard** – This area was deemed unsuitable due to the known complexities with UPRR, as well as the anticipated cost of purchasing the land.
- 2 - Northwestern Industrial Properties** – This area was deemed unsuitable due to its limited size and proximity to the outlet pipe, not allowing this area to function like a typical detention area. Existing land uses include several industrial properties.
- 3 - Properties North of Open Channel** – This area is hydrologically feasible and would be able to store the required volume of stormwater. Existing land uses include industrial, commercial and some residential.
- 4 - Public Right of Way** – Though hydrologically feasible, this area was deemed unsuitable due to the limited volume of stormwater it could store. Additionally, it would greatly impact vehicular circulation through the area.
- 5 - Cole Residential Neighborhoods** – Though hydrologically feasible and capable of storing the required volume of stormwater, this area was deemed unsuitable through conversations with Cole neighborhood leadership expressing concern over the impact to residential homes.

6 - Properties East of York Street – This area was deemed unsuitable due to the difficulty of conveying stormwater against natural grade to the site location. Existing uses include institutional, industrial and recreational.

7 - Russell Square Park – Though hydrologically feasible, this area was deemed unsuitable since it is not capable of storing the required volume of stormwater while continuing to function as a public park.

8 - Morrison Park – Though hydrologically feasible, this area was deemed unsuitable since it is not capable of storing the required volume of stormwater while continuing to function as a public park.

9 - Fuller Park – Though hydrologically feasible, this area was deemed unsuitable since it is not capable of storing the required volume of stormwater while continuing to function as a public park.

10 - City Park Golf Course – This area is hydrologically suitable by being directly in the path of primary stormwater flow, and would potentially be able to store the required volume of stormwater while maintaining primary functionality as a golf course; however, impacts to the golf course would need to be mitigated.

11 - City Park Recreation Fields – This area was deemed unsuitable due to the difficulty of conveying stormwater uphill against natural grade. The ballfields are upstream of the flow path and the elevation of the stormwater crossing 23rd Avenue is approximately 40-feet lower than the recreation fields. In addition to the difficulties in conveying the stormwater to the fields, the area is not large enough to store all the stormwater.

12 - Ferril Lake – The lake's location is hydrologically suitable by being directly in the path of primary stormwater flow and it is currently used for stormwater detention. However, additional modification of this facility to detain additional flows are challenged by potential jurisdictional dam requirements, as well as historic and public concerns of changes to this beloved and cherished park amenity.

13 – Riverside Cemetery near Brighton Boulevard and York Street (not included on corresponding map) – Detention in Denver's oldest operating cemetery has been inquired about by the public. It is a large, natural open area on the far north end of the basin. However, it is not a suitable location for flood risk reduction for either Montclair or Park Hill because its location sits too far north in the basin to provide any discernable protection. Detaining flow here would only reduce the impact to the South Platte River, which is not impacted by this project.

14 – 9th Avenue & Colorado (not included on corresponding map) – The former and transitioning University of Colorado Health Sciences campus has been inquired about for detention by multiple Denver residents. This location is not suitable for regional detention for Montclair because it is located too far upstream in the basin to provide a significant benefit to the watershed.

15 – Green Infrastructure (not included on corresponding map) - Green infrastructure (GI) has been found to reduce runoff for small frequent storm events, but not for major events. The City has recently completed a draft of its own Ultra-Urban Green Infrastructure guide and their benefits to water quality.

Feasible Alternatives

Through the evaluation process, considering all above options, two areas were identified as meeting the hydrologic (getting the stormwater to the site location) and volumetric (capacity to store the needed volume of stormwater) requirements for the project. These two areas were #3 and #10, Cole and City Park Golf Course, respectively.

Once the two feasible areas for detention were identified, a more detailed evaluation and range of options were studied to understand the opportunities and impact. For Cole neighborhood detention, four alternatives were further studied.

- Option 1a: detention located north of 39th Avenue and east of High Street
- Option 1b: detention located south of 39th Avenue and approximately between Williams Street and High Street
- Option 1c: detention located north of 39th Avenue between Williams Street and Race Street
- Option 1d: detention located north of 39th and east of York Street

For City Park Golf Course, three feasibility studies were completed to confirm that the stormwater requirements could be met while ensuring continued playability of the golf course. Opportunities and impacts to the golf course were also identified. The following explains this evaluation in greater detail.

Alternative 1 - Cole Neighborhood

Detention within this area would require a large detention basin located somewhere between Franklin and York (east/west) and 40th and 39th Avenues (north/south). The detention area would need to be roughly the size of three city blocks and would appear and function as a typical park with grass, trees and other landscaped areas. Amenities could include ballfields, walking paths, gatherings spaces and seating areas. Four initial detention locations were studied, (see Figures 10-13).

Figure 10. Cole Detention Option 1a

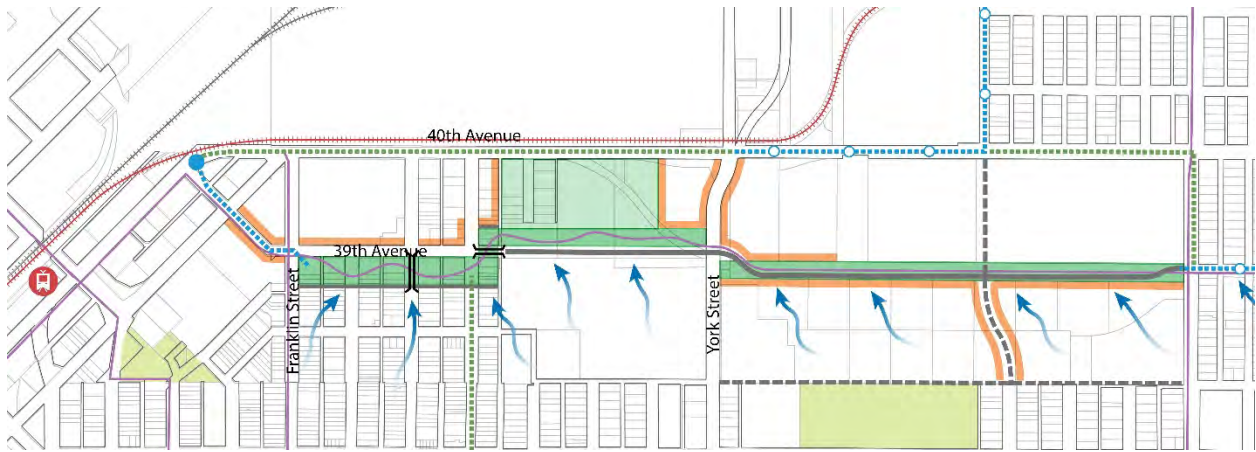


Figure 11. Cole Detention Option 1b

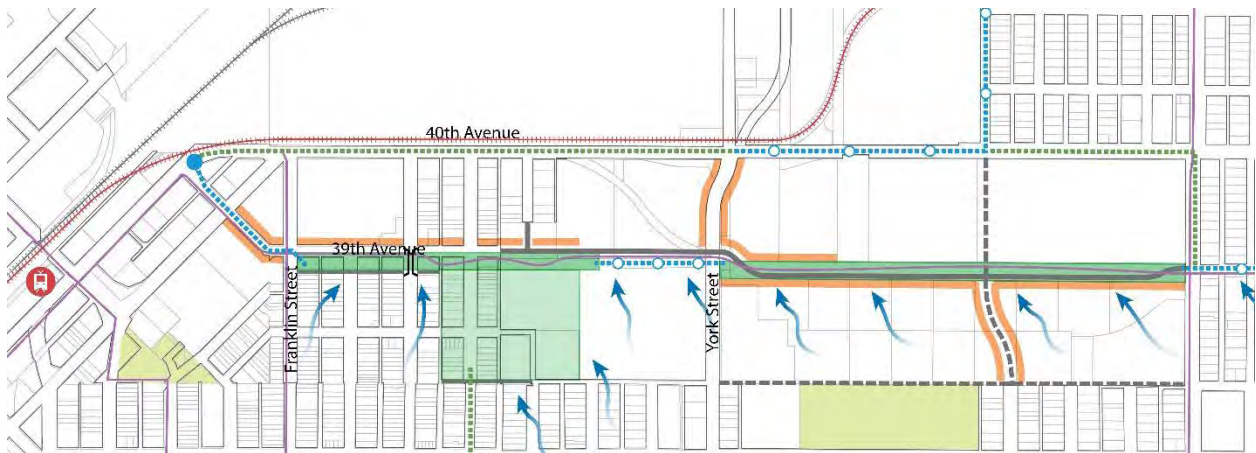


Figure 12. Cole Detention Option 1c

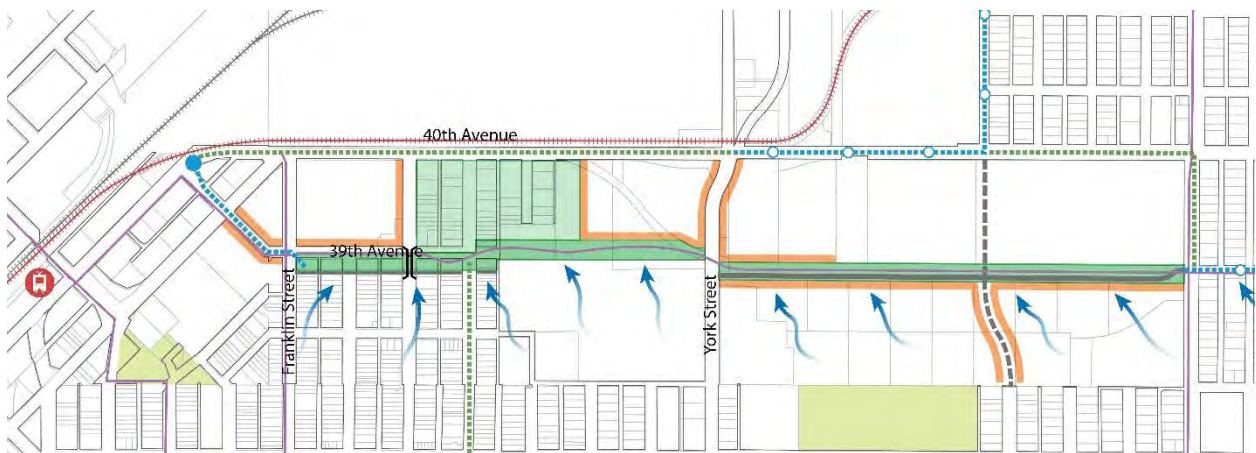
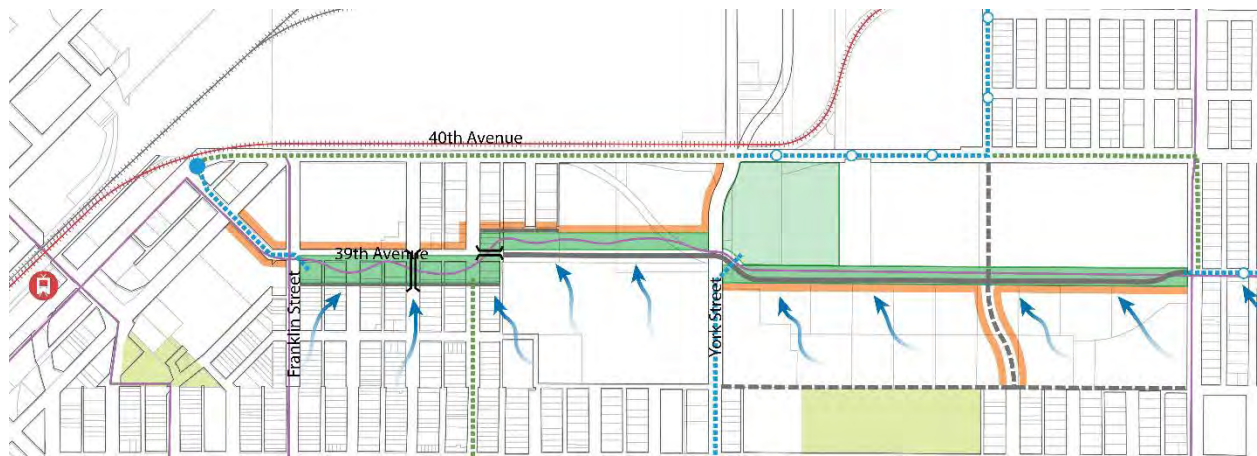
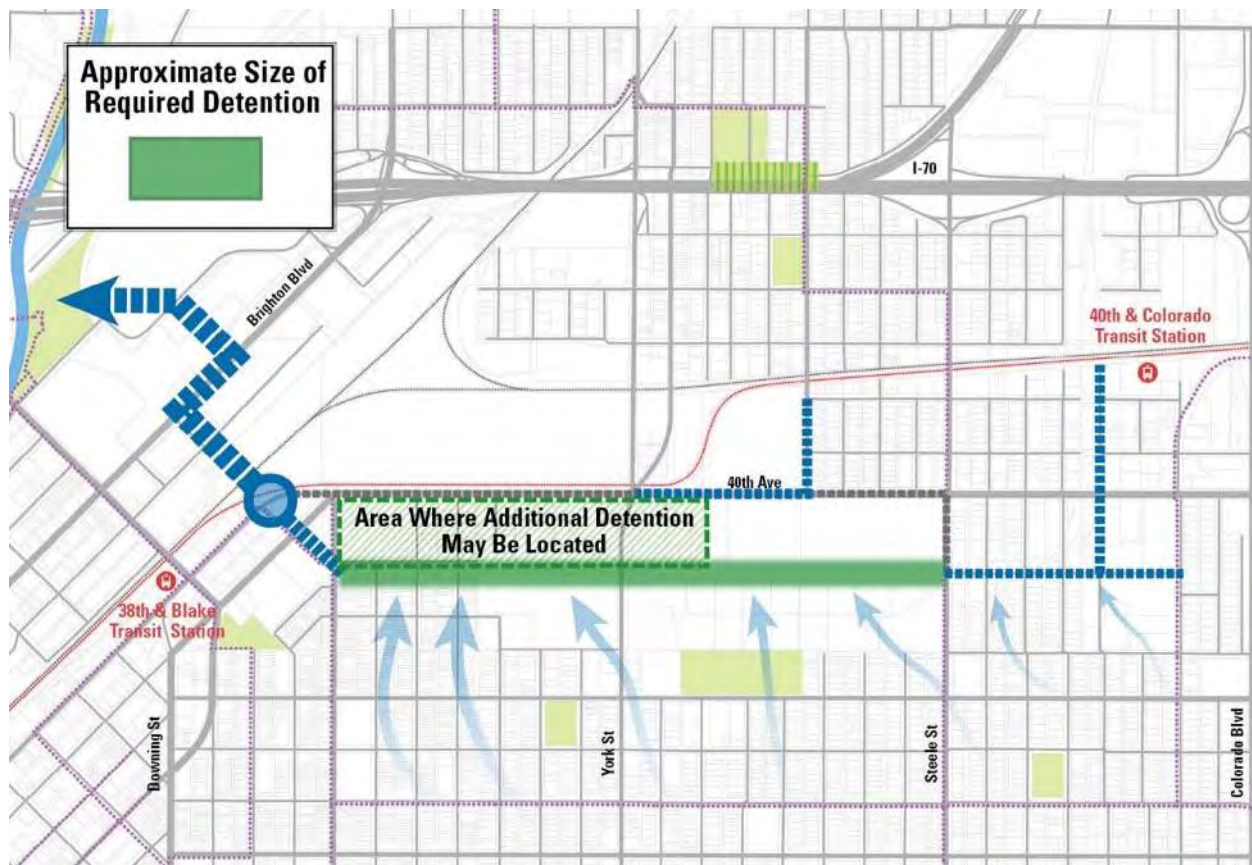


Figure 13. Cole Detention Option 1d



While all four options met the requirement for stormwater detention and were technically feasible, Option 1b had significantly greater impact to existing residential properties. Following discussions with the community and their concern about Option 1b, this was removed from further consideration leaving the area north of 39th Avenue and south of 40th Avenue as the potential area for detention. (See Figure 14)

Figure 14. Cole Neighborhood Detention Alternative



The detention alternative in Cole would meet the requirements for stormwater detention, provide a new park amenity for the neighborhood and provide water quality opportunities. However, for this alternative the area north of 39th Avenue and south of 40th Avenue would still require multiple property acquisitions and would provide flood protection only for the neighborhoods north of 39th Avenue.

Alternative 2 - City Park Golf Course

Detention at City Park Golf Course would occur on the westerly portion of the course, where a low point exists within the basin and where stormwater naturally flows and collects today. The golf course can meet the requirements for stormwater detention (mostly dry area that slows down, collects and temporarily holds stormwater), without impacting other private properties while also providing more water quality opportunity. Additionally, providing detention within the golf course would minimize future downstream infrastructure costs.

However, redesigning the golf course to include detention will result in the loss of trees which would need to be replaced per the City tree replacement policy. The golf course would also not be playable while under construction which could be a 2-year timeframe.

Figure 15. City Park Golf Course Detention Alternative



To further test the feasibility of incorporating detention into City Park Golf Course, three golf feasibility studies were completed to ensure that the golf course could remain playable and meet the needs of the course users while also incorporating detention into the western portion of the golf course. As is common across many golf courses around the country, detention can be incorporated into the golf course maintaining the same look, feel and playability. The three feasibility studies show different locations for the clubhouse, golf course routing and other facilities. These feasibility studies are not intended to represent designs, but rather studies to determine opportunities and impact. Any design changes or updates to the golf course would include further public process.

To complete these feasibility studies, initial feedback was incorporated about the deficiencies and challenges of the golf course today, including the driving range being too small, limited room for First Tee (youth golf program) expansion to meet their growth goals, and the desire to add interest to the golf course.

The first feasibility study shown below in Figure 16 keeps the clubhouse, golf course routing and practice range in the existing locations, but regrades the western portion of the golf course to provide a

detention area during storm events. The detention area would be landscaped like a golf course and would also include trees within the detention area.

Figure 16. City Park Golf Course Feasibility Study 1



Because a portion of the golf course would be regraded to accommodate the detention, some of the existing trees would be impacted. Figure 17 below shows the area that would be impacted in Feasibility Study 1 which includes approximately 153 trees out of 872 total trees on the golf course. Of these trees, 47% are 12" or less in caliper. Trees would be replaced per the City tree replacement policy.

Figure 17. City Park Golf Course Feasibility Study 1 – Tree Impact Areas



The second feasibility study shown below in Figure 18 moves the clubhouse to a more central location within the overall golf course and adjusts the golf course routing accordingly and the practice range moves to a location closer to the new clubhouse. By moving these elements of the golf course, there is greater flexibility with the grading and design of the detention area. The detention area would be landscaped appropriately for a golf course and would also include trees within the detention area.

Figure 18. City Park Golf Course Feasibility Study 2



Figure 19 below shows the area that would be impacted in Feasibility Study 2 which includes approximately 280 trees out of 872 total trees in the golf course. Of these trees, 49% are 12" or less in caliper and trees would be replaced per the City tree replacement policy.

Figure 19. City Park Golf Course Feasibility Study 2 – Tree Impact Areas



The third feasibility study shown below in Figure 20 moves the clubhouse just west of the maintenance facility and adjusts the golf course routing accordingly and the practice range is reoriented with the new clubhouse location. By adjusting several elements of the golf course, there is greater flexibility with the grading and design of the detention area and also includes a natural stream through the golf course to channelize low flows. The detention area would be landscaped appropriately for a golf course and would also include trees within the detention area.

Figure 20. City Park Golf Course Feasibility Study 3



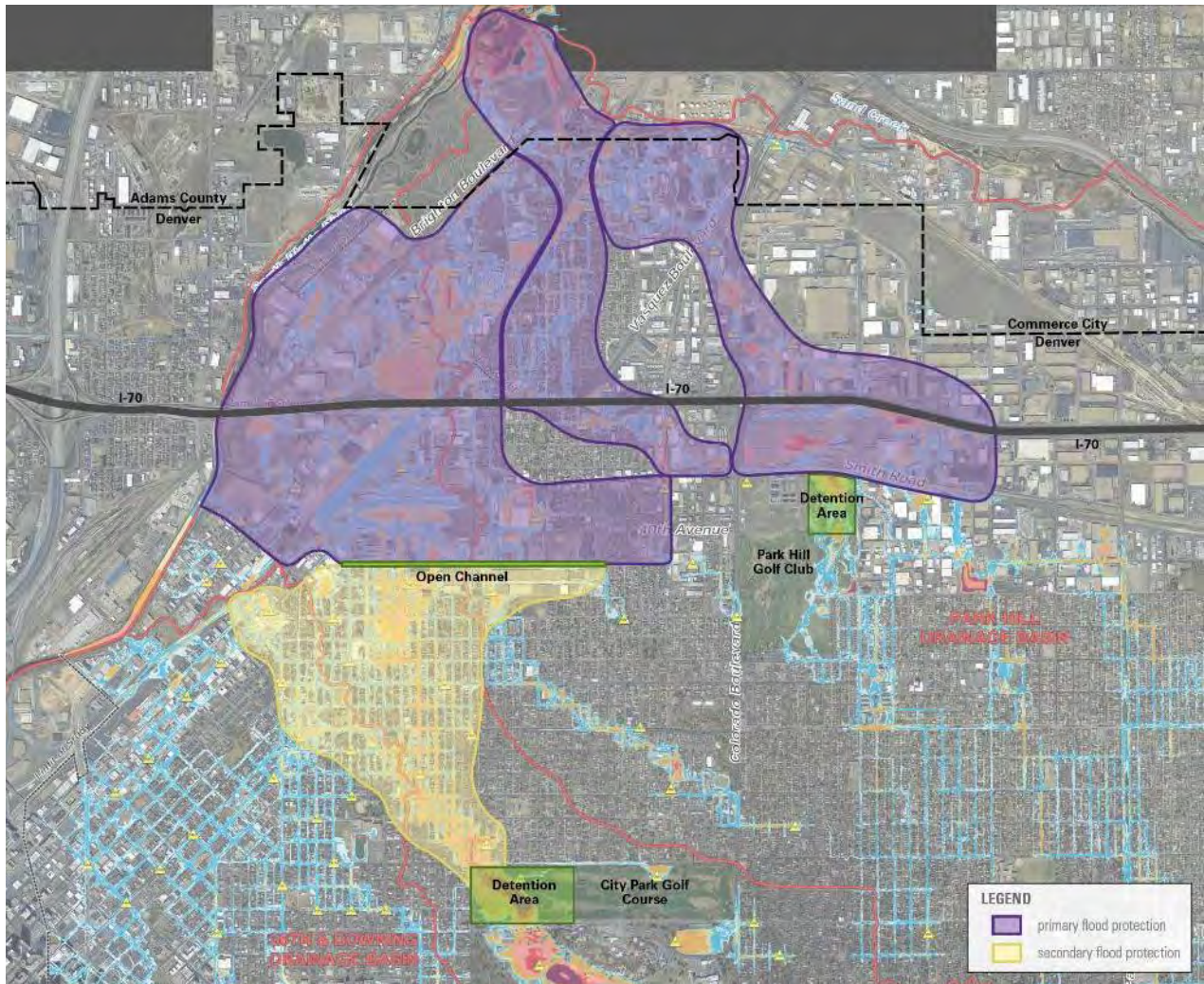
Figure 21 below shows the area that would be impacted in Feasibility Study 3 which includes approximately 246 trees out of 872 total trees in the golf course. Of these trees, 49% are 12" or less in caliper and trees would be replaced per the City tree replacement policy.

Figure 21. City Park Golf Course Feasibility Study 3 – Tree Impact Areas



The greatest benefit to locating detention in City Park Golf Course is the reduction of flooding for more neighborhoods within the Montclair Basin. Figure 22 below shows that the area in yellow, the secondary flood protection area, will also see additional protection with the detention located in City Park Golf Course. The purple area depicts the neighborhoods that will benefit from 100-year protection.

Figure 22. Areas of Reduced Flooding



The two detention alternatives, Cole neighborhood and City Park Golf Course, were evaluated using a screening as typical in an alternatives analysis process. The screening criteria listed in Table 1 below are the same as the goals and objectives identified early in the process with the community and listed in the Alternatives Description chapter.

Table 1. Montclair Basin - Detention Location Screening

GOALS	OBJECTIVES	TECHNICAL OUTCOMES	DETENTION IN COLE	DETENTION AT CITY PARK GOLF COURSE
<p>Provide a foundation for the protection of the areas of the Cole, Park Hill, River North, Elyria and Swansea neighborhoods impacted by the Montclair and Park Hill drainage basins up to and including a 100-Year flood event.</p>	<ul style="list-style-type: none"> Integrate innovative stormwater management strategies Be imaginative when reconfiguring the right of way, public and private lands Provide detention that is a community asset and multi-functional Be responsive to existing land use, future development, and existing businesses 	Innovation	0	1
		Stormwater Control	0	0
		Regional Flood Risk Reduction	1	1
		Public Safety	1	1
		Environmental Impact Minimization	-1	0
		Minimize Impacts to Private Property	-1	1
<p>Provide new community amenities that are integrated into the urban context.</p>	<ul style="list-style-type: none"> Provide a vibrant public realm and active edges with economic development opportunities Include urban design elements that are responsive to the character of the neighborhood Increase outdoor spaces for recreation and gathering Create flexible, multi-functional spaces to be used year round Recognize and respond to historic resources in the study area 	Economic Development/ Redevelopment Opportunities	1	0
		Enhancement of Neighborhood Character	0	0
		Creation of Quality Public Spaces	1	1
		Cultural Resource Preservation	-1	-1
<p>Enhance multimodal connectivity in the area and reconnect the street grid.</p>	<ul style="list-style-type: none"> Improve the quality and comfort of the pedestrian environment Increase connectivity to existing bike and trail systems Increase connectivity to transit Look for opportunities to improve and reconnect the urban grid 	Multimodal Connectivity	0	0
		Definition and Reconnection of the Transportation Network	-1	0
<p>Restore functionality to the Montclair and Park Hill basins and increase nature within these basins to the South Platte River.</p>	<ul style="list-style-type: none"> Where possible, create an open channel corridor Increase the quality and quantity of habitat for urban ecologies Contribute to restoring the health of the South Platte Provide water quality green infrastructure enhancements throughout the drainage basins 	Channel Creation	1	1
		Biodiversity	1	1
		Water Quality	1	1
<p>Keep the project on schedule and on budget.</p>	<ul style="list-style-type: none"> Identify the community's interests and needs and make decisions to help achieve those interests and needs Consider the interrelationships between this and other projects 	Alignment with Previous Plans	0	0
		Long-term O&M	-1	0
		Constructability	1	1

	<ul style="list-style-type: none"> • Strategically phase project elements to achieve best long-term community benefit • Thoroughly analyze ALL feasible (technical, constructible) options to understand the comparative benefits and costs 	Schedule Feasibility	-1	1
		Technical Feasibility	1	1
			3	10

Scoring: 0=neutral, 1=good, -1=poor

39th Avenue Alternatives

Within the Cole and Clayton neighborhoods, the collection and conveyance of stormwater was identified to be approximately along the 39th Avenue alignment due to the ability to utilize that City-owned property and to outlet to pipes under the railroad tracks at approximately 40th Street and Blake Street, to the Globeville Landing Outfall Project. The character of the stormwater connection between Monroe Street on the east to the 40th/Blake Street area could vary based on hydrology and varying conditions within the 39th Avenue corridor. Consequently, this corridor has been divided up into “reaches” for purposes of analysis and decision-making. Each reach represents a location with different character, use, and stormwater demand. Different types of open channel and closed systems (pipe) were considered for each of the reaches.

Open channel and pipe alternatives have been analyzed for each reach and an open channel alternative would:

- Capture stormwater more quickly and efficiently, as stormwater is able to freely flow into the channel without drains or inlet structures.
- Guarantee capture of a major storm, as the system does not require drains or inlet structures which can get clogged or blocked.
- Promote easier and less costly maintenance because the facilities are easily accessible to maintenance personnel.
- Align with the Elyria & Swansea Neighborhood Plan by:
 - Providing opportunity for east/west bicycle and pedestrian connectivity.
 - Providing opportunity for creation of public amenity spaces.
 - Providing opportunity for water quality and habitat creation.

A closed system (pipe) would:

- Minimize property acquisition because pipes are generally located within public right-of-way.
- Maintain existing north/south transportation network.

Each reach between Blake and Monroe is described in additional detail below.

Reach 1: Blake to Franklin

Reach 1 is identified as Blake Street to Franklin Street which is a moderately trafficked public street with an existing 75' right-of-way (ROW). Adjacent properties consist of industrial properties, many of which are currently under redevelopment into high density mixed-use developments. This area is also directly adjacent to the new commuter rail A Line station at 38th and Blake Street. This reach is very important in conveying stormwater to the outlet and under the tracks and approximately 40th and Blake Street.

Figure 23. Reach 1



- **Opportunities**
 - New commuter rail station at 38th and Blake provides opportunities to increase bike and pedestrian connectivity.
 - Proximity to commuter rail as well as new redevelopment make this reach an opportunity for urban place-making.
 - Existing public ROW reduces the need for property acquisitions.
- **Constraints**
 - Access to these industrial properties including many loading docks located along 40th Street.
 - A number of utilities are currently located within the right-of-way.
- **Alternatives**
 - Pipe
 - Existing utilities will make a new pipe alignment difficult.
 - No opportunity for water quality.
 - Open Channel
 - Existing ROW is not wide enough to accommodate the necessary peak flow rate of stormwater flows requiring property acquisition.
 - Vehicular connectivity needs to be maintained.
 - Limited surface flows in this reach do not require open channel for capture.

- Moving existing utilities would be cost prohibitive.
- Open channel would be beneficial for water quality purposes.

For each reach, both the pipe and open channel alternatives were screened. The screening criteria listed in Table 2 below are based on the goals and objectives identified early in the process with the community and listed in the Alternatives Description chapter.

Table 2. Blake to Franklin Screening

PROJECT ELEMENT	PROJECT OPPORTUNITIES													TOTAL WEIGHTED AVERAGE
	REGIONAL AND COMMUNITY PROTECTION	PHASED AESTHETIC IMPROVEMENTS	PUBLIC SAFETY	WATER QUALITY	PLACEMAKING (SINGLE VS. MULTIPLE-USE FACILITY)	BICYCLE/PEDESTRIAN CONNECTIVITY	VEHICULAR CONNECTIVITY	MINIMIZED ENVIRONMENTAL IMPACTS	CONSTRUCTABILITY	COMPLIANCE WITH PROJECT CRITERIA	PUBLIC & AGENCY ACCEPTANCE	NUMBER OF REAL ESTATE ACQUISITIONS/EASEMENTS	OPERATIONS & MAINTENANCE COSTS	
<i>Weight</i>	10%	5%	10%	5%	5%	10%	5%	5%	10%	5%	5%	15%	10%	100%
Pipe	2	1	2	0	0	1	3	1	2	2	2	2	2	1.650
Open Channel	2	2	2	2	2	1	1	2	1	2	1	0	1	1.300

Scoring: 0=no opportunity, 1=minimal opportunity, 2=average opportunity, 3=high opportunity

Reach 2: Franklin to High

Reach 2 between Franklin Street to High Street is a low traffic local street with approximately 65’ public right-of-way. The north side of this reach includes Porta Power, a potentially historic industrial property and some commercial properties. To the south, there are several industrial storage yards along with single and multi-family housing. The residential properties to the south include some potentially historic structures.

Due to the amount of stormwater coming into this reach, we screened a 90’ open channel and a 120’ open channel. The 90’ open channel does not meet Urban Drainage criteria, however the 120’ open channel does.

Figure 24. Reach 2



- **Opportunities**
 - Proximity to commuter rail station creates an opportunity for increased bike and pedestrian connectivity.
 - Existing public right-of-way could reduce the need for property acquisitions.
- **Constraints**
 - Fully built out neighborhood requiring property acquisitions if more than existing right-of-way is needed.
 - Existing utilities are in the current ROW which might conflict with an open channel and could be costly to relocate.
- **Alternatives**
 - Pipe
 - Surface flows are too great to be captured by traditional inlet structures.
 - Minimizes property acquisitions.
 - No opportunity for water quality.
 - 90' Open Channel
 - Ability to adequately capture and convey surface flows into the area.
 - Would require some property acquisitions.
 - Does not fully meet Urban Drainage criteria for open channel due to the depth and fast moving flow.
 - 120' Open Channel
 - Would be able to adequately capture and convey surface flows into the area.
 - Would require the greatest amount of property acquisitions.
 - Meets Urban Drainage criteria for open channel design.

Table 3. Franklin to High Screening

PROJECT ELEMENT	PROJECT OPPORTUNITIES													
	REGIONAL AND COMMUNITY PROTECTION	PHASED AESTHETIC IMPROVEMENTS	PUBLIC SAFETY	WATER QUALITY	PLACEMAKING (SINGLE VS. MULTIPLE-USE FACILITY)	BICYCLE/PEDESTRIAN CONNECTIVITY	VEHICULAR CONNECTIVITY	MINIMIZED ENVIRONMENTAL IMPACTS	CONSTRUCTABILITY	COMPLIANCE WITH PROJECT CRITERIA	PUBLIC & AGENCY ACCEPTANCE	NUMBER OF REAL ESTATE ACQUISITIONS/EASEMENTS	OPERATIONS & MAINTENANCE COSTS	TOTAL WEIGHTED AVERAGE
<i>Weight</i>	10%	5%	10%	5%	5%	10%	5%	5%	10%	5%	5%	15%	10%	100%
Pipe	1	1	2	1	0	2	3	1	2	1	1	2	2	1.600
90' Open Channel	2	2	2	2	2	2	1	2	1	2	2	1	2	1.700
120' Open Channel	3	2	2	2	2	2	1	2	1	2	2	0	2	1.650

Scoring: 0=no opportunity, 1=minimal opportunity, 2=average opportunity, 3=high opportunity

Reach 3: High to Race

Reach 3 between High Street and Race Street includes an existing 65' right-of-way for the western portion of the reach with 39th Avenue stopping at the alley just east of Race Street. The western half of the block relates to the residential neighborhood while the eastern half transitions into large-scale industrial uses, including the Coca-Cola bottling plant. The High Street Bar, a community gathering place, is located on the southeast corner of High Street and 39th Avenue. The existing 120-inch storm sewer pipe runs north along High Street and turning west on 39th Avenue within this reach.

Due to the amount of stormwater coming into this reach, we screened a 90' open channel and a 120' open channel. The 90' open channel does not meet Urban Drainage criteria, however the 120' open channel does.

Figure 25. Reach 3



- **Opportunities**
 - Utilizing existing public ROW could reduce the need for property acquisitions.
- **Constraints**
 - At midblock between High and Race public ROW ends and the remainder of the block to the east is privately owned.
 - Most of the surface flows are coming down High Street since this is the lowest line of elevation.
- **Alternatives**
 - Pipe
 - Surface flows in this area are too great to be captured by traditional inlets.
 - Pipe would require an easement through private property.
 - No opportunity for water quality.
 - 90' Open Channel
 - The existing 120-inch storm sewer provides challenges to the open channel design.
 - Would require some property acquisitions.
 - Does not fully meet Urban Drainage criteria for open channel design due to depth and velocity.
 - Opportunity for water quality.
 - 120' Open Channel
 - 120' is wide enough to hold the required volume while remaining shallow enough to get over the existing storm sewer and utilities.
 - Would require the most number of property acquisitions.
 - Meets Urban Drainage criteria for open channel.
 - Opportunity for water quality.

Table 4. High to Race Screening

PROJECT ELEMENT	PROJECT OPPORTUNITIES													
	REGIONAL AND COMMUNITY PROTECTION	PHASED AESTHETIC IMPROVEMENTS	PUBLIC SAFETY	WATER QUALITY	PLACEMAKING (SINGLE VS. MULTIPLE-USE FACILITY)	BICYCLE/PEDESTRIAN CONNECTIVITY	VEHICULAR CONNECTIVITY	MINIMIZED ENVIRONMENTAL IMPACTS	CONSTRUCTABILITY	COMPLIANCE WITH PROJECT CRITERIA	PUBLIC & AGENCY ACCEPTANCE	NUMBER OF REAL ESTATE ACQUISITIONS/EASEMENTS	OPERATIONS & MAINTENANCE COSTS	TOTAL WEIGHTED AVERAGE
<i>Weight</i>	10%	5%	10%	5%	5%	10%	5%	5%	10%	5%	5%	15%	10%	100%
Pipe	1	1	1	1	0	2	2	2	2	1	1	2	2	1.500
90' Open Channel	2	2	2	2	1	2	1	2	1	2	2	1	2	1.650
120' Open Channel	3	2	2	2	2	2	1	2	1	2	2	1	2	1.800

Scoring: 0=no opportunity, 1=minimal opportunity, 2=average opportunity, 3=high opportunity

Reach 4: Race to York

Reach 4 between Race Street and York Street has adjacent existing large industrial properties, including the Coca-Cola Bottling Plant. There is no existing public right-of-way within this reach.

Figure 26. Reach 4



- **Opportunities**
 - Opportunity for east/west bike/ped connection.
 - Limited impacts to residential properties due to predominantly industrial land use.

- **Constraints**
 - Existing utilities along the north side of the Coca-Cola bottling plant would be costly to move.
 - Public bike/pedestrian connectivity through the private properties creates security concerns.
 - The western part of this reach has large surface flows of stormwater during large events, while the eastern portion has lower flows.
- **Alternatives**
 - Pipe
 - Surface flows in the western part of the reach are too great to be captured by traditional inlets.
 - Surface flows in the eastern part of the reach are low enough to be captured by inlets.
 - Reduces impacts to existing land use.
 - Reduces property acquisitions.
 - Would require an easement through private property.
 - No opportunity for water quality.
 - Open Channel
 - The existing 120-inch storm sewer provides challenges to the open channel design.
 - Would require both full and partial property acquisitions.
 - Would impact Coca-Cola’s operations by bisecting their property and leased property.
 - Access over the channel for Coca-Cola would need to be ensured.
 - Opportunity for water quality.

Table 5. Race to York Screening

PROJECT ELEMENT	PROJECT OPPORTUNITIES													TOTAL WEIGHTED AVERAGE
	REGIONAL AND COMMUNITY PROTECTION	PHASED AESTHETIC IMPROVEMENTS	PUBLIC SAFETY	WATER QUALITY	PLACEMAKING (SINGLE VS. MULTIPLE-USE FACILITY)	BICYCLE/PEDESTRIAN CONNECTIVITY	VEHICULAR CONNECTIVITY	MINIMIZED ENVIRONMENTAL IMPACTS	CONSTRUCTABILITY	COMPLIANCE WITH PROJECT CRITERIA	PUBLIC & AGENCY ACCEPTANCE	NUMBER OF REAL ESTATE ACQUISITIONS/EASEMENTS	OPERATIONS & MAINTENANCE COSTS	
<i>Weight</i>	10%	5%	10%	5%	5%	10%	5%	5%	10%	5%	5%	15%	10%	100%
Pipe	2	1	2	1	1	2	1	1	2	1	1	2	2	1.650

Open Channel	2	2	2	2	2	2	1	2	2	2	2	1	1	1.700
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Scoring: 0=no opportunity, 1=minimal opportunity, 2=average opportunity, 3=high opportunity

Reach 5: York to Steele

Reach 5 between York Street and Steele Street is considered the Market Lead with a 100' right-of-way. This property was recently purchased by the City with primarily industrial properties to both the north and south side of the Market Lead. Bruce Randolph High School is located just north of the Market Lead along Steele Street. Surface stormwater in-flows in this area are fairly minimal.

Figure 27. Reach 5



- **Opportunities**
 - The existing Market Lead is wide enough to accommodate either an open channel or pipe (no additional property acquisition).
 - The Market Lead can be a key stretch of east/west connectivity for both cars and bike/peds connecting the 38th/Blake Station with the 40th/Colorado Station.
- **Constraints**
 - No north/south connectivity can be incorporated along this section of the Market Lead without acquiring properties.
- **Alternatives**
 - Pipe
 - Surface flows are low enough that it could be captured by inlets.
 - Provides land for more flexible programming.
 - No water quality.
 - Open Channel
 - Provides opportunities for water quality and habitat creation.
 - Provides opportunity for programmable amenity space.

Table 6. York to Steele Screening

PROJECT ELEMENT	PROJECT OPPORTUNITIES														TOTAL WEIGHTED AVERAGE
	REGIONAL AND COMMUNITY PROTECTION	PHASED AESTHETIC IMPROVEMENTS	PUBLIC SAFETY	WATER QUALITY	PLACEMAKING (SINGLE VS. MULTIPLE-USE FACILITY)	BICYCLE/PEDESTRIAN CONNECTIVITY	VEHICULAR CONNECTIVITY	MINIMIZED ENVIRONMENTAL IMPACTS	CONSTRUCTABILITY	COMPLIANCE WITH PROJECT CRITERIA	PUBLIC & AGENCY ACCEPTANCE	NUMBER OF REAL ESTATE ACQUISITIONS/EASEMENTS	OPERATIONS & MAINTENANCE COSTS		
Weight	10%	5%	10%	5%	5%	10%	5%	5%	10%	5%	5%	15%	10%	100%	
Pipe	2	1	1	1	1	2	2	1	2	2	1	2	2	1.650	
Open Channel	2	3	2	2	2	2	2	2	2	2	2	1	2	1.900	

Scoring: 0=no opportunity, 1=minimal opportunity, 2=average opportunity, 3=high opportunity

Reach 6: Steele to Monroe

Reach 6 between Steele Street and Monroe Street is a low traffic local street with an existing 50' right-of-way. Surrounding this area is a densely packed residential neighborhood of single-family homes transitioning to some industrial properties towards the east of the reach. Future mixed-use development is being planned for this area and the Market Lead curves to the north and connects to the future 40th and Colorado Station. Surface stormwater flow in this area is fairly minimal.

Figure 28. Reach 6



- **Opportunities**
 - With proximity to the commuter rail station, there is an opportunity to increase bike/pedestrian connectivity.

- At the point where the Market Lead curves, there is additional land available to create a new community amenity such as a park.
- **Constraints**
 - Limited width of existing ROW
- **Alternatives**
 - Pipe
 - Surface flows are low enough that it could be captured by inlets
 - No property acquisitions
 - No water quality
 - Open Channel
 - Provides opportunities for water quality and habitat creation
 - Would require additional property acquisitions

Table 7. Steele to Monroe Screening

PROJECT ELEMENT	PROJECT OPPORTUNITIES													
	REGIONAL AND COMMUNITY PROTECTION	PHASED AESTHETIC IMPROVEMENTS	PUBLIC SAFETY	WATER QUALITY	PLACEMAKING (SINGLE VS. MULTIPLE-USE FACILITY)	BICYCLE/PEDESTRIAN CONNECTIVITY	VEHICULAR CONNECTIVITY	MINIMIZED ENVIRONMENTAL IMPACTS	CONSTRUCTIBILITY	COMPLIANCE WITH PROJECT CRITERIA	PUBLIC & AGENCY ACCEPTANCE	NUMBER OF REAL ESTATE ACQUISITIONS/EASEMENTS	OPERATIONS & MAINTENANCE COSTS	TOTAL WEIGHTED AVERAGE
Weight	10%	5%	10%	5%	5%	10%	5%	5%	10%	5%	5%	15%	10%	100%
Pipe	2	1	2	1	1	2	3	1	2	2	2	2	2	1.850
Open Channel	2	2	2	2	2	2	1	2	1	2	1	1	1	1.550

Scoring: 0=no opportunity, 1=minimal opportunity, 2=average opportunity, 3=high opportunity

Other Stormwater Collection Needs

Clayton Street

Clayton Street between 40th Avenue and the commuter rail tracks is a local street with approximately 60' existing right-of-way. Surrounding this area is a combination of residential, commercial and industrial properties. In the Elyria Swansea Neighborhoods Plan, Clayton Street was identified as a future north/south multi-modal connection due to its strong north/south connectivity and the connection with the Swansea neighborhood.

Along Clayton Street there is a need to capture a fairly small amount of stormwater flows. Because the flows are minimal, it can be captured in inlets and the proposed pipe can be accommodated within the existing ROW.

Monroe Street

The extension of the Market Lead to the north is along the alignment of Monroe Street. The width of the Market Lead in this section varies but is approximately 140' wide and surrounding this area is a combination of land uses with a majority of them being industrial and commercial. Monroe Street provides a connection into the 40th and Colorado Commuter Rail Station.

In this area, there is a need to capture a limited amount of stormwater flows. Because of the minimal flows and the opportunity for redevelopment in and around the station, the stormwater can be captured in inlets with the pipe accommodated within the existing Market Lead alignment (Monroe Street). However, this would require some impacts to properties just south of 40th. Upon further study of the area, Madison Street was identified as a possible alignment for the pipe because there would be less impact to private property.

Water Quality Opportunities

The Montclair Basin is approximately 8 miles long and covers approximately 10.9 square miles. Stormwater flows northwest through an extensive storm drain network with two existing outfalls to the South Platte River; one at Globeville Landing Park and a smaller pipe upstream near 38th Street. The outfall at Globeville Landing Park is currently listed as a designated priority outfall under Denver's Municipal Separate Storm Sewer permit due to elevated levels of E.coli during dry weather discharges. As of 2015, no open natural channels (surface drainageways) are present in this basin other than the short open channel segment at the outfall, and the basin is drained entirely by the piped storm sewer system.

In addition to stormwater runoff that is discharged to the river through the outfalls, the Montclair Basin has significant dry weather discharges likely in part from irrigation overspray, groundwater infiltration, and sump pump discharges to the storm drainage system. Wet and dry weather discharges contribute to continuously moist conditions in the Globeville Landing Outfall pipe which provides an ideal environment in which E.coli (biofilms) persist.

To improve water quality in the basin, strategies that allow wet and dry weather discharges to infiltrate into the ground and reduce the volume of the stormwater in the system are necessary. This is accomplished through the use of green infrastructure. On a large scale, green infrastructure refers to a network of parks, open spaces, drainageways, and floodplains which mitigate the impacts caused by impervious surfaces. Site-scale green infrastructure refers to smaller, engineered practices that mimic larger green infrastructure systems. Both regional and on site-scale green infrastructure will be implemented in the Montclair Basin, including water quality facilities in parks, open channels, and green

streets. This combined approach will improve water quality in one of Denver’s largest basins with undersized and aging drainage infrastructure.

Montclair Basin Hydrology/Hydraulic Analysis

The Multi-Agency Technical Team (MATT) was formed as a partnership between the City and County of Denver, CDOT, RTD and UDFCD during the fall of 2013 to collectively investigate the Montclair Basin’s hydrology and other inter-agency coordination issues. While the Montclair Basin hydrology had been previously documented to varying degrees in several previous studies, including Denver’s *SDMP*, there was a general presumption that the previously published flow rates could be overly conservative. Specific factors including impervious values, inadvertent detention, Colorado Unit Hydrograph Procedure (CUHP) model discretization, and limited accounting for floodplain flow routing were investigated.

The overall goal of the MATT analysis was to perform a technical review of the Montclair Basin hydrologic analysis and modify the modeling, if necessary, to provide CDOT with a mutually agreed upon 100-year design flow rate flowing from the 10.9 square mile watershed toward the I-70 Partial Covered Lowering (PCL) project. Modeling was completed and documented in a technical memorandum in August 2014. The MATT modeling is the basis for existing conditions for the Platte to Park Hill Stormwater Systems program modeling effort. The memorandum entitled “I-70 PCL Montclair Drainage Basin Hydrologic Analysis” is provided in the appendix of this report.² Additionally, this analysis and memorandum served as the basis of the Intergovernmental Agreement (IGA) entered into between the City and CDOT demonstrating a working relationship to efficiently utilize and leverage taxpayer dollars, save time, and minimize the duration of the disruption to neighborhoods.

Master Planning – Initial System Sizing (2014-2015)

In the summer/fall of 2014, initial sizing of the Platte to Park Hill Stormwater Systems program facilities began. Specifically, the engineering team evaluated required detention volumes and release rates for the 100-year storm event for the Montclair Basin. This initial sizing analysis estimated that the required detention volume in the 39th Avenue area would be between 120 acre-feet (ac-ft) and 200 ac-ft, with release rates to Globeville Landing Outfall ranging from 2,700 cubic feet per second (cfs) to 3,300 cfs. This modeling used kinematic wave routing inside of Urban Drainage Stormwater Management (UDSWM) only. The results of this analysis were documented in a draft memorandum “CCD I-70 PCL Alternative Drainage Concept” (December 22, 2014; see appendix).

² The MATT memo and the associated modeling were independently reviewed by CH2M under a separate contract with UDFCD.

Inadvertent Detention

The MATT evaluated inadvertent detention (storage and ponding of stormwater runoff naturally occurring within the watershed) in City Park in 2014. Specific areas included:

- City Park below (north of) Ferril Lake (Duck Pond Area) – 45.5 ac-ft
- City Park Golf Course – 41.8 ac-ft
- City Park Ballfields (west of Colorado Boulevard and south of 23rd Avenue) – 18.2 ac-ft. Due to the higher elevation of the ballfields and not within a low area for the entire basin, the ballfields are only able to capture and store localized stormwater.

Following discussions and coordination with the Parks Department at the City, two locations were formalized via a legal agreement that preserves the existing detention volumes as follows:

- City Park below (north of) Ferril Lake (Duck Pond Area) – 36 ac-ft
- City Park Golf Course – 41.8 ac-ft

These inadvertent detention volumes provide flow reduction downstream of City Park without any improvements or grading, now that these areas are modeled, recognized, and documented as formalized detention.

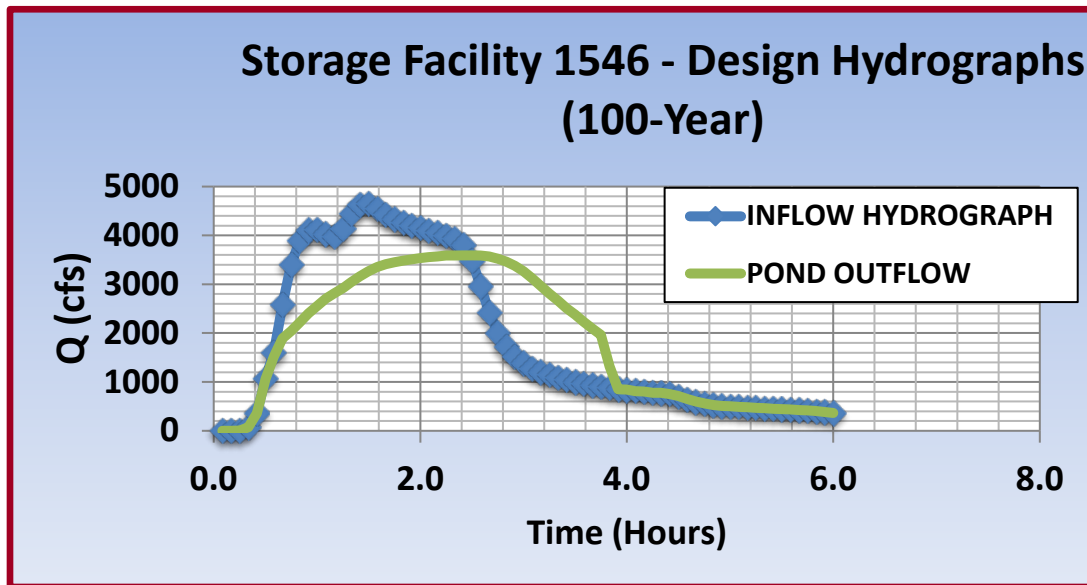
Concept Level Hydrology/Hydraulics (2015)

In the spring/summer of 2015, several initial design concepts for the proposed detention near 40th and Blake Street were developed. In support of the concept level designs, the design team updated the UDSWM model to provide a more detailed level of hydrology/hydraulic analysis with the routing and conveyance based on the IGA combined Drainage System map.

Initial estimates using UDSWM generated storage volumes that were close to 200 ac-ft based on a release rate from the Montclair detention facility of 3,300 cfs (1,200 cfs in the existing brick system and 2,100 cfs in the new Globeville Landing Outfall system). The release rate was later increased (see following section regarding Environmental Protection Agency [EPA]-SWMM modeling) to 3,600 cfs, assuming 1,200 cfs going to the old brick pipe system and 2,400 cfs going to the new system in Globeville Landing Outfall.

The inflow/outflow stormwater hydrographs for Storage Facility #1546 (a node in the model along 39th Avenue) is shown in Figure 29 which shows how storage acts to capture the peak runoff and releases it at a slower rate after the peak of the storm has past. The inflow hydrograph shows how an anticipated major storm would result in flooding lasting approximately 2½ hours. Stormwater detention would hold back some of that floodwater as shown in the pond outflow hydrograph.

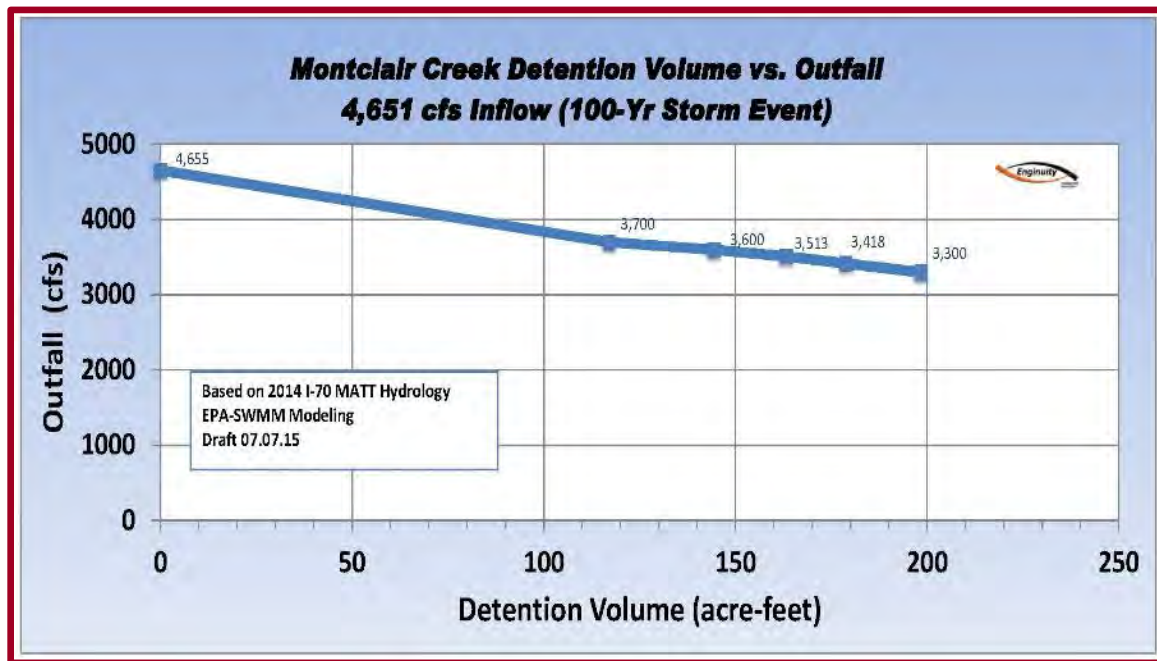
Figure 29. Cole Detention Discharge vs. Volume



EPA-SWMM Concept Level Model (Hydraulics)

To fully account for downstream hydraulics of the Globeville Landing Outfall system, including pipe losses, and to further confirm the size of the proposed detention and release rates, the design team developed an EPA-SWMM model instead of the UDSWM model of the Lower Montclair system, which is a newer and more robust hydrologic modeling software using defined elevations throughout the system. This model provided analysis extending from the end of the Globeville Landing Outfall stormwater pipes to the Montclair detention. Dynamic routing was used to better account for downstream backwater effects and provide a more realistic discharge curve for the detention facility. While the final configuration assumes a 3,600 cfs discharge rate, other discharge rates versus required stormwater detention volumes were evaluated. A graph of design discharge versus required detention volume is provided in Figure 30.

Figure 30. Cole Detention Discharge vs. Volume



Key results of the EPA-SWMM model for the Montclair detention volume and associated release rate to Globeville Landing Outfall were similar to the UDSWM results as shown below:

- 39th Avenue Area Detention Volume = 150 ac-ft minimum for peak shaving
- 39th Avenue Area Maximum Inflow Rate = 4,651 cfs
- 39th Avenue Area Release Rate = 3,585 cfs

Montclair Upstream Detention

Summary of Upstream Detention

The concept of providing detention higher in the drainage basin rather than along 39th Avenue was evaluated in a variety of locations throughout the upper portions of the watershed, with more specific study at City Park Golf Course due to the nature and complexity of golf course design. The evaluations built on the initial master planning level analysis developed for the Montclair Basin in July 2015.

At that time, the design team provided a high-level feasibility analysis of detention alternatives at City Park. All three areas previously evaluated for inadvertent detention were also considered as potential locations to provide additional storage volume. Modifications to Ferril Lake to increase stormwater detention were also considered. Brief assessments of each location were made for general feasibility and potential impacts to existing facilities.

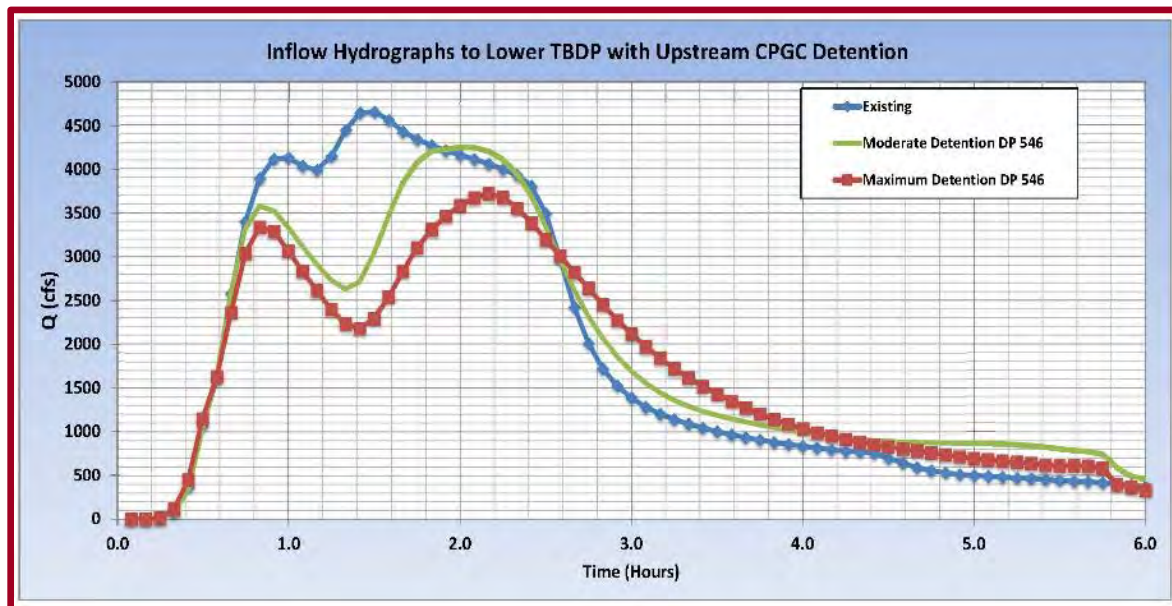
It was determined that City Park Golf Course had the greatest potential for increased detention volumes. In its existing condition, surface flows for large rainfall events travel directly through the western edge of the golf course, and flooding depths are significant. The major storm drain trunk line for the Montclair Basin also flows directly through the golf course making for a simple system connection for any improvements.

Multiple configurations of the potential detention facility at City Park Golf Course were evaluated, including one that provides a moderate level of detention at City Park Golf Course which still required additional detention at the lower 39th Avenue area portion of the project, and another that maximized detention at City Park Golf Course and eliminated the need for detention in the 39th Avenue area of the Montclair Basin.

Table 8. Alternative Summary: City Park Golf Course Detention

ALTERNATIVE	TOTAL DETENTION AT CITY PARK GOLF COURSE (AC-FT)	MAX. OUTFLOW FROM CITY PARK GOLF COURSE (CFS)	MAX. INFLOW TO 39 TH AVENUE. AREA (CFS)	MINIMUM REQUIRED DETENTION AT 39 TH AVENUE. AREA (CFS)
Existing Conditions (no new detention at City Park Golf Course)	41.8	3716	4579	150 ac-ft (online) 100 ac-ft (offline)
Detention at both City Park Golf Course and 39 th Avenue	120	3949	4254	118 ac-ft (online) 39 ac-ft (offline)
Detention at City Park Golf Course only	145	3573	3720	0 ac-ft

Figure 31. Inflow Hydrographs to 39th Avenue area with City Park Golf Course Detention Alternatives



Detention at both City Park Golf Course and 39th Avenue

A refined analysis of original master planning level modeling for the detention facility at City Park Golf Course was performed. The previous modeling was updated with a stage-volume-discharge curve that was developed to represent a typical outlet structure at City Park Golf Course. Based on the team's Alternative 1 grading of City Park Golf Course, the detained volume would be 120 AF. Impacts to the required detention at the lower Montclair project area (39th and Franklin Street) were evaluated based on both an on-line and off-line detention configuration.

- In an **on-line** configuration where the main drainage flows through the storage area, the required detention volume at the lower Montclair facility to ensure a 3,600 cfs outflow to Globeville Landing Outfall and the existing brick system would be 118 ac-ft. Without detention at City Park Golf Course, the total detention required at the lower Montclair area is 153 ac-ft.
- In an **off-line** configuration where the drainageway flows bypasses the storage area until reaching a defined threshold where it spills into the storage area, the required detention volume at the lower Montclair facility to ensure a 3,600 cfs outflow to Globeville Landing Outfall would be 39 ac-ft. Without detention at City Park Golf Course, the total detention required at the lower Montclair area is 100 ac-ft.

Detention only at City Park Golf Course

An alternatives analysis that attempted to minimize detention volumes at City Park Golf Course and eliminate detention storage along 39th Avenue was conducted using EPA-SWMM and using dynamic

wave routing. A concept storage volume grading plan was used as the basis for the EPA-SWMM detention modeling.

The alternatives analysis indicated the minimum amount of storage volume required at City Park Golf Course would be 145 ac-ft to reduce peak flows to match the conveyance capacity downstream by only functioning to reduce the peak of the 100-year flood event. This system reconfigured the existing storm drain system to flow around the proposed storage area, allowing flows up to approximately the 5-year event to bypass the storage facility. A water quality outlet allowing base flows to travel overland through the golf course could be added to this configuration to provide water quality treatment.

As part of this analysis, a review of how the storage area grading configurations impact storage volume was also completed. The results indicated that grading can have a significant impact on the required storage volumes, while producing similar peak discharges.

Figure 32. Concept Grading Plan Used for Feasibility Analysis



Refined Analysis City Park Golf Course Detention

To further refine the feasibility analysis, the UDSWM model was modified to provide a more accurate representation of discharge curves from the proposed facility. The feasibility analysis used large pipe outfalls to control the release rate which allowed flow out of the detention area to essentially equal flow into the site with a maximum outflow. The original analysis did not consider downstream backwater, upstream headwater, and other hydraulic considerations.

To minimize detention for the City Park Golf Course, a broad crested weir was modeled to allow for larger flows to spill onto the surface and be conveyed through the streets at lower detention stages. The resulting storage discharge curve was input into the UDSWM model with a few adjustments for lower flows up to the tailwater elevation. Lower flows were calculated based on Manning's equation for pipe capacity, and the stage/volume values were based upon the team's Alternative 1 for City Park Golf Course (see Figure 33).

Figure 33. Alternative 1 City Park Golf Course Detention Grading



The minimum City Park Golf Course detention was revised upward to 160 ac-ft. Further refinements to the model changed the function of the City Park Golf Course detention from 100-year only, to also work at reducing flood damages in a 10-year event to the Cole community downstream of City Park Golf Course. By providing more frequent damage reduction and not just for the 100-year event, the conceptual design of storage volume in City Park Golf Course increased to 210 ac-ft. This increased storage volume is based upon the concept of storing runoff more frequently for water quality treatment and improved flood protection downstream in more frequent storm events.

Park Hill Basin Alternative Analysis and Evaluation

Alternatives

With the general detention location established as noted in the previous chapter, the team was tasked with the evaluation of the potential pipe alignments which would connect the existing detention pond at Holly and 39th to the new detention facility at the golf course.

Smith Road Alignment

Using Smith Road for the new pipe alignment would permit the utilization of existing stormwater infrastructure that runs north from the 38th and Holly detention facility down Grape Street and eventually connect into an existing pipe beneath Smith Road that runs west to Forest Street. From there, a new pipe and collection system would need to be constructed westward until it connects to the Park Hill Golf Club (approximately 1,400 linear feet).

The new pipe and collection system would significantly reduce surface flows crossing Smith Road to the north, but would not capture all surface runoff. Capturing all surface flows would require the construction of a floodwall, which would potentially raise the depth of flooding along Smith Road east of Forest Street and it would not provide any reduction in surface flows or flow depths to the south.

Additionally, integrating the new pipe and collection system into the Smith Road ROW would require careful design, including some relocation of existing utilities due to the significant number of utilities already in the ROW. It would also require the reconstruction of Smith Road, which was recently rebuilt as part of the commuter rail project and it would not require any private property acquisitions.

41st Avenue Alignment

Using 41st Avenue for the new pipe alignment would require that the new pipe be built exiting the 38th and Holly pond heading west along 39th Avenue to Forest Street. From there, the new pipe would head north along Forest until reaching 41st Avenue. At that point the flow would split, with a lesser portion of the flow heading north to connect to the existing infrastructure at Smith Road and the remainder would head west along 41st Avenue.

This pipe alignment would capture all surface flows without causing any adverse impacts. Its location to the south of Smith Road would also allow it to offer some additional flood protection to the properties located between 41st Avenue and Smith Road.

41st Avenue is relatively free of utilities, which would allow the pipe to be constructed more easily and would minimize costs associated with utility relocation and it would not require any private property acquisitions.

Rail Spur

Using the rail spur for the new pipe alignment would require a new pipe to be constructed exiting the 38th and Holly pond and heading west along 39th to Forest Street. From there, a new pipe would head north along Forest Street until reaching the rail spur. At that point, the flows would split, with a lesser portion of the flow heading north along Forest in a new pipe. The remainder of the flows would continue west along the rail spur until reaching the golf course. This alignment discharges far enough south in the golf course that it may also require an open channel within the golf course to convey stormwater north to the detention pond. This open channel with the Park Hill Golf Club provides some opportunity for limited water quality.

This pipe alignment should capture all surface flows without causing any adverse impacts since it's located as the option furthest to the south allowing it to offer additional flood protection to the largest number of properties compared to the other alternatives. The rail spur is all within private property requiring the acquisition of private property for this alignment to be utilized.

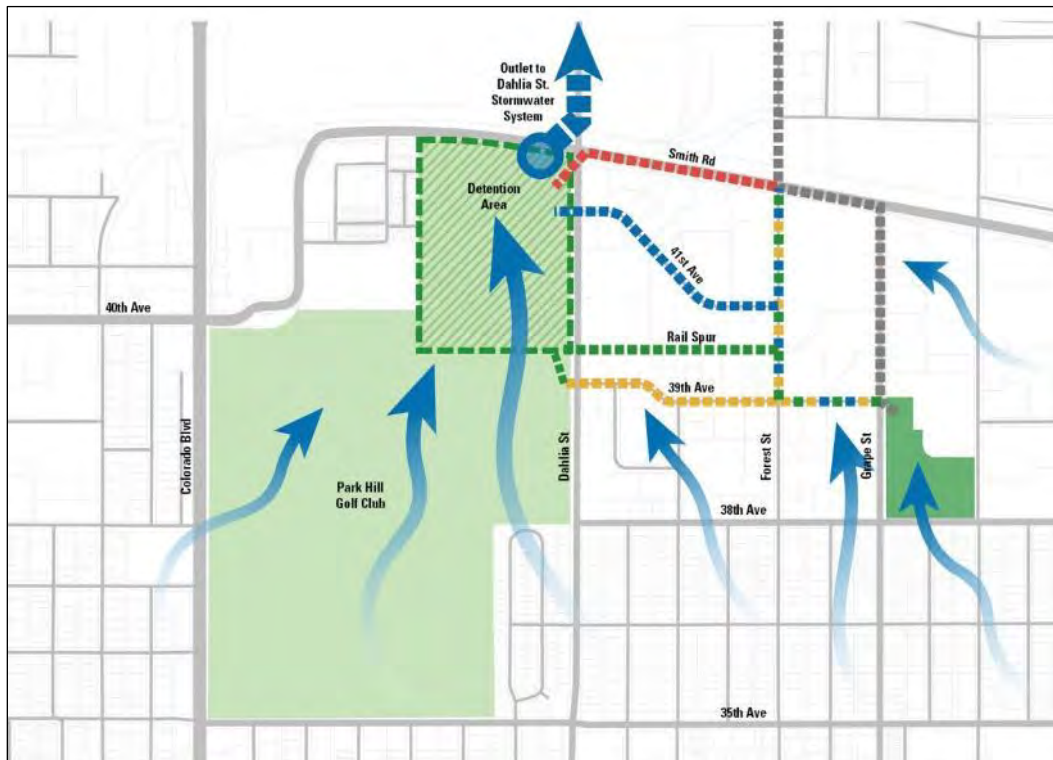
39th Avenue Alignment

Using 39th Avenue for the new pipe alignment would require a pipe to be constructed exiting the 38th and Holly pond and heading west along 39th. At Forest Street the flows would split, with a lesser portion of the flow heading north along Forest in a new pipe. The remainder of the flows would continue west into a pipe in the rail spur until reaching the golf course. This alignment empties far enough south in the golf course that it may also require an open channel within the golf course to convey stormwater north to the detention facility. This open channel with the Park Hill Golf Club provides some opportunity for limited water quality.

This pipe alignment should capture all surface flows without causing any adverse impacts. Its location as the option furthest to the south allows it to offer additional flood protection to the largest number of properties compared to the other alternatives.

39th Avenue is relatively free of utilities, which would allow the pipe to be constructed quite easily and would minimize additional costs associated with utility relocation and it would not require any private property acquisitions.

Figure 34. Park Hill Pipe Alignment Alternatives



Park Hill Basin Hydrology/Hydraulic Analysis

The MATT also investigated the Park Hill Basin’s hydrology. Past modeling in Denver’s *SDMP* showed that excessive stormwater runoff can flow along Smith Road and drain into the Montclair Basin. The goal of the Park Hill study was to investigate solutions that manage 100-year flows in the Park Hill watershed without bypass flow into the Montclair Basin. The overall goal of the MATT analysis was to perform a technical review of Denver’s Park Hill Basin hydrologic analysis. Modeling was completed and documented in a full technical memorandum in August 2014. The MATT modeling is the basis for existing conditions for the Platte to Park Hill Stormwater Systems program modeling effort.

Park Hill Basin Overview

The Park Hill basin is primarily served by two storm drain outfalls in the project vicinity. A 120-inch pipe crosses I-70 at Forest Street and is served by the 38th & Holly detention facility further upstream (south) in the basin. A second 84-inch pipe outfall (Park Hill Phase V) is planned to cross I-70 at Dahlia Street but has not been constructed. Both of these systems convey the 5-year event in the underground (piped) system with excess runoff conveyed by surface flows draining to the South Platte River and Sand Creek.

The Stormwater Solutions project proposes to build upon the current system by utilizing two key drainage concepts:

- Provide formalized regional detention at the northeast corner of the Park Hill Golf Club. The City worked with the private land owner for Park Hill Golf Club to place a detention area in the northern portion of the golf course where stormwater naturally collects under existing conditions. A majority of the surface flow within the western portion of the drainage basin naturally flows north through the golf course to this existing sump location. The project proposes to utilize this natural collection point with formalized detention that releases at a controlled rate through the 84-inch pipe system in Dahlia.
- In the eastern portion of the basin, an east-west storm drain system is proposed to convey flows in excess of the existing Forest Street outfall's capacity. The pipe will convey stormwater to the west into the proposed golf course detention facility. This diversion of stormwater will maximize the efficiency of the two systems by working hydraulically together.

Master Planning – Initial System Sizing (2014-2015)

In the summer and fall of 2014, initial sizing of the required drainage facilities began. Specifically, the engineering team evaluated required detention volumes and release rates for the 100-year storm event in the Park Hill Basin. This analysis was performed by first using the UDSWM and EPA-SWMM models developed by the MATT, and then modifying routing and infrastructure sizing. This initial sizing analysis investigated two separate scenarios as described below.

In 2014, initial estimates determined the required detention volume to be approximately 105 ac-ft, with release rates to the downstream pipe system (Park Hill Phase V) of approximately 400 cfs. This modeling used kinematic wave routing inside of UDSWM only. Dynamic modeling was not considered as part of this initial analysis, and simple Manning's equation was used to estimate the outfall's capacity.

Other improvements included the addition of a 12'x10' box culvert in Smith Road with a capacity of up to 1,590 cfs to capture flows and deliver them to the Park Hill detention facility. The facility itself in this configuration, was to be a berm or wall on the outside of the golf course with little grading occurring on the golf course itself. The results of this analysis were documented in a draft memorandum "CCD Alternative Drainage Concept" (December 22, 2014; see appendix). As it was understood that this analysis was very high level, some potential modifications were noted in the memorandum that included:

- If the proposed collection system in Smith Road proves to be difficult, other east-west alignments can be investigated during design such as 41st, 39th, or 38th Avenues.
- An alternative alignment for the Park Hill Phase V alignment from Dahlia Street to the east side of Colorado Boulevard can be investigated during preliminary design.

In the spring and summer of 2015, additional configurations were investigated to evaluate both the downstream capacity of the Park Hill Phase V system and to evaluate how stormwater would be collected upstream in the basin and delivered to the Park Hill Golf Club detention facility. The first task completed as part of this work was to develop a basic volume versus release rate curve to evaluate a range of potential storage area sizes and outfall assumptions. Several conceptual grading plans were completed for the site. Approximate UDSWM kinematic wave modeling for a potential collection system along 38th Avenue and a connection to the existing 38th and Holly detention facility were completed. The system along 38th Avenue would require approximately 2,500 linear feet of additional box culvert compared to the Smith Road system.

In the fall of 2015, the design team completed more detailed dynamic modeling of the proposed Park Hill Golf Club detention facility and the collection system along Smith Road. A concept-level grading plan for the Park Hill Golf Club area was completed to function in conjunction with the Park Hill Phase V outfall as well as a proposed collection system in Smith Road.

Park Hill Phase V Outfall Hydraulic Analysis

Pipe analysis was completed using EPA-SWMM for the Park Hill Phase IV and V outfall system. A variety of pipe materials and sizes for Phase V were analyzed to determine the system's potential full capacity. An option to allow the system to surcharge onto the street downstream (north) of I-70 was investigated, and resulting flow rates were documented. An 84" reinforced concrete pipe with no surcharging allowed (pressurized but hydraulic grade line (HGL) below ground level) was assumed for the outfall's capacity of 450 cfs.

EPA-SWMM Concept Level Model

A small portion of the MATT EPA-SWMM modeling for the Lower Park Hill Basin was utilized and updated to reflect the proposed golf course detention and Smith Road collection system. The following outlines the model's general parameters:

- Dynamic Wave flood routing was used to hydraulically connect the golf course detention and related backwater into the Smith Road collection system.
- Results from the previous Park Hill Phase V outfall system analysis were used as a fixed starting HGL elevation at Dahlia north of the project.
- Stage/storage information for the detention facility was incorporated into the model based on the concept level grading plans.

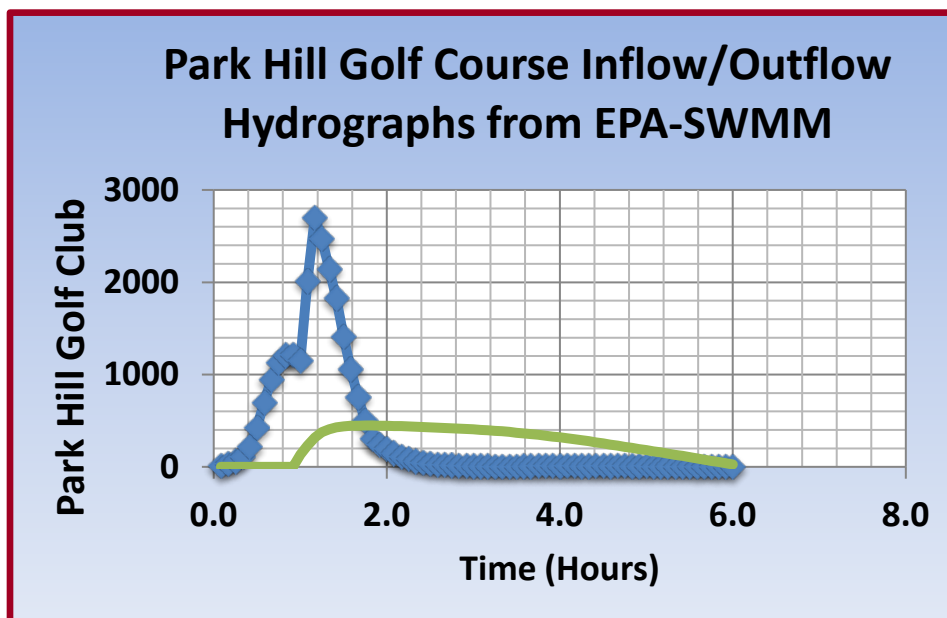
Results of the EPA-SWMM model for the Park Hill Golf Club detention facility volume and associated collection system and outfall release rates are:

- Park Hill Phase IV Outfall Release Rate = 448 cfs

- Smith Road Collection System Capacity (Interim and Final) = 1,588 cfs, 13'x10' reinforced concrete box culvert
- Park Hill Detention Volume = 125 ac-ft

The inflow/outflow hydrographs for the proposed Park Hill Golf Club detention facility is shown in Figure 35 below. The figure shows the modeled 100-year flood (blue line) would have a relatively short duration of approximately 1 hour. The goal of detention is to store the flow more than the outfall release rate, and meter it out over a longer period of time (green line) of approximately 5 hours.

Figure 35. Park Hill Golf Club Inflow/Outflow Hydrographs



The four alternatives, were evaluated using a screening as typical in an alternatives analysis process. The screening criteria listed in Table 9 are based on the goals and objectives identified early in the process with the community and listed in the Alternatives Description chapter.

Table 9. Park Hill Screening

PROJECT ELEMENT	PROJECT OPPORTUNITIES													
	REGIONAL AND COMMUNITY PROTECTION	PHASED AESTHETIC IMPROVEMENTS	PUBLIC SAFETY	WATER QUALITY	PLACEMAKING (SINGLE VS. MULTIPLE-USE FACILITY)	BICYCLE/PEDESTRIAN CONNECTIVITY	VEHICULAR CONNECTIVITY	MINIMIZED ENVIRONMENTAL IMPACTS	CONSTRUCTABILITY	COMPLIANCE WITH PROJECT CRITERIA	PUBLIC & AGENCY ACCEPTANCE	NUMBER OF REAL ESTATE ACQUISITIONS/EASEMENTS	OPERATIONS & MAINTENANCE COSTS	TOTAL WEIGHTED AVERAGE
<i>Weight</i>	10%	5%	10%	5%	5%	10%	5%	5%	10%	5%	5%	15%	10%	100%
Smith Road	1	0	1	1	0	0	0	2	2	2	0	3	1	1.2
41st Avenue	2	1	2	2	0	0	0	2	1	2	1	2	1	1.3
Rail Spur	2	1	2	2	0	0	0	2	1	2	1	1	1	1.15
39th Avenue	2	1	2	2	0	0	0	2	1	2	1	3	1	1.45

Scoring: 0=no opportunity, 1=minimal opportunity, 2=average opportunity, 3=high opportunity

Environmental Evaluations

The team completed research of the project area for hazardous materials, historic resources, and environmental justice issues. The associated reports are included in the appendix and are summarized below.

Hazardous Materials

The EPA have determined that the operation of historical smelters within the Cole and Clayton neighborhoods may have contributed to elevated levels of metals (arsenic and lead) in the surface soil in resident's yards. Operable Unit 1, a specific and separate activity undertaken as part of the cleanup, addressed residential soils, while Operable Unit 2 addressed industrially zoned land on, and near the Coliseum property. For Operable Unit 1, beginning in 1998, EPA investigated soils in almost all the yards in the Elyria, Swansea, Cole and Clayton neighborhoods, as well as portions of the Globeville and Curtis Park neighborhoods. In all, 4,429 yards were tested, and those that required action were cleaned and are now safe for unrestricted use, including children play areas and vegetable gardens. This clean-up addressed residential yards and included the tree lawn areas, however the clean-up did not clean under the existing paved streets. The areas investigated and cleaned extend throughout the Cole and Clayton neighborhoods, to the south to Martin Luther King, Jr. Boulevard. While nearly all of the homeowners agreed to the investigation, 55 homeowners did not allow EPA to complete their investigation. To protect future homeowners or tenants, EPA filed Notices of Environmental Condition on property records through Denver's Office of the Clerk and Recorder for those properties. In addition, the EPA has shared a database containing information on all residential properties within the investigation area, so Denver can determine whether any property within the Platte to Park Hill Stormwater Systems program area has been sampled and cleaned.

It is standard practice for the City to conduct environmental due diligence on all properties acquired for infrastructure projects, including stormwater management projects. As part of this due diligence, Denver regularly checks property ownership records, including property records held by the Office of the Clerk and Recorder. The City of Denver is also aware of the VB/I-70 Superfund Site, and have been vigilant to stay informed regarding any actions taken by EPA on this site since 1998. Should Denver need to acquire and disturb properties as a part of this project, Denver would conduct environmental due diligence on every property, and ensure that adequate cleanup is conducted if necessary.

Should the Platte to Park Hill Stormwater Systems program disturb the streets or other paved areas in the areas covered by the Superfund site, the City and County of Denver will conduct sampling of the soils that would be exposed by pavement removal to determine if contamination is present. Should that sampling reveal contamination, it will be dealt with appropriately.

Figures 36 and 37 below highlight potential environmental concerns within the Cole and Clayton neighborhoods.

Figure 36. Hazardous Materials (Franklin to York)

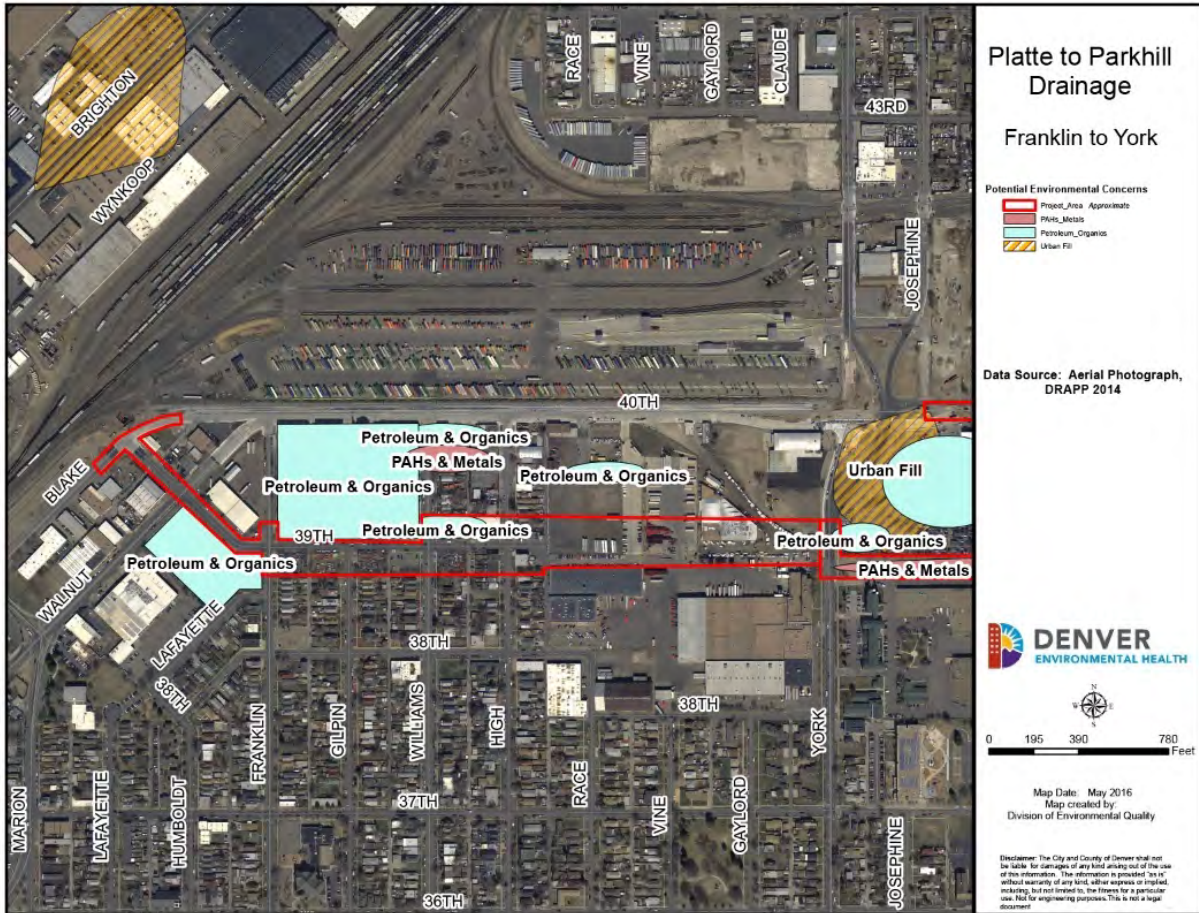
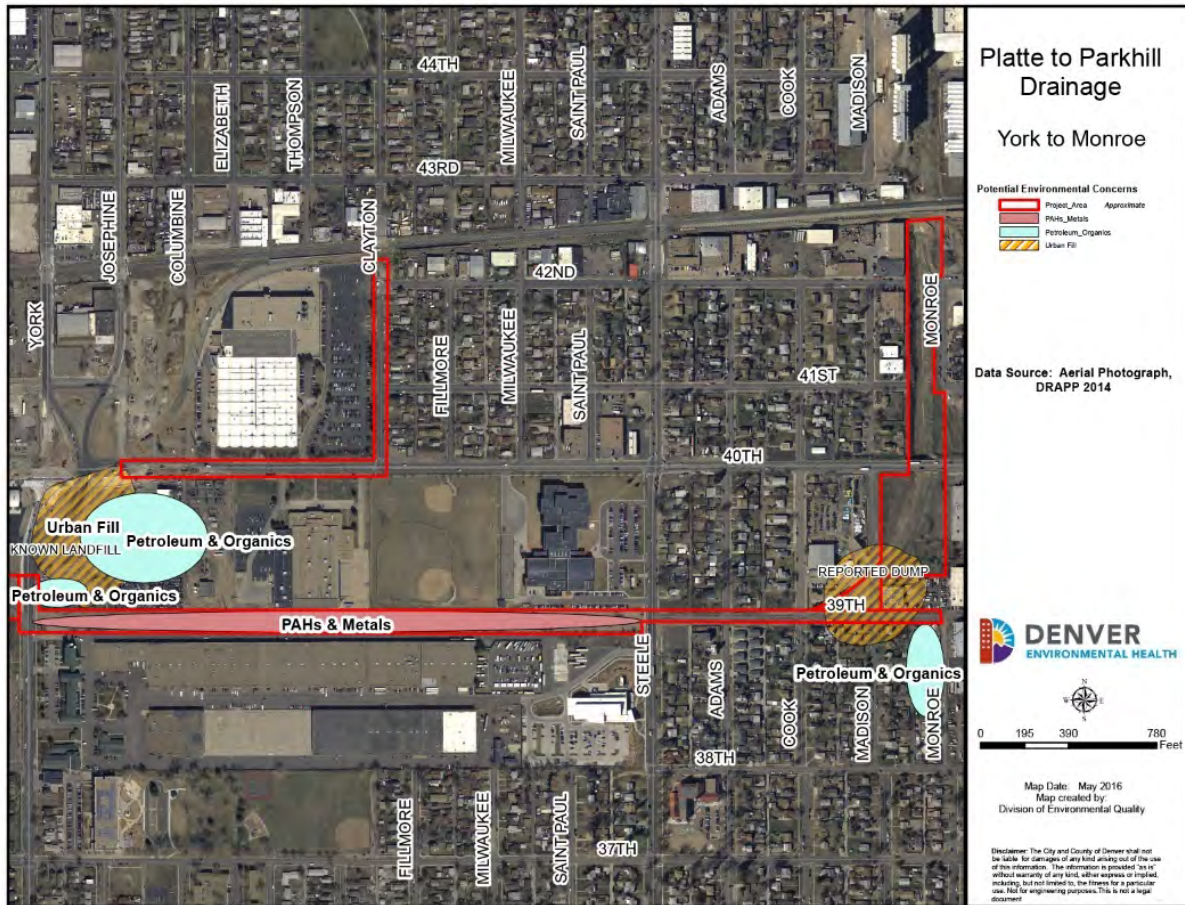


Figure 37. Hazardous Materials (York to Monroe)



Environmental Justice

An Environmental Justice analysis was conducted to determine if minority, low-income and/or aging populations are present within the study area and if the area should be considered an environmental justice community, and therefore, if any adverse effects would result from the construction or operation of the proposed action.

The study area for the environmental justice and aging population analysis covers in whole, eleven 2010 Census block groups as well as a portion of one additional block group. The study area also includes the Denver-designated neighborhoods of Clayton and Cole and a portion of the southwest corner of the Northeast Park Hill neighborhood. The geographic boundaries of the study area can generally be described as having its northern boundary along East 40th Avenue, Albion Street, and Smith Road; its eastern boundary along Dahlia Street; its southern boundary along Martin Luther King Jr. Boulevard; and its western boundary along Downing Street and Walnut Street.

Minority Populations

Within the study area, minority populations were found to be 26.9% higher than Denver County (74.2% compared to 47.3%, respectively). Within the study area, eight of the twelve block groups have a minority population 20 percentage points higher than Denver County.

During the analysis of the race data, in combination with local knowledge, it was found that a notable Hispanic or Latino origin population was present. The study area was found to have a Hispanic or Latino population 16.7% higher than Denver County (48.1% compared to 31.4%, respectively). Within the study area, five of the twelve block groups have a minority population 20 percentage points higher than Denver County.

Low-Income Populations

From the data available for low-income populations, the study area was found to have 29.3% of individuals living below the poverty level compared to 19.1% of Denver County's individuals living below it. Within the study area, four of the twelve block groups were 10 percentage points higher than Denver County for individuals living below the poverty level.

Additionally, from the data available for low-income populations, within the study area, two of the twelve block groups have a very poor (under 50% of the poverty level) population 10 percentage points higher than the County.

Population by Age

Although older resident populations (age 60 or above in this analysis) are not specifically recognized as an environmental justice community based on the legal definition, it is the policy of the City to evaluate potential impacts by projects to older residents. For this analysis, the identification of older resident populations was determined by comparing countywide older resident population percentages to older resident population percentages at the block group level. None of the block groups within the study area are 10 or more percentage points higher than the County.

It can be concluded from the analysis that block groups in the study area include notable minority and low-income populations. Three of the twelve block groups contain a percentage of age 60 and over populations higher than the average for the entire City and County of Denver. However, none of these block groups contained older populations higher than 110% of the average City population.

After analyzing the data collected from the Census and other sources, it is apparent the project study area stretches along minority and low-income population residential areas and the proposed action would cause adverse impacts to minority, low-income, and aging populations. Conversely, it can be stated that the Montclair Drainage Basin project impacts would only be of a short-term nature during construction of the project and that the long-term effects of the project would in fact be highly beneficial to the populations within the study area.

Historic Assessment

In order to understand potential impacts of a drainage concept on historic resources, Denver conducted a cultural resource study within the Two Basin Drainage Project area. This effort involved archival research and extensive fieldwork documenting historic resources to determine whether historic properties (buildings structures, districts, or objects eligible for listing on the national register of historic places) are present and may be affected by the proposed undertaking. As the project is planned to be funded in part by CDOT, and has the potential to impact properties on or eligible for listing in the State Register, CDOT and the City will comply with Colorado Revised Statute (CRS) 24-80.1-104, which requires that “...the action shall identify such properties located within the area of the proposed action, notify the society of the proposed action, request a determination of effect on such properties, and afford the society a period of 30 days in which to review the proposed action” (CRS 24-80.1-104). The cultural resource survey used the procedures and processes developed by CDOT for these types of efforts, and used the standards and evaluation criteria laid out for Colorado State Register.

Areas of Potential Effect (APE’S)

The project study area (PSA) was divided into three Areas of Potential Effect (APE’s) where a drainage design could create impacts to historic resources and include the following:

39th Avenue APE: The APE for this area consists of all affected roadways and adjacent parcels along 39th Avenue. At the west end of the APE a piped drainage system will be installed in 40th Street from Blake Street serving as a connection to Globeville Landing Outfall system. At Franklin Street the stormwater will be conveyed through an open channel that stretches from Franklin Street on the west to Steele Street on the east. Steele Street to Monroe will be a piped system which will include a spur in the Market Lead near the alignment of Monroe Street from 39th Avenue to approximately 42nd Avenue. It is also proposed as part of this project a pipe system be installed in Clayton Avenue from approximately 40th Avenue to 41st Avenue and then west down Clayton and connecting to an existing drainage system. Where piped systems are installed, surface features will be replaced in kind. The APE will extend out to the depth of one parcel from the corridor, and it also includes all areas where easements will be required or work will occur adjacent to historic or potentially historic properties. See 39th Avenue APE map for more detail.

City Park Golf Course APE: The APE for this option is centered on the City Park Golf Course and runs approximately from Colorado Boulevard (on the east), 26th Avenue (on the north), York Street (on the west) and 23rd Avenue (on the south). The APE extends out from Colorado Boulevard, 26th Avenue and York Street to adjacent residential areas to a depth of one parcel in the directions that visual impact could occur. While this APE accounts for any potential direct or indirect effects to historic resources, no direct impact is proposed or anticipated to any historic building or structure in the APE. Three non-historic buildings (all constructed in 2001) will be affected by this option.

Park Hill Golf Club APE: The APE for this option is centered on the northeast quarter of the Park Hill Golf Club that would be affected by the project, and encompasses the buildings and residences that lay along the eastern edge of the golf course running from approximately Smith Road (on the north) to 38th Avenue (on the south). The APE extends out from Dahlia Street to adjacent commercial and residential areas to a depth of one parcel in the directions that visual impact could occur. While this APE accounts for any potential direct or indirect effects to historic resources, no direct impact is proposed or anticipated to any historic building or structure in the APE. Where piped systems are installed surface features will be replaced in kind. The APE will extend out to the depth of one parcel from the corridor, and it also includes all areas where easements will be required or work will occur adjacent to historic or potentially historic properties. In addition, the project will extend to the adjacent pipe system that will be installed in 39th Avenue from Dahlia Street to Grape Street. There will also be a piped system installed within existing Forest Street from 39th Avenue to Smith Road.

Research and Evaluation Methodology

The following methodology was used to evaluate all historic resources in the APEs. Dates of construction and eligibility status for all properties in the three APEs were established through review of the Denver County Assessor records and the COMPASS database maintained by History Colorado. Survey and evaluation procedures of the properties within the three distinct APEs differed and are detailed below.

39th Avenue Open Channel APE

This project used data collected in previous studies to evaluate historic resources in the APE. A previous study (completed in 2015) included almost 400 properties and resources near and in the 39th Avenue APE. Each resource in the study area was recorded using Office of Archaeology and Historic Preservation (OAHP) form 1417 and a field evaluation of the property's potential eligibility for the National Register of Historic Places (NRHP) was made.

CDOT has identified potentially eligible properties located one parcel out from the path of the open channel and other elements to account for any direct or indirect effects. Dates of construction and any previously determined eligibility status for each property or resource in the study area was established through review of the Denver County Assessor records and the COMPASS database maintained by History Colorado. Any property or resource falling within this area was evaluated using OAHP form 1403. In some cases, only key areas of the form (Sections I, II, III, IV, VI, VII & VIII) were completed. The abridged site forms were submitted to streamline determinations of eligibility for properties that demonstrate diminished historical physical integrity and are therefore unable to convey significance or be considered eligible to the National Register of Historic Places (NRHP).

City Park Golf Course APE

Data from the Denver County Assessor identified more than 100 properties that were at least 50 years old. In lieu of field documentation of this large number of resources, CDOT assumed each 50-year-old property was eligible, and evaluated for indirect effects. No direct effects would occur since all work

would be limited to the golf course itself. Within the golf course, CDOT will complete field evaluations of 50-year-old buildings and structures that are found, and assess eligibility, as well as direct and indirect effects.

Park Hill Golf Club APE

Data from the Denver County Assessor identified more than 70 properties that were at least 50 years old in the areas adjacent to the project area and along 39th Avenue. In lieu of field documentation of this large number of resources, CDOT would assume each 50-year-old property is eligible, and evaluate for indirect effects. No direct effects would occur since all work would be limited to the golf course itself or would involve the installation of subsurface conduits in existing right-of-way. Within the golf course, CDOT would complete field evaluations of 50-year-old buildings and structures that are found, and assess eligibility, as well as direct and indirect effects.

Preferred Plan

Plan Description

The recommended plan is comprised of elements of work in the Park Hill Basin, at City Park Golf Course, and in the 39th Avenue area of the Cole neighborhood in the lower Montclair Basin.

Figure 38. Platte to Park Hill Stormwater Systems program



Montclair Basin

The team recommended City Park Golf Course to temporarily hold and slow stormwater during major storm events. Outside of periods during and immediately after rainfall events, the golf course area would remain dry. The detention area would be integrated into an updated design of the golf course. Detention in the golf course would protect significantly more homes and businesses, minimize property impacts, and create a better opportunity to minimize future infrastructure cost, and provide more opportunity for water quality.

In addition, the team recommended the 39th Avenue open channel and greenway from Franklin Street to Steele Street in the Cole and Clayton neighborhoods to safely collect and convey the stormwater to the South Platte River.

City Park Golf Course

The team recommended implementation of detention at the City Park Golf Course. The course is able to detain sufficient volume (approximately 200 ac-ft) to eliminate any additional downstream detention in the 39th Avenue area in the Cole neighborhood, and the course can be returned to a playable condition upon completion of the construction.

39th Avenue Area

The team recommended the implementation of a closed system (pipe) between Blake and Franklin, an open channel between Franklin Street and Steele Street, and conduit/green street between Steele Street and Jackson Street. In addition, pipe networks needed to capture and carry additional stormwater in the Lower Montclair Basin include pipes along Clayton Street and Monroe Street. Refer to Figures 39, 40 and 41.

Figure 39. Open Channel Vision between Franklin St and Williams St



Figure 40. Open Channel Vision (view looking west from Williams St bridge)



Figure 41. Open Channel Vision (view looking west from Steele St)



The implementation of the open channel facility in the areas noted would capture the 100-year stormwater runoff event. Closed systems in this area would not provide 100% capture of stormwater, and would also introduce additional opportunities for system failure during major storm events.

The open channel between Franklin Street and Steele Street would be a linear open space adding approximately an additional 12-acres of open space to the Cole and Clayton neighborhoods. This linear open space would have a bike and pedestrian trail, as well as other small gathering areas. On the north side of the open channel between Franklin Street and Williams Street adjacent to the Porta Power property would be a shared street, see Figures 42 and 43. This narrow street type would minimize the segregation of modes (vehicular, bicycle and pedestrian) by allowing all modes to use the same space, making it safer for all due to the slower vehicular speeds.

Figure 42. Open Channel and Shared Street conceptual section between Franklin St. and Williams St.

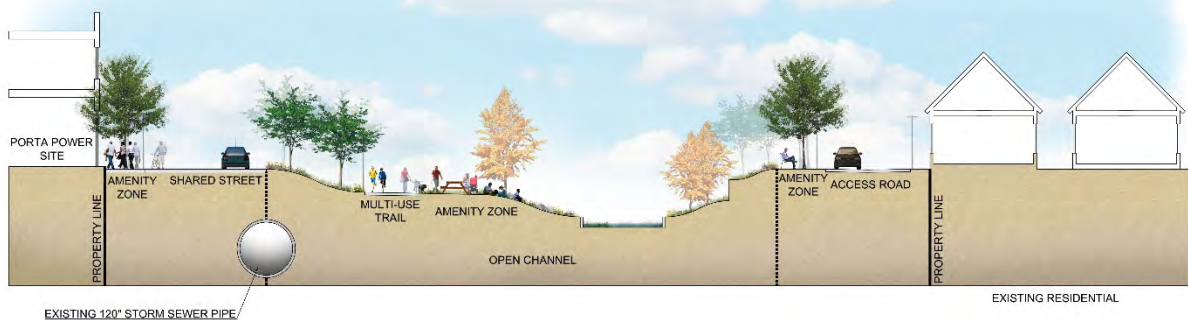


Figure 43. Shared Street Vision (view looking east from Franklin St. & 39th St.)



The overall width of the open channel should be evaluated at a higher level of detail as the project moves into preliminary design. The alternatives screening included a comparison of a narrower (approximately 90') section and a wider (approximately 120') section, and the results of the screening were very close between those alternatives in the two reaches between Franklin and Race.

Additional evaluation is also needed between Race Street and York Street to balance property acquisition, pedestrian and bicycle connectivity, and stormwater capture and conveyance requirements.

As preliminary design begins, hydrologic/hydraulic modeling will need to be continually revised to match pipe sizes, inverts, grading, and other design details. The capacity of the discharge to the existing 120-inch pipe and planned Globeville Landing Outfall system is maximized at 3,600 cfs.

Additionally, all remnant parcels from the acquisition of property will be looked at for water quality opportunities.

Park Hill Basin

The team recommends implementation of 39th Avenue pipe alignment alternative. Additional evaluation during preliminary design is required to confirm cost efficiencies, constructability, and schedule constraints.

Additionally, as preliminary design begins, hydrologic and hydraulic modeling will need to be continually revised to match pipe sizes, inverts, grading, and other design details.

1 BY AUTHORITY

2 ORDINANCE NO. _____

COUNCIL BILL NO. CB 16-0757

3 SERIES OF 2016

COMMITTEE OF REFERENCE:

4 Finance & Governance Committee

5 A BILL

6 For an ordinance authorizing the issuance of City and County of Denver, Colorado, for
7 and on behalf of the Wastewater Management Division of its Department of Public
8 Works, Wastewater Enterprise Revenue Bonds, Series 2016, for the purpose of
9 financing the cost of acquiring, improving and equipping the storm drainage and
10 sanitary sewerage facilities of the City; providing for the pledge of certain wastewater
11 revenues for the payment thereof; and making other provisions relating thereto.
12

13 (1) **WHEREAS**, the City and County of Denver (the "City"), Colorado (the "State"), is a municipal
14 corporation duly organized and existing as a home rule city under article XX of the State Constitution and the
15 Charter of the City (the "Charter") and is a political subdivision of the State; and

16 (2) **WHEREAS**, all legislative powers possessed by the City, conferred by article XX of the State
17 Constitution, except as limited by the Charter, or otherwise existing by operation of law are vested in a board
18 of councilmen, also known as the city council (the "Council"); and

19 (3) **WHEREAS**, pursuant to Ordinance No. 755, Series of 1993 (the "Enterprise Ordinance"), the
20 Council established the Wastewater Management Division of its Department of Public Works (the
21 "Enterprise") as an "enterprise" within the meaning of Article X, Section 20 of the Colorado Constitution
22 ("TABOR") and authorized the Enterprise to issue its own revenue bonds in the name of the City, after
23 approval and authorization by the Enterprise, and established the Manager of the Department of Public Works
24 (the "Manager") as the governing body of the Enterprise with the power to approve and authorize such
25 revenue bonds; and

26 (4) **WHEREAS**, the Council previously determined in 2002 that it was in the best interests of the
27 City and the customers of the Enterprise to acquire, improve and equip the storm drainage facilities of the
28 City (the "2002 Project"); and

29 (5) **WHEREAS**, in order to finance the costs of the 2002 Project, the City, for and on behalf of the
30 Enterprise, and at the request of the Manager, issued its City and County of Denver, Colorado, for and on
31 behalf of the Wastewater Management Division of its Department of Public Works, Wastewater Revenue
32 Bonds, Series 2002 (the "2002 Bonds"); and

1 (6) **WHEREAS**, the Council previously determined in 2011 that it was in the best interest of the
2 City and the customers of the Enterprise to issue for and on behalf of the Enterprise the City & County of
3 Denver, Colorado, for and on behalf of its Wastewater Division of its Department of Public Works, Wastewater
4 Enterprise Revenue Bonds Series 2012 to acquire, improve and equip the storm drainage facilities of the City
5 and to refund, pay and discharge the Series 2002 Bonds (the "Series 2012 Bonds"), which are currently
6 outstanding in the approximate principal amount of \$40,710,000; and

7 (7) **WHEREAS**, the Council, in the name and on behalf of the City, and at the request of the
8 Manager, has determined and hereby declares that it is advantageous and in the best interest of the City and
9 the customers of the Enterprise to further acquire, improve and equip the storm drainage and sanitary
10 sewerage facilities of the City (the "Project") and to issue for and on behalf of the Enterprise, and at the request
11 of the Manager, its Wastewater Enterprise Revenue Bonds to finance the cost thereof; and

12 (8) **WHEREAS**, the construction of the Project is consistent with and in furtherance of the
13 Comprehensive Plan of the City; and

14 (9) **WHEREAS**, in order to finance the acquisition, improvement and equipping of the Project, the
15 City, for and on behalf of the Enterprise, desires to issue its City and County of Denver, Colorado, for and on
16 behalf of its Wastewater Division of its Department of Public Works, Wastewater Enterprise Revenue Bonds,
17 Series 2016 (the "Series 2016 Bonds"); and

18 (10) **WHEREAS**, the Treasurer will certify that the requirements of the ordinance authorizing the
19 issuance of the Series 2012 Bonds have been met with respect to the issuance of Additional Parity Bonds
20 thereunder in the form of the Series 2016 Bonds; and

21 (11) **WHEREAS**, the Series 2016 Bonds and the Series 2012 Bonds are each Parity Securities of
22 the Enterprise and each share, together with any Additional Parity Bonds, a first lien, but not an exclusive first
23 lien, on all of the Net Pledged Revenue of the Enterprise; and

24 (12) **WHEREAS**, the Manager of the Enterprise has adopted a resolution (the "Manager's
25 Resolution") requesting that the Council adopt an ordinance authorizing the issuance of the Series 2016
26 Bonds to finance the costs of the Project; and

27 (13) **WHEREAS**, the City, acting by and through the Enterprise, is authorized pursuant to TABOR
28 to issue the Series 2016 Bonds without an election to finance the costs of the Project; and

29 (14) **WHEREAS**, pursuant to Section 20-92 of the Revised Municipal Code of the City (the "City
30 Code"), the Manager of Finance, ex-officio Treasurer of the City (the "Treasurer") has retained First Southwest

1 as financial advisor to assist the City and communicated such retention in writing to the President of the
2 Council, and the Clerk and Recorder, ex officio Clerk of the City (the "Clerk"), has read such communication
3 to the Council; and

4 (15) **WHEREAS**, before undertaking any action that obligates or could obligate the City financially
5 with regard to the issuance of any of the Series 2016 Bonds, the Treasurer has or will provide the written
6 notification to the Council required pursuant to Section 20-93 of the City Code, the Clerk has or will read such
7 notification to the Council at its next regularly scheduled meeting, and the Treasurer will not take any action
8 obligating the City to issue any of the Series 2016 Bonds until at least fifteen (15) days after such reading
9 relating to such Series 2016 Bonds; and

10 (16) **WHEREAS**, the Series 2016 Bonds are to be sold by competitive sale, the Treasurer will
11 provide a notice of the sale of such Series 2016 Bonds by such means as the Treasurer deems appropriate,
12 and the Treasurer shall determine the date and time that competitive bids for such Series 2016 Bonds are to
13 be received and recorded by the Treasurer; and

14 (17) **WHEREAS**, the Mayor or the Treasurer, following generally accepted procedures, will
15 determine and accept or modify by negotiation the best binding bid received for such Series 2016 Bonds and
16 award such Series 2016 Bonds to the underwriter or underwriters submitting such bid at the purchase price
17 specified in such bid; and

18 (18) **WHEREAS**, the Council has determined it is necessary and in the best interests of the City
19 that the City undertake the financing of the Project herein authorized and defray the costs thereof by issuing
20 the Series 2016 Bonds and does hereby declare:

21 A. The public interest, safety and welfare require the issuance of the Series 2016 Bonds;
22 and

23 B. The Series 2016 Bonds shall be issued pursuant to the provisions of this Ordinance, a
24 Sale Certificate authorized hereby and by the provisions of the Notice of Sale related thereto; and

25 C. All acts, conditions and things required by law to exist, to have happened and to have
26 been performed as a condition to the issuance of the Series 2016 Bonds do or will exist, have happened or
27 will happen and have been or will be performed in regular and due time, form and manner as required by law;
28 and

29 (19) **WHEREAS**, prior to the enactment hereof, there will have been filed with the Clerk the
30 proposed forms of the following documents with respect to the Series 2016 Bonds:

1 A. Preliminary Official Statement relating to the Series 2016 Bonds (the "Preliminary
2 Official Statement") (Clerk File No. 16-0390);

3 B. Notice of Public Sale with respect to the Series 2016 Bonds (the "Notice of Sale"),
4 (Clerk File No. 16-0390-001);

5 C. The Continuing Disclosure Undertaking executed by the City relating to the Series 2016
6 Bonds (the "Continuing Disclosure Undertaking"), (Clerk File No. 16-0390-002);

7 D. The Paying Agent, Registrar and Transfer Agent Agreement between the City and
8 Zions Bank, a division of ZB, National Association, as Paying Agent, relating to the Series 2016 Bonds (the
9 "Paying Agent Agreement"), (Clerk File No. 16-0390-003); and

10 E. The Manager's Resolution (Clerk File No. 16-0390-004).

11 (20) **WHEREAS**, this Ordinance has been initiated to approve the sale of the Series 2016 Bonds
12 as requested, approved and authorized in the Manager's Resolution.

13 **BE IT ENACTED BY THE COUNCIL OF THE CITY AND COUNTY OF DENVER:**

14 Section 1. Definitions and Construction.

15 A. Definitions: In this Ordinance the following terms have the following respective
16 meanings unless the context hereof clearly requires otherwise. Any terms not defined herein or in the Recitals
17 to this Ordinance have the meanings set forth in the City Code.

18 (1) Acquire or Acquisition: the design, construction, reconstruction, purchase,
19 lease, gift, transfer, assignment, option to purchase, grant from the federal government or any public body or
20 other person, endowment, bequest, devise, installation, condemnation, contract or other acquirement or other
21 provision, or any combination thereof, of facilities, other property, any project or an interest therein as
22 authorized by the Act or the City Code.

23 (2) Act: part 4 of article 35 of title 31, Colorado Revised Statutes, as amended.

24 (3) Additional Parity Bonds: any Parity Securities issued after the initial issuance
25 of any of the Series 2016 Bonds.

26 (4) Average Annual Debt Service Requirements: the aggregate of all Debt Service
27 Requirements (excluding any redemption premiums) due on the Series 2016 Bonds or other issue of Parity
28 Securities for all Bond Years beginning with the Bond Year in which Debt Service Requirements of the Series

1 2016 Bonds or such Parity Securities are first payable, and ending with the Bond Year in which the last of the
2 Debt Service Requirements are payable, divided by the whole number of such years.

3 (5) Beneficial Owners: those Persons having beneficial ownership interests in
4 Series 2016 Bonds registered in the name of the Securities Depository or a nominee therefor.

5 (6) Bond Year: the twelve (12) months commencing on the second day of
6 November of any calendar year and ending on the first day of November of the next succeeding calendar
7 year.

8 (7) Business Day: any day other than a Saturday, Sunday, legal holiday or any
9 other day on which the office of the Paying Agent, the Registrar or the Transfer Agent is authorized or required
10 by law to remain closed.

11 (8) Charter: the home rule charter of the City, as amended from time to time.

12 (9) City: the City and County of Denver, Colorado, for and on behalf of the
13 Enterprise, or, when the context so indicates, the City and County of Denver, Colorado.

14 (10) City Code: the Revised Municipal Code of the City, as amended from time to
15 time.

16 (11) Combined Average Annual Debt Service Requirements: the sum of the
17 Average Annual Debt Service Requirements for all issues of Series 2016 Bonds or Parity Securities for which
18 the computation is being made.

19 (12) Combined Maximum Annual Debt Service Requirements: the Maximum Annual
20 Debt Service Requirements for all issues of Series 2016 Bonds or Parity Securities for which the computation
21 is being made, treated as a single issue.

22 (13) Comparable Bond Year: in connection with any Fiscal Year, the Bond Year that
23 ends in such Fiscal Year. For example, for the Fiscal Year commencing on January 1, 2017, the Comparable
24 Bond Year for the Series 2016 Bonds commences on December 2, 2016, and ends on December 1, 2017.

25 (14) Construction Fund: the special fund created and referred to in Section 5A
26 hereof and held by the City.

27 (15) Continuing Disclosure Undertaking: each Continuing Disclosure Undertaking
28 executed by the City on the date of delivery of each series of Series 2016 Bonds.

1 (16) Cost of the Project: all or any part of the cost of Acquisition, Improvement and
2 Equipment of all or any part of the Project, including without limitation all or any property, rights, easements,
3 privileges, agreements and franchises deemed necessary, useful or convenient therefor or in connection
4 therewith, interest or discount on the Series 2016 Bonds, costs of issuance of the Series 2016 Bonds,
5 engineering and inspection costs, legal expenses, costs of financial, professional and other estimates and
6 advice, contingencies, any administrative, operating and other expenses prior to and during such Acquisition,
7 Improvement and Equipment and additionally during a period of not exceeding one year after the completion
8 thereof and all such other expenses as may be necessary or incidental to the financing, Acquisition,
9 Improvement, Equipment and completion of the Project or any part thereof and the placing of the same in
10 operation, provision of reserves for working capital, operation, maintenance or replacement expenses or for
11 payment or security of principal of or interest on the Series 2016 Bonds during or after such Acquisition,
12 Improvement or Equipment and also reimbursements of any moneys theretofore expended for or in
13 connection with the Project.

14 (17) Costs of Issuance: all financial, legal, accounting, consulting and rating fees,
15 the fees and expenses of the Paying Agent, Registrar and Transfer Agent, and all costs of printing, mailing
16 and publication and similar costs incurred in connection with the offer, sale and issuance of the Series 2016
17 Bonds.

18 (18) Costs of Issuance Fund: the special fund created and referred to in Section 5B
19 hereof and held by the Paying Agent.

20 (19) Council: the governing body of the City.

21 (20) Debt Service Requirements: for any period, the amount required to pay the
22 principal of, interest on and any premium due in connection with the redemption of any designated outstanding
23 securities during such period; provided that the determination of Debt Service Requirements of any securities
24 shall assume the redemption and payment of such securities on any applicable mandatory redemption date.
25 When computing the Debt Service Requirements for any issue of securities bearing interest at a variable,
26 adjustable, convertible or other similar rate that is not fixed for the entire term thereof, it shall be assumed
27 that any such securities Outstanding at the time of the computation will bear interest during any period at the
28 highest of (a) the actual rate on the date of calculation, or if the securities are not yet outstanding, the initial
29 rate (if established and binding), (b) if the securities have been outstanding for at least twelve (12) months,
30 the average rate over the twelve (12) months immediately preceding the date of calculation, and (c) (i) if
31 interest on the securities is excludable from gross income under the applicable provisions of the Tax Code,
32 the average of the SIFMA Index during the preceding twelve (12) months plus one hundred (100) basis points,
33 or (ii) if interest is not so excludable, the interest rate on direct Federal Securities with comparable maturities

1 plus fifty (50) basis points. It is to be further assumed that any such variable rate securities that may be
2 tendered prior to maturity for purchase at the option of the owner thereof will mature on their stated Maturity
3 Dates or mandatory Redemption Dates. The City shall be permitted to treat any fixed rate payable on an
4 interest rate exchange agreement or "swap" contract as the interest rate on any such issue of variable rate
5 securities if the counterparty to such agreement or contract has unconditionally agreed to pay all interest due
6 on such variable rate securities.

7 (21) Debt Service Fund: the special fund created in Section 5E hereof and held by
8 the City.

9 (22) Enterprise: the Wastewater Management Division of the Department of Public
10 Works of the City.

11 (23) Enterprise Ordinance: Ordinance No. 755, Series of 1993, establishing the
12 Enterprise and authorizing the Enterprise to have and exercise certain powers in furtherance of its purposes.

13 (24) Equip or Equipment: the furnishing of all necessary or desirable, related or
14 appurtenant machinery and other facilities, or any combination thereof, appertaining to any property, project
15 or interest therein, as authorized by the Act or the City Code.

16 (25) Event of Default: any one of the events described in Section 10A hereof.

17 (26) Federal Securities: bills, certificates of indebtedness, notes or bonds which are
18 direct obligations of, or the principal and interest of which obligations are unconditionally guaranteed by the
19 United States of America, which are non-callable and mature prior to the date on which the proceeds thereof
20 are needed to pay the Debt Service Requirements.

21 (27) Fiscal Year: the City's fiscal year, which commences on January 1 of any
22 calendar year and ends on December 31 of the same calendar year.

23 (28) Improve or Improvement: the addition, construction, reconstruction, extension,
24 enlargement, betterment, replacement or improvement or any combination thereof, of facilities, other property,
25 any project or any interest therein, as authorized by the Act or the City Code.

26 (29) Income: all income from rates, fees and charges for the services furnished by,
27 the direct or indirect connection with, or use of, the Storm Drainage Facilities or the Sanitary Sewerage
28 Facilities, including without limitation the storm drainage service charges imposed under Secs. 56-112 and
29 56-113 of the City Code, the sanitary sewage service charges, industrial waste surcharges and carriage,

1 treatment and disposal charges imposed under Secs. 56-93, 56-94, 56-98 and 56-99 of the City Code and all
2 income or other gain, if any, from investment of the Income, but excluding sanitary sewer connection fees,
3 sanitary sewer services availability fees, storm drainage or sanitary sewer impact fees, special assessments
4 for storm drainage or sanitary sewer purposes, grants or reimbursements from any local, State or federal
5 government or agency thereof and any tap fees collected for or on behalf of the Metro Wastewater
6 Reclamation District or any other local government or agency thereof.

7 (30) Independent Accountant: any certified public accountant, or any firm of such
8 accountants, within the meaning of Section 12-2-115, Colorado Revised Statutes, as amended, licensed to
9 practice under the laws of the State, independent of the City and not an officer or employee of the City but
10 that may be regularly retained to make annual or similar audits of any books or records of the City.

11 (31) Insured Bank: a state or national bank or trust company whose deposits are
12 insured by the Federal Deposit Insurance Corporation and that is a member of the Federal Reserve System,
13 is located within the United States and that has a shareholders' equity (i.e., capital stock, surplus and
14 undivided profits), however denominated, of \$50,000,000 or more, or such lesser amount as may be approved
15 by the Treasurer.

16 (32) Interest Payment Date: a date designated for the payment of interest on the
17 Series 2016 Bonds or any other designated securities.

18 (33) Manager: the Manager of the Department of Public Works of the City.

19 (34) Manager's Resolution: the resolution adopted by the Manager prior to the
20 adoption of this Ordinance, relating to the Series 2016 Bonds.

21 (35) Maturity Date: a date designated for the payment of principal on the Series
22 2016 Bonds or any other designated securities.

23 (36) Maximum Annual Debt Service Requirements: the maximum aggregate
24 amount of Debt Service Requirements (excluding redemption premiums) due on the Series 2016 Bonds or
25 any other issue of Parity Securities in any Bond Year beginning with the Bond Year in which Debt Service
26 Requirements of the Series 2016 Bonds or such Parity Securities are first payable after the computation date
27 and ending with the Bond Year in which the last of the Debt Service Requirements are payable.

28 (37) Net Pledged Revenues: all Income remaining after the deduction of Operation
29 and Maintenance Expenses.

1 (38) Notice of Sale: the Public Notice of Sale relating to the competitive sale of the
2 Series 2016 Bonds.

3 (39) Official Statement: the Official Statement with respect to the Series 2016
4 Bonds.

5 (40) Operation and Maintenance Fund: collectively, the special funds heretofore
6 created as the storm drainage operating fund and the sanitary sewer operating fund and referred to in Section
7 5D hereof.

8 (41) Operation and Maintenance Expenses: such reasonable and necessary
9 current expenses, paid or accrued, of operating, maintaining and repairing the Storm Drainage Facilities and
10 the Sanitary Sewerage Facilities. The term may include, except as limited by contract or otherwise limited by
11 law, without limiting the generality of the foregoing.

12 (a) Engineering, auditing, legal and other overhead expenses directly
13 related and reasonably allocable to the administration, operation and maintenance of
14 the Storm Drainage Facilities or the Sanitary Sewerage Facilities;

15 (b) Insurance and surety bond premiums appertaining to the Storm
16 Drainage Facilities or the Sanitary Sewerage Facilities;

17 (c) The reasonable charges of any paying agent, registrar, transfer agent,
18 depository or escrow bank appertaining to the Storm Drainage Facilities or the Sanitary
19 Sewerage Facilities or any bonds or other securities issued therefor;

20 (d) Annual payments to pension, retirement, health and hospitalization
21 funds appertaining to the Storm Drainage Facilities or the Sanitary Sewerage Facilities;

22 (e) Any taxes, assessments, franchise fees or other charges or payments
23 in lieu of the foregoing;

24 (f) Ordinary and current rentals of equipment or other property;

25 (g) Contractual services, professional services, salaries, administrative
26 expenses and costs of labor appertaining to the Storm Drainage Facilities or the
27 Sanitary Sewerage Facilities, the cost of materials and supplies used for current
28 operation or routine maintenance and repair of the Storm Drainage Facilities or the

1 Sanitary Sewerage Facilities and payments to the Metro Wastewater Reclamation
2 District for the treatment of sewage and other related services;

3 (h) The costs incurred in the collection of all or any part of the Income;

4 (i) Any costs of utility services furnished to the Storm Drainage Facilities or
5 the Sanitary Sewerage Facilities by the City or otherwise; and

6 (j) Any other such expenses considered by the City in determining the
7 amount of storm drainage or sanitary sewer rates, fees and charges imposed for
8 operation and maintenance.

9 "Operation and Maintenance Expenses" does not include:

10 (a) Any allowance for depreciation;

11 (b) Any costs of Improvements, extensions or betterments;

12 (c) Any accumulation of reserves for capital replacements;

13 (d) Any accumulation of reserves for operation, maintenance, or repair of
14 the Storm Drainage Facilities or the Sanitary Sewerage Facilities;

15 (e) Any allowance for the redemption of any bonds or other securities or the
16 payment of any interest thereon;

17 (f) Any liabilities incurred in the Acquisition of any properties comprising
18 the Storm Drainage Facilities or the Sanitary Sewerage Facilities or any
19 existing properties comprising the Storm Drainage Facilities or the
20 Sanitary Sewerage Facilities or any combination thereof; and

21 (g) Any other ground of legal liability not based on contract.

22 (42) Ordinance: this Ordinance as adopted by the Council.

23 (43) Outstanding: as of any particular date, all the Series 2016 Bonds, Additional
24 Parity Bonds, Parity Securities or any such other Securities payable in whole or in part from the Net Pledged
25 Revenues that have been authorized, executed and delivered, except the following:

1 (a) Any Series 2016 Bond, Additional Parity Bond, Parity Security or other
2 Security canceled on or before such date;

3 (b) Any Series 2016 Bond, Additional Parity Bond, Parity Security or other
4 Security held by or on behalf of the City;

5 (c) Any Series 2016 Bond, Additional Parity Bond, Parity Security or other
6 Security for the payment or the redemption of which moneys or Federal Securities, or
7 both, sufficient (including the known minimum yield available for such purpose from
8 Federal Securities in which such amount wholly or in part may be initially invested) to
9 pay all of the Debt Service Requirements of such Series 2016 Bond, Additional Parity
10 Bond, Parity Security or other Security to the Maturity Date or Redemption Date thereof
11 shall have theretofore been deposited in escrow or in trust with an Insured Bank for
12 that purpose; and

13 (d) Any lost, destroyed, or wrongfully taken Series 2016 Bond, Additional
14 Parity Bond, Parity Security or other Security in lieu of or in substitution for which
15 another bond or other Security shall have been executed and delivered.

16 (44) Owner: the registered owner of any Series 2016 Bond.

17 (45) Parity Securities: bonds (including the Series 2012 Bonds), notes, Securities,
18 leases or other obligations payable in whole or in part from the Net Pledged Revenues and having a lien on
19 the Net Pledged Revenues on a parity with the lien thereon of the Series 2016 Bonds.

20 (46) Participants: participating underwriters, securities brokers or dealers, banks,
21 trust companies, closing corporations or other persons or entities for which the Securities Depository holds
22 Series 2016 Bonds.

23 (47) Paying Agent: Zions Bank, a division of ZB, National Association, or such
24 successor paying agent, as shall be appointed hereunder.

25 (48) Paying Agent Agreement: with respect to each series of Series 2016 Bonds,
26 the Paying Agent, Registrar and Transfer Agent Agreement between the City and the Paying Agent, relating
27 to such Series 2016 Bonds.

28 (49) Permitted Investments: such investments or reinvestments as are permitted
29 and authorized to be made by the Treasurer pursuant to the Charter and the City's investment policy.

1 (50) Person: any individual, firm, partnership, corporation, company, association,
2 joint stock association or body politic or any trustee, receiver, assignee or similar representative thereof.

3 (51) Policy Costs: to the extent that any reserve account securing the payment of
4 Parity Securities and Additional Parity Bonds is funded, in whole or in part, by a debt service reserve fund
5 policy or similar credit facility, policy costs shall mean the principal amount of any claim paid by the bond
6 insurer under such debt service reserve policy or credit facility, reasonable expenses paid by the bond insurer
7 in connection therewith and interest accrued on the foregoing as provided in such debt service reserve policy
8 or credit facility.

9 (52) Preliminary Official Statement: the Preliminary Official Statement with respect
10 to Series 2016 Bonds.

11 (53) Project: the acquisition, improvement and equipping of the Storm Drainage
12 Facilities and/or Sanitary Sewerage Facilities that are being financed with a portion of the proceeds of the
13 Series 2016 Bonds.

14 (54) Qualified Consultant: an independent consulting engineer or feasibility
15 consultant or firm of consulting engineers or feasibility consultants having skill, knowledge and experience in
16 analyzing the operations of storm drainage and sanitary sewer systems.

17 (55) Rebate Account: the special account created and referred to in Section 5L
18 hereof.

19 (56) Record Date: the 15th day (whether or not a Business Day) of the calendar
20 month next preceding each regularly scheduled interest payment date for the Series 2016 Bonds.

21 (57) Redemption Date: the date designated for optional or mandatory sinking fund
22 redemption prior to maturity of any Series 2016 Bonds or other designated securities.

23 (58) Registrar: Zions Bank, a division of ZB, National Association, or such successor
24 registrar as shall be appointed hereunder.

25 (59) Sale Certificate: with respect to the Series 2016 Bonds, a certificate executed
26 by the Mayor or the Treasurer of the City on or before the date of delivery of such Series 2016 Bonds setting
27 forth the determinations that may be delegated to such officials pursuant to Section 11-57-205(1) of the
28 Supplemental Act and also setting forth the determinations that have been delegated to such officials pursuant
29 to the Charter and Section 3B hereof.

1 (60) Sanitary Sewerage Facilities: all land, lines and appurtenances, pumping
2 stations, treatment plant and works, equipment and general property involved in collecting, transporting and
3 treating domestic and industrial wastes and the disposition of sludge and effluent from sources to points of
4 discharge, including, but not limited to, inlets, collection and disposal lines, intercepting sewers, outfall sewers,
5 sewage lagoons and pumping and power equipment.

6 (61) Securities Depository: The Depository Trust Company, New York, New York,
7 hereby designated as the depository for the Series 2016 Bonds, and includes any nominee or successor
8 thereof.

9 (62) Security or Securities: any bond issued by the City for the Enterprise or any
10 other evidence of the advancement of money to the City for the Enterprise.

11 (63) Series 2016 Bonds: one or more series of the City and County of Denver,
12 Colorado, for and on behalf of the Wastewater Management Division of its Department of Public Works,
13 Wastewater Enterprise Revenue Bonds, as so named and with such details as set forth in a Sale Certificate.

14 (64) SIFMA Index: the Securities Industry and Financial Markets Association
15 Municipal Swap Index, produced by Municipal Market Data, or if such index is not published, then such other
16 index selected by the Treasurer which reflects the yield of tax-exempt seven-day variable rate demand bonds.

17 (65) Special Record Date: the date fixed by the Paying Agent for the determination
18 of ownership of Series 2016 Bonds for the purpose of paying interest not paid when due or interest accruing
19 after maturity.

20 (66) State: the State of Colorado.

21 (67) Storm Drainage Facilities: all man-made structures or natural watercourses
22 used for collecting and conducting storm water to, through and from drainage areas to the points of final outlet,
23 including, but not limited to, any and all of the following: pipes, conduits and appurtenant features, canals,
24 channels, ditches, streams, gulches, gullies, flumes, culverts, siphons, catch basins, bridges, streets, alleys,
25 cross-pans, curbs, gutters and pumping stations.

26 (68) Subordinate Bonds or Subordinate Securities: Bonds or securities payable
27 from the Net Pledged Revenues having a lien thereon subordinate or junior to the lien thereon of the Series
28 2016 Bonds.

1 (69) Superior Bonds or Superior Securities: Bonds or securities payable from the
2 Net Pledged Revenues having a lien thereon superior or senior to the lien thereon of the Series 2016 Bonds.

3 (70) Supplemental Act: the Supplemental Public Securities Act, constituting Title
4 11, Article 57, Part 2, Colorado Revised Statutes, as amended.

5 (71) Tax Code: the Internal Revenue Code of 1986, as amended.

6 (72) Transfer Agent: Zions Bank, a division of ZB, National Association, a national
7 banking association, or such successor transfer agent as shall be appointed hereunder.

8 (73) Treasurer: the City's Manager of Finance, ex-officio Treasurer, or the
9 Treasurer's successor in functions, if any.

10 (74) Underwriter: collectively, the underwriter or underwriters of the Series 2016
11 Bonds as set forth in the applicable Sale Certificate.

12 (75) Wastewater Management Enterprise Fund: the special fund heretofore created
13 and referred to in Section 5C hereof.

14 B. Construction. This Ordinance shall be construed as follows:

15 (1) The captions herein are for convenience only and in no way define, limit or
16 describe the scope or intent of any provision hereof.

17 (2) Any Series 2016 Bonds held by the City shall not be deemed to be Outstanding
18 for the purpose of redemption or of consents hereunder.

19 (3) Any inconsistency between the provisions of this Ordinance and those of any
20 applicable State statutes is intended by the Council. To the extent of any such inconsistency, the provisions
21 of this Ordinance shall be deemed made pursuant to the Charter and shall supersede to the extent permitted
22 by law the conflicting provisions of said statutes.

23 Section 2. Certain Determinations.

24 A. Authority. This Ordinance is adopted pursuant to the City's powers as a home rule city
25 organized and operating under the Charter and Article XX of the State Constitution and pursuant to the
26 Supplemental Act, the provisions of which are hereby elected (as limited herein); and the City hereby
27 determines that each and every matter and thing as to which provision is made herein is necessary in order

1 to carry out and to effect the purposes hereof. This Ordinance is also adopted pursuant to the Enterprise
2 Ordinance, the Manager's Resolution and the Act.

3 B. Necessity of Project. It is necessary and in the best interests of the City and the
4 inhabitants thereof that the City undertake the Project herein authorized and defray the costs thereof by
5 issuing the Series 2016 Bonds.

6 C. Ratification of Actions. All action heretofore taken (not inconsistent with the provisions
7 of this Ordinance) by the officers, agents and employees of the City relating to undertaking and effectuating
8 the Project and the issuance, sale and delivery of the Series 2016 Bonds for that purpose is hereby ratified,
9 approved, and confirmed.

10 Section 3. The Series 2016 Bonds.

11 A. Authorization of Project and Series 2016 Bonds. The City hereby authorizes the Project
12 and the issuance of the Series 2016 Bonds, as determined in the Sale Certificate, to defray the costs thereof.
13 All Debt Service Requirements of the Series 2016 Bonds shall be payable solely out of Net Pledged
14 Revenues.

15 B. Delegation. Pursuant to the Charter and Section 11-57-205 of the Supplemental Act,
16 the Council hereby delegates to each of the Mayor or the Treasurer the independent authority to determine
17 that the Series 2016 Bonds will be sold by competitive bidding, and to receive bids for the purchase of the
18 Series 2016 Bonds, to determine the best bid therefor in accordance with the terms and provisions of this
19 Ordinance and the Notice of Sale, and to accept a binding bid or bids for the Series 2016 Bonds, and to
20 execute any agreement in connection therewith. At the time the Mayor or the Treasurer, as the case may be,
21 accepts a binding bid for any of the Series 2016 Bonds, the Mayor or the Treasurer shall also simultaneously
22 execute the Sale Certificate setting forth the purchaser of such Series 2016 Bonds and the terms of such
23 Series 2016 Bonds.

24 Pursuant to the Charter and the Supplemental Act, the Council hereby further delegates to each of
25 the Mayor or the Treasurer the authority to independently make any determination delegable pursuant to
26 Section 11-57-205(1) of the Supplemental Act, in relation to the Series 2016 Bonds, and to include such
27 determinations in the Sale Certificate for each series of Series 2016 Bonds, subject to the parameters and
28 restrictions contained herein.

29 Approval of this Ordinance grants continuing authority to the Mayor or the Treasurer to approve the
30 issuance of Series 2016 Bonds for one year after the adoption of this Ordinance without further action by the
31 Council subject to the parameters set forth herein.

1 The delegation set forth in this Section 3 shall be effective for one year after adoption of this Ordinance.

2 C. Bond Details; Parameters.

3 (1) Generally; Parameters. The Series 2016 Bonds shall be issued in fully
4 registered form and shall initially be registered in the name of Cede & Co., as nominee for the Securities
5 Depository. Purchases by Beneficial Owners of the Series 2016 Bonds shall be made in book-entry form in
6 the denominations of \$5,000 or any integral multiple thereof. The Beneficial Owners of the Series 2016 Bonds
7 shall not receive certificates evidencing their interests in the Series 2016 Bonds. No Series 2016 Bond shall
8 be issued in any denomination larger than the aggregate principal amount maturing on the Maturity Date of
9 such Series 2016 Bond, and no Series 2016 Bond shall be made payable on more than one Maturity Date.

10 Pursuant to the recommendations of the Committee on Uniform Security Identification Procedures,
11 CUSIP numbers may be printed on the Series 2016 Bonds.

12 The Series 2016 Bonds shall be dated their date of delivery, mature, be payable, bear interest payable
13 to the Owners of the Series 2016 Bonds from their date to maturity or prior redemption, be sold, all as provided
14 in the applicable Sale Certificate; provided that:

15 (i) all Series 2016 Bonds shall mature no later than November 1, 2046;

16 (ii) the maximum net effective interest rate of the Series 2016 Bonds shall not
17 exceed 4%;

18 (iii) the aggregate principal amount of the Series 2016 Bonds is estimated to be
19 \$116,000,000, but shall not in any event exceed \$116,000,000;

20 (iv) the net purchase price of the Series 2016 Bonds shall not be less than 100% of
21 the original principal amount of such Series 2016 Bonds; and

22 (v) each Series 2016 Bond (a) shall not be subject to optional redemption prior to
23 maturity, or (b) may be subject to optional redemption at such time or times as permitted by State law and as
24 set forth in the Sale Certificate, at a redemption price not to exceed 100%.

25 Interest on the Series 2016 Bonds shall be calculated on the basis of a 360-day year of twelve 30-day
26 months, payable semiannually on May 1 and November 1, commencing on the date or dates set forth in the
27 Sale Certificate.

1 If the principal of or interest on any Series 2016 Bond is not paid as provided herein, interest shall be
2 payable on such unpaid principal or interest at the interest rate specified in the Series 2016 Bond until such
3 unpaid principal or interest is paid in full.

4 The principal of, interest on and any premium due in connection with the redemption of the Series
5 2016 Bonds shall be payable in lawful money of the United States of America to the registered Owners of the
6 Series 2016 Bonds by the Paying Agent. The principal and the final installment of interest shall be payable
7 to the Owner of each Series 2016 Bond upon presentation and surrender thereof at maturity or upon prior
8 redemption by check or draft sent to the Owner at the address appearing on the registration books of the City
9 maintained by the Registrar or by wire transfer to such bank or other depository as the Owner shall designate
10 in writing to the Paying Agent. Except as hereinbefore and hereinafter provided, the interest shall be payable
11 to the Owner of each Series 2016 Bond determined as of the close of business on the Record Date
12 irrespective of any transfer of ownership of the Series 2016 Bond subsequent to the Record Date and prior
13 to such Interest Payment Date by check or draft or wire transfer directed to such Owner as aforesaid. Any
14 principal or interest not paid when due and any interest accruing after maturity shall be payable to the Owner
15 of each Series 2016 Bond entitled to receive such principal or interest determined as of the close of business
16 on the Special Record Date, irrespective of any transfer of ownership of the Series 2016 Bond subsequent to
17 the Special Record Date and prior to the date fixed by the Paying Agent for the payment of such principal or
18 interest, by check or draft or wire transfer directed to such Owner as aforesaid. Notice of the Special Record
19 Date and of the date fixed for the payment of such interest shall be given by sending a copy thereof by first-
20 class postage prepaid mail at least fifteen (15) days prior to the Special Record Date to the Owner of each
21 Series 2016 Bond upon which principal or interest will be paid determined as of the close of business on the
22 day preceding such mailing at the address appearing on the registration books of the City.

23 Any premium shall be payable to the Owner of each Series 2016 Bond being redeemed upon
24 presentation and surrender thereof upon prior redemption by check or draft or wire transfer directed to such
25 Owner as aforesaid. So long as the Owner of any Series 2016 Bond is the Securities Depository or a nominee
26 therefor, the Securities Depository shall disburse any payments received, through Participants or otherwise,
27 to the Beneficial Owners. If the date for making any payment or giving any notice is not a Business Day, such
28 payment or notice shall be made or given on the next succeeding Business Day.

29 So long as the registered owner of any Series 2016 Bond is the Securities Depository or a nominee
30 therefor, the Securities Depository shall disburse any payments received, through participating underwriters,
31 securities brokers or dealers, banks, trust companies, closing corporations or other persons or entities for
32 which the Securities Depository holds Series 2016 Bonds or otherwise, to the Beneficial Owner or Owners
33 thereof.

1 Neither the City nor the Paying Agent shall have any responsibility or obligation for the payment to
2 any Participant, any Beneficial Owner or any other Person (except an Owner of Series 2016 Bonds) of the
3 principal of, interest on or any premium due on the Series 2016 Bonds.

4 Notwithstanding the foregoing provisions or any other provisions of this Ordinance to the contrary, so
5 long as the Series 2016 Bonds are held in book-entry form, the payment, registration, exchange, transfer and
6 redemption provisions of the Series 2016 Bonds shall conform to the requirements of the Securities
7 Depository.

8 (2) Redemption: The Series 2016 Bonds shall be subject to redemption prior to
9 their respective Maturity Dates as set forth in the applicable Sale Certificate.

10 The Series 2016 Bonds may also be subject to mandatory sinking fund redemption if so determined
11 in the applicable Sale Certificate.

12 Series 2016 Bonds that are redeemable prior to their respective Maturity Dates may be redeemed in
13 part if issued in denominations that are integral multiples of \$5,000. In such case, the Series 2016 Bond shall
14 be surrendered in the manner provided for transfers of ownership. Upon payment of the redemption price the
15 Owner shall receive a new Series 2016 Bond or Series 2016 Bonds of authorized denominations in aggregate
16 principal amount equal to the unredeemed portion of the Series 2016 Bond surrendered. Such Series 2016
17 Bonds shall be treated as representing a corresponding number of separate Series 2016 Bonds in the
18 denomination of \$5,000 each.

19 Unless waived by the Owners of any Series 2016 Bonds to be redeemed, notice of redemption shall
20 be given by the Paying Agent in the name of the City by sending a copy thereof by first-class postage prepaid
21 mail, or by using such other method required by the Securities Depository, not less than thirty (30) days or
22 more than sixty (60) days prior to the Redemption Date to the Owner of each of the Series 2016 Bonds being
23 redeemed determined as of the close of business on the day preceding the first mailing of such notice at the
24 address appearing on the registration books of the City. Such notice shall specify: (i) the number or numbers
25 of the Series 2016 Bonds to be redeemed, whether in whole or in part; (ii) the principal amounts thereof; (iii)
26 the CUSIP numbers of the Series 2016 Bonds to be redeemed; (iv) the date the Series 2016 Bonds were
27 originally issued; (v) the rate of interest borne by each Series 2016 Bond to be redeemed; (vi) the maturity
28 date of each Series 2016 Bond to be redeemed; (vii) the date fixed for redemption; (viii) that on the
29 Redemption Date there will be due and payable upon each Series 2016 Bond or part thereof so to be
30 redeemed at the office of the Paying Agent the principal amount or part thereof plus accrued interest thereon
31 to the Redemption Date and that from and after such date interest will cease to accrue; and, (ix) any other
32 descriptive information determined by the Paying Agent or the Treasurer to be necessary to identify accurately

1 the Series 2016 Bonds being redeemed. In addition, the Paying Agent is hereby authorized and directed to
2 give such other or further notice as may be required by law and to comply with any operational procedures
3 and requirements of the Securities Depository relating to redemption of bonds and notice thereof. Each such
4 notice of redemption shall be sent at least thirty (30) days before the Redemption Date by first class mail or
5 overnight delivery service or by electronic submission to the Securities Depository. Failure to send any notice
6 as aforesaid or any defect in any notice so sent with respect to any Series 2016 Bond shall not affect the
7 validity of the redemption proceedings with respect to any other Series 2016 Bond.

8 On or prior to the Redemption Date, the City shall deposit with the Paying Agent sufficient funds to
9 redeem any Series 2016 Bonds called for prior redemption on the Redemption Date. Upon such deposit, the
10 Series 2016 Bonds or portions thereof to be redeemed shall be due and payable on the Redemption Date,
11 and on the Redemption Date interest shall cease to accrue thereon. Any Series 2016 Bonds redeemed prior
12 to their respective Maturity Dates by call for prior redemption or otherwise shall not be reissued and shall be
13 canceled the same as Series 2016 Bonds paid at or after maturity.

14 Notwithstanding the provisions of this section, any notice of redemption may contain a statement that
15 the redemption is conditioned upon the receipt by the Paying Agent of funds on or before the date fixed for
16 redemption sufficient to pay the redemption price of the Series 2016 Bonds called for redemption, and that if
17 such funds are not available, such redemption shall be cancelled by written notice to the Owners of such
18 Series 2016 Bonds called for redemption in the same manner as the original redemption notice was sent.

19 (3) Negotiability: Subject to the registration and payment provisions herein
20 provided, the Series 2016 Bonds shall be fully negotiable within the meaning of and for the purposes of the
21 Uniform Commercial Code — Investment Securities, and each Owner shall possess all rights enjoyed by
22 holders of negotiable instruments under the Uniform Commercial Code — Investment Securities.

23 (4) Execution and Authentication: The Series 2016 Bonds shall be executed in the
24 name and on behalf of the City with the manual or facsimile signature of the Mayor, shall be sealed with the
25 manual or facsimile impression of the seal of the City and attested with the manual or facsimile signature of
26 the Clerk. Each Series 2016 Bond shall be authenticated with the manual signature of the Registrar. The
27 Series 2016 Bonds bearing the manual or facsimile signatures of the officers in office at the time of the
28 authorization thereof shall be the valid and binding obligations of the City, subject to the requirement of
29 authentication by the Registrar, notwithstanding that before the delivery thereof and payment therefor or
30 before the transfer or exchange thereof any or all of the Persons whose manual or facsimile signatures appear
31 thereon shall have ceased to fill their respective offices. No Series 2016 Bond shall be valid or obligatory for
32 any purpose or be entitled to any security or benefit under this Ordinance unless the certificate of
33 authentication on such Series 2016 Bond shall have been duly executed by the Registrar, and such executed

1 certificate upon any such Series 2016 Bond shall be conclusive evidence that such Series 2016 Bond has
2 been authenticated and delivered under this Ordinance.

3 (5) Registration, Transfer and Exchange of Bonds: Upon their execution and
4 authentication and prior to their delivery, the Series 2016 Bonds shall be registered for the purpose of payment
5 of principal and interest with the Registrar.

6 Neither the City nor the Registrar shall have any responsibility or obligation with respect to the
7 accuracy of the records of the Securities Depository or a nominee therefor or any Participant with respect to
8 any ownership interest in the Series 2016 Bonds or the delivery to any Participant, Beneficial Owner or any
9 other person of any notice with respect to the Series 2016 Bonds.

10 The Series 2016 Bonds shall be transferable only upon the registration books of the City by the
11 Transfer Agent, at the request of the Owner thereof or his, her or its duly authorized attorney-in-fact or legal
12 representative. A Series 2016 Bond may be transferred upon surrender thereof together with a written
13 instrument of transfer duly executed by the Owner or his, her or its duly authorized attorney-in-fact or legal
14 representative with guaranty of signature satisfactory to the Transfer Agent, containing written instructions as
15 to the details of the transfer, along with the social security number or federal employer identification number
16 of the transferee and, if the transferee is a trust, the names and social security numbers of the settlors and
17 beneficiaries of the trust. The Transfer Agent shall not be required to transfer ownership of any Series 2016
18 Bond during the fifteen (15) days prior to the first mailing of any notice of redemption for any Series 2016
19 Bond or to transfer ownership of any Series 2016 Bond selected for redemption on or after the date of such
20 mailing. The Owner of any Series 2016 Bond or Series 2016 Bonds may also exchange such Series 2016
21 Bond or Series 2016 Bonds for another Series 2016 Bond or Series 2016 Bonds of authorized denominations.
22 Transfers and exchanges shall be made without charge, except that the Transfer Agent may require payment
23 of a sum sufficient to defray any tax or other governmental charge that may hereafter be imposed in
24 connection with any transfer or exchange of Series 2016 Bonds. No transfer of any Series 2016 Bond shall
25 be effective until entered on the registration books of the City. In the case of every transfer or exchange, the
26 Registrar shall authenticate and the Transfer Agent shall deliver to the new Owner a new Series 2016 Bond
27 or Series 2016 Bonds of the same aggregate principal amount maturing in the same year and bearing interest
28 at the same per annum rate as the Series 2016 Bond or Series 2016 Bonds surrendered. Such Series 2016
29 Bonds shall be dated as of their date of authentication. New Series 2016 Bonds delivered upon any transfer
30 or exchange shall be valid obligations of the City, evidencing the same obligations as the Series 2016 Bonds
31 surrendered, shall be secured by this Ordinance, and shall be entitled to all of the security and benefits hereof
32 to the same extent as the Series 2016 Bonds surrendered. The City may deem and treat the Person in whose
33 name any Series 2016 Bond is last registered upon the books of the City as the absolute Owner thereof for

1 the purpose of receiving payment of the principal of, interest on and any premium due in connection with such
2 Series 2016 Bond and for all other purposes, and all such payments so made to such Person or upon his, her
3 or its order shall be valid and effective to satisfy and discharge the liability of the City upon such Series 2016
4 Bond to the extent of the sum or sums so paid, and the City shall not be affected by any notice to the contrary.

5 Neither the City nor the Transfer Agent shall have any responsibility or obligation with respect to the
6 accuracy of the records of the Securities Depository or its Participants regarding any ownership interest in the
7 Series 2016 Bonds or transfers thereof.

8 The City may remove the Securities Depository and the Securities Depository may resign by giving
9 sixty (60) days written notice to the other of such removal or resignation. Additionally, the Securities
10 Depository shall be removed sixty (60) days after receipt by the City of written notice from the Securities
11 Depository to the effect that the Securities Depository has received written notice from Participants having
12 interests, as shown in the records of the Securities Depository, in an aggregate principal amount of not less
13 than 50% of the aggregate principal amount of the then outstanding Series 2016 Bonds to the effect that the
14 Securities Depository is unable or unwilling to discharge its responsibilities or a continuation of the
15 requirement that all of the outstanding Series 2016 Bonds be registered in the name of the Securities
16 Depository or a nominee therefor is not in the best interests of the Beneficial Owners. Upon the removal or
17 resignation of the Securities Depository, the Securities Depository shall take such action as may be necessary
18 to assure the orderly transfer of the computerized book-entry system with respect to the Series 2016 Bonds
19 to a successor securities depository or if no successor securities depository is appointed as herein provided,
20 the transfer of the Series 2016 Bonds in certificate form to the Beneficial Owners or their designees. Upon
21 the giving of notice by the City of the removal of the Securities Depository, the giving of notice by the Securities
22 Depository of its resignation or the receipt by the City of notice with respect to the written notice of Participants
23 referred to herein, the City may, within sixty (60) days after the giving of such notice, appoint a successor
24 securities depository upon such terms and conditions as the City shall impose. Any such successor securities
25 depository shall at all times be a registered clearing agency under the Securities and Exchange Act of 1934,
26 as amended, or other applicable statute or regulation, and in good standing thereunder. If the City fails to
27 appoint a successor securities depository within such time period, the Series 2016 Bonds shall no longer be
28 restricted to be registered in the name of the Securities Depository or a nominee therefor, but may be
29 registered in whatever name or names Owners transferring or exchanging Series 2016 Bonds shall designate.

30 (6) Resignation or Removal of Agents: The Paying Agent, Registrar and Transfer
31 Agent may resign, be removed, and be replaced in accordance with the provisions of the Paying Agent
32 Agreement. Every such successor shall be an Insured Bank unless the Treasurer decides to assume the
33 responsibilities of Paying Agent, Registrar or Transfer Agent. It shall not be required that the same institution

1 serve as paying agent, registrar and transfer agent hereunder, but the City shall have the right to have the
2 same institution serve in all or any such capacities.

3 (7) Lost or Stolen Bonds: If any Series 2016 Bond shall be lost, stolen, destroyed
4 or mutilated, the Transfer Agent shall, upon receipt of such evidence, information, indemnity and
5 reimbursement for expenses relating thereto as it and the City may reasonably require, authenticate and
6 deliver a replacement Series 2016 Bond or Series 2016 Bonds of the same aggregate principal amount,
7 interest rate and Maturity Date, bearing a number or numbers not previously assigned. If such lost, stolen,
8 destroyed or mutilated Series 2016 Bond shall have become due and payable or is about to become due and
9 payable, the Paying Agent may pay such Series 2016 Bond in lieu of replacement.

10 (8) Delivery and Cancellation of Bonds; The officers of the City are authorized to
11 deliver to the Registrar fully executed unauthenticated Series 2016 Bonds in such quantities as may be
12 convenient to be held in custody by the Registrar pending use as herein provided.

13 Whenever any Series 2016 Bond shall be surrendered to the Paying Agent upon payment thereof or
14 to the Transfer Agent for the transfer, exchange or replacement as provided herein, such Series 2016 Bond
15 shall be promptly canceled by the Paying Agent or Transfer Agent, which cancellation shall be reported to the
16 Council and certified by the Auditor to the Mayor pursuant to the Charter.

17 (9) Recitals: Each Series 2016 Bond shall recite in substance that the Series 2016
18 Bond is a special and limited obligation of the City payable solely out of and secured by an irrevocable (but
19 not necessarily exclusive) pledge of the Net Pledged Revenues, that the Series 2016 Bond does not constitute
20 a debt or an indebtedness of the City within the meaning of any constitutional, Charter or statutory provision
21 or limitation, that the Series 2016 Bond is not payable in whole or in part from the proceeds of general property
22 taxes or any other funds of the City except the Net Pledged Revenues, and that the full faith and credit of the
23 City is not pledged for the payment of the principal of or interest on the Series 2016 Bond. Each Series 2016
24 Bond shall further recite in substance that the Series 2016 Bond is issued by the City under the authority of
25 the State Constitution, the Charter, the City Code, the Enterprise Ordinance, the Act, the Supplemental Act
26 and this Ordinance.

27 (10) Form of Bonds: Subject to the provisions of this Ordinance and the Sale
28 Certificate, the Series 2016 Bonds shall be in substantially the following form, with such omissions, insertions,
29 endorsements and variations as may be required by the circumstances and as shall be consistent with this
30 Ordinance and the applicable Sale Certificate.

Unless this bond is presented by an authorized representative of The Depository Trust Company, a New York corporation ("DTC"), to the City or its agent for registration of transfer, exchange, or payment, and any bond issued is registered in the name of Cede & Co. or in such other name as is requested by an authorized representative of DTC (and any payment is made to Cede & Co. or to such other entity as is requested by an authorized representative of DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL inasmuch as the registered owner hereof, Cede & Co., has an interest herein.

UNITED STATES OF AMERICA
STATE OF COLORADO
CITY AND COUNTY OF DENVER, COLORADO,
FOR AND ON BEHALF OF THE WASTEWATER MANAGEMENT DIVISION
OF ITS DEPARTMENT OF PUBLIC WORKS
WASTEWATER ENTERPRISE REVENUE BOND
SERIES 2016

No. R-__ \$ _____

INTEREST RATE MATURITY DATE ORIGINAL DATE CUSIP
_____% November 1, ____ _____, 2016 _____

REGISTERED OWNER: Cede & Co.

PRINCIPAL SUM:

The City and County of Denver, Colorado, for and on behalf of the Wastewater Management Division of its Department of Public Works (the "City"), for value received, hereby promises to pay to the Registered Owner (specified above), or registered assigns, solely from the special funds provided therefor, as hereinafter set forth, the Principal Sum (specified above), in lawful money of the United States of America, on the Maturity Date (specified above), with interest thereon from the Original Date (specified above), or the interest payment date to which interest has been paid next preceding the date hereof, whichever is later, to the Maturity Date, except if redeemed prior thereto, at the per annum Interest Rate (specified above), computed on the basis of a 360-day year consisting of twelve (12) months of thirty (30) days each, payable semiannually on the first day of May and the first day of November of each year, commencing on May 1, 2017, or the first such date

1 after the date hereof, whichever is later, in the manner provided herein. If upon presentation at maturity
2 payment of the Principal Sum is not made as provided herein, interest continues at the Interest Rate until the
3 Principal Sum is paid in full.

4 This Series 2016 Bond is one of an authorized series of Series 2016 Bonds (the "Series 2016 Bonds")
5 issued pursuant to an Ordinance adopted by the City Council of the City (the "Ordinance"). This Series 2016
6 Bond bears interest, matures, is payable, and is transferable as provided in the Ordinance and a Sale
7 Certificate executed by either the Mayor or the Manager of Finance, ex officio Treasurer of the City prior to
8 the delivery of the Series 2016 Bonds. To the extent not defined herein, terms used herein are used as
9 defined in the Ordinance. Reference is made to the Ordinance and to all ordinances supplemental thereto,
10 with respect to the nature and extent of the security for the Series 2016 Bonds, rights, duties and obligations
11 of the City, the rights of the Owners of the Series 2016 Bonds, the rights, duties and obligations of the Paying
12 Agent, Registrar and Transfer Agent, the circumstances under which any Series 2016 Bond is no longer
13 Outstanding, and to all the provisions of which the Owner hereof by the acceptance of this Series 2016 Bond
14 assents.

15 [Include Redemption Provisions from Sale Certificate]

16 Series 2016 Bonds that are redeemable prior to their respective maturity dates may be redeemed in
17 part if issued in denominations that are integral multiples of \$5,000. In such case the Series 2016 Bond is to
18 be surrendered in the manner provided for transfers of ownership. Upon payment of the redemption price the
19 Registered Owner is to receive a new Series 2016 Bond or Series 2016 Bonds of authorized denominations
20 in aggregate principal amount equal to the unredeemed portion of the Series 2016 Bond surrendered.

21 The principal of, interest on and any premium due in connection with the redemption of this Series
22 2016 Bond are payable to the Registered Owner by Zions Bank, a division of ZB, National Association, or
23 such successor as appointed under the Ordinance, as paying agent. So long as the Registered Owner is a
24 securities depository or a nominee therefor, the securities depository is to disburse any payments received,
25 through its participants or otherwise, to the beneficial owner or owners hereof.

26 Neither the City nor the Paying Agent has any responsibility or obligation for the payment to any
27 participant, any beneficial owner hereof or any other person (except the Registered Owner) of the principal of
28 and interest on this Series 2016 Bond.

29 Neither the City nor the Registrar has any responsibility or obligation with respect to the accuracy of
30 the records of the Securities Depository or a nominee therefor or any participant with respect to any ownership

1 interest in the Series 2016 Bonds or the delivery to any participant, beneficial owner or any other person
2 (except the Registered Owner) of any notice with respect to the Series 2016 Bonds.

3 This Series 2016 Bond is transferable only as set forth in the Ordinance and only upon the registration
4 books of the City by Zions Bank, a division of ZB, National Association, or such successor as appointed under
5 the Ordinance, as its Transfer Agent. The Transfer Agent is not required to transfer ownership of this Series
6 2016 Bond during the fifteen (15) days prior to the first mailing of any notice of redemption or to transfer
7 ownership of any Series 2016 Bond selected for redemption on or after the date of such mailing. The
8 Registered Owner may also exchange this Series 2016 Bond for another Series 2016 Bond or Series 2016
9 Bonds of authorized denominations. The City may deem and treat the person in whose name this Series
10 2016 Bond is last registered upon the books of the City as the absolute owner hereof for the purpose of
11 receiving payment of the principal of and interest on this Series 2016 Bond and for all other purposes, and all
12 such payments so made to such person or upon his, her or its order will be valid and effective to satisfy and
13 discharge the liability of the City upon this Series 2016 Bond to the extent of the sum or sums so paid, and
14 the City will not be affected by any notice to the contrary.

15 Neither the City nor the Transfer Agent has any responsibility or obligation with respect to the accuracy
16 of the records of the Securities Depository or its participants regarding any ownership interest in the Series
17 2016 Bonds or transfers thereof.

18 The City may remove the Securities Depository and the Securities Depository may resign in
19 accordance with the provisions of the Ordinance.

20 Payment of the principal of, interest on and any premium due in connection with the redemption of this
21 Series 2016 Bond is to be made solely from, and as security for such payment there are irrevocably (but not
22 exclusively) pledged, pursuant to the Ordinance, the Net Pledged Revenues, which consist of certain
23 revenues derived from the operation and use of and otherwise pertaining to the storm drainage facilities and
24 the sanitary sewerage facilities of the City after provision is made for the payment of all Operation and
25 Maintenance Expenses. The City has covenanted in the Ordinance to pay into a special fund identified as
26 the Debt Service Fund, from the Net Pledged Revenues, sums sufficient to pay when due the principal of and
27 interest on the Series 2016 Bonds. The Series 2016 Bonds are not secured by a reserve account.

28 It is hereby recited, certified and warranted that for the payment of the principal of, interest on and any
29 premium due in connection with the redemption of this Series 2016 Bond, the City has created and will
30 maintain said special funds and will deposit the Net Pledged Revenues therein, and out of said special funds,
31 as an irrevocable charge thereon, the City will pay the principal of, interest on and any premium due in
32 connection with the redemption of this Series 2016 Bond in the manner provided by the Ordinance.

1 The Series 2016 Bonds are equitably and ratably secured by a lien on the Net Pledged Revenues,
2 and such Series 2016 Bonds constitute an irrevocable and first lien (but not an exclusive first lien) upon the
3 Net Pledged Revenues. Bonds and other types of securities, in addition to the Series 2016 Bonds, subject
4 to expressed conditions, may be issued and made payable from the Net Pledged Revenues having a lien
5 thereon subordinate and junior to the lien of the Series 2016 Bonds or, subject to additional expressed
6 conditions, having a lien thereon on a parity with the lien of the Series 2016 Bonds in accordance with the
7 provisions of the Ordinance.

8 The City covenants and agrees with the Registered Owner that the City will keep and will perform all
9 of the covenants of this Series 2016 Bond and of the Ordinance and the Sale Certificate.

10 This Series 2016 Bond is authorized and issued by the City, under the authority and in full conformity
11 with the Constitution of the State of Colorado, the home rule charter of the City (the "Charter"), the City Code,
12 the Enterprise Ordinance, a resolution of the Manager of Public Works of the City, part 4 of article 35 of title
13 31, Colorado Revised Statutes, as amended (the "Act"), part 2 of article 57 of title 11, Colorado Revised
14 Statutes, as amended (the "Supplemental Act"), and all other laws of the State of Colorado thereunto enabling
15 and pursuant to the Ordinance, for the purpose of (a) financing the acquisition, improvement and equipment
16 of certain storm drainage facilities and/or sanitary sewerage facilities for the City and (b) paying certain costs
17 of issuance related thereto. The Act provides that the foregoing recital conclusively imparts full compliance
18 with all of the provisions and limitations of the Act, and that this Series 2016 Bond is incontestable for any
19 cause whatsoever after its delivery for value. Pursuant to Section 11-57-210 of the Supplemental Act, this
20 recital shall be conclusive evidence of the validity and the regularity of the issuance of the Bonds after their
21 delivery for value.

22 Reference is hereby made to the Ordinance, and to any and all modifications and amendments
23 thereof, for a description of the provisions, terms and conditions upon which the Series 2016 Bonds of this
24 issue are issued and secured, including, without limitation, the nature and extent of the security for the Series
25 2016 Bonds, provisions with respect to the custody and application of the proceeds of the Series 2016 Bonds,
26 the collection and disposition of the revenues and moneys charged with and pledged to the payment of the
27 principal of, interest on and any premium due in connection with the redemption of the Series 2016 Bonds,
28 the terms and conditions on which the Series 2016 Bonds are issued, a description of the special funds
29 referred to above and the nature and extent of the security and pledge afforded thereby for the payment of
30 the principal of, interest on and any premium due in connection with the redemption of the Series 2016 Bonds,
31 and the manner of enforcement of said pledge, as well as the rights, duties, immunities and obligations of the
32 City and the members of its governing body and also the rights and remedies of the registered owners of the
33 Series 2016 Bonds.

1 To the extent and in the respects permitted by the Ordinance, the provisions of the Ordinance, or any
2 instrument amendatory thereof or supplemental thereto, may be modified or amended by action of the City
3 taken in the manner and subject to the conditions and exceptions provided in the Ordinance. The pledge of
4 revenues and other obligations of the City under the Ordinance may be discharged at or prior to the maturity
5 or prior redemption of the Series 2016 Bonds upon the making of provision for the payment of the Series 2016
6 Bonds on the terms and conditions set forth in the Ordinance.

7 It is hereby recited, certified and warranted that all the requirements of law have been fully complied
8 with by the proper officers of the City in the issuance of this Series 2016 Bond; that it is issued pursuant to
9 and in strict conformity with the Constitution and all other laws of the State of Colorado, including the City
10 Charter and ordinances, and with the Ordinance; that this Series 2016 Bond does not contravene any
11 constitutional or statutory provision or limitation of the State of Colorado, or any limitation of the City Charter;
12 and that this Series 2016 Bond is issued under the authority of the Ordinance.

13 This Series 2016 Bond is a special and limited obligation of the City payable solely out of and secured
14 by an irrevocable (but not exclusive) pledge of the Net Pledged Revenues, as more specifically provided in
15 the Ordinance. This Series 2016 Bond does not constitute a debt or an indebtedness of the City within the
16 meaning of any constitutional, charter or statutory provision or limitation. This Series 2016 Bond is not
17 payable in whole or in part from the proceeds of general property taxes or any other funds of the City except
18 the Net Pledged Revenues, and the full faith and credit of the City is not pledged for the payment of the
19 principal of or interest on this Series 2016 Bond.

20 [Remainder of page intentionally left blank]

1 IN WITNESS WHEREOF, the City has caused this Series 2016 Bond to be executed in
2 its name with the facsimile or manual signature of its Mayor, to be sealed with the facsimile or
3 manual impression of its seal and to be attested with the facsimile or manual signature of its Clerk
4 and Recorder, ex officio Clerk.

5 CITY AND COUNTY OF DENVER, COLORADO,
6 FOR AND ON BEHALF OF THE WASTEWATER
7 MANAGEMENT DIVISION OF ITS DEPARTMENT
8 OF PUBLIC WORKS

9
10 By: (Facsimile or Manual Signature)
11 Mayor

12 (CITY)
13 (SEAL)

14 ATTEST.

15 (Facsimile or Manual Signature)
16 Clerk and Recorder, ex officio Clerk

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CERTIFICATE OF AUTHENTICATION

This Series 2016 Bond is issued pursuant to the Ordinance herein described. Attached hereto are the complete texts of the opinions of co-bond counsel, Kutak Rock LLP, Denver, Colorado and Kline Alvarado Veio, P.C., Denver, Colorado, signed copies of which, dated the date of the first delivery of the Series 2016 Bonds herein described, are on file with the undersigned.

ZIONS BANK, a division of ZB, NATIONAL ASSOCIATION
as registrar

By: (Manual Signature)
Authorized Officer

Dated: _____, 2016

1 ABBREVIATIONS

2 The following abbreviations, when used in the inscription on the face of this Bond, shall
3 be construed as though they were written out in full according to applicable laws or regulations.

- 4 TEN COM - as tenants in common
- 5 TEN ENT - as tenants by the entireties
- 6 JT TEN - as joint tenants with the right of survivorship and
7 not as tenants in common
- 8 UNIF TRANS MIN ACT - _____ Custodian _____
9 (Cust) (Minor)

10 Under Uniform Transfers to Minors Act

11 _____
12 (State)

13 Additional abbreviations may also be used though not on the above list.

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ASSIGNMENT

For value received, the undersigned hereby sells, assigns and transfers unto _____
_____ this Bond and hereby irrevocably constitutes and appoints
_____ or its successors, to transfer the
same on the records kept for registration of this Bond, with full power of substitution in the
premises.

Assignor's Signature: _____

Dated: _____

Signature Guaranteed by a Member of the Medallion Signature Program.

Name and address of transferee:

Social Security or other tax identification number of transferee:

NOTE: The signature to this Assignment must correspond with the name as written on
the face of this Bond in every particular, without alteration or enlargement or any change
whatsoever.

[End of Form of Series 2016 Bond]

1 D. Series 2016 Bonds Equally Secured. The covenants and agreements herein set forth
2 to be performed by the City shall be for the equal benefit, protection and security of the Owners of the Series
3 2016 Bonds, any Additional Parity Bonds and any Parity Securities then Outstanding, all of which, regardless
4 of the purpose or purposes for which they were issued or the time or times of their maturity, shall be of equal
5 rank without preference, priority or distinction of any of the Series 2016 Bonds, any Additional Parity Bonds
6 and any Parity Securities then Outstanding over any other thereof, except as otherwise expressly provided in
7 or pursuant to this Ordinance.

8 E. Special Obligations; Pledge of Net Pledged Revenues. All of the Series 2016 Bonds,
9 as to all Debt Service Requirements thereof, shall be payable solely out of the Net Pledged Revenues. The
10 Owners of the Series 2016 Bonds may not look to the general fund or any other fund of the City for the
11 payment of the Debt Service Requirements, except the special funds pledged therefor. The Series 2016
12 Bonds shall not constitute a debt or indebtedness of the City within the meaning of any constitutional, Charter
13 or statutory provision or limitation, and the Series 2016 Bonds shall not be considered or held to be general
14 obligations of the City but shall constitute special and limited obligations of the City. The Series 2016 Bonds
15 are not payable in whole or in part from the proceeds of general property taxes or any other fund of the City
16 except the Net Pledged Revenues, and the full faith and credit of the City is not pledged for payment of the
17 Series 2016 Bonds.

18 The Net Pledged Revenues are hereby pledged to secure the payment of the Debt Service
19 Requirements of the Series 2016 Bonds, and a lien thereon is hereby created to secure the payment thereof,
20 subject to the terms and provisions hereof. Moneys on deposit in the Debt Service Fund and the Construction
21 Fund are hereby pledged to secure the payment of the Debt Service Requirements of the Series 2016 Bonds,
22 and a lien thereon is hereby created to secure the payment thereof, subject to the terms and provisions hereof.
23 This pledge shall be valid and binding from and after the date of the delivery of the Series 2016 Bonds. The
24 creation, perfection, enforcement, and priority of the pledge of revenues to secure or pay the Series 2016
25 Bonds as provided herein shall be governed by § 11-57-208 of the Supplemental Act and this Ordinance.
26 The revenues pledged for the payment of the Series 2016 Bonds, as received by or otherwise credited to the
27 City, shall immediately be subject to the lien of such pledge without any physical delivery, filing, or further act.
28 The lien of such pledge on the revenues pledged for payment of the Series 2016 Bonds and the obligation to
29 perform the contractual provisions made herein shall have priority over any or all other obligations and
30 liabilities of the City except any Parity Securities heretofore or hereafter authorized. The lien of such pledge
31 shall be valid, binding, and enforceable as against all persons or entities having claims of any kind in tort,
32 contract, or otherwise against the City (except as herein otherwise provided) irrespective of whether such
33 persons or entities have notice of such liens.

1 Section 4. Approval, Authorization and Amendments.

2 A. The Continuing Disclosure Undertaking and the Paying Agent Agreement are hereby
3 approved in substantially the form filed with the Clerk, provided that such documents may be completed,
4 corrected or revised as deemed necessary by the parties thereto in order to carry out the purposes of this
5 Ordinance and comply with the terms of the applicable Sale Certificate.

6 B. The Notice of Sale is hereby approved in substantially the form filed with the Clerk,
7 provided that such Notice of Sale may be completed, corrected or revised as deemed necessary by the
8 Treasurer or the City's Co-Bond Counsel in order to carry out the purposes of this Ordinance. The Treasurer
9 is hereby authorized and directed to cause the Notice of Sale to be distributed to prospective bidders on such
10 Series 2016 Bonds.

11 C. The printing, distribution and use of the Preliminary Official Statement in substantially
12 the form on file with the Clerk is hereby approved, with such amendments, additions and deletions as are in
13 accordance with the facts and not inconsistent herewith. The Treasurer is authorized to prepare or cause to
14 be prepared, and the Mayor and the Treasurer are authorized and directed to approve, on behalf of the City,
15 and execute a final Official Statement for use in connection with the offering and sale of the Series 2016
16 Bonds in substantially the form of the Preliminary Official Statement, but with such amendments, additions
17 and deletions as are in accordance with the facts and not inconsistent herewith. The execution of a final
18 Official Statement by the Mayor and the Treasurer shall be conclusively deemed to evidence the approval of
19 the form and contents thereof by the City.

20 D. The Mayor, the Auditor of the City, the Clerk, the Manager of Finance, ex-officio
21 Treasurer, and other officers and employees of the City are hereby independently authorized and directed to
22 take all action necessary or appropriate to effect the provisions of this Ordinance, including without limiting
23 the generality of the foregoing, executing, attesting, authenticating and delivering for and on behalf of the City
24 the Series 2016 Bonds and such other agreements, instruments, certificates and opinions as may be required
25 to implement the transactions contemplated hereby, or as may otherwise be reasonably required by Co-Bond
26 Counsel or the Underwriters, and the taking of such other action in cooperation with Co-Bond Counsel or the
27 Underwriters as they may reasonably request to qualify the Series 2016 Bonds for offer and sale under the
28 securities laws and regulations of such states and other jurisdictions of the United States as the Underwriters
29 may designate.

30 E. The execution of any document or instrument by the appropriate officers of the City
31 herein authorized shall be conclusive evidence of the approval by the City of such document or instrument in
32 accordance with terms hereof.

1 Section 5. Disposition of Bond Proceeds and Income; Funds and Accounts Adopted or
2 Created by Ordinance; Security for Series 2016 Bonds.

3 The proceeds of the Series 2016 Bonds and the Income shall be deposited by the City in the funds
4 and accounts described in this Section 5, to be accounted for in the manner and priority set forth in this
5 Section 5. Neither the Underwriter nor any subsequent Owner of any Series 2016 Bonds shall be in any
6 manner responsible for the application or disposal by the City or by any of its officers, agents and employees
7 of the moneys derived from the sale of the Series 2016 Bonds or of any other moneys designated in this
8 Section 5.

9 A. Construction Fund. To the extent that all or a portion of the net proceeds of the Series
10 2016 Bonds are to be applied to finance the Costs of the Project, as set forth in the Sale Certificate, there
11 shall be deposited in the "Wastewater Enterprise Revenue Bonds, Series 2016, Bond Proceeds Construction
12 Fund" (the "Construction Fund") hereby created and held by the City such net proceeds of the Series 2016
13 Bonds as set forth in the Sale Certificate. Such net proceeds so deposited in the Construction Fund shall be
14 maintained, used and withdrawn only as provided in this Section 5A.

15 The proceeds of the Series 2016 Bonds so deposited in the Construction Fund, except as herein
16 otherwise expressly provided, shall be used and paid out from time to time solely for the purpose of paying
17 the Cost of the Project. Any such proceeds remaining in the Construction Fund after completion of the Project,
18 excluding investment earnings that may be required to be deposited in the Rebate Account or rebated to the
19 federal government, shall be deposited in the Debt Service Fund and used for the purposes of the Debt
20 Service Fund or, at the option of the City, may be used to the extent feasible to call and redeem Series 2016
21 Bonds in advance of maturity.

22 The City shall use any proceeds of the Series 2016 Bonds deposited in the Construction Fund, without
23 further order, to pay the Debt Service Requirements of the Series 2016 Bonds as the same become due
24 whenever and to the extent moneys in the Debt Service Fund or moneys otherwise available therefor are
25 insufficient for that purpose, unless such proceeds shall be needed to defray obligations accrued and to
26 accrue under any contracts then existing and pertaining to the Project. Any moneys so used shall be restored
27 to the Construction Fund from the first Net Pledged Revenues thereafter received and not needed to meet
28 the requirements provided in Section 5E hereof.

29 B. Costs of Issuance Fund. There shall be deposited into the Costs of Issuance Fund
30 hereby created with the Paying Agent and designated as the "Wastewater Enterprise Revenue Bonds, Series
31 2016, Costs of Issuance Fund" (the "Costs of Issuance Fund") the amount set forth in the Sale Certificate,
32 which shall be an amount determined by the Mayor or the Treasurer, as the case may be, to be sufficient to
33 pay, together with other funds of the City legally available for said purpose, the costs of issuance for the

1 applicable Series 2016 Bonds. Any amounts on deposit in the Costs of Issuance Fund remaining after the
2 payment of all the costs of issuance of the applicable Series 2016 Bonds shall be remitted by the Paying
3 Agent to the City and may, at the option of the Treasurer, be transferred to the Construction Fund and spent
4 on the costs of the Project or used by the City for any lawful purposes thereof. Nothing herein shall preclude
5 payment of Costs of Issuance from the Construction Fund, if necessary.

6 C. Wastewater Management Enterprise Fund. Except as otherwise provided herein, the
7 entire Income, upon receipt thereof from time to time by the City, shall be set aside and credited immediately
8 to the Wastewater Management Enterprise Fund heretofore created pursuant to the Enterprise Ordinance.

9 The Wastewater Management Enterprise Fund shall be administered and the moneys on deposit
10 therein shall be deposited and applied in the following order of priority.

11 (1) First, to the Operation and Maintenance Fund to pay Operation and
12 Maintenance Expenses in the manner set forth in Section 5D hereof;

13 (2) Second, to the Debt Service Fund to pay the Debt Service Requirements of the
14 then Outstanding Series 2016 Bonds, the then Outstanding Series 2012 Bonds, and any Additional Parity
15 Bonds secured by the Debt Service Fund in the manner set forth in Section 5E hereof, and, if any separate
16 debt service funds are established in connection with the issuance of the Series 2012 Bonds, and Additional
17 Parity Bonds, there shall be credited or deposited, on a pari passu basis, any amounts necessary to fund any
18 such debt service funds in accordance with the ordinance or other instruments authorizing the Series 2012
19 Bonds and such Additional Parity Bonds;

20 (3) Third, to any separate reserve funds established in connection with an issuance
21 of Parity Securities and Additional Parity Bonds, but not the Series 2016 Bonds for which there is no reserve
22 fund, there shall be credited or deposited, on a pari passu basis, any amounts necessary to fund or replenish
23 any such reserve funds in accordance with the ordinances or other instruments authorizing such Additional
24 Parity Bonds;

25 (4) Fourth, to the Construction Fund, in the manner set forth in Section 5A hereof,
26 to restore any amounts to the Construction Fund that have been applied to the payment of the Debt Service
27 Requirements of the Series 2016 Bonds;

28 (5) Fifth, to the payment of the Debt Service Requirements of Subordinate Bonds
29 or other Subordinate Securities in accordance with Section 5G hereof; and

30 (6) Sixth, to be used in accordance with Section 5H hereof.

1 D. Operation and Maintenance Fund. As a first charge on the Wastewater Management
2 Enterprise Fund, there shall be deposited from time to time in the Operation and Maintenance Fund heretofore
3 created within the Wastewater Management Enterprise Fund moneys sufficient to pay the Operation and
4 Maintenance Expenses of the Storm Drainage Facilities and the Sanitary Sewerage Facilities as they become
5 due and payable, and thereupon the Operation and Maintenance Expenses shall be promptly paid.

6 E. Debt Service Fund. After the payments required by Section 5D have been made in
7 each month, the City shall transfer or credit to the "Wastewater Enterprise Revenue Bonds, Debt Service
8 Fund" (the "Debt Service Fund") hereby created with the City, from the Net Pledged Revenues, the following
9 amounts:

10 (1) Interest Payments. Monthly, commencing on the date set forth in the Sale
11 Certificate, concurrently on a pari passu basis with any payments required to be made to any separate debt
12 service funds for any Outstanding Series 2012 Bonds, and Additional Parity Bonds hereafter issued, an
13 amount in equal monthly installments necessary, together with any other moneys from time to time available
14 therefor from whatever source, and monthly thereafter, commencing on each Interest Payment Date, one-
15 sixth of the amount necessary, together with any other moneys from time to time available therefor and on
16 deposit therein from whatever source, to pay the next maturing installment of interest on the Series 2016
17 Bonds, then Outstanding, the Outstanding Series 2012 Bonds, and any Additional Parity Bonds secured by
18 the Debt Service Fund.

19 (2) Principal Payments. Monthly, commencing on the date set forth in the Sale
20 Certificate, concurrently on a pari passu basis with any payments required to be made to any separate debt
21 service funds for any Outstanding Series 2012 Bonds and Additional Parity Bonds hereafter issued, an
22 amount in equal monthly installments necessary, together with any other moneys from time to time available
23 therefor from whatever source, to pay the next installment of principal of the Series 2016 Bonds, any
24 Outstanding Series 2012 Bonds, and any Additional Parity Bonds secured by the Debt Service Fund, coming
25 due at maturity or upon mandatory redemption, and monthly thereafter, commencing on each principal
26 payment date, one-twelfth of the amount necessary, together with any other moneys from time to time
27 available therefor and on deposit therein from whatever source, to pay the next installment of principal of the
28 Series 2016 Bonds, Series 2012 Bonds, and any Additional Parity Bonds secured by the Debt Service Fund,
29 coming due at maturity, or upon mandatory redemption.

30 Amounts on deposit in the Debt Service Fund shall be transferred by the City to the Paying Agent as
31 follows:

1 (a) Semiannually, on or before three (3) Business Days prior to each
2 Interest Payment Date, an amount which will be sufficient to pay the installment of
3 interest next due on the Series 2016 Bonds, the Series 2012 Bonds, and any Additional
4 Parity Bonds secured by the Debt Service Fund; and

5 (b) Annually, on or before three (3) Business Days prior to each Maturity
6 Date, an amount which will be sufficient to pay the installment of principal or mandatory
7 sinking fund payment next due on the Series 2016 Bonds, the Series 2012 Bonds, and
8 any Additional Parity Bonds secured by the Debt Service Fund.

9 At the time of the transfer of such moneys from the Debt Service Fund to the Paying Agent as provided
10 herein, the Paying Agent shall notify the City if the amounts so transferred or deposited (together with any
11 amounts available for such purpose theretofore transferred or on deposit with the Paying Agent) will not be
12 sufficient to pay the installment of principal or interest, or both, as the case may be, next due on the Series
13 2016 Bonds, the Series 2012 Bonds, and any Additional Parity Bonds secured by the Debt Service Fund. If
14 such amounts are not sufficient to make such payments, the Paying Agent shall notify the City of the amount
15 of any deficiency and the additional amount of moneys that are required to be transferred or deposited with
16 the Paying Agent and applied to such payment. The Series 2016 Bonds are not secured by a reserve account.

17 The moneys credited to the Debt Service Fund, excluding investment earnings that are required to be
18 deposited in the Rebate Account or rebated to the federal government, shall be used to pay the Debt Service
19 Requirements of the then Outstanding Series 2016 Bonds, the then Outstanding Series 2012 Bonds, and any
20 Additional Parity Bonds secured by the Debt Service Fund, as such Debt Service Requirements become due,
21 except as otherwise provided in this Ordinance, and are hereby pledged therefor.

22 Nothing herein shall be construed so as to prevent the City from creating separate subaccounts within
23 the Debt Service Fund for the Series 2016 Bonds, the Series 2012 Bonds, any Additional Parity Bonds, and
24 any Parity Securities and accounting separately for any deposits made thereto on account of the Series 2016
25 Bonds, the Series 2012 Bonds, any Additional Parity Bonds, and any Parity Securities or from creating
26 separate debt service funds for the Series 2012 Bonds, Additional Parity Bonds or any Parity Securities, if
27 such action is deemed by the City to be necessary or desirable, provided that any such separate subaccounts
28 shall have claims to the Net Pledged Revenues equal to and on a parity with those of the other such
29 subaccounts and any such separate debt service fund shall have a claim to the Net Pledged Revenues equal
30 to and on a parity with that of the Debt Service Fund.

31 F. Termination of Deposits. No payment need be made into the Debt Service Fund if the
32 amount of cash and Permitted Investments in the Debt Service Fund, plus the amount on deposit in any

1 separate reserve account established in connection with the issuance of Additional Parity Bonds, total a sum
2 at least equal to the entire amount of the Outstanding Series 2016 Bonds, Outstanding Series 2012 Bonds,
3 any Outstanding Additional Parity Bonds, and any Outstanding Parity Securities, as to all Debt Service
4 Requirements, to their respective Maturity Dates or to any Redemption Date or Redemption Dates on which
5 the City shall have exercised or shall have obligated itself to exercise its option to redeem, prior to their
6 respective Maturity Dates, any Series 2016 Bonds, any Series 2012 Bonds, any Additional Parity Bonds, and
7 any Parity Securities then Outstanding and thereafter maturing (provided that, solely for the purpose of this
8 Section 5F, there shall be deemed to be a credit to any reserve account any cash or Permitted Investments
9 accounted for in any other fund or account of the City and restricted solely for the purpose of paying the Debt
10 Service Requirements of any Additional Parity Bonds or any other Parity Security), in which case cash or
11 Permitted Investments in the Debt Service Fund and any reserve account in an amount, except for any known
12 interest or other gain to accrue from any investment or deposit of moneys pursuant to Section 6B hereof from
13 the time of any such investment or deposit to the time or respective times the proceeds of any such investment
14 or deposit shall be needed for such payment, at least equal to such Debt Service Requirements, shall be
15 used together with any such gain from such investments and deposits solely to pay such Debt Service
16 Requirements as the same become due. Any moneys in excess thereof in the Debt Service Fund and any
17 other moneys derived from the Income or otherwise pertaining to the Storm Drainage Facilities or the Sanitary
18 Sewerage Facilities may be used in any lawful manner permitted by this Ordinance.

19 G. Payment of Subordinate Securities. After there has been credited or deposited to the
20 Debt Service Fund in the current month the amount required pursuant to Section 5E hereof, and after the
21 restoration of the Construction Fund then required to be made by Section 5A in the current month have been
22 made, any Net Pledged Revenues remaining in the Wastewater Management Enterprise Fund in such month
23 may be used by the City for the payment of Debt Service Requirements of Subordinate Securities payable
24 from the Net Pledged Revenues including reasonable reserves for such Subordinate Securities; but the lien
25 of such subordinate Securities on the Net Pledged Revenues and the pledge thereof for the payment of such
26 Subordinate Securities shall be subordinate to the lien and pledge of the Series 2016 Bonds, any Additional
27 Parity Bonds and any Parity Securities as herein provided.

28 H. Use of Remaining Revenues. After there has been credited or transferred to the Debt
29 Service Fund in the current month the amount required pursuant to Section 5E hereof, after the restoration of
30 the Construction Fund then required to be made by Section 5A in the current month have been made, and
31 after there has been deposited or transferred in the current month all amounts required to pay any Subordinate
32 Securities in such month in accordance with Section 5G hereof and the ordinance or other document
33 authorizing such Subordinate Securities, any remaining Net Pledged Revenues on deposit in the Wastewater

1 Management Enterprise Fund may be used for any combination of lawful purposes pertaining to the Storm
2 Drainage Facilities or the Sanitary Sewerage Facilities.

3 I. Budget and Appropriation of Sums. The sums required to make the payments specified
4 in this Section 5 are hereby appropriated for said purposes. The Treasurer is hereby authorized and directed
5 to pay or cause to be paid the interest on the Series 2016 Bonds as the same becomes due and the principal
6 of the Series 2016 Bonds at maturity or upon prior redemption without further warrant or order. The moneys,
7 proceeds of the Series 2016 Bonds and interest earnings thereon, deposited in the funds and accounts
8 referred to or created herein are hereby appropriated for the purposes of this Section 5. No provisions of any
9 constitution, Charter, statute, ordinance, resolution, or other order or measure enacted after the issuance of
10 the Series 2016 Bonds shall in any manner be construed as limiting or impairing the obligation of the City to
11 keep and perform the covenants contained in this Ordinance so long as any of the Series 2016 Bonds remain
12 Outstanding and unpaid.

13 J. Rebate Account. The City shall transfer into a special account hereby created and
14 designated as the "Wastewater Enterprise Revenue Bonds, Series 2016, Rebate Account" (the "Rebate
15 Account") the estimated amounts of arbitrage rebate, if any, and penalties, if any, due to the federal
16 government under Sections 103 and 148 of the Tax Code and the regulations thereunder relating to the Series
17 2016 Bonds. Transfer of said amounts shall be made from any or all of the funds or accounts referred to
18 herein, to the extent of funds available therefore, but the required arbitrage rebate payments shall be made
19 to the federal government from any legally available funds if there are no proceeds of the Series 2016 Bonds
20 or investment earnings thereon deposited in the funds or accounts referred to herein available for such
21 purpose. The amounts so transferred shall be such that within sixty (60) days after each computation date
22 selected by the City in accordance with Section 148(f) of the Tax Code and the regulations thereunder the
23 amount in the Rebate Account is at least equal to the greater of (a) the amount that the City estimates is
24 rebatable on account of investment during the applicable period or (b) such other amount as the City deems
25 necessary or prudent to provide for payment of the amount actually rebatable in accordance with Section
26 148(f) of the Tax Code and the regulations thereunder.

27 The City shall compute the amount actually rebatable as of each installment computation date and
28 pay the United States Treasury 90% thereof within sixty (60) days and the balance, together with interest and
29 penalties, if any, as required by Section 148(f) of the Tax Code and the regulations thereunder, within sixty
30 (60) days after all the Series 2016 Bonds have been discharged, provided that computations and payments
31 may be made on other bases, at other times and in other amounts, or omitted altogether, to the extent
32 nationally recognized bond counsel opines that such action will not adversely affect the tax treatment of
33 interest on the Series 2016 Bonds.

1 The City shall hold the Rebate Account separate and apart from all other funds and accounts of the
2 City and shall maintain the Rebate Account until sixty (60) days after all the Series 2016 Bonds have been
3 discharged. The City shall retain the records of the determinations of the amounts required to be deposited
4 in the Rebate Account, of the proceeds of any investments of moneys in the Rebate Account and of the
5 amounts paid to the United States Treasury until the date six (6) years after the discharge of the last of the
6 Series 2016 Bonds.

7 Section 6. General Administration of Funds and Accounts.

8 A. Places and Times of Deposits. Each of the special funds or accounts created or
9 adopted in Section 5 hereof shall be kept separate and apart from all other funds or accounts of the City solely
10 for the purposes herein designated therefor. For purposes of investment of moneys, nothing herein prevents
11 the commingling of moneys accounted for in any two or more such funds or accounts pertaining to the Income.
12 Such funds or accounts shall be continuously secured to the fullest extent required or permitted by the laws
13 of the State for the securing of public funds and shall be irrevocable and not withdrawable by anyone for any
14 purpose other than the respective designated purposes of such funds or accounts. Each periodic payment
15 shall be credited to the proper fund or account not later than the date therefor herein designated, except that
16 when any such date is not a Business Day, then such payment shall be made on or before the next preceding
17 Business Day.

18 B. Investment of Funds. Any moneys in any fund or account described in Section 5 hereof
19 may be invested, reinvested or deposited only in Permitted Investments. Permitted Investments shall either
20 be subject to redemption at any time at face value by the Owner thereof at the option of such Owner or shall
21 mature at such time or times as shall most nearly coincide with the expected need for moneys from the fund
22 or account in question. Permitted Investments so purchased as an investment of moneys in any such fund
23 or account shall be deemed at all times to be a part of the applicable fund or account; provided that (with the
24 exception of the Rebate Account) the interest accruing on such investments and any profit realized therefrom
25 shall be credited to the Wastewater Management Enterprise Fund, and any loss resulting from such
26 investments shall be charged to the particular fund or account in question. Permitted Investments shall be
27 valued by the Treasurer as frequently as deemed necessary, but not less often than quarterly, at the market
28 value thereof, exclusive of accrued interest. The City shall present for redemption or sale on the prevailing
29 market any securities or obligations so purchased as an investment of moneys in a given fund whenever it
30 shall be necessary to do so in order to provide moneys to meet any required payment or transfer from such
31 fund. The City shall not invest any moneys accounted for hereunder if any such investment would contravene
32 the covenant contained in Section 8R hereof.

1 C. No Liability for Losses Incurred in Performing Terms of Ordinance. Neither the City nor
2 any officer thereof shall be liable or responsible for any loss resulting from any investment or reinvestment
3 made in accordance with this Ordinance.

4 D. Character of Funds. The moneys in any fund or account herein described shall consist
5 of lawful money of the United States of America or Permitted Investments or both such money and Permitted
6 Investments. Moneys deposited in a demand or time deposit account in an Insured Bank, appropriately
7 secured according to the ordinances of the City, and to the extent applicable, the laws of the State, shall be
8 deemed lawful money of the United States of America.

9 E. Accelerated Payments Optional. Nothing contained herein prevents the accumulation
10 in any fund or account herein designated of any monetary requirements at a faster rate than the rate or
11 minimum rate, as the case may be, provided therefor, but no payment shall be so accelerated if such
12 acceleration shall cause a default in the payment of any obligation of the City pertaining to the Income.

13 Section 7. Priorities; Liens; Issuance of Additional Series 2016 Bonds.

14 A. First Lien on Net Pledged Revenues; Equality of Series 2016 Bonds. Except as
15 expressly provided in this Ordinance with respect to Additional Parity Bonds, Parity Securities and
16 Subordinate Securities, the Net Pledged Revenues shall be and hereby are irrevocably pledged to pay the
17 Debt Service Requirements of the Series 2016 Bonds, subject to the terms and provisions of this Ordinance.

18 The Series 2016 Bonds constitute an irrevocable and first lien (but not an exclusive first lien) upon the
19 Net Pledged Revenues.

20 The Series 2016 Bonds, any Additional Parity Bonds and any Parity Securities issued and from time
21 to time Outstanding are equitably and ratably secured by a lien on the Net Pledged Revenues and shall not
22 be entitled to any priority one over the other in the application of the Net Pledged Revenues regardless of the
23 purpose or purposes for which they were issued or the time or times of the issuance thereof, it being the
24 intention of the City that there shall be no priority among the Series 2016 Bonds, any Additional Parity Bonds
25 and any Parity Securities, regardless of the fact that they may be actually issued and delivered at different
26 times.

27 B. Issuance of Additional Parity Bonds. The City and/or the Enterprise may issue
28 Additional Parity Bonds that are payable from and that have a lien on all or a portion of the Net Pledged
29 Revenues that is on a parity with, but not prior or superior to, the lien thereon of the Series 2016 Bonds and
30 any Parity Securities, upon compliance with the following terms and conditions.

1 (1) Absence of Default. At the time of the issuance of the Additional Parity Bonds,
2 the City shall not be in default in making any payments required by Section 5 hereof.

3 (2) Historic Revenues Tests. Except as hereinafter provided in the case of
4 Additional Parity Bonds issued for the purpose of refunding less than all of the Series 2016 Bonds and any
5 Parity Securities then Outstanding, the Net Pledged Revenues for the last complete Fiscal Year prior to the
6 issuance of the proposed Additional Parity Bonds, as certified by an Independent Accountant, a Qualified
7 Consultant or the Treasurer, must have been equal to at least one hundred twenty-five percent (125%) of the
8 Combined Average Annual Debt Service Requirements of the Series 2016 Bonds then Outstanding, any
9 Parity Securities then Outstanding, and the Additional Parity Bonds proposed to be issued plus one hundred
10 percent (100%) of all Policy Costs and other similar amounts then due and owing. If any increase in storm
11 drainage or sanitary sewer rates, fees or charges is made by the City during such Fiscal Year or prior to the
12 issuance of such Additional Parity Bonds, the Independent Accountant, Qualified Consultant or Treasurer
13 may adjust the calculation of the Net Pledged Revenues to reflect the amount thereof that would have been
14 received if such rate increase had been in effect throughout such Fiscal Year. In the case of Additional Parity
15 Bonds issued for the purpose of refunding less than all of the Series 2016 Bonds and Parity Securities then
16 Outstanding, compliance with this Section 7B(2) shall not be required so long as the Debt Service
17 Requirements payable on all Series 2016 Bonds and Parity Securities Outstanding after the issuance of such
18 Additional Parity Bonds in each Bond Year does not exceed the Debt Service Requirements payable on all
19 Series 2016 Bonds and other Parity Securities Outstanding prior to the issuance of such Additional Parity
20 Bonds in each such Bond Year.

21 (3) Reserve Account. Additional Parity Bonds may be issued that have a lien on
22 all or a portion of the Net Pledged Revenues on a parity with the lien thereon of the Series 2016 Bonds and
23 the Series 2012 Bonds even if no reserve fund is established for such Additional Parity Bonds or a reserve
24 fund is established but with a different requirement as to the amount of moneys (or the value of a reserve
25 fund insurance policy with respect to such Additional Parity Bonds) required to be on deposit therein or the
26 manner in which such reserve fund is funded or the period of time over which such reserve fund is funded.
27 Provided, however, that if a reserve account is to be pledged to the payment of the Debt Service Requirements
28 of such Additional Parity Bonds, it shall be fully funded, and the proceedings under which any such Additional
29 Parity Bonds are issued must provide for the deposit of moneys to the reserve account and contain a covenant
30 to maintain the reserve account in an amount equal to the applicable reserve requirement. The proceedings
31 under which any such Additional Parity Bonds are issued may also provide for the deposit of moneys to a
32 separate reserve account established and maintained for such Additional Parity Bonds on the terms and
33 provisions set forth in such proceedings.

1 C. Certification of Revenues. Where certifications of revenues are required by this
2 Ordinance, the specified and required written certifications of an Independent Accountant, a Qualified
3 Consultant or the Treasurer that revenues are sufficient to pay the required amounts shall be conclusively
4 presumed to be accurate in determining the right to authorize issue, sell and deliver Additional Parity Bonds
5 or Parity Securities.

6 D. Subordinate Securities Permitted. The City and the Enterprise may issue Subordinate
7 Securities for any lawful purpose upon compliance with Section 7F hereof.

8 E. Superior Securities Prohibited. Neither the City nor the Enterprise shall issue any
9 Superior Bonds or Superior Securities.

10 F. Supplemental Ordinances. Additional Parity Bonds or Subordinate Securities shall be
11 issued only after authorization thereof by ordinance, supplemental ordinance or other instrument adopted or
12 authorized by the Council, acting on behalf of the Enterprise, or adopted by the Enterprise.

13 Section 8. Covenants.

14 The City hereby particularly covenants and agrees with the Owners of the Series 2016 Bonds from
15 time to time, and makes provisions which shall be a part of its contract with such Owners, which covenants
16 and provisions shall be kept by the City continuously until all of the Series 2016 Bonds have been fully paid
17 or discharged.

18 A. Rate Maintenance. The City shall prescribe, revise and collect storm drainage and
19 sanitary sewer rates, fees and charges that shall produce Income sufficient, together with any other moneys
20 legally available therefor and credited to the Wastewater Management Enterprise Fund, to make the
21 payments and accumulations required by this Ordinance and that shall produce Income sufficient, together
22 with all other moneys legally available therefor and credited to the Wastewater Management Enterprise Fund
23 after payment of Operation and Maintenance Expenses, to pay an amount at least equal to one hundred
24 twenty-five percent (125%) of the Combined Average Annual Debt Service Requirements for the Outstanding
25 Series 2016 Bonds and every other issue of Outstanding Additional Parity Bonds or Parity Securities plus any
26 amounts required to meet then existing deficiencies pertaining to any fund or account relating to the Net
27 Pledged Revenues or any securities payable therefrom plus one hundred percent (100%) of all Policy Costs
28 or other similar amounts then due and owing.

29 In the event that Net Pledged Revenues derived from the operation of the Storm Drainage Facilities
30 are insufficient to pay the Operation and Maintenance Expenses of the Storm Drainage Facilities and the
31 Debt Service Requirements of any Series 2016 Bonds, any Additional Parity Bonds or any Parity Securities

1 issued to finance or refinance Storm Drainage Facilities and Net Pledged Revenues derived from the Sanitary
2 Sewerage Facilities are actually expended for such Operation and Maintenance Expenses and such Debt
3 Service Requirements, the City shall prescribe, revise and collect storm drainage rates, fees and charges
4 sufficient to replenish to the Wastewater Management Enterprise Fund any Net Pledged Revenues derived
5 from the operation of the Sanitary Sewerage Facilities that were used for such Storm Drainage Facilities
6 purposes.

7 In the event that Net Pledged Revenues derived from the operation of the Sanitary Sewerage Facilities
8 are insufficient to pay the Operation and Maintenance Expenses of the Sanitary Sewerage Facilities and the
9 Debt Service Requirements of any Series 2016 Bonds, any Additional Parity Bonds or any Parity Securities
10 issued to finance or refinance Sanitary Sewerage Facilities and Net Pledged Revenues derived from the
11 Storm Drainage Facilities are actually expended for such Operation and Maintenance Expenses and such
12 Debt Service Requirements, the City shall prescribe, revise and collect sanitary sewer rates, fees and charges
13 sufficient to replenish to the Wastewater Management Enterprise Fund any Net Pledged Revenues derived
14 from the operation of the Storm Drainage Facilities that were used for such Sanitary Sewerage Facilities
15 purposes.

16 In the event that the storm drainage or sanitary sewer rates, fees and charges at any time should not
17 be sufficient to make all of the payments and accumulations required by this Ordinance, the City shall increase
18 its storm drainage and/or sanitary sewer rates, fees and charges to such extent as to insure the payments
19 and accumulations required by the provisions of this Ordinance.

20 B. Collection of Charges. The City shall cause all storm drainage and sanitary sewer
21 rates, fees and charges to be billed promptly and collected as soon as reasonable, shall prescribe and enforce
22 rules and regulations or impose contractual obligations for the payment thereof, to the end that the Net
23 Pledged Revenues shall be adequate to meet the requirements of this Ordinance and any other ordinance or
24 instrument supplemental thereto. The storm drainage and sanitary sewer rates, fees and charges shall be
25 collected in any lawful manner.

26 C. Performance of Duties. The City, acting by and through its officers, or otherwise, shall
27 faithfully and punctually perform, or cause to be performed, all duties with respect to the Income, the Storm
28 Drainage Facilities and the Sanitary Sewerage Facilities required by the Constitution and laws of the State
29 and the Charter, ordinances, resolutions and contracts of the City, including without limitation the proper
30 segregation of the proceeds of the Series 2016 Bonds and the Income and their application from time to time
31 to the respective funds and accounts provided therefor.

1 D. Costs of Issuance and of Performance. Except as otherwise specifically provided
2 herein, all costs and expenses incurred in connection with the issuance of the Series 2016 Bonds, payment
3 of the Debt Service Requirements of the Series 2016 Bonds, or the performance of or compliance with any
4 covenant or agreement contained in this Ordinance shall be paid exclusively (but only from the appropriate
5 special fund or account in the manner authorized herein) from the proceeds of the Series 2016 Bonds, the
6 Net Pledged Revenues, or other legally available moneys of the Enterprise, and in no event shall any of such
7 costs or expenses be required to be paid out of or charged to the general fund of the City.

8 E. Contractual Obligations. The City shall perform all contractual obligations undertaken
9 by it under any agreements relating to the Series 2016 Bonds, the Income, the Storm Drainage Facilities and
10 the Sanitary Sewerage Facilities.

11 F. Further Assurances. At any and all times the City shall, so far as it may be authorized
12 by law, pass, make, do, execute, acknowledge, deliver, and file or record all and every such further
13 instruments, acts, deeds, conveyances, assignments, transfers, other documents, and assurances as may
14 be necessary or desirable for the better assuring, conveying, granting, assigning and confirming all and
15 singular the rights, the Net Pledged Revenues and other funds hereby pledged or assigned, or intended so
16 to be, or which the City may hereafter become bound to pledge or assign, or as may be reasonable and
17 required to carry out the purposes of this Ordinance. The City, acting by and through its officers, or otherwise,
18 shall at all times, to the extent permitted by law, defend, preserve and protect the pledge of the Net Pledged
19 Revenues and other funds and accounts pledged hereunder and all the rights of every Owner of any of the
20 Series 2016 Bonds against all claims and demands of all Persons.

21 G. Conditions Precedent. Upon the date of issuance of any of the Series 2016 Bonds, all
22 conditions, acts and things required by the Constitution or laws of the State, the Charter, the City Code, the
23 Enterprise Ordinance, the ordinance authorizing the issuance of the Series 2012 Bonds, the Act, the
24 Supplemental Act and this Ordinance to exist, to have happened, and to have been performed precedent to
25 or in the issuance of the Series 2016 Bonds shall exist, have happened and have been performed, and the
26 Series 2016 Bonds, together with all other obligations of the City, shall not contravene any debt or other
27 limitation prescribed by the Constitution or laws of the State, the Charter, the City Code, the Enterprise
28 Ordinance, the ordinance authorizing the issuance of the Series 2012 Bonds, or the Act.

29 H. Efficient Operation and Maintenance. The City shall at all times operate the Storm
30 Drainage Facilities and the Sanitary Sewerage Facilities properly and in a sound and economical manner.
31 The City shall maintain, preserve and keep the Storm Drainage Facilities and the Sanitary Sewerage Facilities
32 properly or cause the same so to be maintained, preserved, and kept, with the appurtenances and every part
33 and parcel thereof in good repair, working order and condition, and shall from time to time make or cause to

1 be made all necessary and proper repairs, replacements and renewals so that at all times the maintenance
2 of the Storm Drainage Facilities and the Sanitary Sewerage Facilities may be properly and advantageously
3 conducted. All salaries, fees, wages and other compensation paid by the City in connection with the repair,
4 maintenance and operation of the Storm Drainage Facilities and the Sanitary Sewerage Facilities shall be fair
5 and reasonable.

6 I. Records and Accounts. The City shall keep proper books of record and account,
7 separate and apart from all other records and accounts, showing complete and correct entries of all
8 transactions relating to the funds and accounts referred to herein.

9 J. Rules, Regulations and Other Details. The City, acting by and through its officers, shall
10 establish and enforce reasonable rules and regulations governing the construction, operation, care, repair,
11 maintenance, management, control, and use of the Storm Drainage Facilities and the Sanitary Sewerage
12 Facilities. The City shall observe and perform all of the terms and conditions contained in this Ordinance and
13 shall comply with all valid acts, rules, regulations, orders and directives of any legislative, executive,
14 administrative or judicial body applicable to the Storm Drainage Facilities, the Sanitary Sewerage Facilities or
15 the City.

16 K. Payment of Governmental Charges. The City shall pay or cause to be paid all taxes
17 and assessments or other municipal or governmental charges, if any, lawfully levied or assessed upon or in
18 respect of the Storm Drainage Facilities or the Sanitary Sewerage Facilities, or upon any part thereof, or upon
19 any portion of the Income, when the same shall become due, and shall duly observe and comply with all valid
20 requirements of any municipal or governmental authority relative to the Storm Drainage Facilities or the
21 Sanitary Sewerage Facilities, or any part thereof, except for any period during which the same are being
22 contested in good faith by proper legal proceedings. The City shall not create or suffer to be created any lien
23 or charge upon the Storm Drainage Facilities or the Sanitary Sewerage Facilities, or any part thereof, or upon
24 the Income, except the pledge and lien created by this Ordinance for the payment of the Debt Service
25 Requirements due in connection with the Series 2016 Bonds or any ordinance for the payment of Debt Service
26 Requirements in connection with any Additional Parity Bonds or Parity Securities, and except as herein
27 otherwise permitted. The City shall pay or cause to be discharged or shall make adequate provision to satisfy
28 and to discharge, within ninety (90) days after the same shall become payable, all lawful claims and demands
29 for labor, materials, supplies or other objects that, if unpaid, might by law become a lien upon the Storm
30 Drainage Facilities or the Sanitary Sewerage Facilities, or any part thereof, or the Income, but nothing herein
31 requires the City to pay or to cause to be discharged or to make provision for any such tax, assessment, lien
32 or charge, so long as the validity thereof is contested in good faith and by appropriate legal proceedings.

1 L. Protection of Security. The City and its officers, agents and employees, shall not take
2 any action in such manner or to such extent as might prejudice the security for the payment the Debt Service
3 Requirements of the Series 2016 Bonds and any other securities payable from the Net Pledged Revenues
4 according to the terms thereof. No contract shall be entered into nor any other action taken by which the
5 rights of any Owner of any Series 2016 Bonds or other securities payable from Net Pledged Revenues might
6 be prejudicially and materially impaired or diminished.

7 M. Accumulation of Interest Claims. In order to prevent any accumulation of claims for
8 interest after maturity, the City shall not directly or indirectly extend or assent to the extension of the time for
9 the payment of any claim for interest on any of the Series 2016 Bonds or any other securities payable from
10 the Net Pledged Revenues, and the City shall not directly or indirectly be a party to or approve any
11 arrangements for any such extension or for the purpose of keeping alive any of such claims for interest. If
12 the time for the payment of any such installment of interest is extended in contravention of the foregoing
13 provisions, such installment or installments of interest after such extension or arrangement shall not be
14 entitled in case of default hereunder to the benefit or the security of this Ordinance, except upon the prior
15 payment in full of the principal of all of the Series 2016 Bonds and any such securities the payment of which
16 has not been extended.

17 N. Prompt Payment of Series 2016 Bonds. The City shall promptly pay the Debt Service
18 Requirements of every Series 2016 Bond on the dates and in the manner specified herein and in the Series
19 2016 Bonds according to the true intent and meaning hereof.

20 O. Use of Funds and Accounts. The funds and accounts described herein shall be used
21 solely and only, and the moneys credited to such funds are hereby pledged, for the purposes described
22 herein, subject to Section 9 hereof.

23 P. Additional Securities. Neither the City nor the Enterprise shall hereafter issue any
24 bonds or securities payable from the Net Pledged Revenues, other than the Series 2016 Bonds, without
25 compliance with the requirements with respect to the issuance of Additional Parity Bonds or other securities
26 set forth herein to the extent applicable.

27 Q. Other Liens. There are no liens or encumbrances of any nature whatsoever on or
28 against the Storm Drainage Facilities or the Sanitary Sewerage Facilities, or any part thereof, or on or against
29 the Net Pledged Revenues, except as permitted hereby.

30 R. Tax Covenant. The City covenants for the benefit of the registered owners of the Series
31 2016 Bonds that it will not take any action or omit to take any action with respect to the Series 2016 Bonds,

1 the proceeds thereof, any other funds of the City or any facilities financed or refinanced with the proceeds of
2 the Series 2016 Bonds if such action or omission (i) would cause the interest on the Series 2016 Bonds to
3 lose its exclusion from gross income for federal income tax purposes under Section 103 of the Tax Code, (ii)
4 would cause interest on the Series 2016 Bonds to lose its exclusion from alternative minimum taxable income
5 as defined in Section 55(b)(2) of the Tax Code except to the extent such interest is required to be included in
6 the adjusted current earnings adjustment applicable to corporations under Section 56 of the Tax Code in
7 calculating corporate alternative minimum taxable income, or (iii) would cause interest on the Series 2016
8 Bonds to lose its exclusion from Colorado taxable income or Colorado alternative minimum taxable income
9 under present Colorado law. The foregoing covenant shall remain in full force and effect notwithstanding the
10 payment in full or defeasance of the Series 2016 Bonds until the date on which all obligations of the City in
11 fulfilling the above covenant under the Tax Code and Colorado law have been met. The City is hereby
12 authorized to execute a certificate in implementation of the foregoing covenants, and the representations and
13 agreements set forth therein shall be deemed the representations and agreements of City, as if the same
14 were set forth herein.

15 S. Disposal of Facilities Prohibited. Subject to Section 8T hereof, except for the disposal
16 of Storm Drainage Facilities or Sanitary Sewerage Facilities in the normal course of business, neither all nor
17 a substantial part of the Storm Drainage Facilities or the Sanitary Sewerage Facilities shall be sold,
18 mortgaged, pledged, encumbered, alienated or otherwise disposed of until all of the Series 2016 Bonds have
19 been paid in full or provision has been made therefor and the pledge of the Net Pledged Revenues has been
20 terminated as herein authorized. Subject to Section 8T hereof, the City shall not dispose of its title to the
21 Storm Drainage Facilities or the Sanitary Sewerage Facilities, or to any useful part thereof, including any
22 property necessary to the operation and use of the Storm Drainage Facilities or the Sanitary Sewerage
23 Facilities or the lands and interests in lands comprising the Storm Drainage Facilities or the Sanitary Sewage
24 Facilities.

25 T. Disposal of Property. No part of the Storm Drainage Facilities or the Sanitary Sewerage
26 Facilities shall be sold, leased, mortgaged, pledged, encumbered or otherwise disposed of or otherwise
27 alienated until all of the Series 2016 Bonds have been paid in full or provision has been made therefor;
28 provided, however, that the City may sell, exchange or lease at any time and from time to time any property
29 or facilities constituting part of the Storm Drainage Facilities or the Sanitary Sewerage Facilities and not
30 needed in the operation thereof or not required for the maintenance of the Income; but any proceeds of any
31 such sale or exchange received and not used to replace such property so sold or exchanged shall be
32 deposited in the Wastewater Management Enterprise Fund, and any proceeds of any such lease received
33 shall be deposited by the City as Income.

1 U. Loss from Condemnation. If any part of the Storm Drainage Facilities or the Sanitary
2 Sewerage Facilities is taken by the exercise of a power of eminent domain, the amount of any award received
3 by the City as a result of such taking shall be expended upon the Improvement of the Storm Drainage Facilities
4 or the Sanitary Sewerage Facilities, as the case may be, or shall be applied to the redemption of the
5 Outstanding Series 2016 Bonds, any Outstanding Additional Parity Bonds and any other Outstanding Parity
6 Securities in accordance with the provisions hereof and of any other instrument pertaining to the issuance of
7 any such Parity Securities at maturity or prior thereto if the authorizing ordinances or resolutions authorize
8 the prior redemption of such securities, or shall be deposited in the Wastewater Management Enterprise Fund
9 and held as a reserve for expenditure subsequently upon such capital improvements, or any combination
10 thereof.

11 V. Inspection of Records. Any Owner of any of the Series 2016 Bonds or any other
12 securities payable from the Net Pledged Revenues, any duly authorized agent or agents of such Owner and
13 the Underwriter shall have the right at all reasonable times to inspect all records, accounts and data
14 concerning the Storm Drainage Facilities, the Sanitary Sewerage Facilities or the Income, to make copies of
15 such records, accounts and data at the expense of the Owner or the Underwriter and to inspect the Storm
16 Drainage Facilities, the Sanitary Sewerage Facilities and properties comprising the same.

17 W. Audits Required. The City, annually following the close of each Fiscal Year, shall order
18 an audit for the Fiscal Year of the books and accounts pertaining to the Income to be made forthwith by an
19 Independent Accountant. All expenses incurred in the making of the audits required by this subsection may
20 be regarded and paid as an Operation and Maintenance Expense.

21 X. Insurance and Reconstruction. Except to the extent that the City elects to insure itself,
22 the City shall at all times maintain with responsible insurers all such insurance reasonably required and
23 obtainable within limits and at costs deemed reasonable by the City as is customarily maintained with respect
24 to storm drainage facilities and sanitary sewerage facilities of like character against loss of or damage to the
25 Storm Drainage Facilities or the Sanitary Sewerage Facilities and against public and other liability to the extent
26 at least reasonably necessary to protect the interest of the City and of each Owner of Series 2016 Bonds or
27 any other Security payable from the Net Pledged Revenues, except as herein otherwise provided. If any
28 useful part of the Storm Drainage Facilities or the Sanitary Sewerage Facilities shall be damaged or
29 destroyed, the City shall, as expeditiously as possible, commence and diligently proceed with the repair or
30 replacement of the damaged or destroyed property so as to restore the same to use. The proceeds of any
31 insurance appertaining to the Storm Drainage Facilities or the Sanitary Sewerage Facilities shall be payable
32 to the City and (except for proceeds of use and occupancy insurance) shall be applied to the necessary costs
33 involved in such repair and replacement, and to the extent not so applied shall (together with the proceeds of

1 any such use and occupancy insurance) be deposited in the Wastewater Management Enterprise Fund as
2 Income. If the costs of such repair and replacement of the damaged or destroyed property exceed the
3 proceeds of such property insurance available for payment of the same, moneys in the Wastewater
4 Management Enterprise Fund shall be used to the extent necessary for such purpose.

5 Y. Completion of Project; Estimated Life. The City, using the proceeds derived from the
6 sale of the Series 2016 Bonds and any other legally available moneys, including the proceeds derived from
7 the issuance of Additional Parity Bonds and other Parity Securities, shall cause the Project to be completed
8 without delay to the best of its ability and with due diligence, as herein provided. The Council hereby finds
9 that the maturity of the Series 2016 Bonds does not exceed the estimated life of the Storm Drainage Facilities
10 and Sanitary Sewerage Facilities being financed with the proceeds of the Series 2016 Bonds.

11 Z. Continuing Disclosure. The City shall comply with the provisions of the Continuing
12 Disclosure Undertaking. Any failure by the City to perform in accordance with this provision shall not
13 constitute an Event of Default under this Ordinance, and the rights and remedies provided by this Ordinance
14 upon the occurrence of an Event of Default shall not apply to any such failure. The Paying Agent shall not
15 have any power or duty to enforce this Section 8Z. No Owner of a Series 2016 Bond shall be entitled to
16 damages for the City's non-compliance with its obligations under this Section 8Z; however, the Owners of the
17 Series 2016 Bonds may enforce specific performance of the obligations contained in this Section 8Z by any
18 judicial proceeding available.

19 Section 9. Defeasance.

20 When all Debt Service Requirements of the Series 2016 Bonds have been duly paid, the pledge and
21 lien and all obligations hereunder shall thereby be discharged and the Series 2016 Bonds shall no longer be
22 deemed to be Outstanding within the meaning of this Ordinance. There shall be deemed to be such due
23 payment when the City has placed in escrow or in trust with an Insured Bank, located within or without the
24 State, moneys or Federal Securities, or both, in an amount sufficient (including the known minimum yield
25 available for such purpose from Federal Securities in which such amount wholly or in part may be initially
26 invested) to pay all Debt Service Requirements of the Series 2016 Bonds as the same become due. The
27 Federal Securities shall become due prior to the respective times at which the proceeds thereof shall be
28 needed, in accordance with a schedule established and agreed upon between the City and such bank at the
29 time of the creation of the escrow or trust, or the Federal Securities shall be subject to redemption at the
30 option of the Owner thereof to assure such availability as so needed to meet such schedule. Nothing herein
31 shall be construed to prohibit a partial defeasance of the Outstanding Series 2016 Bonds in accordance with
32 the provisions of this Section 9.

1 Section 10. Default Provisions and Remedies of Bond Owners.

2 A. Events of Default. Each of the following events is hereby declared to be and to
3 constitute an Event of Default by the City:

4 (1) Nonpayment of Principal. Payment of the principal of any of the Series 2016
5 Bonds is not made when the same becomes due and payable, either at maturity or by proceedings for prior
6 redemption, or otherwise;

7 (2) Nonpayment of Interest. Payment of any interest is not made when the same
8 becomes due and payable;

9 (3) Incapacity to Perform. The City for any reason becomes incapable of fulfilling
10 its obligations hereunder;

11 (4) Nonperformance of Duties. The City shall have failed to carry out and to
12 perform (or in good faith to begin the performance of) all acts and things lawfully required to be carried out or
13 to be performed by it under any contract relating to the Income, the Storm Drainage Facilities, the Sanitary
14 Sewerage Facilities or otherwise, including, without limitation, this Ordinance, and such failure shall continue
15 for sixty (60) days after receipt of notice from the Owners of twenty-five percent (25%) in aggregate principal
16 amount of the Series 2016 Bonds then Outstanding; provided that if such failure cannot be cured within such
17 sixty (60) days and if during that period corrective action has commenced to remedy such failure and
18 subsequently is diligently pursued by the City to the completion of such performance, an Event of Default
19 shall not be deemed to have occurred;

20 (5) Failure to Reconstruct. The City discontinues or unreasonably delays or fails
21 to carry out with reasonable dispatch the reconstruction of any essential part of the Storm Drainage Facilities
22 or the Sanitary Sewerage Facilities that is condemned, destroyed or damaged and is not promptly repaired
23 or replaced (whether such failure to repair the same is due to impracticality of such repair or replacement, or
24 is due to a lack of moneys therefor, or for other reason);

25 (6) Appointment of Receiver. An order or decree is entered by a court of competent
26 jurisdiction, with the consent or acquiescence of the City, appointing a receiver or receivers for the Storm
27 Drainage Facilities or the Sanitary Sewerage Facilities or for the Income and any other moneys subject to the
28 lien to secure the payment of the Series 2016 Bonds, or both the Storm Drainage Facilities and the Sanitary
29 Sewerage Facilities and such moneys, or if any order or decree, having been entered without the consent or
30 acquiescence of the City, is not vacated or discharged or stayed on appeal within sixty (60) days after entry;

1 (7) Default of Any Provision. The City makes any default in the due and punctual
2 performance of any other of the representations, covenants, conditions, agreements and other provisions
3 contained in the Series 2016 Bonds or in this Ordinance on its part to be performed, and if such default
4 continues for sixty (60) days after written notice, specifying such default and requiring the same to be
5 remedied, is given to the City by the Owners of twenty-five percent (25%) in aggregate principal amount of
6 the Series 2016 Bonds then Outstanding; provided that if such default cannot be cured within such sixty (60)
7 days and if during that period corrective action has commenced to remedy such default and subsequently is
8 diligently pursued to the completion of such performance, an Event of Default shall not be deemed to have
9 occurred.

10 B. Remedies for Defaults. Upon the happening and continuance of any of the Events of
11 Default, as provided in Section 10A hereof, then and in every case the Owner or Owners of not less than
12 twenty-five percent (25%) in aggregate principal amount of the Series 2016 Bonds then Outstanding,
13 including, without limitation, a trustee or trustees therefor, may proceed against the City and its agents, officers
14 and employees to protect and to enforce the rights of any Owner of Series 2016 Bonds under this Ordinance
15 by mandatory injunction or by other suit, action, or special proceedings in equity or at law, in any court of
16 competent jurisdiction, either for the appointment of a receiver or an operating trustee or for the specific
17 performance of any covenant or agreement contained herein or for any proper legal or equitable remedy as
18 such Owner or Owners may deem most effectual to protect and to enforce the rights aforesaid, or thereby to
19 enjoin any act or thing which may be unlawful or in violation of any right of any Owner of any Series 2016
20 Bond, or to require the City to act as if it were the trustee of an expressed trust, or any combination of such
21 remedies, or as otherwise may be authorized by any statute or other provision of law. All such proceedings
22 at law or in equity shall be instituted, had and maintained for the equal benefit of all Owners of the Series
23 2016 Bonds, any Additional Parity Bonds and any Parity Securities then Outstanding. Any receiver or
24 operating trustee appointed in any proceedings to protect the rights of such Owners hereunder may collect,
25 receive and apply all Income arising after the appointment of such receiver or operating trustee in the same
26 manner as the City itself might do. The consent to any such appointment is hereby expressly granted by the
27 City. Notwithstanding the foregoing or any other applicable provision of law, no Event of Default shall result
28 in acceleration of any obligation of the City represented by the Series 2016 Bonds.

29 C. Rights and Privileges Cumulative. The failure of any Owner of any Outstanding Series
30 2016 Bond to proceed in any manner herein provided shall not relieve the City or any of its officers, agents
31 or employees of any liability for failure to perform to carry out any duty, obligation or other commitment. Each
32 right or privilege of any such Owner or trustee therefor is in addition and is cumulative to any other right or
33 privilege, and the exercise of any right or privilege by or on behalf of any Owner shall not be deemed a waiver
34 of any other right or privilege thereof. Each Owner of any Series 2016 Bond shall be entitled to all of the

1 privileges, rights and remedies provided or permitted in this Ordinance and as otherwise provided or permitted
2 by law or in equity or by statute, except as provided in Sections 12A and 12B hereof, and subject to the
3 applicable provisions concerning the Income and the proceeds of the Series 2016 Bonds. Nothing herein
4 affects or impairs the right of any Owner of any Series 2016 Bond to enforce the payment of the Debt Service
5 Requirements due in connection with such Series 2016 Bond or the obligation of the City to pay the Debt
6 Service Requirements of each Series 2016 Bond to the Owner thereof at the time and the place expressed
7 in such Series 2016 Bond.

8 D. Duties Upon Default. Upon the happening of any of the Events of Default as provided
9 in Section 10A hereof, the City, in addition, will do and perform all proper acts on behalf of and for the Owners
10 of the Outstanding Series 2016 Bonds to protect and to preserve the security created for the payment of their
11 Series 2016 Bonds and to insure the payment of the Debt Service Requirements of the Series 2016 Bonds
12 promptly as the same become due. During any period of default, so long as any of the Series 2016 Bonds,
13 as to any Debt Service Requirements, are Outstanding, except to the extent it may be unlawful to do so, all
14 Net Pledged Revenues shall be paid into the Debt Service Fund on an equitable and prorated basis, and
15 used for the purposes therein provided. If the City fails or refuses to proceed as in this Section 10D provided,
16 the Owner or Owners of not less than twenty-five percent (25%) in aggregate principal amount of the Series
17 2016 Bonds then Outstanding, after demand in writing, may proceed to protect and to enforce the rights of
18 the Owners of the Series 2016 Bonds as hereinabove provided; and to that end any such Owners of
19 Outstanding Series 2016 Bonds shall be subrogated to all rights of the City under any agreement or contract
20 involving the Net Pledged Revenues entered into prior to the effective date of this Ordinance or thereafter
21 while any of the Series 2016 Bonds are Outstanding. Nothing herein requires the City to proceed as provided
22 herein if it determines in good faith and without any abuse of its discretion that if it so proceeds it is more likely
23 than not to incur a net loss rather than a net gain or such action is likely to affect materially and prejudicially
24 the Owners of the Outstanding Series 2016 Bonds and any Outstanding Parity Securities.

25 E. Evidence of Security Owners. Any request, consent or other instrument which this
26 Ordinance may require or may permit to be signed and to be executed by the Owner of any Series 2016
27 Bonds or other securities may be in one instrument or more than one instrument of similar tenor and shall be
28 signed or may be executed by each Owner in person or by his attorney appointed in writing. Proof of the
29 execution of any such instrument or of any instrument appointing any such attorney, or the ownership by any
30 Person of the securities, shall be sufficient for any purpose of this Ordinance (except as otherwise herein
31 expressly provided) if made in the following manner:

32 (1) Proof of Execution. The fact and the date of the execution by any Owner of any
33 Series 2016 Bonds or other securities or his attorney of such instrument may be proved by the certificate,

1 which need not be acknowledged or verified, of any officer of a bank or trust company satisfactory to the Clerk
2 or of any notary public or other officer authorized to take acknowledgments of deeds to be recorded in the
3 state in which he purports to act, that the individual signing such request or other instrument acknowledged
4 to him the execution, duly sworn to before such notary public or other officer; the authority of the individual or
5 individuals executing any such instrument on behalf of a corporate Owner of any securities may be
6 established without further proof if such instrument is signed by an individual purporting to be the president
7 or vice-president of such corporation with the corporate seal affixed and attested by an individual purporting
8 to be its secretary or an assistant secretary; and the authority of any Person or Persons executing any such
9 instrument in any fiduciary or representative capacity may be established without further proof if such
10 instrument is signed by a Person or Persons purporting to act in such fiduciary or representative capacity;
11 and

12 (2) Proof of Ownership. The amount of Series 2016 Bonds owned by any Person
13 executing any instrument as an Owner of Series 2016 Bonds, and the numbers, date and other identification
14 thereof, together with the date of his ownership of the Series 2016 Bonds, shall be determined from the
15 registration books of the City. The amount of other securities, if applicable, owned by any Person executing
16 any instrument as an owner of such securities, and the numbers, date and other identification thereof, together
17 with the date of their ownership, if in bearer form, may be proved by a certificate which need not be
18 acknowledged or verified, in form satisfactory to the Clerk, executed by a member of a financial firm or by an
19 officer of a bank or trust company, insurance company or financial corporation or other depository satisfactory
20 to the Clerk, or by any notary public or other officer authorized to take acknowledgments of deeds to be
21 recorded in the state in which they purport to act, showing at the date therein mentioned that such Person
22 exhibited to such member, officer, notary public or other officer so authorized to take acknowledgments of
23 deeds or had on deposit with such depository the securities described in such certificate or, if in registered
24 form shall be determined from the related registration books; but the Clerk may nevertheless in his or her
25 discretion require further or other proof in cases where he or she deems the same advisable.

26 F. Warranty Upon Issuance of Series 2016 Bonds. Any of the Series 2016 Bonds as
27 herein provided, when duly executed and registered for the purposes provided for in this Ordinance, shall
28 constitute a warranty by and on behalf of the City for the benefit of each and every future Owner of any of the
29 Series 2016 Bonds that the Series 2016 Bonds have been issued for a valuable consideration in full conformity
30 with law.

31 Section 11. Amendment of Ordinance.

32 A. Amendment of Ordinance Not Requiring Consent of Bond Owners. The City may,
33 without the consent of, or notice to, the Owners of the Series 2016 Bonds, adopt such ordinances

1 supplemental hereto (which amendments shall thereafter form a part hereof) for any one or more or all of the
2 following purposes:

3 (1) To cure or correct any formal defect, ambiguity or inconsistent provision
4 contained in this Ordinance;

5 (2) To appoint successors to the Paying Agent, Registrar, Transfer Agent or
6 Securities Depository;

7 (3) To designate a trustee for the Owners of the Series 2016 Bonds, to transfer
8 custody and control of the Income to such trustee, and to provide for the rights and obligations of such trustee;

9 (4) To add to the covenants and agreements of the City or the limitations and
10 restrictions on the City set forth herein;

11 (5) To pledge additional revenues, properties or collateral to the payment of the
12 Series 2016 Bonds;

13 (6) To cause this Ordinance to comply with the Trust Indenture Act of 1939, as
14 amended from time to time; or

15 (7) To effect any such other changes hereto which do not in the opinion of nationally
16 recognized bond counsel materially adversely affect the interests of the Owners of the Series 2016 Bonds.

17 B. Amendment of Ordinance Requiring Consent of Bond Owners. Exclusive of the
18 amendatory ordinances covered by Section 11A hereof, this Ordinance may be amended or modified by
19 ordinances or other instruments duly adopted by the City, without receipt by it of any additional consideration,
20 but with the written consent of the Owners of sixty-six percent (66%) in aggregate principal amount of the
21 Series 2016 Bonds then Outstanding at the time of the adoption of such amendatory ordinance, provided,
22 however, that without the consent of the Owner of every Series 2016 Bond adversely affected thereby no
23 such amendatory ordinance shall permit:

24 (1) Changing Payment. A change in the maturity or in the terms of redemption of
25 the principal of any Outstanding Series 2016 Bond or any interest thereon; or

26 (2) Reducing Return. A reduction in the principal amount of any Series 2016 Bond
27 or the rate of interest thereon without the consent of the Owner of the Series 2016 Bond; or

1 (3) Prior Lien. The creation of a lien upon or a pledge of revenues ranking prior to
2 the lien or to the pledge created by this Ordinance; or

3 (4) Modifying Amendment Terms. A reduction of the principal amount or
4 percentages of Series 2016 Bonds, or any modification otherwise affecting the description of Series 2016
5 Bonds, otherwise changing the consent of the Owners of Series 2016 Bonds, which may be required herein
6 for any amendment hereto; or

7 (5) Priorities Between Series 2016 Bonds. The establishment of priorities as
8 between Series 2016 Bonds issued and Outstanding under the provisions of this Ordinance; or

9 (6) Partial Modification. Any modifications otherwise materially and prejudicially
10 affecting the rights or privileges of the Owners of less than all of the Series 2016 Bonds then Outstanding.

11 Whenever the City proposes to amend or modify this Ordinance under the provisions of this Section
12 11B it shall give notice of the proposed amendment by mailing such notice to all Owners of Series 2016 Bonds
13 at the addresses appearing on the registration books of the City. Such notice shall briefly set forth the nature
14 of the proposed amendment and shall state that a copy of the proposed amendatory ordinance or other
15 instrument is on file in the office of the Clerk for public inspection.

16 C. Time for and Consent to Amendment. Whenever at any time within one (1) year from
17 the date of the completion of the notice required to be given by Section 11B hereof there shall be filed in the
18 office of the Clerk an instrument or instruments executed by the Owners of at least sixty-six percent (66%) in
19 aggregate principal amount of the Series 2016 Bonds then Outstanding, which instrument or instruments shall
20 refer to the proposed amendatory ordinance or other instrument described in such notice and shall specifically
21 consent to and approve the adoption of such ordinance or other instrument, thereupon, but not otherwise, the
22 Council may adopt such amendatory ordinance or instrument and such ordinance or instrument shall become
23 effective. If the Owners of at least sixty-six percent (66%) in aggregate principal amount of the Series 2016
24 Bonds then Outstanding, at the time of the adoption of such amendatory ordinance or instrument, or the
25 predecessors in title of such Owners, shall have consented to and approved the adoption thereof as herein
26 provided, no Owner of any Series 2016 Bond whether or not such Owner shall have consented to or shall
27 have revoked any consent as herein provided shall have any right or interest to object to the adoption of such
28 amendatory ordinance or other instrument or to object to any of the terms or provisions therein contained or
29 to the operation thereof or to enjoin or restrain the City from taking any action pursuant to the provisions
30 thereof. Any consent given by the Owner of a Series 2016 Bond pursuant to the provisions thereof shall be
31 irrevocable for a period of six (6) months from the date of the completion of the notice above provided for and
32 shall be conclusive and binding upon all future Owners of the same Series 2016 Bond during such period.

1 Such consent may be revoked at any time after six months from the completion of such notice, by the Owner
2 who gave such consent or by a successor in title, by filing notice of such revocation with the Clerk, but such
3 revocation shall not be effective if the Owners of sixty-six percent (66%) in aggregate principal amount of the
4 Series 2016 Bonds outstanding as herein provided, prior to the attempted revocation, shall have consented
5 to and approved the amendatory instrument referred to in such revocation.

6 D. Unanimous Consent. Notwithstanding anything in the foregoing provisions contained,
7 the terms and the provisions of this Ordinance, or of any ordinance or instrument amendatory thereof, and
8 the rights and the obligations of the City and of the Owners of the Series 2016 Bonds may be modified or
9 amended in any respect upon the adoption by the City and upon the filing with the Clerk of an instrument to
10 that effect and with the consent of the Owners of all the then Outstanding Series 2016 Bonds, such consent
11 to be given in the manner provided in Section 11C hereof; and no notice to Owners of Series 2016 Bonds
12 shall be required as provided in Section 11B hereof, nor shall the time of consent be limited except as may
13 be provided in such consent.

14 E. Exclusion of Series 2016 Bonds. At the time of any consent or of other action taken
15 hereunder the City shall furnish to the Clerk a certificate, upon which the Clerk may rely, describing all Series
16 2016 Bonds to be excluded for the purpose of consent or of other action or any calculation of Outstanding
17 Series 2016 Bonds provided for hereunder, and, with respect to such excluded Series 2016 Bonds, the City
18 shall not be entitled or required with respect to such Series 2016 Bonds to give or obtain any consent or to
19 take any other action provided for hereunder.

20 F. Notation on Series 2016 Bonds. Any of the Series 2016 Bonds delivered after the
21 effective date of any action taken as provided in Section 11B, or Series 2016 Bonds Outstanding at the
22 effective date of such action, may bear a notation thereon by endorsement or otherwise in form approved by
23 the Council as to such action; and if any such Series 2016 Bonds so executed and delivered after such date
24 does not bear such notation, then upon demand of the Owner of any Bond Outstanding at such effective date
25 and upon presentation of his Bond for such purpose at the office of the Transfer Agent, suitable notation shall
26 be made on such Bond by the Transfer Agent as to any such action. If the Transfer Agent so determines,
27 new Series 2016 Bonds so modified as in the opinion of the Transfer Agent to conform to such action shall
28 be prepared, executed and delivered; and upon demand of the Owner of any Bond then Outstanding, shall
29 be exchanged without cost to such Owner for Series 2016 Bonds then Outstanding upon surrender of such
30 Outstanding Series 2016 Bonds.

31 G. Proof of Instruments and Series 2016 Bonds. The fact and date of execution of any
32 instrument under the provisions of this Section 11, the amount and number of the Series 2016 Bonds owned

1 by any Person executing such instrument, and the date of their registering the same may be proved as
2 provided by Section 10E hereof.

3 Section 12. Miscellaneous.

4 A. Character of Agreement. None of the covenants, agreements, representations, or
5 warranties contained herein or in the Series 2016 Bonds shall ever impose or shall be construed as imposing
6 any liability, obligation, or charge against the City (except for the special funds pledged therefor) or against
7 the general credit of the City payable out of general funds or out of any funds derived from general property
8 taxes.

9 B. No Pledge of Property. The payment of the Series 2016 Bonds is not secured by an
10 encumbrance, mortgage or other pledge of property of the City except for the Net Pledged Revenues. No
11 property of the City or the Enterprise, except the Net Pledged Revenues, is pledged for the payment of the
12 Series 2016 Bonds or shall be liable to be forfeited to taken in payment of the Series 2016 Bonds.

13 C. Limitation of Actions. Pursuant to Section 11-57-212 of the Supplemental Act, no legal
14 or equitable action brought with respect to any legislative acts or proceedings of the City in connection with
15 the authorization or issuance of the Series 2016 Bonds, including but not limited to the adoption of this
16 Ordinance, shall be commenced more than thirty days after the authorization of the Series 2016 Bonds.

17 D. Delegation of Duties. The officers and employees of the City are hereby authorized
18 and directed to take all action necessary or appropriate to the provisions hereof, including without limitation:

19 (1) The preparation, execution and delivery of the Series 2016 Bonds upon receipt
20 of the applicable purchase price thereof;

21 (2) The execution and delivery of a Sale Certificate, the Paying Agent Agreement
22 and the Continuing Disclosure Undertaking and such certificates as may be reasonably required by the City's
23 Co-Bond Counsel or Underwriters, relating, among other matters, to:

24 (a) The signing of the Series 2016 Bonds;

25 (b) The tenure and identity of the officials of the City;

26 (c) The exclusion from gross income of interest on the Series 2016 Bonds
27 for federal and State income tax purposes;

1 (d) The delivery of the Series 2016 Bonds and the receipt of the purchase
2 price; and

3 (e) If in accordance with fact, stating the absence of pending litigation
4 affecting the validity thereof.

5 (3) The assembly and dissemination of financial and other information concerning
6 the City and the Series 2016 Bonds in connection with the sale and the marketing of the Series 2016 Bonds,
7 including the Notice of Sale, the Preliminary Official and the Official Statement; and

8 (4) The sale and issuance of the Series 2016 Bonds in accordance with the
9 provisions of the Sale Certificate, the Notice of Sale and this Ordinance.

10 E. Successors. All of the covenants, stipulations, obligations, and agreements by or on
11 behalf of and other provisions for the benefit of the City or the Enterprise contained herein shall bind and inure
12 to the benefit of any successors of the City and shall bind and inure to the benefit of any officer, board, district,
13 commission, authority, agent, or instrumentality to whom or to which there shall be transferred by or in
14 accordance with law any right, power, or duty of the City or the Enterprise or their respective successors, if
15 any, the possession of which is necessary or appropriate in order to comply with any such covenants,
16 stipulations, obligations, agreements or other provisions hereof.

17 F. Rights and Immunities. Except as herein otherwise expressly provided, nothing herein
18 expressed or implied is intended or shall be construed to confer upon or to give to any Person, other than the
19 City and the Owners from time to time of the Series 2016 Bonds, any right, remedy or claim under or by
20 reason hereof or any covenant, condition or stipulation hereof. All the covenants, stipulations, promises and
21 agreements herein contained by and on behalf of the City shall be for the sole and exclusive benefit of the
22 City and any Owner of any of the Series 2016 Bonds.

23 G. No Recourse Against Officers or Agents. Pursuant to § 11-57-209 of the Supplemental
24 Act, if a member of the Council, or any officer or agent of the City acts in good faith, no civil recourse shall be
25 available against such Council member, officer, or agent for payment of the principal or interest on the Series
26 2016 Bonds. Such recourse shall not be available either directly or indirectly through the Council or the City,
27 or otherwise, whether by virtue of any constitution, statute, rule of law, enforcement of penalty, or otherwise.
28 By the acceptance of the Series 2016 Bonds and as a part of the consideration of their sale or purchase, any
29 person purchasing or selling such Series 2016 Bonds specifically waives any such recourse.

30 H. Ordinance Irrepealable. This Ordinance is, and shall constitute, a legislative measure
31 of the City and after any of the Series 2016 Bonds are issued, this Ordinance shall constitute an irrevocable

1 contract between the City and the Owner or Owners of the Series 2016 Bonds, and this Ordinance, subject
2 to the provisions of Sections 9 and 11 hereof, if any Series 2016 Bonds are in fact issued, shall be and shall
3 remain irrevocable until the Series 2016 Bonds, as to all Debt Service Requirements, shall be fully paid or
4 discharged.

5 I. Statutory Limitations Met. The Council hereby determines that the provisions and
6 limitations of any applicable law imposed on the issuance of the Series 2016 Bonds have been met.

7 J. Severability. If any provision of this Ordinance shall be held invalid or unenforceable,
8 such holding shall not affect any other provisions hereof.

9 K. Effective Date. This Ordinance shall become effective immediately upon its final
10 passage and publication, as provided by the Charter.

11 L. Publication. The bill for this Ordinance is hereby authorized and directed to be
12 published as provided in the Charter.

13 M. Recordation and Authentication. This Ordinance shall be recorded after its passage in
14 a Book of Ordinances of the City, kept for that purpose, and authenticated by the signature of the Mayor and
15 attested and countersigned by the Clerk.

16 COMMITTEE APPROVAL DATE: August 30, 2016

17 MAYOR-COUNCIL DATE: September 6, 2016

18 PASSED BY THE COUNCIL September 26, 2016

19 Al Burt - PRESIDENT

20 APPROVED: [Signature] - MAYOR Sep 27, 2016

21 ATTEST: _____ - CLERK AND RECORDER,
22 EX-OFFICIO CLERK OF THE
23 CITY AND COUNTY OF DENVER

24 NOTICED PUBLISHED IN THE DAILY JOURNAL _____;

25 PREPARED BY: KUTAK ROCK LLP AND KLINE ALVARADO VEIO, P.C. DATE: September 15, 2016

26 Pursuant to section 13-12, D.R.M.C., this proposed ordinance has been reviewed by the office of the City
27 Attorney. We find no irregularity as to form, and have no legal objection to the proposed ordinance. The
28 proposed ordinance is not submitted to the City Council for approval pursuant to § 3.2.6 of the Charter.

29 Denver City Attorney

30 By: [Signature], Assistant City Attorney DATE: Sep 15, 2016

BY AUTHORITY

RESOLUTION NO. CR17-0823
SERIES OF 2017

COMMITTEE OF REFERENCE:
Land Use, Transportation & Infrastructure

A RESOLUTION

Approving a proposed On-Call Program Management Agreement between the City and County of Denver and Parsons Transportation Group, Inc., for program management services of the City Park Golf Course Parks and Drainage Improvements Design/Build Project and the 39th Avenue/Park Hill Parks Drainage Improvements Design/Build Project.

BE IT RESOLVED BY THE COUNCIL OF THE CITY AND COUNTY OF DENVER:

Section 1. The proposed On-Call Program Management Agreement between the City and County of Denver and Parsons Transportation Group, Inc., in the words and figures contained and set forth in that form of Agreement available in the office and on the web page of City Council, and to be filed in the office of the Clerk and Recorder, Ex-Officio Clerk of the City and County of Denver, under City Clerk's Filing No. 201735100-00 is hereby approved.

COMMITTEE APPROVAL DATE: July 25, 2017

MAYOR-COUNCIL DATE: August 1, 2017

August 14, 2017

PASSED BY THE COUNCIL: _____

ALBK _____ - PRESIDENT

ATTEST: _____ - CLERK AND RECORDER,
EX-OFFICIO CLERK OF THE
CITY AND COUNTY OF DENVER

PREPARED BY: John G. McGrath, Assistant City Attorney

DATE: August 3, 2017

Pursuant to section 13-12, D.R.M.C., this proposed resolution has been reviewed by the Office of the City Attorney. We find no irregularity as to form, and have no legal objection to the proposed resolution. The proposed resolution is submitted to the City Council for approval pursuant to § 3.2.6 of the Charter.

Kristin M. Bronson, Denver City Attorney

BY: JB _____, Assistant City Attorney

DATE: Aug 3, 2017

ON-CALL PROGRAM MANAGEMENT AGREEMENT

between

THE CITY AND COUNTY OF DENVER
and
PARSONS TRANSPORTATION GROUP, INC.

Contract No. 201735100

THIS AGREEMENT (this "Agreement") is made and entered into as of the Effective Date (as hereinafter defined) between the **CITY AND COUNTY OF DENVER**, a municipal corporation of the State of Colorado (the "City"), and **PARSONS TRANSPORTATION GROUP, INC.**, an Illinois corporation, in good standing and registered to do business in the State of Colorado, whose mailing address is 1776 Lincoln Street, Suite 600, Denver, Colorado 80203 (the "Consultant").

RECITALS

1. The City wishes to secure professional program management and related services ("Program Management") to support the City Park Golf Course Parks and Drainage Improvements Design/Build Project and the 39th Avenue / Park Hill Parks and Drainage Improvements Design/Build Project or "Program" on an "as needed" basis; and
2. The Consultant represents that it has the present capacity, experience and qualifications to perform professional Program Management and related services for the City; and
3. In response to the City's Request for Qualifications, the Consultant submitted a proposal for such services to the City. The Consultant and the City have negotiated a Scope of Services and Rates for such professional services, copies of which are attached hereto and incorporated herein as **Exhibit A** and **Exhibit B**;

NOW, THEREFORE, in consideration of the premises and the mutual covenants and obligations herein set forth, the parties hereto mutually agree as follows:

SECTION 1 – ENGAGEMENT

1.01 Engagement. The City engages the Consultant with respect to the furnishing of professional Program Management services on an on-call basis, as set forth in this Agreement. The Consultant accepts such engagement upon, subject to and in accordance with the terms, conditions and provisions of this Agreement.

1.02 Line of Authority for Contract Administration. The City's Executive Director of Public Works ("Manager") is the City's representative who is responsible for authorizing and approving the work performed under this Agreement. The Manager hereby designates the City Engineer as the Manager's authorized representative for the purpose of issuing a written Notice to Proceed and administering, coordinating and initially approving the services performed by the Consultant under this Agreement. The Project Manager, who reports to the City Engineer shall be responsible for the day-to-day administration, coordination and approval of services performed by the Consultant, except for approvals that are specifically identified in this Agreement as requiring the Manager's approval.

1.03 Independent Contractor. The Consultant is an independent contractor retained to perform services for limited periods of time. Neither the Consultant nor any of its employees are employees or officers of the City under Chapter 18 of the Denver Revised Municipal Code, or for any purpose whatsoever.

1.04 Scope of Consultant's Authority. The Consultant shall have no authority to act on behalf of the City other than as expressly provided in this Agreement. The Consultant is not authorized to act as a general agent for or to undertake, direct or modify any contracts on behalf of the City. The Consultant lacks any authority to bind

the City on any contractual matters. Final approval of all contractual matters that purport to obligate the City must be executed by the City in accordance with the City's Charter and the D.R.M.C.

SECTION 2 – CONSULTANT'S SERVICES

2.01 General. The Consultant shall provide professional Program Management services as assigned by written Task Order, on an as-needed basis, in accordance with the terms and conditions of this Agreement. The City may provide project management, financial analysis or other services for projects in the Program, but desires management oversight of the overall Program and access to project management services on an as needed basis.

2.02 Anticipated Projects and Tasks. The City anticipates that the Program will include the Platte to Park Hill Parks and Drainage Improvements Program project as well as other projects yet to be identified. Projects may be added or removed at the written direction of the Project Manager.

2.03 Professional Responsibility; Task Requirements.

- (a) All of the work performed by the Consultant under this Agreement shall be performed in accordance with the standards of care, skill and diligence provided by competent professionals who perform work of a similar nature to the Work described in this Agreement.
- (b) The Consultant agrees to strictly conform to and be bound by written standards, criteria, budgetary considerations and memoranda of policy furnished to it by the City and in compliance with applicable laws, statues, codes, ordinances, rules and regulations, and industry standards.
- (c) All professional services or deliverables provided under this Agreement shall be adequate and sufficient for their intended purpose.
- (d) The Consultant shall prepare all documents as requested in a format that complies with all City, state and federal requirements. It shall be the Consultant's responsibility to contact the reviewing agencies to determine the acceptable format for the final documents. No documents will be considered final until approved by the City, even though any responsible federal and state agencies have approved such documents.
- (e) The reports, studies and other products prepared by the Consultant under this Agreement, when submitted by the Consultant to the Project Manager and the user agency must represent a thorough study and competent solution as per usual and customary professional standards and shall reflect all skills applicable to the assigned task.
- (f) The responsibilities and obligations of the Consultant under this Agreement shall not be relieved or affected in any respect by the presence on the site of any employee, agent, consultant or subconsultant of the City.
- (g) The Consultant shall provide all professional services required by the City in defending all claims against the City, which relate in any way to alleged default hereunder, errors or omissions of the Consultant or its subconsultants, without additional compensation.

2.04 Program and Budget.

- (a) Each task proposal will include a maximum fee. The Consultant agrees to complete the task within the limits of the approved Task Order. Should all task work exceed such cost, the Consultant agrees to complete the task at no additional cost to City and, in a manner acceptable to the City.

2.05 Coordination and Cooperation.

- (a) The Consultant agrees to perform under this Agreement in such a manner and at such times that the City or any Contractor who has work to perform, or contracts to execute, can do so without unreasonable delay.

- (b) Coordination with the City and other involved agencies shall be a continuing work item through for each assigned task. Coordination shall consist of regular progress and review meetings with the City, work sessions with Project Managers, or other coordination as directed. If requested, the Consultant shall document conferences and distribute notes to the City.

2.06 Personnel Assignments.

- (a) The key professional personnel identified in **Exhibit C** will be assigned by the Consultant or its subconsultants to perform the services required under this Agreement, as appropriate.
- (b) The Consultant's services shall be diligently performed by the regular professional and technical staff of the Consultant. In the event the Consultant does not have as part of its regular staff certain professional consultants, then such consulting services shall be performed, with City approval, by practicing professional consultants outside of the employ of the Consultant.
- (c) The Consultant agrees, at all times during the term of this Agreement, to maintain on its payroll or to have access to through subconsultants, personnel in sufficient strength to meet the requirements of the City. Such personnel shall be of the classifications referenced in **Exhibit B**. The hourly rates specified therein include all costs except those specifically referenced as reimbursables in the appropriate hourly rate schedule or authorized in advance by a fully executed written Task Order.
- (d) Prior to designating an outside professional to perform subconsultant work, the Consultant shall submit the name of such subconsultant, together with a resume of training and experience in work of like character and magnitude of the task being contemplated, to the City and receive prior approval in writing.
- (e) It is the intent of the Parties hereto that all key professional personnel be engaged to perform their specialty for all such services required by this Agreement and that the Consultant's and the subconsultant's key professional personnel be retained for the life of this Agreement to the extent practicable and to the extent that such services maximize the quality of work performed hereunder.
- (f) If the Consultant or a subconsultant decides to replace any of its key professional personnel, the Consultant shall notify the Manager in writing of the desired change. No such changes shall be made until replacement personnel are recommended by the Consultant and approved in writing by the Manager, which approval shall not be unreasonably withheld.
- (g) If, during the term of this Agreement, the Manager determines that the performance of approved key personnel or a subconsultant is not acceptable, the Manager shall notify the Consultant and give the Consultant the time which the Manager considers reasonable to correct such performance. Thereafter, the Manager may require the Consultant to reassign or replace such key personnel. If the Manager notifies the Consultant that certain of its key personnel or a subconsultant should be replaced, Consultant will use its best efforts to replace such key personnel or a subconsultant within ten (10) days from the date of the Manager's notice.
- (h) Neither the Consultant nor any subconsultant shall have other interests which conflict with the interests of the City. Consultant shall make written inquiry of all of its subconsultants concerning the existence of a potential for such conflict. In unusual circumstances, and with full disclosure to the City of such conflict of interest, the City, in its sole discretion, may grant a written waiver for the particular consultant or subconsultant.
- (i) Actions taken by the City under this Article shall not relieve the Consultant of its responsibility for contractual or professional deficiencies, errors or omissions.
- (j) The Consultant shall submit to the Manager a list of any additional key professional personnel who will perform work under this Agreement within thirty (30) days after this Agreement has been executed, together with complete resumes and other information describing their ability to

perform the tasks which may be assigned. Such additional personnel must be recommended by the Consultant and approved by the Manager before they are assigned to a specific task.

- (k) The Manager shall respond to the Consultant's written notice regarding replacement of key professional personnel within fifteen (15) days after the Manager receives the list of changes. If the Manager or his designated representative does not respond within that time, the changes shall be deemed to be approved.

2.07 Basic Services.

- (a) The Consultant shall, under the general direction of and at the written request of the Manager, furnish experienced personnel to support the Program. Subject to an express, agreed upon limitation of such duties set forth in any approved Task Order for the particular task assigned to the Consultant under this Agreement, the Consultant agrees to perform all of the services and duties set forth in this Agreement in regard to each task to which it is assigned.
- (b) When directed by the Manager to perform a particular task, the Consultant shall prepare a task specific proposal in accordance with the scope or description of Work for that task. A separate task specific proposal shall be prepared for each task for which the Consultant's services are required and shall set forth, at a minimum all of the following:
 - (1) The maximum fee for the Consultant's proposed services.
 - (2) Itemized fee breakdown.
 - (3) The additional services budget, if any, for the task.
 - (4) Any reimbursable expenses approved pursuant to paragraph 3.02.
 - (5) A detailed description of the task and scope of work (the "Work").
 - (6) A list of deliverables for the task.
 - (7) An agreed upon schedule for deliverables and completion of the Work.
- (c) Upon approval by the Manager of a task proposal, the approval and appropriation of funding for such task, and the issuance of a written Notice to Proceed, the Consultant shall proceed to perform the Work.
- (d) The assigned task shall be performed in conformance with the approved Task Order. The terms of this Agreement cannot be altered by Task Order.
- (e) The Consultant's basic services for each task may consist of any one or combination of the anticipated services described below, in **Exhibit A** or services related to the services described in this Agreement.
- (f) The Consultant shall obtain written authorization from the City in the form of a Notice to Proceed before proceeding with each assigned task.
- (g) Nothing in this Agreement shall be construed as placing any obligation on City to proceed with any task beyond the latest task authorized in writing by City. Further, nothing in this Agreement shall be construed as guaranteeing the Consultant any minimum amount of Work or number of tasks assigned under this Agreement.
- (h) If a task which is assigned to the Consultant under this Agreement is funded in whole or part by federal funds, or any other funding source, each of the applicable terms set forth in any funding arrangement for such funds shall be, and by this reference are incorporated into the Task Order for the task, and included in the Consultant's basic services responsibilities for the task.
- (i) The responsibilities and obligations of the Consultant under this Agreement shall not be relieved or affected in any respect by the presence on the site of any agent, consultant, subconsultant, or employee of the City.

SECTION 3 – COMPENSATION, PAYMENT, AND FUNDING

The City shall compensate the Consultant for its services performed and expenses incurred under this Agreement and each Task Order as follows.

3.01 The City agrees to pay the Consultant, as compensation for any services rendered for a particular task, either the maximum fee, to be set forth in each approved Task Order, or an amount based on the Consultant's periodic invoices, whichever is less.

3.02 Reimbursable Expenses. Unless expressly authorized by the City as part of an approved Task Order or specified in **Exhibit B**, the City will not compensate the Consultant for expenses such as postage, travel, mileage, parking, telephone, copies or messenger service costs incurred in connection with Work performed under this Agreement. Such costs are included in the hourly rates paid by the City. The inclusion of rates for expenses in a proposal attached to a Task Order does not authorize reimbursable expenses unless the executed Task Order includes a not to exceed maximum amount for reimbursable expenses.

3.03 Additional Services. The Consultant shall only be compensated for additional services if the additional services are approved in advance by written Task Order and subject to an additional services budget for that specific Task Order.

3.04 Invoices. The Consultant shall invoice and be paid monthly in proportion to the progress of the Work on each assigned Task Order. Such invoices shall reflect the Consultant's actual hours, sub-consultant costs and reimbursable costs, and shall be based on the hourly rates or other rates for services contained in **Exhibit B**. The rates contained in **Exhibit B** can be modified only by a written amendment executed in the same manner as this Agreement. The Consultant shall maintain contemporaneous hourly records of the actual hours worked by its personnel and subconsultants, records of all allowable reimbursable expenses, and records of expendable supplies and services as necessary to support any audits by the City, and shall bill the City monthly for fees and costs accrued during the preceding month. The Consultant's invoice shall be separated by Task Order. Upon submission of such invoices to the City Project Manager, and approval by the City, payment shall issue. Final payment to the Consultant, for each assigned Task Order, shall not be made until after all Task Order work is performed and all deliverables are delivered.

3.05 Maximum Contract Amount.

- (a) It is understood and agreed by the parties hereto that payment or reimbursement of all kinds to the Consultant, for all Work performed under this Agreement, shall not exceed a maximum of **SIX MILLION DOLLARS AND NO CENTS (\$6,000,000.00)**. In no event shall the maximum payment to the Consultant, for all work and services performed throughout the entire term of this Agreement exceed the contract maximum amount set forth above.

3.06 Appropriation and Funding.

- (a) The City's payment obligation, whether direct or contingent, extends only to funds appropriated annually by the Denver City Council, paid into the Treasury of the City, and encumbered for the purpose of the Agreement. The City does not by the Agreement irrevocably pledge present cash reserves for payment or performance in future fiscal years, and the Agreement does not and is not intended to create a multiple-fiscal year direct or indirect debt or financial obligation of the City.
- (b) As of the date of this Agreement, no funds have been appropriated for this Agreement. Instead, it is the City's intent to appropriate the funds necessary to compensate the Consultant for the work it performs on any assigned task, at the time it executes each Task Order. The applicable Manager or his designee, upon reasonable written request, will advise the Consultant in writing of the total amount of appropriated and encumbered funds which are or remain available for payment for all work by the Consultant on an assigned Project.

- (c) The issuance of any form of order or directive by the City which would cause the aggregate amount payable to the Consultant for a specific Task Order to exceed the amount appropriated for that Task Order is prohibited. In no event shall the issuance of any change order or other form of order or directive by the City be considered valid or binding if it requires additional compensable work to be performed, which work will cause the aggregate amount payable for such work to exceed the amount appropriated and encumbered, unless and until such time as the Consultant has been advised in writing by the Manager that a lawful appropriation sufficient to cover the entire cost of such additional work, has been made. It shall be the responsibility of the Consultant to verify that the amounts already appropriated for the Consultant's Work on a task are sufficient to cover the entire cost of such Work, and any work undertaken or performed in excess of the amount appropriated is undertaken or performed in violation of the terms of this Agreement, without the proper authorization for such work, and at the Consultant's own risk and sole expense.

SECTION 4 – TERM AND TERMINATION

4.01 Term. The term of this Agreement shall commence on **May 23, 2017**, and shall expire on **May 30, 2020**, unless sooner terminated or extended by written amendment. The Consultant shall complete any Task Orders in progress as of the expiration date of this agreement and the term will extend until the work is completed or earlier terminated by the Manager. The City may in its sole discretion decide to extend this Agreement to provide services for additional phases of the Program by written amendment.

4.02 Termination.

- (a) Nothing herein shall be construed as giving the Consultant the right to perform the services contemplated under this Agreement beyond the time when its services become unsatisfactory to the Manager.
- (b) The Manager may terminate this Agreement for cause at any time if the Consultant's services become unsatisfactory, in the sole discretion of the Manager. The City shall have the sole discretion to permit the Consultant to remedy the cause of a contemplated termination for cause without waiving the City's right to terminate the Agreement.
- (c) In the event of a termination for cause, or in the event the Consultant becomes unable to serve under this Agreement, the City may take over work to be done under this Agreement and prosecute the work to the completion by contract or otherwise, and the Consultant shall be liable to the City for all reasonable cost in excess of what the City would have paid the Consultant had there been no termination for cause.
- (d) The City may, for convenience, cancel and terminate this Agreement by giving not less than thirty (30) days' prior written notice to the Consultant, which notice shall state the date of cancellation and termination.
- (e) If the Consultant's services are terminated, postponed or revised, or if the Consultant shall be discharged before all the work and services contemplated have been completed, or if the task is, for any reason, stopped or discontinued, the Consultant shall be paid only for the portion of work or services which has been satisfactorily completed at the time of such dismissal, termination, cancellation, postponement, revision or stoppage.
- (f) All documents relating to the work completed or partially completed shall be delivered by the Consultant to the City in the event of any dismissal, termination, cancellation, postponement, revision or stoppage.
- (g) In the event of any dismissal, termination, cancellation, postponement, revision or stoppage, the Consultant shall cooperate in all respects with the City. Such cooperation shall include, but not be limited to, assisting the City during a transition to another Consultant, if applicable.

SECTION 5 – COMPLIANCE WITH M/WBE REQUIREMENTS

5.01 This Agreement is subject to Article III, Divisions 1 and 3 of Chapter 28, Denver Revised Municipal Code (D.R.M.C.), designated as Sections 28-31 to 28-36 and 28-52 to 28-90 D.R.M.C. (the “M/WBE Ordinance”) and any Rules or Regulations promulgated pursuant thereto. The Consultant identified in its Proposal MBE and/or WBE firms with which it intends to subcontract under this Agreement, with a total participation level by such firms of **15.60%**.

- (a) Under § 28-72 D.R.M.C., the Consultant has an ongoing, affirmative obligation to maintain for the duration of this Agreement, at a minimum, compliance with its originally achieved level of MBE and WBE participation upon which this Agreement was awarded, unless the City initiates a material alteration to the scope of work affecting MBEs or WBEs performing on this Agreement through change order, contract amendment, force account, or as otherwise described in § 28-73 D.R.M.C. The Consultant acknowledges that:
- (1) It must establish and maintain records and submit regular reports, as required, which will allow the City to assess progress in achieving the M/WBE participation goal.
 - (2) If change orders or any other contract modifications are issued under the Agreement, the Consultant shall have a continuing obligation to immediately inform DSBO in writing of any agreed upon increase or decrease in the scope of work of such contract, upon any of the bases discussed in § 28-73, D.R.M.C., regardless of whether such increase or decrease in scope of work has been reduced to writing at the time of notification.
 - (3) If change orders or other contract modifications are issued under the contract, that include an increase in scope of work of this Agreement, whether by amendment, change order, force account or otherwise which increases the dollar value of the contract, whether or not such change is within the scope of work designated for performance by an M/WBE at the time of contract award, such change orders or contract modification shall be immediately submitted to DSBO for notification purposes. Those amendments, change orders, force accounts or other contract modifications that involve a changed scope of work that cannot be performed by existing project subconsultants or by the Consultant shall be subject to a goal for M/WBEs equal to the original goal on the contract which was included in the proposal. The Consultant shall satisfy such goal with respect to such changed scope of work by soliciting new M/WBEs in accordance with § 28-73, D.R.M.C., as applicable, or the Consultant must show each element of modified good faith set out in § 28-75(c) D.R.M.C. The Consultant shall supply to the director the documentation described in § 28-75(c) D.R.M.C. with respect to the increased dollar value of the contract.
 - (4) Failure to comply with these provisions may subject the Consultant to sanctions set forth in the M/WBE Ordinance. Should any questions arise regarding specific circumstances, the Consultant must consult the M/WBE Ordinance or contact the Project’s designated DSBO representative at (720) 913-1999.

SECTION 6 – GENERAL PROVISIONS

6.01 City’s Responsibilities.

- (a) The City will provide available information regarding its requirements for each task, including related budgetary information, and shall cooperate with the Consultant. However, the City does not guarantee the accuracy of any such information and assumes no liability therefore. The Consultant shall notify City in writing of any information or requirements provided by the City which the Consultant believes to be inaccurate or insufficient.

- (b) If the City observes or otherwise becomes aware of any fault or defect in the task or non-conformance with Contract Documents, it will give prompt notice thereof to Consultant.

6.02 Ownership of Documents.

- (a) The City shall have title and all intellectual and other property rights, in and to all phased and final documents and deliverables, and all data used in the development of the same, including all photographs, drawings, drafts, studies, estimates, reports, models, notes and any other materials or work products, whether in electronic or hard copy format, created by the Consultant pursuant to this Agreement, in preliminary and final forms and on any media whatsoever (collectively, the "Documents"), whether the task for which the Documents were created is executed or not. The Consultant shall identify and disclose, as requested, all such Documents to the City.
- (b) To the extent permitted by the U.S. Copyright Act, 17 USC § 101 et seq., as the same may be amended from time to time, the Documents are a "work made for hire," and all ownership of copyright in the Documents shall vest in the City at the time the Documents are created. To the extent that the Documents are not a "work made for hire," the Consultant hereby assigns and transfers all right, title and interest in and to the Documents to the City, as of the time of the creation of the Documents, including the right to secure copyright, patent, trademark, and other intellectual property rights throughout the world and to have and to hold such copyright, patent, trademark, and other intellectual property rights in perpetuity.
- (c) The Consultant shall provide (and cause its employees and subcontractors to provide) all assistance reasonably requested in securing for the City's benefit any patent, copyright, trademark, service mark, license, right or other evidence of ownership of such Documents, and shall provide full information regarding the Documents and execute all appropriate documentation in applying for or otherwise registering, in the City's name, all rights to such Documents.
- (d) The Consultant agrees to allow the City to review any of the procedures used in performing the work and services hereunder, and to make available for inspection the field notes and other documents used in the preparation for and performance of any of the services performed hereunder.
- (e) The Consultant shall be permitted to retain reproducible copies of all of the Documents for their information and reference, and the originals of all of the Documents shall be delivered to the City promptly upon completion thereof, or if authorized by the City's Project Manager, upon termination or expiration of this Agreement.

6.03 Taxes and Licenses. The Consultant shall promptly pay, when they are due, any taxes, license fees of whatever nature applicable to the work and services which it performs under this Agreement, and shall take out and keep current all required municipal, county, state or federal licenses required to perform its services under this Agreement. The Consultant shall furnish the Manager, upon request, duplicate receipts or other satisfactory evidence showing or certifying to the proper payment of all required licenses and/or registrations and taxes. The Consultant shall promptly pay all owed bills, debts and obligations it incurs performing work under this Agreement and shall not cause any lien, verified claim, mortgage, judgment or execution to be filed against land, facilities or improvements owned or beneficially owned by the City as a result of such bills, debts or obligations.

6.04 Consultant's Records / Examination of Records. Records of the Consultant's direct personnel, Consultant's sub consultants and records of reimbursable expenses pertaining to this Agreement shall be kept on a generally recognized accounting basis. The Consultant agrees that any duly authorized representative of the City, including the City Auditor, shall, until the expiration of three (3) years after the final payment under this Agreement, have access to and the right to examine any books, documents, papers and records of the Consultant, involving transactions related to this Agreement.

6.05 Assignment and Subcontracting. The City is not obligated or liable under this Agreement to any party other than the Consultant named herein. The Consultant understands and agrees that it shall not assign or

subcontract with respect to any of its rights, benefits, obligations or duties under this Agreement except upon prior written consent and approval of the City to such assignment or subcontracting. Any attempt by the Consultant to assign or subcontract its rights hereunder without such prior written consent of the City shall, at the option of the City, automatically terminate this Agreement and all rights of the Consultant hereunder. Such consent may be granted or denied at the sole and absolute discretion of the City. In the event any such subcontracting shall occur, with the City's approval, such action shall not be construed to create any contractual relationship between the City and such subcontractor, and the Consultant named herein shall in any and all events be and remain responsible to the City according to the terms of this Agreement.

6.06 No Discrimination in Employment. In connection with the performance of work under this Agreement, the Consultant agrees not to refuse to hire, discharge, promote or demote, or to discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, gender, age, military status, sexual orientation, marital status, or physical or mental disability. The Consultant agrees to insert the foregoing provision in all subcontracts hereunder.

6.07 Insurance.

- (a) General Conditions. Consultant agrees to secure, at or before the time of execution of this Agreement, the following insurance covering all operations, goods or services provided pursuant to this Agreement. Consultant shall keep the required insurance coverage in force at all times during the term of the Agreement, or any extension thereof, during any warranty period, and for three (3) years after termination of the Agreement. The required insurance shall be underwritten by an insurer licensed or authorized to do business in Colorado and rated by A.M. Best Company as "A-"VIII or better. Each policy shall contain a valid provision or endorsement requiring notification to the City in the event any of the required policies be canceled or non-renewed before the expiration date thereof. Such written notice shall be sent to the parties identified in the Notices section of this Agreement. Such notice shall reference the City contract number listed on the signature page of this Agreement. Said notice shall be sent thirty (30) days prior to such cancellation or non-renewal unless due to non-payment of premiums for which notice shall be sent ten (10) days prior. If such written notice is unavailable from the insurer, Consultant shall provide written notice of cancellation, non-renewal and any reduction in coverage to the parties identified in the Notices section by certified mail, return receipt requested within three (3) business days of such notice by its insurer(s) and referencing the City's contract number. If any policy is in excess of a deductible or self-insured retention, the City must be notified by the Consultant. Consultant shall be responsible for the payment of any deductible or self-insured retention. The insurance coverages specified in this Agreement are the minimum requirements, and these requirements do not lessen or limit the liability of the Consultant. The Consultant shall maintain, at its own expense, any additional kinds or amounts of insurance that it may deem necessary to cover its obligations and liabilities under this Agreement.
- (b) Proof of Insurance. Consultant shall provide a copy of this Agreement to its insurance agent or broker. Consultant may not commence services or work relating to the Agreement prior to placement of coverages required under this Agreement. Consultant certifies that the certificate of insurance attached as **Exhibit D**, preferably an ACORD certificate, complies with all insurance requirements of this Agreement. The City requests that the City's contract number be referenced on the Certificate. The City's acceptance of a certificate of insurance or other proof of insurance that does not comply with all insurance requirements set forth in this Agreement shall not act as a waiver of Consultant's breach of this Agreement or of any of the City's rights or remedies under this Agreement. The City's Risk Management Office may require additional proof of insurance, including but not limited to policies and endorsements.
- (c) Additional Insureds. For Commercial General Liability, Auto Liability and Excess Liability/Umbrella (if required), Consultant and subcontractor's insurer(s) shall include the City and County of Denver, its elected and appointed officials, employees and volunteers as additional insured.

- (d) Waiver of Subrogation. For all coverages required under this Agreement, with the exception of Professional Liability - if required, Consultant's insurer shall waive subrogation rights against the City.
- (e) Subcontractors and Subconsultants. All subcontractors and subconsultants (including independent contractors, suppliers or other entities providing goods or services required by this Agreement) shall be subject to all of the requirements herein and shall procure and maintain the same coverages required of the Consultant. Consultant shall include all such subcontractors as additional insured under its policies (with the exception of Workers' Compensation) or shall ensure that all such subcontractors and subconsultants maintain the required coverages. Consultant agrees to provide proof of insurance for all such subcontractors and subconsultants upon request by the City.
- (f) Workers' Compensation/Employer's Liability Insurance. Consultant shall maintain the coverage as required by statute for each work location and shall maintain Employer's Liability insurance with limits of \$100,000 per occurrence for each bodily injury claim, \$100,000 per occurrence for each bodily injury caused by disease claim, and \$500,000 aggregate for all bodily injuries caused by disease claims. Consultant expressly represents to the City, as a material representation upon which the City is relying in entering into this Agreement, that none of the Consultant's officers or employees who may be eligible under any statute or law to reject Workers' Compensation Insurance shall effect such rejection during any part of the term of this Agreement, and that any such rejections previously effected, have been revoked as of the date Consultant executes this Agreement.
- (g) Commercial General Liability. Consultant shall maintain a Commercial General Liability insurance policy with limits of \$1,000,000 for each occurrence, \$1,000,000 for each personal and advertising injury claim, \$2,000,000 products and completed operations aggregate, and \$2,000,000 policy aggregate.
- (h) Business Automobile Liability. Consultant shall maintain Business Automobile Liability with limits of \$1,000,000 combined single limit applicable to all owned, hired and non-owned vehicles used in performing services under this Agreement.
- (i) Additional Provisions.
 - (1) For Commercial General Liability, the policies must provide the following:
 - (i) That this Agreement is an Insured Contract under the policy;
 - (ii) Defense costs are outside the limits of liability;
 - (ii) A severability of interests or separation of insureds provision (no insured vs. insured exclusion); and
 - (iii) A provision that coverage is primary and non-contributory with other coverage or self-insurance maintained by the City.
 - (2) For claims-made coverage:
 - (i) The retroactive date must be on or before the contract date or the first date when any goods or services were provided to the City, whichever is earlier.
 - (3) Consultant shall advise the City in the event any general aggregate or other aggregate limits are reduced below the required per occurrence limits. At their own expense, and where such general aggregate or other aggregate limits have been reduced below the required per occurrence limit, the Consultant will procure such per occurrence limits and furnish a new certificate of insurance showing such coverage is in force.

6.08 Indemnification.

- (a) To the fullest extent permitted by law, the Consultant agrees to defend, indemnify, reimburse and hold harmless City, its appointed and elected officials, agents and employees for, from and against all liabilities, claims, judgments, suits or demands for damages to persons or property arising out of, resulting from, or related to the work performed under this Agreement that are attributable to the negligence or fault of the Consultant or the Consultant's agents, representatives, subcontractors, or suppliers ("Claims"). This indemnity shall be interpreted in the broadest possible manner consistent with the applicable law to indemnify the City.
- (b) Consultant's duty to defend and indemnify City shall arise at the time written notice of the Claim is first provided to City regardless of whether suit has been filed and even if Consultant is not named as a Defendant.
- (c) Consultant will defend any and all Claims which may be brought or threatened against City and will pay on behalf of City any expenses incurred by reason of such Claims including, but not limited to, court costs and attorney fees incurred in defending and investigating such Claims or seeking to enforce this indemnity obligation. Such payments on behalf of City shall be in addition to any other legal remedies available to City and shall not be considered City's exclusive remedy.
- (d) Insurance coverage requirements specified in this Agreement shall in no way lessen or limit the liability of the Consultant under the terms of this indemnification obligation. The Consultant shall obtain, at its own expense, any additional insurance that it deems necessary for the City's protection.
- (e) This defense and indemnification obligation shall survive the expiration or termination of this Agreement.

6.09 Colorado Governmental Immunity Act. The parties hereto understand and agree that the City is relying upon, and has not waived, the monetary limitations (presently \$150,000 per person, \$600,000 per occurrence) and all other rights, immunities and protection provided by the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, *et seq.*

6.10 Contract Documents; Order of Precedence. This Agreement consists of Sections 1 through 6, which precede the signature page, and the following attachment, which is incorporated herein and made a part hereof by reference:

Exhibit A	Consultant's Scope of Work
Exhibit B	Consultant's Rates & Reimbursable Expenses
Exhibit C	Consultant's Key Personnel
Exhibit D	ACORD Insurance Certificate

In the event of an irreconcilable conflict between a provision of Sections 1 through 5 and the listed attachments, or between provisions of any attachments, such that it is impossible to give effect to both, the order of precedence to determine which provision shall control to resolve such conflict, is as follows, in descending order:

- Sections 1 through 5
- Exhibit D
- Exhibit C
- Exhibit B
- Exhibit A

6.11 When Rights and Remedies Not Waived. In no event shall any payment by the City constitute a waiver of any breach of covenant or default which may then exist on the part of the Consultant. No assent, expressed or implied, to any breach of the Agreement shall be held to be a waiver of any later or other breach.

6.12 Governing Law; Venue. This Agreement shall be construed and enforced in accordance with the laws of the State of Colorado, the Charter and Revised Municipal Code of the City and County of Denver, and the

ordinances, regulations and Executive Orders enacted or promulgated pursuant to the Charter and Code, including any amendments. The Charter and Revised Municipal Code of the City and County of Denver, as the same may be amended from time to time, are hereby expressly incorporated into this Agreement. Venue for any action arising hereunder shall be in the City and County of Denver, Colorado.

6.13 Conflict of Interest.

- (a) The Consultant has a continuing duty to disclose, in writing, any actual or potential conflicts of interest including work the Consultant is performing or anticipates performing for other entities on the same or interrelated tasks. In the event that Consultant fails to disclose in writing actual or potential conflicts, the Manager, in his sole discretion, may terminate the applicable Task Order or the Agreement.
- (b) The parties agree that no employee of the City shall have any personal or beneficial interest in the services or property described herein, and the Consultant further agrees not to hire or contract for services with any employee or officer of the City which would be in violation of the Revised Municipal Code Chapter 2, Article IV, Code of Ethics or Denver City Charter provisions 1.2.9 and 1.2.12.
- (c) The Consultant agrees that it will not engage in any transaction, activity or conduct that would result in a conflict of interest under this Agreement. The Consultant represents that it has disclosed any and all current or potential conflicts of interest. A conflict of interest shall include transactions, activities or conduct that would affect the judgment, actions or work of the Consultant by placing the Consultant's own interests, or the interests of any party with whom the Consultant has a contractual arrangement, in conflict with those of the City. The City, in its sole discretion, shall determine the existence of a conflict of interest and may terminate this Agreement in the event such a conflict exists after it has given the Consultant written notice which describes the conflict. The Consultant shall have thirty (30) days after the notice is received to eliminate or cure the conflict of interest in a manner that is acceptable to the City.
- (d) Consultants shall not use City resources for non-City business purposes. City resources include computers, computer access, telephones, email accounts, copiers, printers, office space and other City facilities and equipment. If, as a result of access to City resources or as a result of Consultant providing services pursuant to the Agreement, Consultant obtains information about potential City contracts before that information is publicly available, Consultant shall notify the City in writing. The City, in its sole discretion, will determine if Consultant obtained an unfair advantage and is therefore disqualified from proposing or bidding.

6.14 No Third Party Beneficiaries. Enforcement of the terms and conditions of this Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to the City and the Consultant, and nothing contained in this Agreement shall give or allow any claim or right of action by any other or third person under this Agreement. It is the express intention of the parties that any person other than the City or the Consultant receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.

6.15 Time is of the Essence. The parties agree that in the performance of the terms, conditions and requirements of this Agreement by the Consultant, time is of the essence.

6.16 Taxes, Charges and Penalties. The City and County of Denver shall not be liable for the payment of taxes, late charges, or penalties of any nature except as provided in the City's Prompt Payment Ordinance.

6.17 Proprietary or Confidential Information.

- (a) City Information. The Consultant acknowledges and accepts that, in performance of its work under the terms of this Agreement, the Consultant may have access to Proprietary Data or confidential information which may be owned or controlled by the City and that the disclosure of such data or information may be damaging to the City or third parties. As such, the Consultant agrees that all information provided or otherwise disclosed by the City to the Consultant be held

in confidence and used only in the performance of its obligations under this Agreement. The Consultant shall exercise the same standard of care to protect such information as a reasonably prudent Consultant would to protect its own proprietary or confidential data. "Proprietary Data" shall include, but not be limited to, geographic materials or Geographic Information Systems ("GIS") data owned by the City and County of Denver including but not limited to maps, computer programs, aerial photography, methodologies, software, diagnostics and documents; or any other materials or information which may be designated or marked "Proprietary" or "Confidential" and provided to or made available to the Consultant by the City. Such Proprietary Data may be in hardcopy, printed, digital or electronic format.

- (b) Consultant's Information. The Consultant understands that all the material provided or produced under this Agreement may be subject to the Colorado Open Records Act, C.R.S. 24-72-201, et seq., and that in the event of a request to the City for disclosure of such information, the City shall advise the Consultant of such request in order to give the Consultant the opportunity to object to the disclosure of any of its proprietary or confidential material. In the event of the filing of a lawsuit to compel such disclosure, the City will tender all such material to the court for judicial determination of the issue of disclosure and the Consultant agrees to intervene in such lawsuit to protect and assert its claims of privilege and against disclosure of such material or waive the same. The Consultant further agrees to defend, indemnify and save and hold harmless the City, its officers, agents and employees, from any claim, damages, expense, loss or costs arising out of the Consultant's intervention to protect and assert its claim of privilege against disclosure under this Article including, but not limited to, prompt reimbursement to the City of all reasonable attorney fees, costs and damages that the City may incur directly or may be ordered to pay by such court.

6.18 Use, Possession or Sale of Alcohol or Drugs. The Consultant, its officers, agents, and employees shall cooperate and comply with the provisions of Executive Order 94 and Attachment A thereto concerning the use, possession or sale of alcohol or drugs. Violation of these provisions or refusal to cooperate with implementation of the policy can result in the City's barring the Consultant from City facilities or participating in City operations.

6.19 No Employment of Illegal Aliens to Perform Work Under the Agreement.

- (a) This Agreement is subject to Division 5 of Article IV of Chapter 20 of the Denver Revised Municipal Code, and any amendments (the "Certification Ordinance").
- (b) The Consultant certifies that:
 - (1) At the time of its execution of this Agreement, it does not knowingly employ or contract with an illegal alien who will perform work under this Agreement.
 - (2) It will participate in the E-Verify Program, as defined in § 8-17.5-101(3.7), C.R.S., to confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement.
- (c) The Consultant also agrees and represents that:
 - (1) It shall not knowingly employ or contract with an illegal alien to perform work under the Agreement.
 - (2) It shall not enter into a contract with a subconsultant or subcontractor that fails to certify to the Consultant that it shall not knowingly employ or contract with an illegal alien to perform work under the Agreement.
 - (3) It has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement, through participation in the E-Verify Program.
 - (4) It is prohibited from using the E-Verify Program procedures to undertake pre-employment screening of job applicants while performing its obligations under the

Agreement, and that otherwise requires the Consultant to comply with any and all federal requirements related to use of the E-Verify Program including, by way of example, all program requirements related to employee notification and preservation of employee rights.

- (5) If it obtains actual knowledge that a subconsultant or subcontractor performing work under the Agreement knowingly employs or contracts with an illegal alien, it will notify such subconsultant or subcontractor and the City within three (3) days. The Consultant will also then terminate such subconsultant or subcontractor if within three (3) days after such notice the subconsultant or subcontractor does not stop employing or contracting with the illegal alien, unless during such three-day period the subconsultant or subcontractor provides information to establish that the subconsultant or subcontractor has not knowingly employed or contracted with an illegal alien.
 - (6) It will comply with any reasonable request made in the course of an investigation by the Colorado Department of Labor and Employment under authority of § 8-17.5-102(5), C.R.S, or the City Auditor, under authority of D.R.M.C. 20-90.3.
- (d) The Consultant is liable for any violations as provided in the Certification Ordinance. If Consultant violates any provision of this section or the Certification Ordinance, the City may terminate this Agreement for a breach of the Agreement. If the Agreement is so terminated, the Consultant shall be liable for actual and consequential damages to the City. Any such termination of a contract due to a violation of this section or the Certification Ordinance may also, at the discretion of the City, constitute grounds for disqualifying Consultant from submitting bids or proposals for future contracts with the City.

6.20 Disputes. All disputes between the City and Consultant regarding this Agreement shall be resolved by administrative hearing pursuant to the procedure established by D.R.M.C. § 56-106(b), *et seq.* For the purposes of that procedure, the City official rendering a final determination shall be the Manager.

6.21 Survival of Certain Contract Provisions. The parties understand and agree that all terms and conditions of this Agreement, together with the exhibits and attachments hereto, which, by reasonable implication, contemplate continued performance or compliance beyond the termination of this Agreement, (by expiration of the term or otherwise), shall survive such termination and shall continue to be enforceable as provided herein. Without limiting the generality of the foregoing, the Consultant's obligations for the provision of insurance and to indemnify the City shall survive for a period equal to any and all relevant statutes of limitation, plus the time necessary to fully resolve any claims, matters, or actions begun within that period."

6.22 Advertising and Public Disclosure. The Consultant shall not include any reference to this Agreement or to services performed pursuant to this Agreement in any of its advertising or public relations materials without first obtaining the written approval of the Manager, which will not be unreasonably withheld. Any oral presentation or written materials related to services performed under this Agreement shall include only services that have been accepted by the City. The Manager shall be notified in advance of the date and time of any such presentation. Nothing in this provision shall preclude the transmittal of any information to officials of the City, including without limitation the Mayor, the Manager, City Council or the Auditor.

6.23 Legal Authority. Consultant represents and warrants that it possesses the legal authority, pursuant to any proper, appropriate and official motion, resolution or action passed or taken, to enter into this Agreement. Each person signing and executing this Agreement on behalf of Consultant represents and warrants that he has been fully authorized by Consultant to execute this Agreement on behalf of Consultant and to validly and legally bind Consultant to all the terms, performances and provisions of this Agreement. The City shall have the right, in its sole discretion, to either temporarily suspend or permanently terminate this Agreement if there is a dispute as to the legal authority of either Consultant or the person signing the Agreement to enter into this Agreement.

6.24 Notices. Notices, concerning the termination of this Contract, notices of alleged or actual violations of the terms or conditions of this Contract, and other notices of similar importance, including changes to the person to be notified or their addresses, shall be made:

to the City: Executive Director of Public Works
201 West Colfax Avenue, Dept. 608
Denver, Colorado 80202

with a copy to: Assistant City Attorney
201 West Colfax Avenue, Dept. 1207
Denver, Colorado 80202

to the Consultant: Parsons Transportation Group, Inc.
1776 Lincoln Street, Suite 600
Denver, Colorado 80203

All notices shall be in writing and provided by either personal delivery or certified mail, return receipt requested. All notices are effective upon personal delivery or upon placing the notice in the United States mail. The addresses may be changed by the Parties by written notice.

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

6.26 Agreement as Complete Integration-Amendments. This Agreement is intended as the complete integration of all understandings between the parties. No prior or contemporaneous addition, deletion or other amendment shall have any force or effect, unless embodied herein in writing. No subsequent novation, renewal, addition, deletion or other amendment hereto shall have any force or effect unless embodied in a written amendatory or other agreement executed by the parties and signed by the signatories to the original Agreement. This Agreement and any amendments shall be binding upon the parties, their successors and assigns.

6.27 Effective Date. The "Effective Date" of this Agreement shall be the date on the City's signature page.

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

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Contract Control Number: PWADM-201735100-00

Contractor Name: PARSONS TRANSPORTATION GROUP INC

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

SEAL

CITY AND COUNTY OF DENVER

ATTEST:

By _____

APPROVED AS TO FORM:

REGISTERED AND COUNTERSIGNED:

Attorney for the City and County of
Denver

By _____

By _____

By _____



Contract Control Number: PWADM-201735100-00

Contractor Name: PARSONS TRANSPORTATION GROUP INC

By: Bradley Doyle

Name: Bradley Doyle
(please print)

Title: Colorado Roads + Structures Manager
(please print)

ATTEST: [if required]

By: _____

Name: _____
(please print)

Title: _____
(please print)



All Exhibits

Exhibit A

PARSONS
PLATTE TO PARK HILL PARKS AND DRAINAGE IMPROVEMENTS PROGRAM
PROGRAM MANAGEMENT PROFESSIONAL SERVICES CONTRACT
DRAFT SCOPE OF SERVICES – 3/16/17

PACKAGE 1 – PROGRAM MANAGEMENT AND DESIGN BUILD CONSTRUCTION MANAGEMENT

Parsons Transportation Group (Parsons) will provide professional engineering management and support for the Platte to Park Hill Parks and Drainage Improvements Program Management Team and Program wide support services to manage and support the project staff of the City and County of Denver. The Parsons team will work with City staff to identify a program management organization that includes Parsons, City, and other groups that will manage the overall program. Parsons will be providing the following specific services:

PROGRAM MANAGEMENT PHASES

1. Planning
 - a. PMT staff will engage with City staff to know scope, objectives, benefits
 - b. Design Build (DB) oversight teams to engage program staff to know design build scopes for each project and engage with contractors
 - c. Gain knowledge of what City requires for program control systems
 - d. Review DB contracts, Row schedules, intergovernmental agreements (IGAs) and Utility Relocation Agreements (URAs) - provide feedback to City for mitigating risks
 - e. Refine process schedules to facilitate program/project execution
 - f. Refine initial budget allocation per task, discipline or schedule stages, monitor resources applied to tasks, evaluate program variance against initial plan
 - g. Develop integrated program organizational chart
2. Initiation
 - a. Prepare Program Management Plan that will include:
 - i. Parsons Scope management
 - ii. Document control plan
 - iii. Safety management plan
 - b. Program Manager will assign tasks to Parsons team personnel and will be able to utilize the PMT and City staff to manage, oversee and coordinate the DB projects and with the adjacent program projects.
 - c. Promoting safety management and active oversight of DB Contractors' safety
3. Design Build Contract Procurements
 - a. Assist with completion of design build competitions from proposal acceptance through award
 - b. Assist with evaluation of proposals, selection process and training for design build selection teams
 - c. Assist with contract negotiations with selected D/B teams
4. Design Build Contract Administration
 - a. Responsibility for day-to-day oversight of projects
 - b. Attend and oversee documentation of all project team meetings, define project priorities, determine project assignments and assure project goals are achieved
 - c. Provide oversight for DB design and construction activities
 - d. Develop, participate and oversee task force meetings for design, project coordination and monthly status meetings
 - e. Provide document control for the owner's project documentation
 - f. Provide inspection/observation to monitor DB progress and DB QA/QC plan
 - g. Provide assessments of DB contractor's design and construction compliance

- h. Provide project accounting associated with City's financial reporting, pay applications, change orders, and any other project requirements to execute the DB contracts
 - i. Assist with coordination of Independent Assurance Testing (IAT)
 - j. Participate in weekly management team and task force meetings
 - k. Provide active oversight of DB Contractors' change management of scope, schedule, budget and resources
5. Program/Projects closeout
 - a. Provide a project closeout and documented lessons learned
 6. Adjacent project coordination GLO I, II, III and Park Hill Phase V
 - a. PM or the designated representative will attend project progress meetings as appropriate to know project schedule and scope interactions with the P2P Program.
 - b. PM and/or designated representatives will oversee DB contractor teams' coordination between adjacent and connecting work elements.

Deliverables

1. Document Control System – ProjectWise
2. Program Management Plan
3. Monthly Status Reports
4. DB contractor documentation reviews and comments
5. Daily Field Observation Reports
6. DB Design and Construction Assessment reports

Project Staffing

1. P2P Program Manager – Kieth Fiebig, PE
2. Principal-In-Charge – Brad Doyle, PE
3. Project and Document Controls Manager – Lisa Schroder, P. Eng.
4. Safety Manager – Mac Legault, CSP

DB Oversight Team

5. CPGC DB Oversight Manager – Paul Nikolai, RLA
6. CPGC Project Engineer – Ben Liu, PE
7. CPGC Lead Inspector/Field Observer – Jesse Parker, Jr, PE (Vine)
8. CPGC Document Control Manager – Carla Newton (LSG)
9. 39th Ave DB Oversight Manager – Scott Sammons, PE (Vivid)
10. 39th Ave Project Engineer – Hokie Hansson, PE
11. 39th Ave Lead Inspector/Field Observer – Maggie Allison, EI
12. 39th Ave Document Control Manager – Belinda Jenkins

PARSONS
PLATTE TO PARK HILL PARKS AND DRAINAGE IMPROVEMENTS PROGRAM
PROGRAM MANAGEMENT PROFESSIONAL SERVICES CONTRACT
DRAFT SCOPE OF SERVICES – 3/9/17

Package 2 – Design Review Support Services

Parsons Transportation Group (Parsons) will provide professional management support services for the design review and specialty technical support services for the P2P Program to assist in management and support to the project staff of the City and County of Denver in review of the documents delivered by the DB contractor teams.

ADDITIONAL SERVICES

The frequency and volume of these review and assessment services will depend upon the DB's frequency and schedule for their submittals required for the DB processes. It is expected that the DB Contractor's will have design submittals for 30%, 60%, 90%, RFC and IFC packages. Staff work load, schedule and frequency of submittals will dictate how this review work will need to be achieved and we are unaware of the DB contractor's submittal schedules at this time. We have anticipated only a limited number of hours for professional staff time to provide review and comment for design as shown in our budget estimate for this task. The status of Parsons' budget will be tracked and reported to the City management team so that adjustments can be made in the level of effort to respond to changing program needs.

Deliverables

1. Design review assessments provided to Document Control and to the DB Contractors

Project Staffing

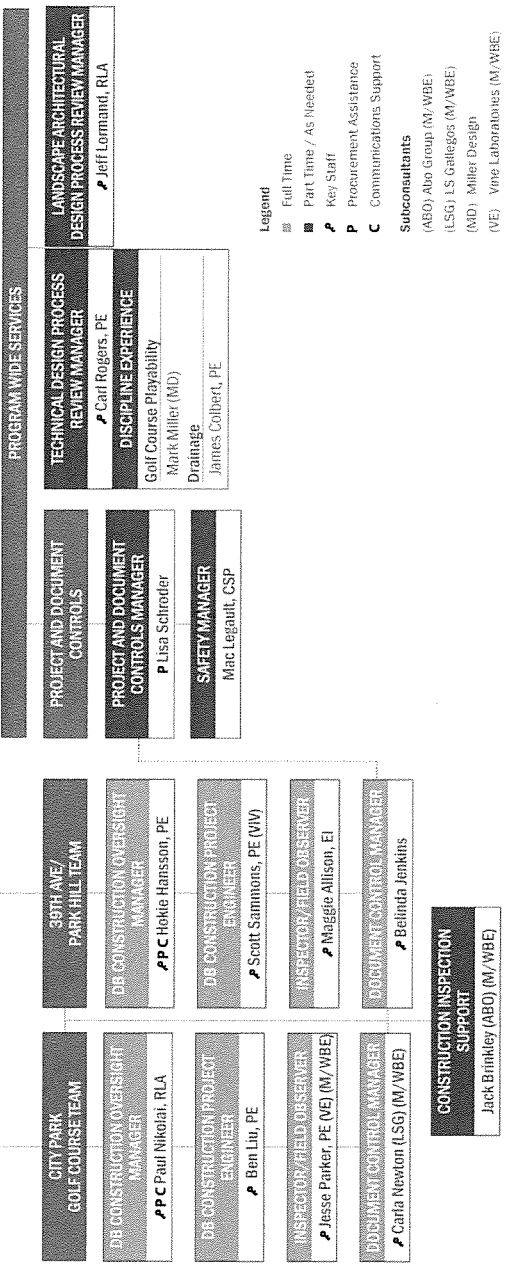
1. Jack Brinkley – Architecture/Clubhouse reviews
2. Carl Rogers, PE - Engineering Design and technical reviews
3. Jeff Lormand, RLA – Design and technical review landscape
4. James Colbert, PE – Engineering Design and technical review Drainage
5. Mark Miller – Golf Course Design reviews



PROGRAM SETUP
 P P C Gere Niemasz, PE

P2P PROGRAM MANAGER
 P P C Kiehl Fiebig, PE

PRINCIPAL-IN-CHARGE
 Brait Doyle, PE



- Legend**
- Full Time
 - Part Time / As Needed
 - P Key Staff
 - P Procurement Assistance
 - C Communications Support
- Subconsultants**
- (ABO) Abo Group (M/WBE)
 - (LSG) LS Gallegos (M/WBE)
 - (MD) Miller Design
 - (VE) Vine Laboratories (M/WBE)
 - (VIV) VIVID Engineering Group

All staff are Parsons employees unless otherwise noted.

Exhibit B

ATTACHMENT 2

CONSULTANT TEAM MEMBERS

PRIME CONSULTANT: Parsons Transportation Group Inc. (Parsons)

List ALL potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager)

Title/Classification	Responsibilities	Rate/Hr.
Program Manager	Oversee all aspects of Program Management	\$227.18
Sr. Program Manager	Assist with Program Management Setup	\$265.15
Construction Oversight Manager	Manage oversight of construction of 39 th Ave/Park Hill DB project	\$139.23
Construction Project Engineer	Oversee construction of City Park Golf Course for all project engineering related activities	\$113.75
Senior Project Scheduler and Risk Management Specialist	Manage schedule and mitigate risk	\$270
Construction Project Engineer	Oversee construction of 39 th Ave/Park Hill for all project engineering related activities	\$180
QA/QC Manager	Manage quality control and assurance	\$229.61
Construction Oversight Manager	Manage oversight of construction of City Park Golf Course DB project	\$131.63
Principal in Charge	Provide support in coordination, communications, and oversight	\$214.73
Design Process Manager – Technical	Manage overall technical design review process	\$212.69
Project Controller	Program wide document and project controls manager	\$121.50
Environmental Specialist	Regulatory compliance	\$164.42
Safety Manager	Manage all aspects of safety for program wide activities	\$163.70
Senior Engineer	Respond to inquiries from the field	\$160
Design Process Manager – Landscape Architecture	Manage overall architectural design review process on context sensitivity items	\$159.73
Senior Construction Management Supervisor	Oversee construction management activities	\$158.10

Inspector / Field Observer I	Oversee City Park Golf Course field inspections	\$144.05
Associate Engineer	Respond to inquiries from the field	\$109
Engineer II	Respond to inquiries from the field	\$101.63
Construction Oversight – Engineer I	Support construction oversight activities	\$96.40
Engineer I	Respond to inquiries from the field	\$90.37
Inspector / Field Observer II	Oversee 39 th Ave/Park Hill field inspections	\$106.91
Senior Document Control Manager	Manage document control activities for 39 th Ave/Park Hill DB project	\$71.20
Construction Oversight – Associate Engineer	Support construction oversight activities	\$75.10
Administrative Assistant	Support team with administrative needs	\$50.11

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 2.7

All reimbursable expenses are subject to the review and approval of the City. The additional expenses of the Consultant reimbursable by the City shall include:

- (1) Mileage: Reimbursable at the current IRS Business Rate ONLY when Consultant is required to drive to a project located outside the City and County of Denver Boundary.
- (2) Actual cost of reproducing and printing reports, drawings, specifications and other work products, and the associated cost for shipping and handling. These reimbursable expenses pertain only to requests made to the Consultant from the City, and exclude intra-office printing, scanning and reproduction required by the Consultant to complete the work.
- (3) Actual cost for expendable supplies and services not normally used on a routine or normal basis in an architectural or engineering office (i.e. aerial photography) and which are provided especially under this Agreement for the benefit of the City.

**ATTACHMENT 2
SUB-CONSULTANT TEAM MEMBERS**

Firm Name: The Abo Group, Inc.

List ALL potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager)

Title/Classification	Responsibilities	Rate/Hr.
Construction Management Field Support	Field inspector / observer during construction process	141.67
Architecture Design Reviewer	Participation in design process reviews for architecture related components	146.63

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 3.05

All reimbursable expenses are subject to the review and approval of the City. The additional expenses of the Consultant reimbursable by the City shall include:

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**ATTACHMENT 2
SUB-CONSULTANT TEAM MEMBERS**

Firm Name: Clanton Associates

List ALL potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager)

Title/Classification	Responsibilities	Rate/Hr.
Senior Principal	Professional Engineer, Quality Control, Conceptual Design	\$260.00
Principal	Project Management, Point of Contact, Personnel Mgt, Meetings	\$180.00
Senior Engineer	Electrical Design and Engineering, Electrical Drawings	\$115.00
Senior Designer	Support Principal, Project Management, Meetings, Design	\$115.00
Engineer	Design, Calculations, Documentation, Principal Support	\$ 95.00
Designer	Lighting Design, Calculations, Documentation, Principal Support	\$ 95.00
Intern	Lighting Calculations, Documentation, Designer Support	\$ 80.00
Production Manager	CADD Standards, File Management, IT, Training	\$115.00
Senior CADD Technician	CADD Production, GIS, Production Scheduling	\$ 95.00
CADD Technician	CADD Production, File Management, Drawing Standards	\$ 70.00
Administration	Contract Administration, Invoicing, Proposals, Payroll	\$ 65.00

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 2.479

All reimbursable expenses are subject to the review and approval of the City. The additional expenses of the Consultant reimbursable by the City shall include:

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**ATTACHMENT 2
SUB-CONSULTANT TEAM MEMBERS**

Firm Name: HCL Engineering & Surveying, LLC

List ALL potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager)

Title/Classification	Responsibilities	Rate/Hr.
Principal	Contract Administration / Project Oversight	\$160
Survey Manager	Project management and reviewing of field data and approving deliverables.	\$150
Project Surveyor	Manage field crew activities, collect boundary and range point data from the city web site and generate the Survey Control Perpetuation Diagram.	\$100
CAD Technician	Process field data and create surveys.	\$90
Survey Crew	Conduct field surveys in the recovery, location and re-establishment of the survey control points.	\$150
Construction Staking	Conduct field surveys in the recovery, location and re-establishment of the survey control points.	\$135

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 2.96

All reimbursable expenses are subject to the review and approval of the City. The additional expenses of the Consultant reimbursable by the City shall include:

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**ATTACHMENT 2
SUB-CONSULTANT TEAM MEMBERS**

Firm Name: Harris Kocher Smith

List ALL potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager)

Title/Classification	Responsibilities	Rate/Hr.
Principal	Management of survey projects and managers	\$185.00
Associate Principal	Management of survey projects and managers	\$165.00
Survey Manager	Management of survey projects and managers	\$145.00
Survey Project Manager	Management of survey projects	\$120.00
Construction Survey Manager	Management of survey construction staking projects	\$120.00
Project Surveyor	Drafting, calculations, written property descriptions	\$105.00
Two Man Crew	Survey field work	\$170.00
One Man Crew	Survey field work	\$130.00

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 3.0

All reimbursable expenses are subject to the review and approval of the City. The additional expenses of the Consultant reimbursable by the City shall include:

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**ATTACHMENT 2
SUB-CONSULTANT TEAM MEMBERS**

Firm Name: LS Gallegos & Associates, Inc.

List ALL potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager)

Title/Classification	Responsibilities	Rate/Hr.
Document Control Manager	Holder of project documentation associated with design and construction	\$81.72
Contract Review Manager	Program wide input on Inter-agency agreements (IGA's)	\$173.31

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 2.06

All reimbursable expenses are subject to the review and approval of the City. The additional expenses of the Consultant reimbursable by the City shall include:

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**ATTACHMENT 2
SUB-CONSULTANT TEAM MEMBERS**

Firm Name: Miller Design Golf Course Architecture

List ALL potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager)

Title/Classification	Responsibilities	Rate/Hr.
Golf Course Designer	Review of golf course design related issues as they relate to playability and design	\$125.00

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: varies

All reimbursable expenses are subject to the review and approval of the City. The additional expenses of the Consultant reimbursable by the City shall include:

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**ATTACHMENT 2
SUB-CONSULTANT TEAM MEMBERS**

Firm Name: Smith Environmental & Engineering

List ALL potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager)

Title/Classification	Responsibilities	Rate/Hr.
Senior Environmental Scientist	Provide Program wide input for procedures and regulatory compliance	\$105
Senior Environmental Scientist	Provide Program wide support on Environmental Assessments and mitigation	\$105
Environmental Scientist II	Provide Program wide support on environmental design inputs	\$86

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: varies

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**ATTACHMENT 2
SUB-CONSULTANT TEAM MEMBERS**

Firm Name: THK Associates, Inc.

List ALL potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager)

Title/Classification	Responsibilities	Rate/Hr.
Principal	Review of overall landscape design issues as they relate to rehabilitation	150.00
Senior Landscape Designer	Review of overall landscape design issues as they relate to rehabilitation	120.00

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: VARIES

All reimbursable expenses are subject to the review and approval of the City. The additional expenses of the Consultant reimbursable by the City shall include:

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**ATTACHMENT 2
SUB-CONSULTANT TEAM MEMBERS**

Firm Name: Transportation Resource Services, Inc. d/b/a TRS Corp.

List ALL potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager)

Title/Classification	Responsibilities	Rate/Hr.
Project Manager	Task management. Discipline Lead. Staff supervision.	\$145.00
Sr. Right of Way Agent	Negotiate complex property acquisitions Relocation Planning Provide relocation assistance for complex relocation scenarios	\$105.00
Quality Control Coordinator	Provide review and oversight for acquisition, relocation and closing tasks	\$105.00
Right of Way Agent	Negotiate property acquisitions Provide relocation advisory assistance for standard relocation	\$ 95.00
Closing Coordinator	Collaborate with title company/City/owner to facilitate closings	\$ 95.00
Administrative	Status reporting; file maintenance	\$ 60.00

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: varies

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**ATTACHMENT 2
SUB-CONSULTANT TEAM MEMBERS**

Firm Name: Vine Laboratories, Inc.

List ALL potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager)

Title/Classification	Responsibilities	Rate/Hr.
Construction Manager	Construction Manager Lead	\$137.50
Senior Inspector	Construction Support - Inspector	\$78.00
Mid-Level Inspector	Construction Support - Inspector	\$65.00

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 2.292

All reimbursable expenses are subject to the review and approval of the City. The additional expenses of the Consultant reimbursable by the City shall include:

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**ATTACHMENT 2
SUB-CONSULTANT TEAM MEMBERS**

Firm Name: Vivid Engineering Group

List ALL potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager)

Title/Classification	Responsibilities	Rate/Hr.
Design/Build Construction Project Engineer	Oversee construction of 39 th Ave/Park Hill for all project engineering related activities Course Parks and Drainage Improvements	\$180.00
Construction Management Field Support	Oversight of construction activities in the field	\$130.00
Geotechnical Design Process Reviewer	Design Review of geotechnical related services	\$180.00

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: Varies

All reimbursable expenses are subject to the review and approval of the City. The additional expenses of the Consultant reimbursable by the City shall include:

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**ATTACHMENT 2
SUB-CONSULTANT TEAM MEMBERS**

Firm Name: ZANN

List ALL potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager)

Title/Classification	Responsibilities	Rate/Hr.
Project Executive	Oversee Program wide diverse Work Force Initiative and communications	\$175
Senior Coordinator	Support Program Reporting and communications	\$145
Operations/Support	Support program functions as needed	\$125

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 2.3

All reimbursable expenses are subject to the review and approval of the City. The additional expenses of the Consultant reimbursable by the City shall include:

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Exhibit C

ATTACHMENT 2

LIST OF KEY PERSONNEL

PERSONNEL CLASSIFICATION	NAME OF INDIVIDUAL
Program Manager	Kieth Fiebig, PE
City Park Golf Course DB Construction Oversight Manager	Paul Nikolai, RLA
City Park Golf Course DB Construction Project Engineer	Ben Liu, PE
City Park Golf Course Inspector / Field Observer	Jesse Parker, PE
City Park Golf Course Document Control Manager	Carla Newton
39 th Ave/Park Hill DB Construction Oversight Manager	Hokie Hansson, PE
39 th Ave/Park Hill DB Construction Project Engineer	Scott Sammons, PE
39 th Ave/Park Hill Inspector / Field Observer	Maggie Allison, EIT
39 th Ave/Park Hill Document Control Manager	Belinda Jenkins
Program Wide Design Review Technical Lead	Carl Rogers, PE
Program Wide Design Review Landscape Architect Lead	Jeff Lormand, RLA

Exhibit D



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
05/18/2017

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

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

PRODUCER LIC #CA 0C19812 Lockton Companies, LLC-1 Kansas City 444 W. 47th Street, Suite 900 Kansas City, MO 64112-1906	1-816-960-9000	CONTACT NAME: PHONE (A/C, No, Ext): E-MAIL ADDRESS: FAX (A/C, No):
INSURED Parsons Transportation Group Inc. 100 M Street SE, Suite 1200 Washington, DC 20003-3515		INSURER(S) AFFORDING COVERAGE INSURER A: NATIONAL UNION FIRE INS CO OF PITTS 19445 INSURER B: INSURANCE CO OF THE STATE OF PA 19429 INSURER C: LEXINGTON INS CO 19437 INSURER D: INSURER E: INSURER F:

COVERAGES CERTIFICATE NUMBER: 49887746 REVISION NUMBER:

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	X	X	GL17587105	01/01/17	01/01/18	EACH OCCURRENCE \$ 1,500,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ included MED EXP (Any one person) \$ included PERSONAL & ADV INJURY \$ included GENERAL AGGREGATE \$ 3,000,000 PRODUCTS - COMP/OP AGG \$ included \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	X	X	CA3194526 (MA) CA3194527 (AOS)	01/01/17 01/01/17	01/01/18 01/01/18	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
B	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY <input checked="" type="checkbox"/> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input checked="" type="checkbox"/> If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	WC014629402 (CA) WC014629400 (MA/WI) WC014629399 (FL) WC014629401 (AOS)	01/01/17 01/01/17 01/01/17 01/01/17	01/01/18 01/01/18 01/01/18 01/01/18	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	<input checked="" type="checkbox"/> ARCHITECTS & ENGINEERS <input checked="" type="checkbox"/> PROFESSIONAL LIABILITY			11665420	01/01/17	01/01/18	PER CLAIM 1,500,000 IN AGGREGATE 3,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: On-Call Management Services, Platte to Park Hill Parks and Drainage Improvements Program. As required by written contract, the City and County of Denver, its Elected and Appointed Officials, Employees, and Volunteers are included as Additional Insured as respects the Commercial General Liability and Auto Liability policies.

CERTIFICATE HOLDER City and County of Denver Department of Public Works 201 W Colfax Avenue, Ste 614 Denver, CO 80202 USA	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
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1 **BY AUTHORITY**

2 RESOLUTION NO. CR17-0824
3 SERIES OF 2017

COMMITTEE OF REFERENCE:
Land Use, Transportation & Infrastructure

4 **A RESOLUTION**

5 **Approving a proposed Contract between the City and County of Denver and**
6 **Flatiron Constructors, Inc., regarding the Park Hill Storm, Phase V project.**

7
8 **BE IT RESOLVED BY THE COUNCIL OF THE CITY AND COUNTY OF DENVER:**

9 **Section 1.** The proposed Contract between the City and County of Denver and Flatiron
10 Constructors, Inc., in the words and figures contained and set forth in that form of Contract available
11 in the office and on the web page of City Council, and to be filed in the office of the Clerk and
12 Recorder, Ex-Officio Clerk of the City and County of Denver, under City Clerk's Filing No. 2017-0357
13 is hereby approved.

14 COMMITTEE APPROVAL DATE: July 25, 2017

15 MAYOR-COUNCIL DATE: August 1, 2017

16 PASSED BY THE COUNCIL: August 14, 2017

17 _____ August 14, 2017

Al B...

- PRESIDENT

18 ATTEST: _____
19
20 - CLERK AND RECORDER,
EX-OFFICIO CLERK OF THE
CITY AND COUNTY OF DENVER

21 PREPARED BY: John G. McGrath, Assistant City Attorney DATE: August 3, 2017

22 Pursuant to section 13-12, D.R.M.C., this proposed resolution has been reviewed by the Office of
23 the City Attorney. We find no irregularity as to form, and have no legal objection to the proposed
24 resolution. The proposed resolution is submitted to the City Council for approval pursuant to § 3.2.6
25 of the Charter.

26
27 Kristin M. Bronson, Denver City Attorney

28 BY: *Kristin M. Bronson*, Assistant City Attorney DATE: Aug 3, 2017
29



DENVER[®]
THE MILE HIGH CITY

DEPARTMENT OF PUBLIC WORKS

Contract Document

Contract No. 201734065

PARK HILL STORM, PHASE V

APRIL 14, 2017



NOTICE OF APPARENT LOW BIDDER

Flatiron Constructors, Inc.
385 Interlocken Crescent, Suite 900
Broomfield, CO 80021

The EXECUTIVE DIRECTOR OF PUBLIC WORKS has considered the Bids submitted on **June 6, 2017**, for work to be done and materials to be furnished in and for:

CONTRACT (#201734065) 2017 Park Hill Storm, Phase V

as set forth in detail in the Contract Documents for the City and County of Denver, Colorado. It appears that your Bid is fair, equitable, and to the best interest of the City and County; therefore, said Bid is hereby accepted at the bid price contained herein, subject to the approval and execution of the Contract Documents by the City in accordance with the Charter of the City and County of Denver, and to your furnishing the items specified below. The award is based on the total bid items: (01-52.13 through 50-1) seventy seven (77) total base bid items, plus the Add Alt 1 bid items 2-1.2a through 46-3 twenty-eight (28) total Add Alt 1 bid items, the total bid estimated cost thereof being: Seven Million, Six Hundred Thirty Eight Thousand, Six Hundred Forty Seven Dollars, and Ninety Eight Cents (\$7,638,647.98).

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

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

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

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

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

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

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



NOTICE OF APPARENT LOW BIDDER

CONTRACT NO. 201734065

Page 2

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

Dated at Denver, Colorado this 15th day of June 2017.

CITY AND COUNTY OF DENVER

By



George Delaney

Interim Executive Director of Public Works

cc: (CAO), (Treasury/Tax Compliance), (DSBO), Andy Perkins, (PM), (PW-Aud), File.

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DENVER[®]
THE MILE HIGH CITY

DEPARTMENT OF PUBLIC WORKS

BID FORM SUBMITTAL PACKAGE

Contract No. 201734065

PARK HILL STORM, PHASE V

APRIL 14, 2017

**CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
Wastewater Management Division**

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BID FORM AND SUBMITTAL PACKAGE**

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DENVER

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

BIDDER'S CHECKLIST

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

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

Textura® Construction Payment Management System (CPM System)

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

PROJECT SIZE	FEE (% OF BID)
< \$1,000,000	0.22% (.0022)
\$1,000,001 - \$5,000,000	0.17% (.0017)
\$5,000,001 - \$20,000,000	0.12% (.0012)
\$20,000,001 - \$50,000,000	0.10% (.0010)
\$50,000,001 - \$100,000,000	0.08% (.0008)
\$100,000,001 - \$500,000,000	0.05% (.0005)
> \$500,000,000	CONTACT TEXTURA FOR PROGRAM PRICING

For more information:

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

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
Wastewater Management Division

BID FORM AND SUBMITTAL PACKAGE ACKNOWLEDGMENT

CONTRACT NO. 201734065

Park Hill Storm, Phase V

BIDDER: Flatiron Constructors, Inc
(Legal Name per Colorado Secretary of State)

ADDRESS: 385 Interlocken Crescent. Suite 900
Broomfield, CO 80021

The undersigned bidder states that the undersigned bidder has received and had an opportunity to fully and thoroughly examine a complete set of the Contract Documents for Contract No. 201734065, Park Hill Storm, Phase V, made available to the undersigned bidder pursuant to Notice of Invitation for Bids dated April 14, 2017.

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

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

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

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

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

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

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

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

BIDDER: Flatiron Constructors, Inc

Name: Eric Taylor

By: *Eric Taylor*

Title: Vice President

ATTEST:

By: *Brend Holcomb*
VP - Asst. Secretary



CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
Wastewater Management Division

BID FORM

CONTRACT NO. 201734065
Park Hill Storm, Phase V

BIDDER Flatiron Constructors, Inc
(Legal Name per Colorado Secretary of State)

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

The Undersigned Bidder, having examined the plans, technical specifications, and remainder of the proposed Contract Documents as designated and enumerated in the General and Special Contract Conditions and any and all addenda thereto; having investigated the location of and conditions affecting the proposed Work; and being acquainted with and fully understanding the extent and character of the Work covered by this bid, and all factors and conditions affecting or which may be affected by Work, HEREBY SUBMITS THIS BID, pursuant to an advertisement of a Notice of Invitation for Bids as published on April 14, 2017, to furnish all required materials, tools, appliances, equipment and plant; to perform all necessary labor and to undertake and complete: **CONTRACT NO. 201734065, Park Hill Storm, Phase V**, in Denver, Colorado, in full accordance with and conformity to the Plans, Technical Specifications, and Contract Documents hereto attached or by reference made a part hereof, at and for the following price(s) set forth on this Bid Form.

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

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

Bid Form

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
01-52.13	TEMPORARY OFFICE FACILITIES at the unit price of \$ <u>59,000.00</u> lump sum	1 LS	\$ <u>59,000.00</u>
2-1.2a	REMOVE 6" CONCRETE CURB AND/OR GUTTER at the unit price of \$ <u>6.00</u> per linear foot	210 LF	\$ <u>1,260.00</u>
2-1.4	REMOVE HANDICAP CONCRETE CURB RAMP Including Curb Return, (Walk, C&G) at the unit price of \$ <u>3.00</u> per square foot	1,500 SF	\$ <u>4,500.00</u>
2-2.1	REMOVE CONCRETE SIDEWALK at the unit price of \$ <u>2.00</u> per square foot	1,260 SF	\$ <u>2,520.00</u>
2-3.4	REMOVE CONCRETE STREET INTERSECTION GUTTER (CROSSPAN) AND/OR VALLEY GUTTER Remove 5' Valley Gutter and Cross Pan at the unit price of \$ <u>2.00</u> per square foot	10,800 SF	\$ <u>21,600.00</u>
2-6	REMOVE CONCRETE HEADWALL Remove Existing 84" Concrete Plug, Store and Reinstall at Upstream end of project at the unit price of \$ <u>5,000.00</u> each	1 EA	\$ <u>5,000.00</u>
2-11.1c	REMOVE EXISTING 12" SANITARY SEWER PIPE at the unit price of \$ <u>78.00</u> per linear foot	20 LF	\$ <u>1,560.00</u>
2-11.1e	REMOVE EXISTING 18" SANITARY SEWER PIPE at the unit price of \$ <u>9.00</u> per linear foot	210 LF	\$ <u>1,890.00</u>
2-11.2c	REMOVE EXISTING 12" STORM SEWER PIPE at the unit price of \$ <u>45.00</u> per linear foot	55 LF	\$ <u>2,475.00</u>

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
2-11.2d	REMOVE EXISTING 15" STORM SEWER PIPE At the Direction of Project Manager at the unit price of \$ <u>45.00</u> per linear foot	100 LF	\$ <u>4,500.00</u>
2-11.5a	ABANDON EXISTING 8" SEWER PIPE at the unit price of \$ <u>7.00</u> per linear foot	460 LF	\$ <u>3,220.00</u>
2-11.5c	ABANDON EXISTING 12" SEWER PIPE at the unit price of \$ <u>10.00</u> per linear foot	150 LF	\$ <u>1,500.00</u>
2-11.5c	ABANDON EXISTING 12" SEWER PIPE Abandon Existing 18" Sewer Pipe at the unit price of \$ <u>24.00</u> per linear foot	250 LF	\$ <u>6,000.00</u>
2-12.1	REMOVE EXISTING SANITARY MANHOLE at the unit price of \$ <u>1,600</u> each	2 EA	\$ <u>3,200.00</u>
2-12.3	ABANDON EXISTING SANITARY MANHOLE at the unit price of \$ <u>2,000</u> each	6 EA	\$ <u>12,000.00</u>
2-13.1	REMOVE EXISTING STORM INLET at the unit price of \$ <u>1,400.00</u> each	1 EA	\$ <u>1,400.00</u>
2-17.3	REMOVE AND REPLACE/RELOCATE SIGN at the unit price of \$ <u>400.00</u> each	2 EA	\$ <u>800.00</u>
2-20b	REMOVE RAILROAD TRACKS Remove 3 Sets of Private RR Tracks at the unit price of \$ <u>105.00</u> per linear foot	250 LF	\$ <u>26,250.00</u>
02-22.13	VIBRATION ASSESSMENT at the unit price of \$ <u>100,000.00</u> lump sum	1 LS	\$ <u>100,000.00</u>
2-23	REMOVE DECORATIVE LANDSCAPING 4799 Dahlia Street at the unit price of \$ <u>900.00</u> lump sum	1 LS	\$ <u>900.00</u>

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
3-7a	HEALTH & SAFETY PLAN at the unit price of \$ <u>2,500.00</u> lump sum	1 LS	\$ <u>2,500.00</u>
3-7b	MATERIAL MANAGEMENT PLAN at the unit price of \$ <u>2,500.00</u> lump sum	1 LS	\$ <u>2,500.00</u>
5-2a	SUBGRADE MATERIAL (SELECT BACKFILL) at the unit price of \$ <u>50.00</u> per ton	4,000 TON	\$ <u>200,000.00</u>
5-9	PERMEATION GROUTING 84" Storm Jacking at the unit price of \$ <u>1,100.00</u> per linear foot	351 LF	\$ <u>386,100.00</u>
5-9	PERMEATION GROUTING 24" Sanitary Jacking at the unit price of \$ <u>1,000.00</u> per linear foot	351 LF	\$ <u>351,000.00</u>
8-1.1b	6" DIP AWWA C151, CLASS 50 WATER LINE at the unit price of \$ <u>150.00</u> per linear foot	97 LF	\$ <u>14,550.00</u>
8-1.2b	INSTALL 6" WATER VALVE at the unit price of \$ <u>1,600.00</u> each	1 EA	\$ <u>1,600.00</u>
8-1.3d	12" PVC AWWA C900, CLASS 150 at the unit price of \$ <u>145.00</u> per linear foot	525 LF	\$ <u>76,125.00</u>
8-1.3d	12" PVC AWWA C900, CLASS 150 12" Fusable PVC w/ 22" Steel Casing Pipe (Underneath Railway) at the unit price of \$ <u>245.00</u> per linear foot	85 LF	\$ <u>20,825.00</u>
8-1.5a	LEAD SERVICE LINE REPLACEMENT, <2" ID Copper Line at the unit price of \$ <u>140.00</u> per linear foot	120 LF	\$ <u>16,800.00</u>

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
8-1.5b	LEAD SERVICE LINE REPLACEMENT, >2" ID Copper Line Greater than or equal to 2-inches at the unit price of \$ <u>200.00</u> per linear foot	120 LF	\$ <u>24,000.00</u>
8-2	REMOVE FIRE HYDRANT ASSEMBLY at the unit price of \$ <u>2,700.00</u> each	2 EA	\$ <u>5,400.00</u>
8-3	RESET OR INSTALL FIRE HYDRANT ASSEMBLY at the unit price of \$ <u>5,000.00</u> each	2 EA	\$ <u>10,000.00</u>
8-4	REMOVE EXISTING WATER LINE 12" D.I.P within Trench Limits, abandon 350 LF underneath I-70 at the unit price of \$ <u>6.00</u> per linear foot	1,600 LF	\$ <u>9,600.00</u>
12-1.1	6" CURB AND GUTTER 2' PAN (CDOT T2, IIB) at the unit price of \$ <u>38.00</u> per linear foot	210 LF	\$ <u>7,980.00</u>
12-1.8	HANDICAP CONCRETE CURB RAMP (Including Curb Return-Walk and C&G) at the unit price of \$ <u>18.00</u> per square foot	2,000 SF	\$ <u>36,000.00</u>
12-2.1	CONCRETE SIDEWALK at the unit price of \$ <u>7.00</u> per square foot	1,260 SF	\$ <u>8,820.00</u>
12-3.2	5' CONCRETE VALLEY GUTTER (See Plans for Detail) at the unit price of \$ <u>16.00</u> per square foot	10,300 SF	\$ <u>164,800.00</u>
12-5.1	CONCRETE DRIVEWAY PAVING (Commercial) at the unit price of \$ <u>7.50</u> per square foot	365 SF	\$ <u>2,737.50</u>
20-1	ASPHALTIC TEMPORARY PATCHING at the unit price of \$ <u>16.00</u> per square yard inch	5,500 SY-IN	\$ <u>88,000.00</u>

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
20-2ce	ASPHALT SURFACE COURSE, SX, RAP 20%, N=100, 64-22. Surface Course SX, RAP 20%, N=100, 64-22 (2.5-inches) at the unit price of \$ <u>6.00</u> per square yard inch	22,000 SY-IN	\$ <u>132,000.00</u>
20-3ce	ASPHALT BASE COURSE, S, RAP 20%, N=100, 64-22. Base Course S, RAP 20%, N=100, 64-22 (9-inches) at the unit price of \$ <u>5.00</u> per square yard inch	80,000 SY-IN	\$ <u>400,000.00</u>
20-4	ASPHALT ROTOMILL at the unit price of \$ <u>1.00</u> per square yard inch	70,000 SY-IN	\$ <u>70,000.00</u>
34-2.3d	15" DIAMETER C-76 RCP, CLASS III at the unit price of \$ <u>220.00</u> per linear foot	100 LF	\$ <u>22,000.00</u>
34-2.3e	18" DIAMETER C-76 RCP, CLASS III at the unit price of \$ <u>175.00</u> per linear foot	142 LF	\$ <u>24,850.00</u>
34-2.3t	84" DIAMETER C-76 RCP, CLASS III at the unit price of \$ <u>822.00</u> per linear foot	877 LF	\$ <u>720,894.00</u>
34-2.5t	84" DIAMETER C-76 RCP, CLASS V Under BNSF Tracks and McMillian Sales Corp at the unit price of \$ <u>900.00</u> per linear foot	120 LF	\$ <u>108,000.00</u>
34-7.1a	8" DIAMETER PVC PIPE at the unit price of \$ <u>300.00</u> per linear foot	50 LF	\$ <u>15,000.00</u>
34-7.1c	12" DIAMETER PVC PIPE at the unit price of \$ <u>300.00</u> per linear foot	135 LF	\$ <u>40,500.00</u>
34-7.1g	24" DIAMETER PVC PIPE at the unit price of \$ <u>320.00</u> per linear foot	1,035 LF	\$ <u>331,200.00</u>

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
34-7.3g	24" DIAMETER PVC PIPE WITH STEEL CASING 36" Steel Casing Pipe (Under BNSF Tracks) at the unit price of \$ <u>500.00</u> per linear foot	116 LF	\$ <u>58,000.00</u>
34-11.1g	24" DIAMETER PVC PIPE BY JACKING/BORING WITH STEEL CASING 36" Steel Casing Pipe Jacked Under I-70 at the unit price of \$ <u>900.00</u> per linear foot	351 LF	\$ <u>315,900.00</u>
34-11.6w	84" RPMP BY JACKING/BORING 84" RPMP Jacked Under I-70 at the unit price of \$ <u>1,700.00</u> per linear foot	351 LF	\$ <u>596,700.00</u>
34-11.9w	84" RPMP BY OPEN CUT (for SN & PN see additional notes) 84" RPMP (Manufacture to Provide SN & PN) at the unit price of \$ <u>950.00</u> per linear foot	149 LF	\$ <u>141,550.00</u>
34-12.1a	4' DIAMETER PRECAST MANHOLE WITH TYPE A BASE & CONCENTRIC CONE at the unit price of \$ <u>9,000.00</u> each	1 EA	\$ <u>9,000.00</u>
34-12.1a	4' DIAMETER PRECAST MANHOLE WITH TYPE A BASE & CONCENTRIC CONE Manhole greater than 20-feet at the unit price of \$ <u>9,000.00</u> each	6 EA	\$ <u>54,000.00</u>
34-12.2a	5' DIAMETER PRECAST MANHOLE WITH TYPE A BASE & CONCENTRIC CONE Manhole greater than 20-feet at the unit price of \$ <u>18,000.00</u> each	2 EA	\$ <u>36,000.00</u>
34-12.4a	CAST-IN-PLACE TYPE B MANHOLE WITH TYPE A TOP SLAB at the unit price of \$ <u>35,000.00</u> each	4 EA	\$ <u>140,000.00</u>
34-13.1c	12" PIPE OUTSIDE DROP at the unit price of \$ <u>3,000.00</u> each	2 EA	\$ <u>6,000.00</u>

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
34-13.1e	18" PIPE OUTSIDE DROP at the unit price of \$ <u>5,000.-</u> each	1 EA	\$ <u>5,000.-</u>
34-15.1a	SANITARY SEWER TAP LOCATION AND VERIFICATION at the unit price of \$ <u>900.-</u> each	9 EA	\$ <u>8,100.-</u>
34-15.2	RECONNECT SANITARY SEWER SERVICES (TAPS) (OPEN CUT) at the unit price of \$ <u>13,000.-</u> each	9 EA	\$ <u>117,000.-</u>
34-15.3	UTILITY EXPLORATORY INVESTIGATION at the unit price of \$ <u>250.-</u> each	120 EA	\$ <u>30,000.-</u>
34-16.1b	#14 INLET (L=9') Inlet greater than 6-feet at the unit price of \$ <u>11,500.-</u> each	1 EA	\$ <u>11,500.-</u>
34-16.1c	#14 INLET (L=12') Inlet greater than 6-feet at the unit price of \$ <u>13,000.-</u> each	1 EA	\$ <u>13,000.-</u>
34-16.3b	DOUBLE #16 VALLEY INLET Inlet greater than 6-feet at the unit price of \$ <u>9,000.-</u> each	4 EA	\$ <u>36,000.-</u>
34-16.8	ADJUST EXISTING INLET STRUCTURE at the unit price of \$ <u>5,500.-</u> each	3 EA	\$ <u>16,500.-</u>
36-1	INSTALL RAILROAD TRACKS Replace 2 Private RR Crossings and Subballast layer for BNSF Spur Track, per the current BNSF Standards and Details at the unit price of \$ <u>720.-</u> per linear foot	250 LF	\$ <u>180,000.-</u>
40-6	DECORATIVE LANDSCAPING 4799 Dahlia St and any other locations that are disturbed. at the unit price of \$ <u>1,800.-</u> each	1 EA	\$ <u>1,800.-</u>

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
41-1	TRAFFIC CONTROL at the unit price of \$ <u>380,000.-</u> lump sum	1 LS	\$ <u>380,000.-</u>
42-1	RAILROAD CONTROL at the unit price of \$ <u>27,000.-</u> lump sum	1 LS	\$ <u>27,000.-</u>
43-1b	STORM WATER MANAGEMENT (SCENARIO 2) See SCS 23.0 at the unit price of \$ <u>100,000.-</u> lump sum	1 LS	\$ <u>100,000.-</u>
45-2	QUALITY CONTROL TESTING at the unit price of \$ <u>200,000.-</u> lump sum	1 LS	\$ <u>200,000.-</u>
46-1	PAVEMENT MARKING (PAINT) at the unit price of \$ <u>1.55</u> per square foot	100 SF	\$ <u>155.-</u>
46-2	EPOXY PAVEMENT MARKING Permanent striping at the unit price of \$ <u>3.70</u> per square foot	650 SF	\$ <u>2,405.-</u>
46-3	THERMOPLASTIC PAVEMENT MARKING Stop Bars and Cross Walks at the unit price of \$ <u>11.25</u> per square foot	150 SF	\$ <u>1,687.50</u>
50-1	MOBILIZATION at the unit price of \$ <u>350,000.-</u> lump sum	1 LS	\$ <u>350,000.-</u>

Bid Form

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
2-1.2a	REMOVE 6" CONCRETE CURB AND/OR GUTTER at the unit price of \$ <u>3.00</u> per linear foot	1,000 LF	\$ <u>3,000.00</u>
2-2.1	REMOVE CONCRETE SIDEWALK at the unit price of \$ <u>1.00</u> per square foot	5,000 SF	\$ <u>5,000.00</u>
2-11.1e	REMOVE EXISTING 18" SANITARY SEWER PIPE at the unit price of \$ <u>6.50</u> per linear foot	850 LF	\$ <u>5,525.00</u>
2-12.1	REMOVE EXISTING SANITARY MANHOLE at the unit price of \$ <u>750.00</u> each	2 EA	\$ <u>1,500.00</u>
2-16.1	REMOVE CHAIN LINK FENCE Temporary Access Safeway at the unit price of \$ <u>10.00</u> per linear foot	60 LF	\$ <u>600.00</u>
8-4	REMOVE EXISTING WATER LINE 12" D.I.P at the unit price of \$ <u>5.00</u> per linear foot	900 LF	\$ <u>4,500.00</u>
12-1.1	6" CURB AND GUTTER 2' PAN (CDOT T2, IIB) at the unit price of \$ <u>16.00</u> per linear foot	1,000 LF	\$ <u>16,000.00</u>
12-2.1	CONCRETE SIDEWALK at the unit price of \$ <u>7.50</u> per square foot	5,000 SF	\$ <u>37,500.00</u>
16-3	CHAIN LINK FENCE Temporary Access Safeway at the unit price of \$ <u>35.00</u> per linear foot	60 LF	\$ <u>2,100.00</u>
20-1	ASPHALTIC TEMPORARY PATCHING at the unit price of \$ <u>16.00</u> per square yard inch	3,000 SY-IN	\$ <u>48,000.00</u>

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
20-2ce	ASPHALT SURFACE COURSE, SX, RAP 20%, N=100, 64-22. Surface Course SX, RAP 20%, N=100, 64-22 (2.5-inches) at the unit price of \$ <u>6.00</u> per square yard inch	11,500 SY-IN	\$ <u>69,000.00</u>
20-3ce	ASPHALT BASE COURSE, S, RAP 20%, N=100, 64-22. Base Course S, RAP 20%, N=100, 64-22 (9-inches) at the unit price of \$ <u>4.75</u> per square yard inch	42,500 SY-IN	\$ <u>201,875.00</u>
20-4	ASPHALT ROTOMILL at the unit price of \$ <u>0.75</u> per square yard inch	20,000 SY-IN	\$ <u>15,000.00</u>
34-2.3h	27" DIAMETER C-76 RCP, CLASS III at the unit price of \$ <u>220.00</u> per linear foot	50 LF	\$ <u>11,000.00</u>
34-2.3t	84" DIAMETER C-76 RCP, CLASS III at the unit price of \$ <u>537.00</u> per linear foot	838 LF	\$ <u>450,006.00</u>
34-7.1e	18" DIAMETER PVC PIPE at the unit price of \$ <u>350.00</u> per linear foot	47 LF	\$ <u>16,450.00</u>
34-7.1f	21" DIAMETER PVC PIPE at the unit price of \$ <u>200.00</u> per linear foot	845 LF	\$ <u>169,000.00</u>
34-12.1a	4' DIAMETER PRECAST MANHOLE WITH TYPE A BASE & CONCENTRIC CONE Manhole greater than 20-feet at the unit price of \$ <u>5,000.00</u> each	4 EA	\$ <u>20,000.00</u>
34-12.4a	CAST-IN-PLACE TYPE B MANHOLE WITH TYPE A TOP SLAB Manhole greater than 20-feet at the unit price of \$ <u>15,000.00</u> each	2 EA	\$ <u>30,000.00</u>
34-13.1e	18" PIPE OUTSIDE DROP at the unit price of \$ <u>3,750.00</u> each	1 EA	\$ <u>3,750.00</u>

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
34-13.1f	21" PIPE OUTSIDE DROP at the unit price of \$ <u>5,500.00</u> each	1 EA	\$ <u>5,500.00</u>
34-15.1a	SANITARY SEWER TAP LOCATION AND VERIFICATION at the unit price of \$ <u>900.00</u> each	2 EA	\$ <u>1,800.00</u>
34-15.2	RECONNECT SANITARY SEWER SERVICES (TAPS) (OPEN CUT) at the unit price of \$ <u>5,500.00</u> each	2 EA	\$ <u>11,000.00</u>
34-15.3	UTILITY EXPLORATORY INVESTIGATION at the unit price of \$ <u>240.00</u> each	50 EA	\$ <u>12,000.00</u>
41-1	TRAFFIC CONTROL at the unit price of \$ <u>100,000.00</u> lump sum	1 LS	\$ <u>100,000.00</u>
46-1	PAVEMENT MARKING (PAINT) at the unit price of \$ <u>1.55</u> per square foot	100 SF	\$ <u>155.00</u>
46-2	EPOXY PAVEMENT MARKING Permanent striping at the unit price of \$ <u>3.75</u> per square foot	1,500 SF	\$ <u>5,625.00</u>
46-3	THERMOPLASTIC PAVEMENT MARKING Stop Bars and Cross Walks at the unit price of \$ <u>11.50</u> per square foot	300 SF	\$ <u>3,450.00</u>

Bid Items Total Amount (77 Bid Items (01-52.13 through 50-1)) \$ 6,381,654.00

Textura® Fee from table on Page BF-3 0.12 % of Bid Items Total Amount \$ 7,657.98

Bid Items Total Amount plus Textura® Fee equals Total Bid Amount \$ 6,389,311.98

Total Bid Amount:
SIX MILLION, THREE HUNDRED EIGHTY NINE THOUSAND, THREE HUNDRED ELEVEN DOLLARS AND NINETY EIGHT CENTS.
Dollars (\$ 6,389,311.98)

Alternate Bid Items Total Amount (28 Bid Items (2-1.2a through 46-3)) \$ 1,249,336.00

If the Manager mails a written Notice of Apparent Low Bidder, addressed to the Bidder's business address stated on this Bid Form, the Undersigned Bidder shall, in accordance with the Contract Documents, be ready to, and shall, within five (5) days after the date of the Notice: (i) execute the attached form of Contract in conformity with this bid; (ii) furnish the required proofs of insurance; and (iii) furnish the required bond or bonds in the sum of the full amount of this bid, executed by a surety company acceptable to the Manager.

The FLATIRON CONSTRUCTORS, INC., a corporation of the State of DELAWARE, is hereby offered as Surety on said bond. If such surety is not approved by the Manager, another and satisfactory surety company shall be furnished.

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

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

Name: N/A Name: N/A
Address: N/A Address: N/A

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

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

BASE Plus Act 1

Item of Work	Percent (%) of Total; Work	Proposed Subcontractor and Address
<u>ASPHALT</u>	<u>14.5%</u>	<u>BRANNAN SAND & GRAVEL 2500 E BRANNAN</u> <u>DENVER</u>
<u>TRAFFIC CONTROL</u>	<u>7%</u>	<u>AMERICAN SIGN CUSTOMIZED</u>
<u>PERMITTION GRANTING</u>	<u>9%</u>	<u>HAYWARD BARTEL COMMERCIAL CITY, CO</u>

(Copy this page if additional room is required.)



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

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

City & County of Denver Contract No.: 201734065

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

Prime Bidder

Business Name: Flatiron Constructors, Inc.

Address: 385 Interlocken Crescent, Suite 900 **Contact Person:** Nick Polce

Type of Service: <i>PRIME</i>	Dollar Amount: \$ <i>BASE PLUS ACT 1</i> 7,630,990.-	Percent of Project:
-----------------------------------------	----------------------------------------------------------------	----------------------------

Certified MWBE Prime Bidder

Business Name:

Address: **Contact Person:**

Type of Service:	Dollar Amount: \$:	Percent of Project:
-------------------------	---------------------------	----------------------------

Subcontractors, Suppliers Manufacturers or Brokers (check one box)

<input checked="" type="checkbox"/> Subcontractor (✓)	<input type="checkbox"/> Supplier (✓)	<input type="checkbox"/> Manufacturer (✓)	<input type="checkbox"/> Broker (✓)
-------------------------------------------------------	---------------------------------------	-------------------------------------------	-------------------------------------

Business Name: *MARQUEZ'SONS Trucking Inc.*

Address: *3710 COUNTY ROAD 49* **Type of Service:** *TRUCKING*

Contact Person: <i>TERESA CANTUILL</i>	Dollar Amount: \$: <i>\$140,000.-</i>	Percent of Project: <i>1.83%</i>
--------------------------------------------------	-------------------------------------------------	--------------------------------------------

<input checked="" type="checkbox"/> Subcontractor (✓)	<input type="checkbox"/> Supplier (✓)	<input type="checkbox"/> Manufacturer (✓)	<input type="checkbox"/> Broker (✓)
-------------------------------------------------------	---------------------------------------	-------------------------------------------	-------------------------------------

Business Name: *AMERICAN SUN CO*

Address: *14663 E. HOWARD ME CO* **Type of Service:** *TRAFFIC CONTROL*

Contact Person: <i>RHONDA COLLINS</i>	Dollar Amount: \$: <i>\$400,000.-</i>	Percent of Project: <i>5.24%</i>
-------------------------------------------------	-------------------------------------------------	--------------------------------------------

<input checked="" type="checkbox"/> Subcontractor (✓)	<input type="checkbox"/> Supplier (✓)	<input type="checkbox"/> Manufacturer (✓)	<input type="checkbox"/> Broker (✓)
-------------------------------------------------------	---------------------------------------	-------------------------------------------	-------------------------------------

Business Name: *WHEELS & TRAILS*

Address: *7100 BROADWAY SUITE 3804 CO.* **Type of Service:** *TRUCKING* *TRAIL TRAIL*

Contact Person: <i>STEVE VIALPANDO</i>	Dollar Amount: \$: <i>\$180,000.-</i>	Percent of Project: <i>2.35%</i>
--------------------------------------------------	-------------------------------------------------	--------------------------------------------

Rev 03/16/16

Subcontractors, Suppliers Manufacturers or Brokers (check one box)							
<input checked="" type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer (✓)	<input type="checkbox"/>	Broker (✓)
Business Name: INFINITY SOLUTIONS							
Address: 10465 MELBOY DRIVE			Type of Service: SURVEY				
Contact Person: JOE J. RUFFE WESLEY C. RUFFE			Dollar Amount: \$: \$45,000.	Percent of Project: 0.58%			
<input type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer (✓)	<input type="checkbox"/>	Broker (✓)
Business Name:							
Address:			Type of Service:				
Contact Person:			Dollar Amount: \$:	Percent of Project:			
<input type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer (✓)	<input type="checkbox"/>	Broker (✓)
Business Name:							
Address:			Type of Service:				
Contact Person:			Dollar Amount: \$:	Percent of Project:			
<input type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer (✓)	<input type="checkbox"/>	Broker (✓)
Business Name:							
Address:			Type of Service:				
Contact Person:			Dollar Amount: \$:	Percent of Project:			
<input type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer (✓)	<input type="checkbox"/>	Broker (✓)
Business Name:							
Address:			Type of Service:				
Contact Person:			Dollar Amount: \$:	Percent of Project:			
<input type="checkbox"/>	Subcontractor (✓)	<input type="checkbox"/>	Supplier (✓)	<input type="checkbox"/>	Manufacturer (✓)	<input type="checkbox"/>	Broker (✓)
Business Name:							
Address:			Type of Service:				
Contact Person:			Dollar Amount: \$:	Percent of Project:			

Rev 03/16/16

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

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

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

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

Business Address of Bidder: 385 INTERLUCKEN CRESCENT, SUITE 900

City, State, Zip Code: BROOMFIELD CO 80021

Telephone Number of Bidder: (303) 485-4050 Fax No. (303) 485-7684

Social Security or Federal Employer ID Number of Bidder: 84-1245004

Name and location of the last work of this kind herein contemplated upon which the Bidder was engaged:
HIGHWAY 2 WIDENING - RCP INSTALLATION 2017 COMMERCE CITY, CO

For information relative thereto, please refer to:

Name: EO THOMPSON

Title: PROJECT MANAGER

Address: 8602 ROSEMARY ST COMMERCE CITY CO 80022

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

Addenda Number 1 Date 5.10.17 - SIGNED

Addenda Number 2 Date 5.17.17 - SIGNED

Addenda Number 3 Date 5.22.17 - SIGNED

Dated this 6th day of JUNE, 2017.

Signature of Bidder:

If an Individual: N/A doing business

as _____

If a Partnership: N/A

by: _____ General Partner.

If a Corporation: Flatiron Constructors, Inc.

a Delaware Corporation,

by: Eric Taylor, Vice President.

Eric Taylor

Attest:

Brend Hideren
Asst. Secretary



If a Joint Venture, signature of all Joint Venture participants

Firm: N/A

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

By: _____ (If a Corporation)

Title: _____ Attest: _____
Secretary (Corporate Seal)

Firm: N/A

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

By: _____ (If a Corporation)

Title: _____ Attest: _____
Secretary (Corporate Seal)

Firm: N/A

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

By: _____ (If a Corporation)

Title: _____ Attest: _____
Secretary (Corporate Seal)



DENVER
OFFICE OF ECONOMIC
DEVELOPMENT

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

COMMITMENT TO MWBE PARTICIPATION

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


The Bidder/Proposer is committed to the minimum 10 % **MWBE** utilization on the project, and will submit Letters of Intent (LOI) for each subcontractor/subconsultant listed in the Bid Forms as follows:
Hard Bids: Three (3) business days after the bid opening.
Request for Proposals/Qualifications: With the proposal when due.
Compliance Plans: With each task/work order

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

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

Bidder/Proposer (Name of Firm): Flatiron Constructors, Inc.

Firm's Representative (Please print): Nick Polce

Signature (Firm's Representative):  6.6.17

Title: Chief Estimator

Address: 385 Interlocken Crescent, Suite 900

City: Broomfield

State: CO

Zip: 80021

Phone: (303) 485-4050

Fax: (303) 485-3922

Email: npolce@flatironcorp.com

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



DENVER
OFFICE OF ECONOMIC
DEVELOPMENT

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

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

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

Contract No.: 201734065 **Project Name:** Park Hill Storm, Phase V

A. The Following Section is To Be Completed by the Bidder/Consultant
This Letter of Intent Must be Signed by the Bidder/Consultant and M/WBE, SBE, EBE or DBE.

Name of Bidder/Consultant: Flatiron Constructors, Inc		Self-Performing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Phone: (720) 494-8135
Contact Person: Nick Polce		Email: apolce@flatironcorp.com	Fax: (303) 485-7684
Address: 385 Interlocken Crescent Suite 900		City: Broomfield	State: CO Zip: 80021

B. The Following Section is To Be Completed by the M/WBE, SBE, EBE or DBE, at any Tier
This Letter of Intent Must be Signed by the M/WBE, SBE, EBE or DBE and Bidder/Consultant

Name of Certified Firm: Infinity Solutions Inc.		Phone: 303-229-6885						
Contact Person: Joe Jimenez		Email: jjimenez@islgis.net	Fax: 866-505-7196					
Address: 10465 Melody Dr. #215		City: Northglenn	State: CO Zip: 80234					
Please check the designation which applies to the certified firm:	M/WBE (✓)	X	SBE (✓)	X	EBE (✓)		DBE (✓)	X

Indirect Utilization: If this M/WBE, SBE, EBE or DBE is not a direct first tier subcontractor/subconsultant, supplier or broker to the Bidder/Consultant, please indicate the name of the subcontractor/subconsultant, supplier or broker which is utilizing the participation of this firm: *N/A*

A Copy of the M/WBE, SBE, EBE or DBE Letter of Certification must be Attached

Identify the scope of the work to be performed or supply item that will be provided by the M/WBE/SBE/DBE. **On unit price bids only, identify which bid line items the M/WBE/SBE/EBE/DBEs scope of work or supply corresponds to.**

Survey SERVICES, NO PAY ITEM PERIODS FOR SURVEY. PRICED AS JOB OVERLIES.

<input checked="" type="checkbox"/> Subcontractor/Subconsultant (✓)	<input type="checkbox"/> Supplier (✓)	<input type="checkbox"/> Broker (✓)
Bidder intends to utilize the aforementioned M/WBE, SBE, EBE or DBE for the Work/Supply described above. The cost of the work and percentage of the total subcontractor M/WBE, SBE, EBE or DBE bid amount is:		
\$145,000.00		0.58 %
Consultant intends to utilize the aforementioned M/WBE, SBE, EBE or DBE for the Work/Supply described above. The percentage of the work of the total sub consultant M/WBE, SBE, EBE or DBE will perform is:		<i>N/A</i> %
If the fee amount of the work to be performed is requested, the fee amount, is:		\$ <i>N/A</i> .

Bidder/Consultant's Signature: *[Signature]* Nick Polce **Date:** 6/6/2017

Title: Chief Estimator

M/WBE, SBE, EBE or DBE or Self-Performing Firm's Signature: *[Signature]* **Date:** June 7, 2017

Title: Vice President

If the above named Bidder/Consultant is not determined to be the successful Bidder/Consultant, this Letter of Intent shall be null and void.



DENVER
OFFICE OF ECONOMIC
DEVELOPMENT

Office of Economic Development
Division of Small Business Opportunity
Compliance Unit
201 West Colfax Ave., Dept. 807
Denver, CO 80202
Phone: 720-913-1899

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

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

Contract No.: 201734065

Project Name: Park Hill Storm, Phase V

A. The Following Section Is To Be Completed by the Bidder/Consultant
This Letter of Intent Must be Signed by the Bidder/Consultant and M/WBE, SBE, EBE or DBE

Name of Bidder/Consultant: Flatiron Constructors, Inc	Self-Performing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Phone: (720) 494-8135
Contact Person: Nick Polce	Email: npolce@flatironcorp.com	Fax: (303) 485-7684
Address: 385 Interlocken Crescent Suite 900	City: Broomfield	State: CO Zip: 80021

B. The Following Section Is To Be Completed by the M/WBE, SBE, EBE or DBE, at any Tier
This Letter of Intent Must be Signed by the M/WBE, SBE, EBE or DBE and Bidder/Consultant

Name of Certified Firm: American Sign & Barricade Co.	Phone: 303-680-3909
Contact Person: Rhonda Collins Email: rhonda@americansgn.com	Fax: 303-680-3907
Address: 14883 E. Hinsdale Ave #3 City: Englewood	State: CO Zip: 80112

Please check the designation which applies to the certified firm.	M/WBE (v)	<input checked="" type="checkbox"/>	SBE (v)	<input checked="" type="checkbox"/>	EBE (v)	<input type="checkbox"/>	DBE (v)	<input type="checkbox"/>

Indirect Utilization: If this M/WBE, SBE, EBE or DBE is not a direct first tier subcontractor/subconsultant, supplier or broker to the Bidder/Consultant, please indicate the name of the subcontractor/subconsultant, supplier or broker which is utilizing the participation of this firm:
N/A

A Copy of the M/WBE, SBE, EBE or DBE Letter of Certification must be Attached

Identify the scope of the work to be performed or supply item that will be provided by the M/WBE/SBE/DBE. On unit price bids only, identify which bid line items the M/WBE/SBE/EBE/DBEs scope of work or supply corresponds to.

FLAGGING TRAFFIC CONTROL SERVICES BID ITEM 41-1 ADD ACT #1 41-1

<input checked="" type="checkbox"/> Subcontractor/Subconsultant (v)	<input type="checkbox"/> Supplier (v)	<input type="checkbox"/> Broker (v)
Bidder intends to utilize the aforementioned M/WBE, SBE, EBE or DBE for the Work/Supply described above. The cost of the work and percentage of the total subcontractor M/WBE, SBE, EBE or DBE bid amount is:		
\$ 400,000.00		5.24 %

Consultant intends to utilize the aforementioned M/WBE, SBE, EBE or DBE for the Work/Supply described above. The percentage of the work of the total sub consultant M/WBE, SBE, EBE or DBE will perform is:	N/A	%
If the fee amount of the work to be performed is requested, the fee amount, is:	\$ N/A	

Bidder/Consultant's Signature: *OTP Nick Polce* Date: 6/8/2017

Title: Chief Estimator

M/WBE, SBE, EBE or DBE or Self-Performing Firm's Signature: Rhonda Collins Date: 6-6-17

Title: President

If the above named Bidder/Consultant is not determined to be the successful Bidder/Consultant, this Letter of Intent shall be null and void.



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Office of Economic Development
Division of Small Business Opportunity
Compliance Unit
201 West Colfax Ave., Dept. 907
Denver, CO 80202
Phone: 720-813-1999

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

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

Contract No.: 201734065	Project Name: Park Hill Storm, Phase V
--------------------------------	-----------------------------------------------

A. The Following Section is To Be Completed by the Bidder/Consultant
This Letter of Intent Must be Signed by the Bidder/Consultant and MWBE, SBE, EBE or DBE

Name of Bidder/Consultant: Flatiron Constructors, Inc	Self-Performing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Phone: (720) 94-8135
Contact Person: Nick Polce	Email: npolce@flatironcorp.com	Fax: (303) 485-7684
Address: 385 Interlocken Crescent Suite 900	City: Broomfield	State: CO Zip: 80021

B. The Following Section is To Be Completed by the MWBE, SBE, EBE or DBE, at any Tier
This Letter of Intent Must be Signed by the MWBE, SBE, EBE or DBE and Bidder/Consultant

Name of Certified Firm: Marquez and Son Trucking, Inc.	Phone: 3-994-5216
Contact Person: Teresa Cantuwell	Email: Teresa@marquezandsontrucking.com
Address: 3710 CR 49	City: Hudson
State: CO	Zip: 80642

Please check the designation which applies to the certified firm.	MWBE (✓) <input checked="" type="checkbox"/>	SBE (✓) <input checked="" type="checkbox"/>	EBE (✓) <input checked="" type="checkbox"/>	DBE (✓) <input checked="" type="checkbox"/>
-------------------------------------------------------------------	----------------------------------------------	---------------------------------------------	---------------------------------------------	---------------------------------------------

Indirect Utilization: If this MWBE, SBE, EBE or DBE is not a direct first tier subcontractor/subconsultant, supplier or broker to the Bidder/Consultant, please indicate the name of the subcontractor/subconsultant, supplier or broker which is utilizing the participation of this firm: N/A.

A Copy of the MWBE, SBE, EBE or DBE Letter of Certification must be Attached.

Identify the scope of the work to be performed or supply item that will be provided by the MWBE/SBE/DBE. **On unit price bids only. Identify which bid line items the MWBE/SBE/EBE/DBEs scope of work or supply corresponds to.**

DUMP TRUCKING ON SITE BID ITEMS 2-12a, 2-14, 2-21, 2-3.4, 2-6, 2-11.k, 211.e, 2-11.2c, 2-11.2d, 2-12.1, 2-13.1.

<input checked="" type="checkbox"/> Subcontractor/Subconsultant (✓)	<input type="checkbox"/> Supplier (✓)	<input type="checkbox"/> Broker (✓)
---------------------------------------------------------------------	---------------------------------------	-------------------------------------

Bidder intends to utilize the aforementioned MWBE, SBE, EBE or DBE for the Work/Supply described above. The cost of the work and percentage of the total subcontractor MWBE, SBE, EBE or DBE bid amount is:

\$ 140,000.00	1.83 %
---------------	--------

Consultant intends to utilize the aforementioned MWBE, SBE, EBE or DBE for the Work/Supply described above. The percentage of the work of the total sub consultant MWBE, SBE, EBE or DBE will perform is:

N/A	%
-----	---

If the fee amount of the work to be performed is requested, the fee amount, is:

\$ N/A

Bidder/Consultant's Signature:	Date: 6/6/2017
Title: Chief Estimator	Name: Nick Polce

MWBE, SBE, EBE or DBE or Self-Performing Firm's Signature:	Date: 6/6/17
Title: General Manager	

If the above named Bidder/Consultant is not determined to be the successful Bidder/Consultant, this Letter of Intent shall be null and void.



DENVER
OFFICE OF ECONOMIC
DEVELOPMENT

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

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

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

Contract No.: 201734065

Project Name: Park Hill Storm, Phase V

A. The Following Section Is To Be Completed by the Bidder/Consultant
This Letter of Intent Must be Signed by the Bidder/Consultant and M/WBE, SBE, EBE or DBE

Name of Bidder/Consultant: Flatiron Constructors, Inc
Self-Performing: Yes No
Phone: (720) 494-8135
Contact Person: Nick Polce
Email: npolce@flatironcorp.com
Fax: (303) 485-7684
Address: 385 Interlocken Crescent Suite 900
City: Broomfield
State: CO Zip: 80021

B. The Following Section Is To Be Completed by the M/WBE, SBE, EBE or DBE, at any Tier
This Letter of Intent Must be Signed by the M/WBE, SBE, EBE or DBE and Bidder/Consultant

Name of Certified Firm: Wheels & Thrills, Inc. DBA Vialpando Trucking, Ltd.
Phone: 303-332-4481
Contact Person: Steven Vialpando
Email: vialpandotrucking@comcast.net
Fax: 303-593-1834
Address: 7100 Broadway, Suite 3BPH
City: Denver
State: CO Zip: 80221

Please check the designation which applies to the certified firm.

M/WBE (✓)	✓	SBE (✓)	✓	EBE (✓)		DBE (✓)	✓
-----------	---	---------	---	---------	--	---------	---

Indirect Utilization: If this M/WBE, SBE, EBE or DBE is not a direct first tier subcontractor/subconsultant, supplier or broker to the Bidder/ Consultant, please indicate the name of the subcontractor/subconsultant, supplier or broker which is utilizing the participation of this firm: *N/A*

A Copy of the M/WBE, SBE, EBE or DBE Letter of Certification must be Attached

Identify the scope of the work to be performed or supply item that will be provided by the M/WBE/SBE/DBE. On unit price bids only, identify which bid line items the M/WBE/SBE/EBE/DBEs scope of work or supply corresponds to.

Dump Trucking (E.G., Gravel, Sand, Top Soil) *RIP ITEM NUMBERS 5-2A,*

Subcontractor/Subconsultant (✓) Supplier (✓) Broker (✓)

Bidder intends to utilize the aforementioned M/WBE, SBE, EBE or DBE for the Work/Supply described above. The cost of the work and percentage of the total subcontractor M/WBE, SBE, EBE or DBE bid amount is:

\$ 180,000.00 2.35 %

Consultant intends to utilize the aforementioned M/WBE, SBE, EBE or DBE for the Work/Supply described above. The percentage of the work of the total sub consultant M/WBE, SBE, EBE or DBE will perform is: *N/A* %

If the fee amount of the work to be performed is requested, the fee amount, is: \$ *N/A*

Bidder/Consultant's Signature: *Nick Polce* Date: 6/6/2017

Title: Chief Estimator

M/WBE, SBE, EBE or DBE or Self-Performing Firm's Signature: *Steven Vialpando* Date: 6/07/2017

Title: President

If the above named Bidder/Consultant is not determined to be the successful Bidder/Consultant, this Letter of Intent shall be null and void.



Joint Venture Affidavit

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

Name of Firm: _____

Print Name: _____

Title _____

Signature: _____

Date: _____

Notary Public

County of _____

State of _____

My Commission Expires: _____

Subscribed and sworn before me this

_____ day of _____, 20_____

Notary Signature: _____

Notary Commission #: _____

Address: _____

Name of Firm: _____

Print Name: _____

Title _____

Signature: _____

Date: _____

Notary Public

County of _____

State of _____

My Commission Expires: _____

Subscribed and sworn before me this

_____ day of _____, 20_____

Notary Signature: _____

Notary Commission #: _____

Address: _____



DENVER
OFFICE OF ECONOMIC
DEVELOPMENT

**JOINT VENTURE
ELIGIBILITY FORM**

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

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

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

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

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

Joint Venture Information

Name: _____ Contact Person: _____

Address: _____

City: _____ State: _____ Zip: _____ Phone: _____

Joint Venture Participants

Name: _____ Contact Person: _____

Address: _____

City: _____ State: _____ Zip: _____ Phone: _____

% Ownership: _____ Certifying Entity: _____ Type Certification & Date: (S/E/M/W or DBE) _____

Type of Work for which Certification was granted: _____

Name: _____ Contact Person: _____

Address: _____

City: _____ State: _____ Zip: _____ Phone: _____

% Ownership: _____ Certifying Entity: _____ Type Certification & Date: (S/E/M/W or DBE) _____

Type of Work for which Certification was granted: _____

General Information

SBE/EBE/MBE/WBE/DBE Initial Capital Contributions: \$ _____ %

Future capital contributions (explain requirements) (attach additional sheets if necessary): _____

Source of Funds for the SBE/EBE/MBE/WBE/DBE Capital Contributions: _____

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

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

JOINT VENTURE ELIGIBILITY FORM

General information

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

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

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

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

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

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

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

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

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

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

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

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

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

JOINT VENTURE ELIGIBILITY FORM

General Information

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

Who will they be employed by?

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

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

Number of employees	Position	Employed By

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

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

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

COMP-FRM-015

Bond No. F011773

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS

BID BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT **Flatiron Constructors, Inc.**

Liberty Mutual Insurance Company, as Principal, and by virtue of the laws of the State of Massachusetts, and authorized to do business within the State of Colorado, as Surety, are held and firmly bound unto the City and County of Denver, Colorado, as obligee, in full and just sum of *****
Five Percent of Total Amount Bid Dollars, (\$ 5%), lawful money of the United States, for

the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents:

WHEREAS, the said Principal is herewith submitting its bid, dated June 6, 2017, for the construction of: **Contract No. 201734065, PARK HILL STORM, PHASE V**, as set forth in detail in the Contract Documents for the City and County of Denver, Colorado, and said obligee has required as a condition for receiving said bid that the Principal deposit specified bid security in the amount of not less than five percent (5%) of the amount of said bid, as it relates to work to be performed for the City, conditioned that in event of failure of the Principal to execute the Contract, for such construction and furnish required Performance and Payment Bond if the contract is offered him that said sum be paid immediately to the obligee as liquidated damages, and not as a penalty, for the Principal's failure to perform.

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

Signed, sealed and delivered this 16th day of May, 2017.

ATTEST

Bernie Nelson
Asst. Secretary



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

Flatiron Constructors, Inc.

Principal
By Eric S. Layton
Title Vice President

Liberty Mutual Insurance Company

Surety
By Lisa M. Scavetta
Lisa M. Scavetta, Attorney-In-Fact
[SEAL]

CORPORATE ACKNOWLEDGMENT

Form 152

STATE OF NEW JERSEY

COUNTY OF BERGEN

On this 16th day of May, 2017, before me personally came LISA M. SCAVETTA to me known, who, being by me duly sworn, did depose and say that she/he resides in BRONXVILLE, NEW YORK that she/he is the ATTORNEY IN FACT of the LIBERTY MUTUAL INSURANCE COMPANY the corporation described in and which executed the above instrument that she/he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(SEAL)



KRISTA A. BURKE
NOTARY PUBLIC OF NEW JERSEY
NY COMMISSION EXPIRES DEC. 7, 2017



LIBERTY MUTUAL INSURANCE COMPANY
 FINANCIAL STATEMENT — DECEMBER 31, 2016

Assets		Liabilities	
Cash and Bank Deposits.....	\$1,092,914,837	Unearned Premiums.....	\$6,929,723,299
*Bonds — U.S Government	1,406,763,970	Reserve for Claims and Claims Expense.....	17,233,877,300
*Other Bonds.....	11,379,916,523	Funds Held Under Reinsurance Treaties.....	208,362,823
*Stocks	10,349,761,988	Reserve for Dividends to Policyholders.....	944,909
Real Estate.....	290,265,760	Additional Statutory Reserve.....	39,649,905
Agents' Balances or Uncollected Premiums.....	4,709,977,463	Reserve for Commissions, Taxes and	
Accrued Interest and Rents.....	112,757,395	Other Liabilities	<u>3,061,117,958</u>
Other Admitted Assets.....	<u>14,659,523,751</u>	Total	<u>\$27,473,676,194</u>
		Special Surplus Funds.....	\$95,257,334
		Capital Stock.....	10,000,000
		Paid in Surplus.....	9,229,250,104
		Unassigned Surplus.....	7,193,698,055
		Surplus to Policyholders	<u>16,528,205,493</u>
Total Admitted Assets.....	<u>\$44,001,881,687</u>	Total Liabilities and Surplus	<u>\$44,001,881,687</u>



* Bonds are stated at amortized or investment value; Stocks at Association Market Values.
 The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the state of Massachusetts Department of Insurance.

I, TIM MIKOLAJEWSKI, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the foregoing is a true, and correct statement of the Assets and Liabilities of said Corporation, as of December 31, 2016, to the best of my knowledge and belief.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation at Seattle, Washington, this 23rd day of March, 2017.

T. Mikolajewski

Assistant Secretary

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 7750202

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company West American Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint Mary R McKee, Sherryanne M DePirro, Maria L Spadaccini, Nicholas F Walsh, Vincent C Miseo, Lisa M Scavetta, Elliott W Wolffe

all of the city of Paramus, state of NJ each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surely and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 28th day of April, 2017.



The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
West American Insurance Company
By: David M. Carey
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 28th day of April, 2017, before me personally appeared David M. Carey who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS – Section 12 Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surely any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surely any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surely any and all undertakings, bonds, recognizances and other surety obligations

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed

I, Renee C Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this MAY 16 2017 day of 20



By: Renee C Llewellyn
Renee C Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.



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

Diversity and Inclusiveness * in City Solicitations Information Request Form

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

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

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

Business Email Address: npolce@flatironcorp.com

Please include the Email address of the contact person facilitating this solicitation for the City and County of Denver: david.relaford@denvergov.org

Agency Name:

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

Project Name: PARK HILL STORM, PHASE V

BID / RFP No.: 201734065

Name of Contractor/Consultant: Flatiron Constructors, Inc.

What industry is your business? Construction/Landscape/Maintenance Services

Address:
385 Interlocken Crescent, Suite 900
Broomfield CO 80021

Business Phone No.: (303) 485-4050

Business Facsimile No.: (303) 485-3922

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

1. How many employees does your company employ?

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

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

Full-time 2296 Part-Time 12

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

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

If Yes, does it address:

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

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

N/A

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

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

- Employee Training
 Pamphlets
 Public EEO postings N/A
 Other
 Not Applicable

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

N/A

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

- Monthly N/A Annually
 Quarterly Not Applicable Other _____

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

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

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

N/A

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

8.1 If Yes, how often does it meet? N/A

- Monthly Annually No Committee
 Quarterly Other _____

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

N/A

9. Do you have a budget for diversity and inclusiveness efforts? Yes No *N/A*

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

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

If yes, please email X0101@denvergov.org.

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

[Signature] _____ 6.6.17 _____
Signature of Person Completing Form Date

Nick Polce _____
Printed Name of Person Completing Form

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

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

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS

CONTRACT NO: 201734065
PROJECT NAME: Park Hill Storm, Phase V

ADDENDUM NO. 1 TO CONTRACT DOCUMENTS


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

POSTPONEMENT OF BID OPENING

Notice is hereby given that Sealed Bids for Contract No. 201734065, Park Hill Storm, Phase V are hereby postponed from May 19, 2017. Sealed bids will be received at 201 W. Colfax Ave., Denver, CO 80202 no later than:

11:00 a.m., Local Time
June 6, 2017
Room 6.G.7

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


Lesley B. Thomas
City Engineer

5.10.17

Date

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

FLATIRON
CONSTRUCTORS
INC.


Contractor

ADDENDUM NO. 1

DATE: 6.6.17

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

**CONTRACT NO: 201734065
PROJECT NAME: PARK HILL STORM, PHASE V**

ADDENDUM NO. 2 TO CONTRACT DOCUMENTS

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

QUESTIONS AND ANSWERS

Q1. Are we required to submit an Insurance Certification with our bid on May 19?

A1. No. The Certificate of Insurance is required upon execution of the Contract Documents by the Apparent Low Bidder evidencing the Apparent Low Bidder's satisfactory compliance with the insurance requirements set forth in the Contract Documents.

Q2. Can you please define what street classification Dahlia Street is as related to the traffic control and phasing notes?

A2. Traffic and Phasing Note 2 on Plan Sheet 2 states that "The streets named above are classified as collectors." Note 3 used to be above Note 2. Dahlia is a collector.

Q3. What are the dates that each of the railroad spur lines can be shut down for construction?

A3. There are no dates specified. There are four railroad crossings: one BNSF spur, and three private lines. Of these private lines, two will be removed and replaced while one will just be removed. The Contractor must coordinate with the two private businesses to ensure railroad deliveries if/when they occur. The Contractor must coordinate with BNSF according to the agreement.

Q4. Is there a specific roadway material width and thickness to be used for the temporary roadways required at Stapleton Drive and temporary access for Safeway?

A4. There are no temporary roadways planned on Stapleton Drive. For the Safeway, temporary access assumes 11.5" of asphalt similar to what is shown on the paving plan. Regarding width, assume a width to match the gated driveway at approximate station 40+30 (west side of Dahlia).

Q5. Please define the steel casing wall thickness for the 36" casing of the sewer line under the BNSF spur line?

A5. Please refer to the Wastewater Capital Projects Management Standard Construction Specifications (SCS) section 7.1.5.4 second paragraph. Also refer to AREMA Manual for Railway Engineering Section 5.3 Table 1-5-5. Minimum of 0.531 inches.

Q6. Please define the steel casing wall thickness for the 22" casing of the waterline under the BNSF spur line?

A6. Please refer to the Wastewater Capital Projects Management Standard Construction Specifications (SCS) section 7.1.5.4 second paragraph. Also refer to AREMA Manual for Railway Engineering Section 5.3 Table 1-5-5. Minimum of 0.344 inches.

Q7. Can you please provide some plans for the temporary asphalt patching requirement for this project, is this to be the temporary access roadways?

A7. There are no planned locations for temporary asphalt paving. This bid item is intended to cover situations where temporary asphalt must be laid to ensure access to a business, across a backfilled trench. There is a note on Plan Sheet 13 that mentions "temporary asphalt paving driveway" – this was intended to refer to the temporary nature of the driveway, not the type of asphalt.

Q8. Can you please describe the particulars related the railroad control bid item since this seems to apply to the BNSF spur line, please include minimum insurance requirements, flagging requirements and any other traffic control or specific railroad inspection and permit fees?

A8. Please refer to the Wastewater Capital Projects Management Standard Constructions Specifications Measurement and Payment (M&P) 42-1 Railroad Control. This bid item requires the contractor to follow all BNSF requirements. Please also refer to the agreement with BNSF for a division of labor (BNSF crew vs Contractor crew). Even though BNSF will be removing and replacing their own tracks, the Contractor may be required to flag during project construction, when near the tracks. This item covers all four tracks and is intended to cover all BNSF requirements.

Q9. The general notes of the drawings indicate that the contractor is to coordinate with the railroad spur agencies, can you please provide contact information for each?

A9. After contract award, the Contractor and the City will meet with BNSF and the three businesses for coordination. The BNSF track is active. Two businesses do not receive deliveries and one of their tracks is being permanently removed. One business averages two deliveries per year according to our conversations.

Q10. Are contractors to assume that all materials excavated from the site are to be clean of hazardous contaminates on this project?

A10. Please refer to the Geotechnical Baseline Report (GBR), the Materials Management Plan and the Geotechnical Data Report (GDR) which are in the appendix. None of the above mention hazardous contaminates. All excess excavated material must be hauled to DADS.

Q11. Can you provide a list of qualified contractors that can perform the removal and replacement of the BNSF track work required on this project?

A11. Per the agreement, BNSF's union crew will remove and replace their own track. The Contractor's future subcontractor will remove the three private tracks and replace two. There are multiple qualified contractors in the area who can do this work. The two private tracks must be replaced per BNSF standards however the subcontractor will not be "approved" by BNSF.

Q12. Has the City & County of Denver and Denver Wastewater talked to Denver Traffic, CDOT and Safeway about the upcoming closures related to this project and how will this affect the closure restrictions of this project?

A12. Denver Traffic (CCD Transportation and Mobility) approved the Traffic and Phasing Notes on Plan Sheet 2. Refer to Appendix K to see discussions with Safeway. In all cases, local access must be maintained in a manner not to negatively impact ongoing operations of businesses in the area.

Q13. Can you provide a detail showing how the connection is to be made of the proposed manholes over the tunnel section at IH-70?

A13. No detail will be provided. During the submittal phase, the Contractor must submit a plan which describes how to make these connections. One possible method would be to excavate, remove the casing, build the manhole and tie everything in.

Q14. Can a profile drawing be provided showing the existing grade of the side slope of IH70 which will be disturbed when the new manhole A11.2special is constructed?

A14. No detail will be provided. Grading may be necessary and this will be included in the cost of manhole.

Q15. Can the bid date be postponed to gather more technical information concerning this project?

A15. The bid opening date has been postponed including addenda which shall include the final draft of the BNSF agreement.

Q.17. Can you provide approximate sewer flow rates of the existing sewer to determine bypass routes and pump sizes for this project, we also need a bid item for the sewer bypass?

- A17.** The flow rates will not be provided since they are out of date. The contractor is encouraged to go to the site and investigate prior to bid. Bypass Pumping is included in the cost of pipe. The Contractor will be required to submit a Bypass Pumping Plan and obtain City concurrence on this plan.
- Q18.** Will the street occupancy permit be waived on this project since it is a City & County of Denver Project?
- A18.** The Contractor must obtain Street Occupancy Permits however the permit fee will be waived.
- Q19.** Can a standard utility trench detail be provided including the particular bedding requirements for this project?
- A19.** No detail will be provided. Refer to WMD Standard Detail S-301.1 Figure 1. Also refer to SCS 5.0.
- Q20.** Can a detail be provided showing the sanitary service tap reconnections?
- A20.** No detail will be provided. See note 2 on Plan Sheets 4 through 8 which references section 2.11 of the WMD Criteria Manual. We interpret the aggregate 135-degree change to mean horizontal change. We do not anticipate any cleanouts on this project.
- Q21.** How will the award of this project be made, base bid only or total bid?
- A21.** The intent of the City is to award the base bid as a minimum. If funding is available for the base bid plus alternate, then the city will award to the low bidder of that combination. The decision will be made after bids are opened and evaluated.
- Q22.** If traffic control including flagging and uniformed traffic control officers is indeed required 24/7 this will be a significant dollar amount (approximately \$1.0 million), is this the Cities intent and if not please provide further clarification?
- A22.** Refer to Traffic and Phasing Note 3 on Plan Sheet 2. The Contractor must coordinate with every business to determine their hours of operation and their hours of deliveries. Hard closures, soft closures and flaggers can be used in combination to maintain access during "construction hours". The Contractor must determine how to maintain access outside "construction hours". Uniformed Traffic Control Officers are typically only used at signalized intersections when overriding traffic signals. UTCOs seem unnecessary for maintaining business access however they may be needed for the two Stapleton Drives at times.
- Q23.** 20-1 Asphaltic Temporary Patching - Where is this item to be used? There is no reference in the plans.
- A23.** Please refer to answer number 6 above.
- Q24.** 20-2ce Asphalt Surface Course & 20-3ce Asphalt Base Course - From the cross sections on plan sheet no. 13, it appears that the intent is to reconstruct/replace all of the asphalt paving on Dahlia, from curb to curb. Is the plan to remove and replace all the asphalt pavement from curb to curb? Please provide the limits of full depth removal and reconstruction, at least by station at the north end, Stapleton Dr N, Stapleton Dr S, and the south end of the project. Are there any other bid items where asphalt base course and surface course will be incidental and not paid under these bid items, i.e. the 84" RCP or the 24" Sanitary Sewer? If so, please specify.
- A24.** The Contractor must protect all asphalt outside of the trench limits. Enough asphalt quantity was included in this project to replace the entire asphalt section (curb lip to curb lip, approximate station 24+75 to 48+15), if necessary and at the direction of the City Construction Project Manager. Since asphalt paving bid items were included, paving is not incidental to 84" pipe or 24" pipe.
- Q25.** The bore pits for the jack & bore items should be within the asphalt reconstruct area. Will the repaving of these be included in the asphalt items, or is it expected to be incidental?
- A25.** Since asphalt paving bid items were included, paving is not incidental to bore pits.
- Q26.** 2-3.4 Remove Concrete Valley Gutter & 12-3.2 5' Concrete Valley Gutter - Notes on plan sheets call for "Contractor to protect existing 5' pan (typical)". Notes on the cross sections call for "5' pan to be removed and replaced at the direction of the construction project manager". Plan quantities appear to be enough to completely remove and replace the 5' gutter pan on both sides of Dahlia, north of Stapleton Dr. N. What is the intent regarding the 5' gutter pan? Is the intent to remove and replace the entire stretch or only selected pieces.

A26. The Contractor must protect all valley gutter except for sections that must be removed for proposed storm inlets and sanitary service connections. Enough valley gutter quantity was included in this project to remove and replace all the valley gutter north of I-70, if necessary and at the direction of the City Construction Project Manager.

Q27. 2-1.2a Remove Concrete Curb & Gutter & 2-2.1 Remove Concrete Sidewalk & 12-1.1 6" Curb & Gutter 2' Pan (CDOT T2, IIB) & 12-2.1 Concrete Sidewalk - Cross section for Dahlia St (South of I-70) indicates for the west side of the street, "C&G and sidewalk to be protected or removed and replaced at the direction of the construction project manager". There is no reference made to the C&G and sidewalk on the east side of the street, either to protect and save it or replace it. Plan quantities appear to be enough to completely remove one side of the street, apparently, the west side. What is the intent regarding the C&G and sidewalk? Is the intent to remove and replace the entire stretch or only selected pieces.

A27. The label on sheet 13 was intended to point to both sides, east and west. The Contractor must protect all curb, gutter and sidewalk except for sections that must be removed for storm inlets and sanitary sewer laterals. Enough curb, gutter and sidewalk quantity was included in this project to remove and replace half of both sides, south of I-70, if necessary and at the direction of the City Construction Project Manager.

Q28. 2-1.4 Remove Handicap Concrete Curb Ramp 1,500 sf & 12-1.8 Handicap Concrete Curb Ramp 2,000 sf - The only reference in the plans is on plan sheet no. 13 which indicates the existing to be replaced with 4 each CCD Type 3 Curb Ramps and 4 each CCD Type 4 Curb Ramps at the Dahlia and Stapleton Dr N and S intersections. The plan quantities for these items appear to be high for only 8 ramps, unless it included the entire curb return, PCR to PCR, including the C&G, curb ramp and sidewalk. What is the expected/required to be included in this bid item?

A28. Due to high tractor-trailer traffic, these corners are driven over and broken quite often. These corners will need to be constructed thicker than usual. The extra quantity is intended to compensate the contractor for this thicker concrete work.

Q29. Asphalt Patch - There is no bid item for any permanent asphalt patch. There will be a need for permanent asphalt patch to construct the 5' gutter pan and the curb returns/handicap ramps at Stapleton Dr N & S, unless stipulated as incidental. There is new waterline work on the west side of Dahlia St from Stapleton Dr S and to Stapleton Dr N for which the removal and replacement of C&G and sidewalk and asphalt paving is expected to be incidental to that work. Expect the same for the sanitary sewer work in Stapleton Dr N. Please identify, quantify and provide details for the permanent patching required?

A29. Since asphalt paving items have been included in the contract, paving will not be incidental to the curb, gutter, and valley gutter bid items on the street side. The two-foot-wide asphalt patch necessary on the private property side will be incidental to concrete sidewalk and valley gutter bid items.

Q30. 20-4 Asphalt Rotomill - What are the pay limits of the asphalt rotomilling, including areas to be milled full depth (including the expected depth of milling) and areas to be milled for an asphalt overlay (assumed to be 2.5" to match the depth of the asphalt surface course)? From the measurement and payment in the specifications: No measurement for payment will be made under this bid item for rotomilling within the designated pipe trench limits...to be constructed. These costs shall be included in the unit price bid for the related pipe... Please clarify if this is the intent. Is the rotomilling intended to cover all the asphalt that has to be removed on the project?

A30. Refer to WMD Standard Detail S-301.1 Figure 1. Rotomilling is included in the cost of pipe for that dimension Bf. Rotomilling outside that dimension will be paid for as 20-4 Asphalt Rotomilling per SY-IN which accounts for depth.

Q31. 8-2 Remove Fire Hydrant Assembly (2 ea.) & 8-3 Reset or Install Fire Hydrant Assembly (2 ea.) - Can only find 1 fire hydrant on the Denver Water plans. Where is the other fire hydrant? It appears that the other fire hydrant is located just south of the Stapleton Dr S and will be either temporarily shut down or relocated to the south of bore pit. This work is not included in the Denver Water Only plans. Please clarify.

A31. Correct. The fire hydrant at approximate station 38+20 may need to be replaced or relocated. The was discovered after the Denver Water Plans were approved.

Q32. 2-20b Remove Railroad Tracks & 36-1 Install Railroad Tracks - When is the grade crossing construction agreement with BNSF expected?

A32. A final draft of this agreement will be included in the addenda prior to bid opening.

Q33. Remove Concrete Headwall - Could not find this in the plans. Where is the headwall?

- A33.** Refer to the description note under the bid item on the bid form. This bid item is intended to compensate the Contractor for removing the existing 84" concrete plug, storing and reinstalling at the upstream end of the project. It is correct that there is no headwall.
- Q34.** 2-11.2d Remove Existing 15" Storm Sewer Pipe - Could not find this in the plans. Where is this pipe to be removed?
- A34.** Refer to sheet 5 of the plans at approximate station 38+00. This existing pipe is possibly crushed or compromised.
- Q35.** 34-16.8 Adjust Existing Inlet Structure (3 ea.) - Can only find 1 inlet to adjust in the plans. Where are the other 2 inlets to be adjusted?
- A35.** Refer to plan sheet 13. These inlets that may need adjustment are near the proposed curb ramps along the two Stapleton Drives. Correct that only one is called out.
- Q36.** Subgrade Material (Select Backfill) (4,000 ton) - The only possible reference in the plans is in the General Notes. "Compaction of top two feet of street paving subgrade in trenches shall meet 95% modified proctor compaction." It can be assumed that the top two feet in the trenches will be select backfill, but it is only assumed. Please clarify where is this material going and at what depth?
- A36.** If native material has a PI less than 20, it can be used as backfill material on the project, including the top two feet of the trench. If an area is encountered where the PI is greater than 20 then Select Backfill material would need to be imported and used if enough good native is not stockpiled.
- Q37.** With the depth of the new sanitary sewer line it will likely require the use of vertical bends to make the connection. However, CCD Wastewater standards require cleanouts on services with bends in them. This would require cleanouts in the ROW which is not typically an acceptable location for cleanouts. Please clarify what CCD WWD is looking for in the new connections.
- A37.** See note 2 on Plan Sheets 4 through 8 which references section 2.11 of the WMD Criteria Manual. We interpret the aggregate 135-degree change to mean horizontal change. We do not anticipate any cleanouts on this project. It is preferred to use 45-degree bends for drops in elevation. The contractor should plan to chase the lateral far enough back to utilize 45-degree bends.
- Q38.** There is a fiber optic line that is tentatively located in conflict with the 36" bore. If, this is located and it conflicts with the 36" bore who is responsible for relocating the fiber optic line?
- A38.** Refer to General Note 9 on Plan Sheet 2. Please also refer to SCS 3.04. It is the Contractor's responsibility to coordinate the relocation of all utilities in conflict. In some cases, the City has already begun coordinating these relocations to expedite the beginning of construction. For example, Xcel is in the process of relocation the gas main.
- Q39.** Does CCD WWD have flow information from the sanitary lines coming from the Safeway facility?
- A39.** No.
- Q40.** If the Add Alt is not awarded what does the connection of the new 24" and the existing 18" look like?
- A40.** Very similar to approximate station 48+10 on plan sheet 6.
- Q41.** Is there a location that the contractor can access the sanitary lines coming from the Safeway property to preform by-pass pumping?
- A41.** Unknown. The Contractor will need to meet with Safeway regarding business access so this can be discussed at that time.
- Q42.** Can we use common fill to backfill the space above the 24" sewer in the joint trench?
- A42.** Refer to WMD Standard Detail S-301.1 Figure 1. Also refer to SCS 5.0. Acceptable native material (PI less than 20) may be used above the bedding zone and filter fabric of the 24" sanitary sewer.
- Q43.** Can you generally describe the agreement with BNSF?

A43. There are four sets of rail lines on the project. From north to south, the first will be removed and replaced, the second will be removed, the third (BNSF) will be removed and replaced by BNSF, and the fourth will be removed and replaced. The contractor will be required to coordinate with BNSF regarding schedule and anticipated timeline of track removal by BNSF. The contractor must be familiar with the BNSF requirements to know how far away to stop excavations until the track has been removed. After BNSF has removed their tracks, the contractor will lay pipe, backfill and place ballast material according to BNSF standards.

Q44. What type of public outreach/information do you anticipate on this project?

A44. The contractor is required to coordinate with all stakeholders of the project including residents and businesses affected by the project (please refer to General Contract Conditions Section 703). Many of these businesses have heavy trucking traffic and will require very clear communication regarding schedule, traffic control setups and detours. The City is also considering using a consultant to help with public information. In this case, the Contractor will need to work closely with them to help inform the public. The Contractor should bid assuming this consultant will not be there.

Q45. The quantity of track removal is 327 LF while the quantity of track replacement is 250 LF. If we are removing three tracks and replacing two, the quantities don't seem to add up since the average track crossing is approximately 80 LF.

A45. This will be corrected in addenda. The track removal item will be decreased to approximately 3 X 80. The track replacement will remain the same. The 80 LF of track replacement (for the BNSF spur) is intended to compensate the contractor to install the ballast material, per BNSF standards, and pricing should reflect this.

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



Lesley B. Thomas
City Engineer

5.17.17

Date

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

FEATRON
CONSTRUCTORS, INC.



Contractor

ADDENDUM NO. 2

DATE: 6.6.17

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

**CONTRACT NO: 201734065
PROJECT NAME: PARK HILL STORM, PHASE V**

ADDENDUM NO. 3 TO CONTRACT DOCUMENTS

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

BID FORM PACKAGE

Replace existing page BF-6.1 through BF-6.8 with BF-6.1 ADD #3 through BF-6.8 ADD #3.

BID DOCUMENT PACKAGE

Replace existing page SQ-1 through SQ-5 with SQ-1 ADD #3 through SQ-5 ADD #3.

Replace existing page SQ-1 ALT 1 through SQ-2 ALT 1 with SQ-1 ALT 1 ADD #3 through SQ-2 ALT 1 ADD #3.

DRAWINGS

Replace existing Plan Sheet 4 with Revised Plan Sheet 4

Replace existing Plan Sheet 9 with Revised Plan Sheet 9

GRADE CROSSING CONSTRUCTION AGREEMENT

Pursuant to Appendix E of the Technical Specifications, provided with this Addendum No. 3 is a current draft of the proposed Grade Crossing Construction Agreement between the City and BNSF. The City anticipates executing the Crossing Agreement in substantially the form provided before work commences on the Project. A final signed copy of the Crossing Agreement will be provided to the Contractor when it is available. With regard to work to be completed within or near the BNSF railroad right-of-way, the Contractor will be bound by the terms set forth in the Crossing Agreement, specifically the terms and procedures described in Exhibit C to the Crossing Agreement and the separate agreement attached to Crossing Agreement as Exhibit C-1.

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

Lesley B. Thomas
Lesley B. Thomas
City Engineer

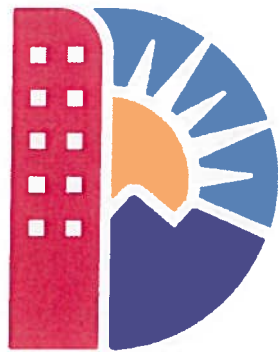
5.22.17
Date

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

FLATIRON
CONSTRUCTORS, INC. OTP
Contractor

6.6.17
Date

ADDENDUM NO. 3



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DEPARTMENT OF PUBLIC WORKS

BID DOCUMENTS PACKAGE

Contract No. 201734065

PARK HILL STORM, PHASE V

APRIL 14, 2017

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
Wastewater Management Division

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CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS

201734065

Park Hill Storm, Phase V

STATEMENT OF QUANTITIES

Item No.	Description	Estimated Quantity	
01-52.13	TEMPORARY OFFICE FACILITIES Lump Sum	1	LS
2-1.2a	REMOVE 6" CONCRETE CURB AND/OR GUTTER Per Linear Foot	210	LF
2-1.4	REMOVE HANDICAP CONCRETE CURB RAMP Including Curb Return, (Walk, C&G) Per Square Foot	1,500	SF
2-2.1	REMOVE CONCRETE SIDEWALK Per Square Foot	1,260	SF
2-3.4	REMOVE CONCRETE STREET INTERSECTION GUTTER (CROSSPAN) AND/OR VALLEY GUTTER Remove 5' Valley Gutter and Cross Pan Per Square Foot	10,800	SF
2-6	REMOVE CONCRETE HEADWALL Remove Existing 84" Concrete Plug, Store and Reinstall at Upstream end of project Each	1	EA
2-11.1c	REMOVE EXISTING 12" SANITARY SEWER PIPE Per Linear Foot	20	LF
2-11.1e	REMOVE EXISTING 18" SANITARY SEWER PIPE Per Linear Foot	210	LF
2-11.1c	REMOVE EXISTING 12" STORM SEWER PIPE Per Linear Foot	55	LF
2-11.1d	REMOVE EXISTING 15" STORM SEWER PIPE At the Direction of Project Manager Per Linear Foot	100	LF
2-11.5a	ABANDON EXISTING 8" SEWER PIPE Per Linear Foot	460	LF
2-11.5c	ABANDON EXISTING 12" SEWER PIPE Per Linear Foot	150	LF
2-11.5c	ABANDON EXISTING 12" SEWER PIPE Abandon Existing 18" Sewer Pipe Per Linear Foot	250	LF
2-12.1	REMOVE EXISTING SANITARY MANHOLE Each	2	EA
2-12.3	ABANDON EXISTING SANITARY MANHOLE Each	6	EA
2-13.1	REMOVE EXISTING STORM INLET Each	1	EA



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CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS

201734065

Park Hill Storm, Phase V

STATEMENT OF QUANTITIES

Item No.	Description	Estimated Quantity	
2-17.3	REMOVE AND REPLACE SIGN Each	2	EA
2-20b	REMOVE RAILROAD TRACKS Remove 2 Sets of Private RR Tracks & BNSF Spur Track Per Linear Foot	327	LF
02-22.13	VIBRATION ASSESSMENT Lump Sum	1	LS
2-23	REMOVE DECORATIVE LANDSCAPING 4799 Dahlia Street Lump Sum	1	LS
3-7a	HEALTH & SAFETY PLAN Lump Sum	1	LS
3-7b	MATERIAL MANAGEMENT PLAN Lump Sum	1	LS
5-2a	SUBGRADE MATERIAL (SELECT BACKFILL) Ton	4,000	TON
5-9	PERMEATION GROUTING 84" Storm Jacking Per Linear Foot	351	LF
5-9	PERMEATION GROUTING 24" Sanitary Jacking Per Linear Foot	351	LF
8-1.1b	6" DIP AWWA C151, CLASS 50 WATER LINE Per Linear Foot	97	LF
8-1.2b	INSTALL 6" WATER VALVE Each	1	EA
8-1.3d	12" PVC AWWA C900, CLASS 150 Per Linear Foot	525	LF
8-1.3d	12" PVC AWWA C900, CLASS 150 12" Fusable PVC w/ 22" Steel Casing Pipe (Uderneath Railway) Per Linear Foot	85	LF
8-1.5a	LEAD SERVICE LINE REPLACEMENT, <2" ID Copper Line Per Linear Foot	120	LF
8-1.5b	LEAD SERVICE LINE REPLACEMENT, >2" ID Copper Line Greater than or equal to 2-inches Per Linear Foot	120	LF
8-2	REMOVE FIRE HYDRANT ASSEMBLY Each	2	EA
8-3	RESET OR INSTALL FIRE HYDRANT ASSEMBLY Each	2	EA



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CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
201734065
Park Hill Storm, Phase V
STATEMENT OF QUANTITIES

Item No.	Description	Estimated Quantity	
8-4	REMOVE EXISTING WATER LINE 12" D.I.P within Trench Limits, abandon 350 LF underneath I-70 Per Linear Foot	1,600	LF
12-1.1	6" CURB AND GUTTER 2' PAN (CDOT T2, IIB) Per Linear Foot	210	LF
12-1.8	HANDICAP CONCRETE CURB RAMP (Including Curb Return-Walk and C&G) Per Square Foot	2,000	SF
12.2.1	CONCRETE SIDEWALK Per Square Foot	1,260	SF
12-3.2	5' CONCRETE VALLEY GUTTER (See Plans for Detail) Per Square Foot	10,300	SF
12-5.1	CONCRETE DRIVEWAY PAVING (Commercial) Per Square Foot	365	SF
20-1	ASPHALTIC TEMPORARY PATCHING Per Square Inch	5500	SY-IN
20-2ce	ASPHALT SURFACE COURSE, SX, RAP 20%, N=100, 64-22. Surface Course SX, RAP 20%, N=100, 64-22 (2.5-inches) Per Square Inch	22,000	SY-IN
20-3ce	ASPHALT BASE COURSE, S, RAP 20%, N=100, 64-22. Base Course S, RAP 20%, N=100, 64-22 (9-inches) Per Square Inch	80,000	SY-IN
20-4	ASPHALT ROTOMILL Per Square Inch	70,000	SY-IN
34-2.3d	15" DIAMETER C-76 RCP, CLASS III Per Linear Foot	100	LF
34-2.3e	18" DIAMETER C-76 RCP, CLASS III Per Linear Foot	142	LF
34-2.3t	84" DIAMETER C-76 RCP, CLASS III Per Linear Foot	877	LF
34-2.5t	84" DIAMETER C-76 RCP, CLASS V Under BNSF Tracks and McMillian Sales Corp Per Linear Foot	120	LF
34-7.1a	8" DIAMETER ASTM D-3034 SDR 35, PVC PIPE Per Linear Foot	50	LF
34-7.1c	12" DIAMETER ASTM D-3034 SDR 35, PVC PIPE Per Linear Foot	135	LF



DENVER

THE MILE HIGH CITY

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS

201734065

Park Hill Storm, Phase V

STATEMENT OF QUANTITIES

Item No.	Description	Estimated Quantity	
34-7.1g	24" DIAMETER PVC PIPE Per Linear Foot	1,035	LF
34-7.3g	24" DIAMETER PVC PIPE WITH STEEL CASING 36" Steel Casing Pipe (Under BNSF Tracks) Per Linear Foot	116	LF
34-11.1g	24" DIAMETER PVC PIPE BY JACKING/BORING WITH STEEL CASING 36" Steel Casing Pipe Jacked Under I-70 Per Linear Foot	351	LF
34-11.6w	84" DIAMETER RPMP BY JACKING/BORING 84" RPMP JACKED UNDER I-70 Per Linear Foot	351	LF
34-11.9w	84" RPMP BY OPEN CUT (for SN & PN see additional notes) 84" RPMP (Manufacture to Provide SN & PN) Per Linear Foot	149	LF
34-12.1a	4' DIAMETER PRECAST MANHOLE WITH TYPE A BASE & CONCENTRIC CONE Each	1	EA
34-12.1c	4' DIAMETER PRECAST MANHOLE WITH TYPE A BASE & CONCENTRIC CONE Manhole greater than 20-feet Each	6	EA
34-12.2a	5' DIAMETER PRECAST MANHOLE WITH TYPE A BASE & CONCENTRIC CONE Manhole greater than 20-feet Each	2	EA
34-12.4a	CAST-IN-PLACE TYPE B MANHOLE WITH TYPE A TOP SLAB Each	4	EA
34-13.1c	12" PIPE OUTSIDE DROP Each	2	EA
34-13.1e	18" PIPE OUTSIDE DROP Each	1	EA
34-15.1a	SANITARY SEWER TAP LOCATION AND VERIFICATION Each	9	EA
34-15.2	RECONNECT SANITARY SEWER SERVICES (TAPS) (OPEN CUT) Each	9	EA



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Item No.	Description	Estimated Quantity	
34-15.3	UTILITY EXPLORATORY INVESTIGATION Each	120	EA
34-16.1b	#14 INLET (L=9') Inlet greater than 6-feet Each	1	EA
34-16.1c	#14 INLET (L=12') Inlet greater than 6-feet Each	1	EA
34-16.3b	DOUBLE #16 VALLEY INLET Inlet greater than 6- feet Each	4	EA
34-16.8	ADJUST EXISTING INLET STRUCTURE Each	3	EA
36-1	INSTALL RAILROAD TRACKS Replace Private RR Crossings and BNSF Spur Track Per BNSF Standards and Details Per Linear Foot	250	LF
40-6	DECORATIVE LANDSCAPING 4799 Dahlia St and any other locations that are disturbed. Each	1	EA
41-1	TRAFFIC CONTROL Lump Sum	1	LS
42-1	RAILROAD CONTROL Lump Sum	1	LS
43-1b	STORM WATER MANAGEMENT (SCENARIO 2) Lump Sum	1	LS
45-2	QUALITY CONTROL TESTING Lump Sum	1	LS
46-1	PAVEMENT MARKING (PAINT) Per Square Foot	100	SF
46-2	EXPOXY PAVEMENT MARKING Permanent striping Per Square Foot	650	SF
46-3	THERMOPLASTIC PAVEMENT MARKING Stop Bars and Cross Walks Per Square Foot	150	SF
50-1	MOBILIZATION Lump Sum	1	LS



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CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS

201734065

Park Hill Storm, Phase V

STATEMENT OF QUANTITIES

Item No.	Description	Estimated Quantity	
2-1.2a	REMOVE 6" CONCRETE CURB AND/OR GUTTER Per Linear Foot	1,000	LF
2-2.1	REMOVE CONCRETE SIDEWALK Per Square Foot	5,000	SF
2-11.1e	REMOVE EXISTING 18" SANITARY SEWER PIPE Per Linear Foot	850	LF
2-12.1	REMOVE EXISTING SANITARY MANHOLE Each	2	EA
2-16.1	REMOVE CHAIN LINK FENCE Temporary Access Safeway Each	60	EA
8-4	REMOVE EXISTING WATER LINE 12" D.I.P within Trench Limits, abandon 350 LF underneath I-70 Per Linear Foot	900	LF
12-1.1	6" CURB AND GUTTER 2' PAN (CDOT T2, IIB) Per Linear Foot	1,000	LF
12.2.1	CONCRETE SIDEWALK Per Square Foot	5,000	SF
16-3	CHAIN LINK FENCE Temporary Access Safeway Per Linear Foot	60	LF
20-1	ASPHALTIC TEMPORARY PATCHING Per Square Inch	3,000	SY-IN
20-2ce	ASPHALT SURFACE COURSE, SX, RAP 20%, N=100, 64-22. Surface Course SX, RAP 20%, N=100, 64-22 (2.5-inches) Per Square Inch	11,500	SY-IN
20-3ce	ASPHALT BASE COURSE, S, RAP 20%, N=100, 64- 22. Base Course S, RAP 20%, N=100, 64-22 (9-inches) Per Square Inch	42,500	SY-IN
20-4	ASPHALT ROTOMILL Per Square Inch	20,000	SY-IN
34-2.3h	27" DIAMETER C-76 RCP, CLASS III Per Linear Foot	50	LF
34-2.3t	84" DIAMETER C-76 RCP, CLASS III Per Linear Foot	838	LF
34-7.1e	18" DIAMETER PVC PIPE Assumed size, could be smaller Per Linear Foot	47	LF



DENVER
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CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
201734065

Park Hill Storm, Phase V
STATEMENT OF QUANTITIES

Item No.	Description	Estimated Quantity	
34-7.1f	21" DIAMETER PVC PIPE Per Linear Foot	845	LF
34-12.1c	4' DIAMETER PRECAST MANHOLE WITH TYPE A BASE & CONCENTRIC CONE Manhole greater than 20-feet Each	4	EA
34-12.4a	CAST-IN-PLACE TYPE B MANHOLE WITH TYPE A TOP SLAB Manhole greater than 20-feet Each	2	EA
34-13.1e	18" PIPE OUTSIDE DROP Each	1	EA
34-13.1f	21" PIPE OUTSIDE DROP Each	1	EA
34-15.1a	SANITARY SEWER TAP LOCATION AND VERIFICATION Each	2	EA
34-15.2	RECONNECT SANITARY SEWER SERVICES (TAPS) (OPEN CUT) Each	2	EA
34-15.3	UTILITY EXPLORATORY INVESTIGATION Each	50	EA
41-1	TRAFFIC CONTROL Lump Sum	1	LS
46-1	PAVEMENT MARKING (PAINT) Per Square Foot	100	SF
46-2	EXPOXY PAVEMENT MARKING Permanent striping Per Square Foot	1,500	SF
46-3	THERMOPLASTIC PAVEMENT MARKING Stop Bars and Cross Walks Per Square Foot	300	SF

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
Wastewater Management Division

NOTICE FOR INVITATION FOR BIDS
FOR CONTRACT NO. 201734065

PARK HILL STORM, PHASE V

BID SCHEDULE:
11:00 AM, Local Time
MAY 19, 2017

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

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

Prior to submitting a bid, the bidder shall consult the Contractor's Bulletin Board located at 201 W. Colfax Ave., 2nd Floor, Denver, CO 80202 and/or www.work4denver.com.

GENERAL STATEMENT OF WORK:

The Parkhill Storm Phase V project continues an 84" storm drainage pipe and 24" sanitary pipe from 48th and Dahlia St. to a point approximately 360-feet north of Smith Road and Dahlia St. The two pipes will pass underneath two private railroad crossings, a BNSF railroad and Interstate 70. Inlet and manhole structural work, water utility relocations, sanitary sewer service reconnections, surface restoration, concrete flatwork, and asphalt paving will also be part of the project scope.

ESTIMATED CONSTRUCTION COST:

The estimated cost of construction for this project is between \$8,533,000.00 and \$9,431,000.00.

TEXTURA CONSTRUCTION PAYMENT MANAGEMENT:

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

DOCUMENTS AND BID INFORMATION AVAILABLE:

Contract Documents complete with Technical Specifications and, if applicable, construction drawings will be available on the first day of publication at: www.work4denver.com. To download digital Contract Documents at a cost of \$10.00 per download, reference eBid Document Number #5047234. Contact QuestCDN at 952-233-1632 or info@questcdn.com for assistance.

PRE-BID CONFERENCE:

A pre-bid conference will be held for this Project at 11:00 a.m., local time, on April 25, 2017. This meeting will take place at 201 W. Colfax Ave., Room 4I5, Denver, CO 80202.

DEADLINE TO SUBMIT QUESTIONS: May 3rd, 2017 at 2:00p.m., local time.

PREQUALIFICATION REQUIREMENTS:

Each bidder must be prequalified as a 1E (4) at the \$9,000,000.00 monetary level in accordance with the City's Rules and Regulations Governing Prequalification of Contractors. Each bidder must have submitted a prequalification application a minimum of ten (10) calendar days prior to the bid opening date. Applications must be submitted to the

Department of Public Works, Prequalification Section, 201 W. Colfax Ave., Department 614, Denver, CO 80202. To view the Rules and Regulations and to obtain a prequalification application, please visit our website at www.denvergov.org/prequalification or call 720-865-2539 for prequalification information ONLY.

MINORITY AND WOMAN BUSINESS ENTERPRISE PARTICIPATION:

Construction, reconstruction and remodeling contracts made and entered into by the City and County of Denver are subject to Article III, Divisions 1 and 3 of Chapter 28 of the Denver Revised Municipal Code, (Sections 28-31 to 28-36 and 28-52 to 28-90 D.R.M.C) and all Minority and Woman Business Enterprise and Equal Employment Opportunity Rules and Regulations adopted by the Director of the Division of Small Business Opportunity.

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

10% Minority and Woman Business Enterprise (M/WBE) Participation

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

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

MISCELLANEOUS:

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

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

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

Publication Dates: April 14, 17, 18, 2017

Published In: The Daily Journal

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
Wastewater Management Division

INSTRUCTIONS TO BIDDERS

IB-1 INSTRUCTION TO BIDDERS

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

IB-2 BIDDING

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

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

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

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

IB-3 CONTRACT DOCUMENTS AS PUBLISHED BY CITY

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

IB-4 COMPLETING AND SIGNING THE BID FORMS

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

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

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

IB-5 UNACCEPTABLE BIDS

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

IB-6 INFORMAL AND UNBALANCED BIDS

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

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

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

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

IB-7 ONLY ONE BID ACCEPTED

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

IB-8 BID GUARANTEE

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

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

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

IB-9 SITE INSPECTION AND INVESTIGATIONS

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

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

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

IB-10 INCONSISTENCIES

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

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

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

IB-11 WITHDRAWAL OF BID

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

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

IB-12 CONTRACTOR'S BULLETIN BOARD

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

IB-13 PRE-BID MEETING

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

IB-14 ADDENDA

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

IB-15 BID OPENING

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

IB-16 EVALUATION OF BIDS AND BASIS OF BID SELECTION

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

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

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

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

IB-17 NOTICE TO APPARENT LOW BIDDER

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

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

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

IB-18 EXECUTION OF CONTRACT

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

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

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

IB-19 BONDING REQUIREMENTS

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

IB-20 INSURANCE REQUIREMENTS

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

IB-21 PERMITS AND LICENSES

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

IB-22 PREVAILING WAGE REQUIREMENTS

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

Date bid or request for qualifications/proposals was advertised: April 14, 2017.

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

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

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

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

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

IB-23 TAX REQUIREMENTS

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

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

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

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

IB-24 DIVERSITY AND INCLUSIVENESS IN CITY SOLICITATIONS

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

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

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

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

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

Meeting Established Goal

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

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

certification or listing in the Directory is not a representation or warranty by the City as to the qualifications of any listed M/WBE.

5. In accordance with the provisions of the M/WBE Ordinance, DSBO will evaluate each bid to determine the responsiveness of the bid to the requirements of the M/WBE Ordinance. In determining whether a bidder's committed level of participation meets or exceeds the stated M/WBE goal, DSBO shall base its calculation of applicable amounts and percentages on the total base bid amount, not including any listed alternates, of each bid as follows:
 - a. The bid information provided by the agency will be used to determine the total base bid amount of each bid. Each bidder's total base bid amount will be multiplied by the M/WBE percentage established for the project to determine the exact dollar amount of required M/WBE participation for the Project. This amount will then be compared against the exact dollar amounts for the M/WBE committed for participation by the bidder. If the total dollar amount of participation listed meets or exceeds the established M/WBE dollar amount goal listed, then DSBO will determine that the goal has been met.
 - b. In addition, DSBO will determine the exact commitment percentage for each listed M/WBE by dividing the dollar amount listed for each M/WBE by the total base bid dollar amount submitted by the bidder. These individual percentages, when totaled for all listed M/WBE, will establish the total committed percentage level of M/WBE participation that the bidder must comply with during the life of the contract. In all cases, the committed percentage level of M/WBE participation must equal or exceed the assigned M/WBE goal for the Project.
 - c. In providing the exact dollar amount of participation for each listed M/WBE, a bidder should take care never to round up in determining whether or not the total of these amounts meets or exceeds the established percentage goal. The goal must be met or exceeded by dollar amounts and percentages in order for DSBO to determine that the bidder has met or exceeded the applicable M/WBE goal.
 - d. As previously mentioned, compliance with the M/WBE goal will be determined on the base bid alone. If a bid contains alternates, participation contained in any alternate will not count towards satisfaction of the Project goal. However, should any designated alternate be selected by the City for inclusion in the contract ultimately awarded, the M/WBE goal percentage level submitted at bid time, on the base bid, will also apply to the selected alternates and must be maintained for the life of the contract on the total contract amount, including any alternate work. Thus, even though such participation will not be considered in evaluating bids, bidders are urged to consider participation in preparing bids for designated alternates.
 - e. On projects where force account or allowance bid items have been included, bidders must meet the M/WBE goal percentage based upon the total base bid, including all such items that are submitted to the City. However, when a force account or allowance is designated by the City to be either performed or purchased from a specific company, the bidder may back out the dollar amount of the force account or allowance from the total base bid and meet the M/WBE goal on the remaining reduced amount.
 - f. On bids which, at the time of bid opening, are equal to or exceed Five Million Dollars (\$5,000,000.00), including any alternates which may be selected, only sixty percent (60%) of the value of the commercially useful function performed by M/WBE suppliers shall count toward satisfaction of the Project goal. On Projects under Five Million (\$5,000,000.00) the value of the commercially useful function of M/WBE supplier(s) will count at a one hundred percent (100%) level. Manufacturer's representatives and packagers shall be counted in the same manner as brokers.
 - g. In utilizing the M/WBE participation of a Broker only the bona fide commissions earned by such Broker for its performance of a commercially useful function will count toward

meeting the Project goals. The bidder must separate the bona fide brokerage commissions from the actual cost of the supplies or materials provided to determine the actual dollar amount of participation that can be counted towards meeting the goal.

6. On or before the third (3rd) working day after bid opening, all of the Bidders are required to submit an executed "Letter of Intent" for each M/WBE listed on the Bid Form as a joint venture member, subcontractor, supplier, manufacturer, manufacturers' representative or broker of any tier. **An MBE or WBE Prime Bidder needs to submit a Letter of Intent for itself for self performed work**, and must identify their level of participation on the designated M/WBE participation page bound herein. A Letter of Intent shall be submitted only for the M/WBEs listed at the time of bid opening, since this is the only participation that will be counted toward satisfaction of the project goal. A form for the M/WBE Letter of Intent is included with the Bid Form. The M/WBE Letter of Intent is a written communication from the Bidder to the City evidencing an understanding that the Bidder has or will enter into a contractual relationship with the M/WBE or that its subcontractor(s) and supplier(s), manufacturer(s), manufacturers' representative(s) and broker(s) will do so. Each M/WBE Letter of Intent shall be accompanied by a copy of the City and County of Denver's M/WBE certification letter for each proposed M/WBE identified at bid time. Bidders are urged to carefully review these Letters before submission to the City to ensure that they are properly completed and executed by the appropriate parties.

Good Faith Effort.

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

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

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

Continuing Commitments.

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

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

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

IB- 26 DISCLOSURE OF INFORMATION

All submissions and other materials provided or produced pursuant to this Invitation for Bids may be subject to the Colorado Open Records Law, C.R.S. 24-72-201, et seq. As such, bidders are urged to review these disclosure requirements and any exceptions to disclosure of information furnished by another party and, prior to submission of a bid to the City, appropriately identify materials that are not subject to disclosure. In the event of a request to the City for disclosure of such information, the City shall advise the bidder of such request to give the bidder an opportunity to object to the disclosure of designated confidential materials furnished to the City. In the event of the filing of a lawsuit to compel such disclosure, the City will tender all such material to the court for judicial determination of the issue of disclosure and each bidder agrees to intervene in such lawsuit to protect and assert its claims of privilege against disclosure of such material. Each bidder further agrees to defend, indemnify and save and hold harmless the City, its officers, agents and employees, from any claim, damages, expense, loss or costs arising out of the bidder's intervention to protect and assert its claims of privilege against disclosure under the Open Records Law including, but not limited to, prompt reimbursement to the City of all reasonable attorney fees, costs and damages that the City may incur directly or may be ordered to pay by such court.

IB-27 GENERAL BIDDING INFORMATION

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

IB-28 PAYMENT PROCEDURE REQUIREMENTS

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

PROJECT SIZE	FEE (% OF BID)
< \$1,000,000	0.22% (.0022)
\$1,000,001 - \$5,000,000	0.17% (.0017)
\$5,000,001 - \$20,000,000	0.12% (.0012)
\$20,000,001 - \$50,000,000	0.10% (.0010)
\$50,000,001 - \$100,000,000	0.08% (.0008)
\$100,000,001 - \$500,000,000	0.05% (.0005)
> \$500,000,000	CONTACT TEXTURA FOR PROGRAM PRICING

For more information:

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

**RULES AND REGULATIONS
REGARDING
EQUAL EMPLOYMENT OPPORTUNITY**

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

RULE I - DEFINITIONS

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

RULE II - NOTICE OF HEARING

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

RULE III - HEARING

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

REGULATIONS

REGULATION NO. 1 - ORDINANCE:

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

REGULATION NO. 2 - EXEMPTIONS:

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

REGULATION NO. 3 - DIRECTOR OF CONTRACT COMPLIANCE:

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

REGULATION NO. 4 - GOALS AND TIMETABLES:

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

REGULATION NO. 5 - AWARD OF CONTRACTS:

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

REGULATION NO. 6 - PUBLICATION AND DUPLICATION:

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

REGULATION NO. 7 - NOTICE TO PROCEED:

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

REGULATION NO. 8 - CONTRACTS WITH SUBCONTRACTORS:

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

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

REGULATION NO. 9 - AGENCY REFERRALS:

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

REGULATION NO. 10 - CLAUSES:

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

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

All amendments to the appendices shall be included by reference.

REGULATION NO. 11 - SHOW CAUSE NOTICES:

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

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

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

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
Wastewater Management Division

APPENDIX A

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

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

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

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

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

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

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

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
Wastewater Management Division

APPENDIX F

AFFIRMATIVE ACTION REQUIREMENTS

EQUAL EMPLOYMENT OPPORTUNITY

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

NOTICE

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

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

/s/ _____

Manager of Public Works
City and County of Denver

A. REQUIREMENTS - AN AFFIRMATIVE ACTION PLAN:

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

1. GOALS AND TIMETABLES:

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

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

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

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

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

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

2. SPECIFIC AFFIRMATIVE ACTION STEPS:

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

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

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

NOTE:

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

3. **NON - DISCRIMINATION:**

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

4. **COMPLIANCE AND ENFORCEMENT:**

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

B. CONTRACTORS SUBJECT TO THESE BID CONDITIONS:

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

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

C. OBLIGATIONS APPLICABLE TO CONTRACTORS:

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

D. GENERAL REQUIREMENTS:

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

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

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

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
Wastewater Management Division

CONTRACT NO. 201734065

Park Hill Storm, Phase V

CONTRACT

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

Flatiron Constructors, Inc.
385 Interlocken Crescent, Suite 900
Broomfield, CO 80021

WITNESSETH, Commencing on **April 14, 2017**, and for at least three (3) days the City advertised that sealed bids would be received for furnishing all labor, tools, supplies, equipment, materials, and everything necessary and required for the following:

CONTRACT NO. 201734065

Park Hill Storm, Phase V

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

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

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

1. CONTRACT DOCUMENTS

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

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

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

2. **SCOPE OF WORK**

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

3. **TERMS OF PERFORMANCE**

The Contractor agrees to undertake the performance of the Work under this Contract within ten (10) days after being notified to commence work by issuance of a Notice to Proceed in substantially the form contained herein from the Manager and agrees to fully complete said Work within 365 (Three Hundred Sixty Five Days) consecutive calendar days from the effective date of said Notice, plus such extension or extensions of time as may be granted in accordance with the provisions of the General Contract Conditions and any applicable Special Contract Conditions.

4. **TERMS OF PAYMENT**

The City agrees to pay the Contractor for the performance of all of the Work required under this Contract, and the Contractor agrees to accept as the Contractor's full and only compensation therefore, such sum or sums of money as may be proper in accordance with the price or prices set forth in the Contractor's Bid Form hereto attached and made a part hereof for bid items: (01-52.13 through 50-1) seventy seven (77) total base bid items, plus the Add Alt 1 bid items 2-1.2a through 46-3 twenty-eight (28) total Add Alt 1 bid items, the total estimated cost thereof being Seven Million, Six Hundred Thirty Eight Thousand, Six Hundred Forty Seven Dollars, and Ninety Eight Cents (\$7,638,647.98). Adjustments to said Contract Amount and payment of amounts due hereunder shall be made in accordance with the provisions of the General Contract Conditions and any applicable Special Contract Conditions.

5. **NO DISCRIMINATION IN EMPLOYMENT**

In connection with the performance of the Work under this Contract, the Contractor agrees not to refuse to hire, discharge, promote or demote, or to discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, gender, age, military status, sexual orientation, marital status, or physical or mental disability; and the Contractor further agrees to insert the foregoing provision in all subcontracts hereunder.

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

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

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

7. WAGE RATE REQUIREMENTS

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

8. APPLICABILITY OF LAWS

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

9. APPROPRIATION

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

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

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

10. APPROVALS

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

11. ASSIGNMENT

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

12. DISPUTES RESOLUTION PROCESS

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

disputes. The Contractor expressly agrees that this dispute resolution process is the only dispute resolution mechanism that will be recognized by the parties for any claims put forward by the Contractor, notwithstanding any other claimed theory of entitlement on the part of the Contractor or its subcontractors or suppliers.

13. CONTRACT BINDING

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

14. PARAGRAPH HEADINGS

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

15. SEVERABILITY

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

16. ELECTRONIC SIGNATURES AND ELECTRONIC RECORDS:

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

Contract Control Number: PWADM-201734065-00

Contractor Name: Flatiron Constructors, Inc.

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

SEAL

CITY AND COUNTY OF DENVER

ATTEST:

By _____

APPROVED AS TO FORM:

REGISTERED AND COUNTERSIGNED:

Attorney for the City and County of
Denver

By _____

By _____

By _____



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

Contract Control Number: 201734065

Vendor Name: Flatiron Constructors, Inc.

By: Eric S. Taylor

Name: Eric S. Taylor
(please print)

Title: Vice President
(please print)



ATTEST: [if required]

By: Bernd Herrmann

Name: Bernd H. Herrmann
(please print)

Title: VP : Asst. Sec.
(please print)



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

General Contract Conditions

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CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
Wastewater Management Division

SPECIAL CONTRACT CONDITIONS

SC-1 CONSTRUCTION SPECIFICATIONS

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

City and County of Denver:

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

Transportation Standards and Details for the Engineering Division

City and County of Denver Traffic Standard Drawings

Wastewater Management Division

– *Standard Detail Drawings*

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

Colorado Department of Transportation:

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

Federal Highway Administration:

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

Building & Fire Codes:

Building Code of the City and County of Denver

(International Building Code 2009 Series, City and County of Denver Amendments 2011)

National Fire Protection Association Standards

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

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

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

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

SC-2 DEPUTY MANAGER / CITY ENGINEER

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

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

SC-3 ENGINEERING DIVISION / CITY ENGINEER

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

SC-4 WASTEWATER MANAGEMENT DIVISION

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

SC-5 CITY DELEGATION OF AUTHORITY

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

Denver Department of Public Works / Engineering Division,

Project Manager
City Project Manager
Andy Stewart

Telephone

(303) 446-3510

SC-6 LIQUIDATED DAMAGES

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

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

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

SC-7 SUBCONTRACTS

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

SC-8 RESERVED

SC-9 PAYMENTS TO CONTRACTORS

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

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

<u>Agency/Firm</u>	<u>Name</u>	<u>Telephone</u>
Public Works/Engineering Division	Jason Wennen	(303) 446-3628

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

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

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

DEPARTMENT OF PUBLIC WORKS
Engineering Division

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

(PROJECT NO. and NAME) Date: _____, 20____.

(NAME OF CONTRACTOR) Subcontract #: _____

(NAME OF SUBCONTRACTOR/SUPPLIER) Subcontract Value: \$ _____
Last Progress Payment: \$ _____
Date: _____
Total Paid to Date: \$ _____
Date of Last Work: _____

Check Applicable Box:
 MBE WBE

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

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

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

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

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

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

STATE OF COLORADO) ss.
CITY OF _____)

Signed and sworn before me this
day of _____, 20____.

Notary Public/Commissioner of Oaths
My Commission Expires

(Name of Subcontractor)

By: _____

Title: _____



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Rev 031816

SC-10 CONTRACT FORMS

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

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

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

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

SC-11 CONSTRUCTION INSPECTION BY THE CITY

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

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

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

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

SC-12 DISPOSAL OF NON-HAZARDOUS WASTE AT DADS

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

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

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

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

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

SC-15 ATTORNEY'S FEES

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

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

SC-16 INSURANCE

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

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

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

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

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

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

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

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

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

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

(9) **Additional Provisions:**

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

SC-17 GREENPRINT DENVER REQUIREMENTS

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

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

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

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Liberty Bond No. 015055208
Travelers Bond No. 106646483
F&D/Zurich Bond No. 9247713
Federal Bond No. 8245-16-75
CNA Bond No. 30007473
Berkshire Bond No.
47-SUR-300033-01-0108

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS

PERFORMANCE AND PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned Flatiron Constructors, Inc.
385 Interlocken Crescent, Suite 900, Broomfield, CO 80021
a corporation organized and existing under and by virtue of the laws of the State of Colorado,
hereafter referred to as the "Contractor", and See Attachment A
a corporation organized and existing under and by virtue of the laws of the State of See Attachment A
and authorized to transact business in the State of Colorado, as Surety, are held and firmly bound unto the CITY AND
COUNTY OF DENVER, a municipal corporation of the State of Colorado, hereinafter referred to as the "City", in the
penal sum of Seven Million Six Hundred Thirty Eight Thousand Six Hundred Forty Seven
and 98/100***** Dollars (\$7,638,647.98*****),
lawful money of the United States of America, for the payment of which sum, well and truly to be made, we bind ourselves
and our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents;

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH THAT:

WHEREAS, the above bounden Contractor has entered into a written contract with the aforesaid City for furnishing all labor and tools, supplies, equipment, superintendence, materials and everything necessary for and required to do, perform and complete the construction of CONTRACT NO. 201734065 PARK HILL STORM, PHASE V, Denver, Colorado, and has bound itself to complete the project within the time or times specified or pay liquidated damages, all as designated, defined and described in the said Contract and Conditions thereof, and in accordance with the Plans and Technical Specifications therefore, a copy of said Contract being made a part hereof;

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

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

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

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

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

IN WITNESS WHEREOF, said Contractor and said Surety have executed these presents as of this
19th day of June, 2017

Attest:
Brend Holzman
Asst. Secretary



Flatiron Constructors, Inc.

Contractor

By: Eric A. Taylor
Vice President

See Attachment A

Surety

By: See Attachment A
Attorney-In-Fact

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

APPROVED AS TO FORM:
Attorney for the City and County of
Denver

By: [Signature]
Assistant City Attorney

APPROVED FOR THE CITY AND COUNTY OF
DENVER

By: [Signature]
MAYOR

By: [Signature]
EXECUTIVE DIRECTOR OF PUBLIC WORKS



ATTACHMENT A

Liberty Bond No. 015055208
Travelers Bond No. 106646483
F&D/Zurich Bond No. 9247713
Federal Bond No. 8245-16-75
C N A Bond No. 30007473
Berkshire Hathaway Bond No. 47-SUR-300033-01-0108

Liberty Mutual Insurance Company, a Massachusetts Corporation;
Travelers Casualty and Surety Company of America; a Connecticut Corporation;
Fidelity and Deposit Company of Maryland, a Maryland Corporation;
Zurich American Insurance Company, a New York Corporation;
Federal Insurance Company, an Indiana Corporation;
The Continental Insurance Company, a Pennsylvania Corporation;
Berkshire Hathaway Specialty Insurance Company, a Nebraska Corporation;

Liberty Mutual Insurance Company – A.M. Best Rating A XV
175 Berkeley Street, Boston, MA 02116 - Fax (212)-221-5608
Contact: David D. Roberts, Branch Manager – (212) 719-7750 – davidd.roberts@libertymutual.com

Travelers Casualty and Surety Company of America – A.M. Best Rating A++ XV
Construction Services, One Tower Square, Hartford, CT 06183
Contact: Brian Bialaski – VP, (860) 277-1914, Fax – (860)-277-3931 – bbialaski@travelers.com

Fidelity and Deposit Company of Maryland/Zurich American Insurance Company – A.M. Best Rating A+ XV
1299 Zurich Way, Schaumburg, IL 60196 - 1056 – Fax (410)-261-7957
Contact: Douglas Sauer, Underwriting Officer – (410)-559-8739 – douglas.sauer@zurichna.com

Federal Insurance Company/Pacific Indemnity Company – A.M. Best Rating A++ XV
15 Mountain View Road, Warren, NJ 07061 – Fax (908)-526-2060 – mlubin@chubb.com
Contact: Matthew Lubin, Director, National Engineering and Construction Group – (908) 903-3461

The Continental Insurance Company – A.M. Best Rating A XV
333 S. Wabash Avenue, 41st Floor, Chicago, IL 60604 – Fax (212)-440-7351
Contact: Jon Fullerton, Branch Manager (212)-440-7356 – jon.fullerton@cnasurety.com

Berkshire Hathaway Specialty Insurance Company – A.M. Best A++ XV
100 Federal Street, 20th Floor, Boston, MA 02110, Fax (410)-559-8787
Contact: D. J. Conroy, Vice President - (770)-625-2509 – D.J.Conroy@bhspecialty.com

By: 

Mary R. McKee, Attorney-In-Fact
Turner Surety & Insurance Brokerage, Inc.
Mack-Cali Centre II, 650 From Road, Suite 295
Paramus, NJ 07652

Witness:

By: 

Sherryanne M. DePirro

CORPORATE ACKNOWLEDGMENT

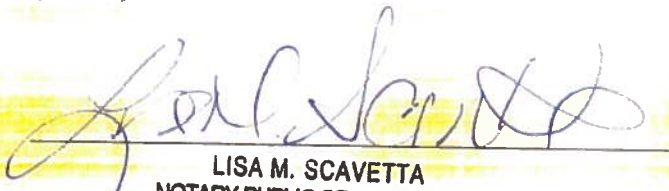
Form 152

STATE OF NEW JERSEY

COUNTY OF BERGEN

On this 19th day of June, 2017, before me personally came Mary R. McKee to me known, who, being by me duly sworn, did depose and say that she/he resides in Saddle Brook, NJ that she/he is the Attorney-In-Fact of the Liberty Mutual Insurance Company the corporation described in and which executed the above instrument that she/he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(SEAL)



LISA M. SCAVETTA
NOTARY PUBLIC OF NEW JERSEY
ID # 50016460
My Commission Expires 6/4/2020



LIBERTY MUTUAL INSURANCE COMPANY
FINANCIAL STATEMENT — DECEMBER 31, 2016

Assets		Liabilities	
Cash and Bank Deposits.....	\$1,092,914,837	Unearned Premiums.....	\$6,929,723,299
*Bonds — U.S Government.....	1,406,763,970	Reserve for Claims and Claims Expense.....	17,233,877,300
*Other Bonds.....	11,379,916,523	Funds Held Under Reinsurance Treaties.....	208,362,823
*Stocks.....	10,349,761,988	Reserve for Dividends to Policyholders.....	944,909
Real Estate.....	290,265,760	Additional Statutory Reserve.....	39,649,905
Agents' Balances or Uncollected Premiums.....	4,709,977,463	Reserve for Commissions, Taxes and	
Accrued Interest and Rents.....	112,757,395	Other Liabilities.....	<u>3,061,117,958</u>
Other Admitted Assets.....	<u>14,659,523,751</u>	Total.....	<u>\$27,473,676,194</u>
Total Admitted Assets.....	<u>\$44,001,881,687</u>	Special Surplus Funds.....	\$95,257,334
		Capital Stock.....	10,000,000
		Paid in Surplus.....	9,229,250,104
		Unassigned Surplus.....	7,193,698,055
		Surplus to Policyholders.....	<u>16,528,205,493</u>
		Total Liabilities and Surplus.....	<u>\$44,001,881,687</u>



* Bonds are stated at amortized or investment value; Stocks at Association Market Values.
The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the state of Massachusetts Department of Insurance.

I, TIM MIKOLAJEWSKI, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the foregoing is a true, and correct statement of the Assets and Liabilities of said Corporation, as of December 31, 2016, to the best of my knowledge and belief.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation at Seattle, Washington, this 23rd day of March, 2017.

T. Mikolajewski

Assistant Secretary

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 7750380

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company West American Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Mary R McKee, Sherryanne M DePirro, Maria L Spadaccini, Nicholas F Walsh, Vincent C Miseo, Lisa M Scavetta, Elliott W Wolfe

all of the city of Paramus, state of NJ each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 28th day of April, 2017



The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
West American Insurance Company

By: David M Carey
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 28th day of April, 2017 before me personally appeared David M Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS – Section 12 Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 19th day of June, 20 17



By: Renee C Llewellyn
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

CORPORATE ACKNOWLEDGMENT

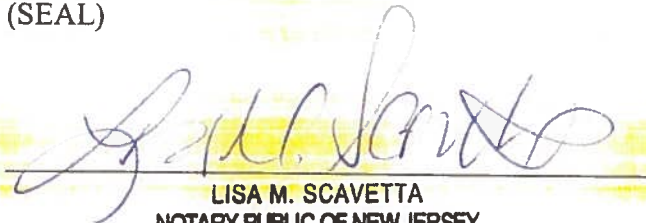
Form 152

STATE OF NEW JERSEY

COUNTY OF BERGEN

On this 19th day of June, 2017, before me personally came Mary R. McKee to me known, who, being by me duly sworn, did depose and say that she/he resides in Saddle Brook, NJ that she/he is the Attorney-In-Fact of the Travelers Casualty and Surety Company of America the corporation described in and which executed the above instrument that she/he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(SEAL)



LISA M. SCAVETTA
NOTARY PUBLIC OF NEW JERSEY
ID # 50016460
My Commission Expires 6/4/2020

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

HARTFORD, CONNECTICUT 06183

FINANCIAL STATEMENT AS OF DECEMBER 31, 2016

CAPITAL STOCK \$ 6,480,000

ASSETS		LIABILITIES & SURPLUS	
CASH AND INVESTED CASH	\$ 23,823,843	UNEARNED PREMIUMS	\$ 879,381,216
BONDS	3,472,087,233	LOSSES	758,091,002
STOCKS	321,318,705	LOSS ADJUSTMENT EXPENSES	224,272,289
INVESTMENT INCOME DUE AND ACCRUED	42,068,894	COMMISSIONS	39,789,777
OTHER INVESTED ASSETS	3,108,073	TAXES, LICENSES AND FEES	13,875,052
PREMIUM BALANCES	217,181,397	OTHER EXPENSES	42,557,946
NET DEFERRED TAX ASSET	89,571,988	CURRENT FEDERAL AND FOREIGN INCOME TAXES	11,351,548
REINSURANCE RECOVERABLE	23,137,819	REMITTANCES AND ITEMS NOT ALLOCATED	9,443,140
SECURITIES LENDING REINVESTED COLLATERAL ASSETS	6,917,818	AMOUNTS WITHHELD / RETAINED BY COMPANY FOR OTHERS	73,697,600
RECEIVABLES FROM PARENT, SUBSIDIARIES AND AFFILIATES	9,661,930	RETROACTIVE REINSURANCE RESERVE ASSUMED	977,978
ASSUMED REINSURANCE RECEIVABLE AND PAYABLE	593,147	POLICYHOLDER DIVIDENDS	9,082,602
OTHER ASSETS	6,199,878	PROVISION FOR REINSURANCE	3,555,060
		ADVANCE PREMIUM	1,786,287
		PAYABLE FOR SECURITIES	3,948,166
		PAYABLE FOR SECURITIES LENDING	6,817,816
		CEDED REINSURANCE NET PREMIUMS PAYABLE	26,818,735
		REINSURANCE PAYABLE ON PAID LOSSES & LOSS ADJ. EXPENSES	688,744
		OTHER ACCRUED EXPENSES AND LIABILITIES	1,349,281
		TOTAL LIABILITIES	\$ 2,107,562,219
		CAPITAL STOCK	\$ 6,480,000
		PAID IN SURPLUS	433,803,760
		OTHER SURPLUS	1,647,905,524
		TOTAL SURPLUS TO POLICYHOLDERS	\$ 2,088,189,284
TOTAL ASSETS	\$ 4,195,751,503	TOTAL LIABILITIES & SURPLUS	\$ 4,195,751,503

STATE OF CONNECTICUT)
 COUNTY OF HARTFORD) SS.
 CITY OF HARTFORD)

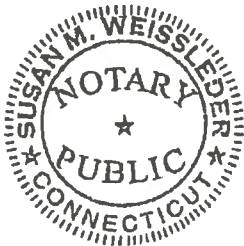
MICHAEL J. DOODY, BEING DULY SWORN, SAYS THAT HE IS SECOND VICE PRESIDENT, OF TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA, AND THAT TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT STATEMENT OF THE FINANCIAL CONDITION OF SAID COMPANY AS OF THE 31ST DAY OF DECEMBER, 2016.

Michael J. Doody
 SECOND VICE PRESIDENT

Susan M. Weissleder
 NOTARY PUBLIC

SUSAN M. WEISSLEDER
 Notary Public
 My Commission Expires November 30, 2017

SUBSCRIBED AND SWORN TO BEFORE ME THIS
 17TH DAY OF MARCH, 2017





POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 231084

Certificate No. 007190600

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc. is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Mary R. McKee, Sherryanne M. DePirro, Maria L. Spadaccini, Nicholas F. Walsh, Elliott W. Wolffe, Vincent C. Miseo, and Lisa M. Scavetta

of the City of Paramus, State of New Jersey, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 14th day of April, 2017.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut
City of Hartford ss.

By: [Signature]
Robert L. Raney, Senior Vice President

On this the 14th day of April, 2017, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal. My Commission expires the 30th day of June, 2021.



[Signature]
Marie C. Tetreault, Notary Public

CORPORATE ACKNOWLEDGMENT

Form 152

STATE OF NEW JERSEY

COUNTY OF BERGEN

On this 19th day of June, 2017, before me personally came Mary R. McKee to me known, who, being by me duly sworn, did depose and say that she/he resides in Saddle Brook, NJ that she/he is the Attorney-In-Fact of the Fidelity and Deposit Company of Maryland the corporation described in and which executed the above instrument that she/he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(SEAL)



LISA M. SCAVETTA
NOTARY PUBLIC OF NEW JERSEY
ID # 50016460
My Commission Expires 6/4/2020

FIDELITY AND DEPOSIT COMPANY

OF MARYLAND

600 Red Brook Blvd., Suite 600, Owings Mills, MD 21117

Statement of Financial Condition

As Of December 31, 2016

ASSETS

Bonds	\$ 141,903,342
Stocks	22,845,654
Cash and Short Term Investments	3,080,053
Reinsurance Recoverable	13,996,720
Other Accounts Receivable	27,147,872
TOTAL ADMITTED ASSETS	\$ <u>208,973,641</u>

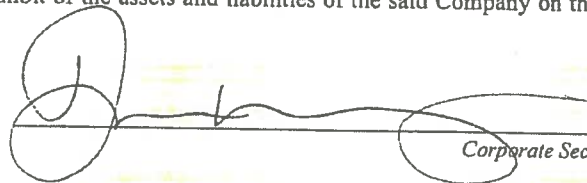
LIABILITIES, SURPLUS AND OTHER FUNDS

Reserve for Taxes and Expenses	\$ 896,428
Ceded Reinsurance Premiums Payable	40,193,693
Securities Lending Collateral Liability	0
TOTAL LIABILITIES	\$ <u>41,090,121</u>
Capital Stock, Paid Up	\$ 5,000,000
Surplus	162,883,521
Surplus as regards Policyholders	167,883,520
TOTAL	\$ <u>208,973,641</u>

Securities carried at \$62,166,344 in the above statement are deposited with various states as required by law.

Securities carried on the basis prescribed by the National Association of Insurance Commissioners. On the basis of market quotations for all bonds and stocks owned, the Company's total admitted assets at December 31, 2016 would be \$209,350,832 and surplus as regards policyholders \$168,260,711.

I, DENNIS F. KERRIGAN, Corporate Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing statement is a correct exhibit of the assets and liabilities of the said Company on the 31st day of December, 2016.


Corporate Secretary

State of Illinois }
City of Schaumburg } SS:

Subscribed and sworn to, before me, a Notary Public of the State of Illinois, in the City of Schaumburg, this 1st day of March, 2017.


Notary Public



CORPORATE ACKNOWLEDGMENT

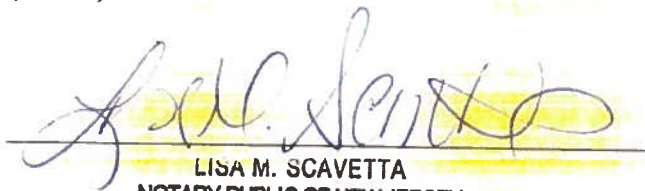
Form 152

STATE OF NEW JERSEY

COUNTY OF BERGEN

On this 19th day of June, 2017, before me personally came Mary R. McKee to me known, who, being by me duly sworn, did depose and say that she/he resides in Saddle Brook, NJ that she/he is the Attorney-In-Fact of the Zurich American Insurance Company the corporation described in and which executed the above instrument that she/he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(SEAL)

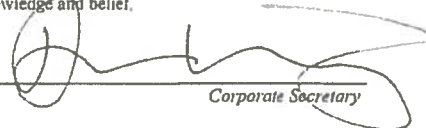


LISA M. SCAVETTA
NOTARY PUBLIC OF NEW JERSEY
ID # 50016460
My Commission Expires 6/4/2020

ZURICH AMERICAN INSURANCE COMPANY
COMPARATIVE BALANCE SHEET
ONE LIBERTY PLAZA, 165 BROADWAY, 32nd FLOOR, NEW YORK, NY 10006
As of December 31, 2016 and December 31, 2015

	12/31/2016	12/31/2015
Assets		
Bonds	\$ 17,161,451,744	\$ 17,260,128,973
Preferred Stock		
Common Stock	3,241,050,263	3,457,354,146
Real Estate	1,026,001,064	743,791,691
Other Invested Assets	1,948,564,541	2,048,959,102
Derivatives	15,084,953	-
Short-term Investments	655,803,775	403,620,083
Receivable for securities	119,469,175	86,823,468
Cash and cash equivalents	(66,647,236)	182,127,374
Securities lending reinvested collateral assets	112,477,509	86,554,110
Employee Trust for Deferred Compensation Plan	156,985,102	153,274,854
Total Cash and Invested Assets	\$ 24,370,240,890	\$ 24,422,633,801
Premiums Receivable	\$ 4,231,447,148	\$ 3,598,435,742
Funds Held with Reinsurers	1,783,310	1,906,522
Reinsurance Recoverable	623,035,654	521,790,582
Accrued Investment Income	123,371,546	123,257,424
Federal Income Tax Recoverable	947,211,719	1,045,367,647
Due from Affiliates	110,421,961	200,022,690
Other Assets	595,372,223	558,041,597
Total Assets	\$ 31,002,884,451	\$ 30,471,456,005
Liabilities and Policyholders' Surplus		
Liabilities:		
Loss and LAE Reserves	\$ 14,267,336,824	\$ 14,173,584,657
Unearned Premium Reserve	4,253,376,558	4,463,409,342
Funds Held with Reinsurers	215,284,071	203,459,214
Loss In Course of Payment	534,413,839	386,200,590
Commission Reserve	136,388,581	120,630,088
Federal Income Tax Payable	89,598,056	93,480,741
Remittances and Items Unallocated	142,307,982	178,038,986
Payable to parent, subs and affiliates	264,541,870	69,640,403
Provision for Reinsurance	56,323,818	44,528,436
Ceded Reinsurance Premiums Payable	934,904,370	939,196,923
Securities Lending Collateral Liability	112,477,509	86,554,110
Other Liabilities	2,144,252,359	1,947,276,015
Total Liabilities	\$ 23,151,205,837	\$ 22,705,999,505
Policyholders' Surplus:		
Common Capital Stock	\$ 5,000,000	\$ 5,000,000
Paid-In and Contributed Surplus	4,394,131,321	4,394,131,321
Surplus Notes	-	-
Special Surplus Funds	52,465,000	56,772,000
Cumulative Unrealized Gain	178,672,890	430,546,047
Unassigned Surplus	3,221,409,403	2,879,007,132
Total Policyholders' Surplus	\$ 7,851,678,614	\$ 7,765,456,500
Total Liabilities and Policyholders' Surplus	\$ 31,002,884,451	\$ 30,471,456,005

I, Dennis F. Kerrigan, Corporate Secretary of ZURICH AMERICAN INSURANCE COMPANY do hereby certify that the foregoing statement is a correct exhibit of the assets and liabilities of the said Company, on the 31st day of December, 2016, according to the best of my information, knowledge and belief.




 Corporate Secretary

State of Illinois
 County of Cook

} SS:

Subscribed and sworn to, before me, a Notary Public of the State of Illinois, in the City of Schaumburg, this 1st day of March, 2017.



 Notary public



**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by **MICHAEL BOND, Vice President**, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Mary R. MCKEE, Maria L. SPADACCINI, Sherryanne M. DEPIRRO, Nicholas F. WALSH, Lisa M. SCAVETTA, Elliott W. WOLFFE and Vincent C. MISEO, all of Paramus, New Jersey, EACH** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 12th day of August, A.D. 2016.

ATTEST:

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND**



By: Eric D. Barnes

*Secretary
Eric D. Barnes*

Michael Bond

*Vice President
Michael Bond*

State of Maryland
County of Baltimore

On this 12th day of August, A.D. 2016, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **MICHAEL BOND, Vice President, and ERIC D. BARNES, Secretary**, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, depose and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Maria D. Adamski

Maria D. Adamski, Notary Public
My Commission Expires: July 8, 2019



CORPORATE ACKNOWLEDGMENT

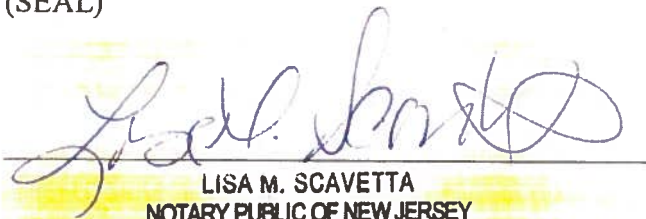
Form 152

STATE OF NEW JERSEY

COUNTY OF BERGEN

On this 19th day of June, 2017, before me personally came Mary R. McKee to me known, who, being by me duly sworn, did depose and say that she/he resides in Saddle Brook, NJ that she/he is the Attorney-In-Fact of the Federal Insurance Company the corporation described in and which executed the above instrument that she/he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(SEAL)



LISA M. SCAVETTA
NOTARY PUBLIC OF NEW JERSEY
ID # 50016460
My Commission Expires 6/4/2020

FEDERAL INSURANCE COMPANY

STATEMENT OF ASSETS, LIABILITIES AND SURPLUS TO POLICYHOLDERS

Statutory Basis

DECEMBER 31, 2016

(in thousands of dollars)

<i>ASSETS</i>		<i>LIABILITIES AND SURPLUS TO POLICYHOLDERS</i>	
Cash and Short Term Investments.....	\$ (86,990)	Outstanding Losses and Loss Expenses	\$ 11,482,308
United States Government, State and Municipal Bonds	8,135,311	Unearned Premiums.....	2,723,875
Other Bonds.....	5,471,330	Ceded Reinsurance Premiums Payable.....	566,868
Stocks.....	130,689	Provision for Reinsurance	29,339
Other Invested Assets.....	<u>1,289,903</u>	Other Liabilities.....	<u>1,144,976</u>
TOTAL INVESTMENTS	<u>14,940,243</u>	TOTAL LIABILITIES	<u>15,947,366</u>
Investments in Affiliates:		Capital Stock.....	20,980
Chubb Investment Holdings, Inc.	3,727,406	Paid-In Surplus.....	3,106,809
Pacific Indemnity Company.....	2,926,619	Unassigned Funds	<u>8,296,020</u>
Executive Risk Indemnity Inc.....	1,250,965		
Great Northern Insurance Company	504,162	SURPLUS TO POLICYHOLDERS.....	<u>11,423,809</u>
Vigilant Insurance Company.....	319,505		
Chubb European Investment Holdings, SLP .	277,361		
Chubb Custom Insurance Company.....	214,956		
Chubb National Insurance Company	162,929		
Chubb Indemnity Insurance Company.....	163,668		
Other Affiliates	70,204		
Premiums Receivable	1,510,107		
Other Assets	<u>1,303,050</u>		
TOTAL ADMITTED ASSETS	<u>\$ 27,371,175</u>	TOTAL LIABILITIES AND SURPLUS TO POLICYHOLDERS.....	<u>\$ 27,371,175</u>

Investments are valued in accordance with requirements of the National Association of Insurance Commissioners. At December 31, 2016, investments with a carrying value of \$565,702,495 were deposited with government authorities as required by law.

State, County & City of New York, — ss:

Dawn M. Chloros, Assistant Secretary _____ of the Federal Insurance Company
being duly sworn, deposes and says that the foregoing Statement of Assets, Liabilities and Surplus to Policyholders of said Federal Insurance Company on December 31, 2016 is true and correct and is a true abstract of the Annual Statement of said Company as filed with the Secretary of the Treasury of the United States for the 12 months ending December 31, 2016.
Subscribed and sworn to before me
this March 3, 2017.



Notary Public

JEANETTE SHIPSEY
Notary Public, State of New York
No. 02SH5074142
Qualified in Nassau County
Commission Expires March 10, 2019



Assistant Secretary

CHUBB

Power of Attorney

Federal Insurance Company | Vigilant Insurance Company | Pacific Indemnity Company

Attn: Surety Department | 15 Mountain View Road | Warren, NJ 07059

Know All by These Presents, That FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, and PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, do each hereby constitute and appoint Sherryanne M. DePirro, Mary R. McKee, Vincent C. Misco, Lisa M. Scavetta, Maria L. Spadaccini, Nicholas F. Walsh and Elliott W. Woffe of Paramus, New Jersey

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY have each executed and attested these presents and affixed their corporate seals on this 30th day of June, 2016.

Tina M. Hawkins, Assistant Secretary

David B. Norris, Jr., Vice President



STATE OF NEW JERSEY

County of Somerset ss

On this 30th day of June, 2016 before me, a Notary Public of New Jersey, personally came Tina M. Hawkins, to me known to be Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY, the companies which executed the foregoing Power of Attorney, and the said Tina M. Hawkins, being by me duly sworn, did depose and say that she is Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By-Laws of said Companies; and that she signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that she is acquainted with David B. Norris, Jr., and knows him to be Vice President of said Companies; and that the signature of David B. Norris, Jr., subscribed to said Power of Attorney is in the genuine handwriting of David B. Norris, Jr., and was thereto subscribed by authority of said By-Laws and in deponent's presence.

Notarial Seal



KATHERINE J. ADELAAR
NOTARY PUBLIC OF NEW JERSEY
No. 2318685
Commission Expires July 16, 2019

Katherine J. Adelaar, Notary Public

CERTIFICATION

Extract from the By-Laws of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY:

"Except as otherwise provided in these By-Laws or by law or as otherwise directed by the Board of Directors, the President or any Vice President shall be authorized to execute and deliver, in the name and on behalf of the Corporation, all agreements, bonds, contracts, deeds, mortgages, and other instruments, either for the Corporation's own account or in a fiduciary or other capacity, and the seal of the Corporation, if appropriate, shall be affixed thereto by any of such officers or the Secretary or an Assistant Secretary. The Board of Directors, the President or any Vice President designated by the Board of Directors may authorize any other officer, employee or agent to execute and deliver, in the name and on behalf of the Corporation, agreements, bonds, contracts, deeds, mortgages, and other instruments, either for the Corporation's own account or in a fiduciary or other capacity, and, if appropriate, to affix the seal of the Corporation thereto. The grant of such authority by the Board or any such officer may be general or confined to specific instances."

I, Tina M. Hawkins, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY (the "Companies") do hereby certify that

- (i) the foregoing extract of the By-Laws of the Companies is true and correct,
(ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in the U.S. Virgin Islands, and Federal is licensed in Guam, Puerto Rico, and each of the Provinces of Canada except Prince Edward Island, and
(iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this June 19, 2017



Tina M. Hawkins, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT THE ADDRESS LISTED ABOVE, OR BY Telephone (908) 903-3493 Fax (908) 903-3656 e-mail: surety@chubb.com

CORPORATE ACKNOWLEDGMENT

Form 152

STATE OF NEW JERSEY

COUNTY OF BERGEN

On this 19th day of June, 2017, before me personally came Mary R. McKee to me known, who, being by me duly sworn, did depose and say that she/he resides in Saddle Brook, NJ that she/he is the Attorney-In-Fact of the The Continental Insurance Company the corporation described in and which executed the above instrument that she/he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(SEAL)



LISA M. SCAVETTA
NOTARY PUBLIC OF NEW JERSEY
ID # 50016460
My Commission Expires 6/4/2020

THE CONTINENTAL INSURANCE COMPANY
Radnor, Pennsylvania
Statement of Net Admitted Assets and Liabilities
December 31, 2016

ASSETS

Bonds	\$ 1,134,642,999
Stocks	146,454,381
Cash and short-term investments	208,940,675
Receivables for securities	15,218
Investment income due and accrued	14,853,145
Amounts recoverable from reinsurers	86,857,208
Funds held by or deposited with reinsured companies	1,463,083
Net deferred tax asset	56,055,855
Premiums and considerations	16,951,925
Other assets	1,251,000
Total Assets	<u><u>\$ 1,667,485,489</u></u>

LIABILITIES AND SURPLUS

Losses	\$ 812,077,677
Loss adjustment expense	37,646,991
Unearned premiums	-
Other expenses	750,799
Ceded reinsurance premiums payable (net of ceding commissions)	23,147,409
Funds held by company under reinsurance treaties	2,535,486
Provision for reinsurance	76,000,000
Other liabilities	(785,015,440)
Total Liabilities	<u><u>\$ 167,142,922</u></u>

Surplus Account:

Capital paid up	\$ 53,566,360
Gross paid in and contributed surplus	1,423,436,994
Special Surplus	257,617,903
Unassigned funds	(234,278,690)
Surplus as regards policyholders	<u>\$ 1,500,342,567</u>
Total Liabilities and Capital	<u><u>\$ 1,667,485,489</u></u>

I, Troy Wray, Assistant Vice President of Continental Insurance Company hereby certify that the above is an accurate representation of the financial statement of the Company dated December 31, 2016, as filed with the various Insurance Departments and is a true and correct statement of the condition of Continental Insurance Company as of that date.

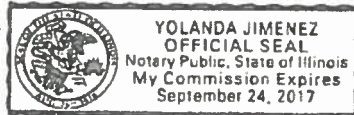


THE CONTINENTAL INSURANCE COMPANY

By *Troy Wray*
Assistant Vice President

Subscribed and sworn to me this 10th day of March, 2017.

My commission expires:



Yolanda Jimenez
Notary Public

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That The Continental Insurance Company, a Pennsylvania insurance company, is a duly organized and existing insurance company having its principal office in the City of Chicago, and State of Illinois, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Mary R McKee, Sherryanne M De Pirro, Maria L Spadaccini, Nicholas F Walsh, Elliott W Wolffe, Vincent C Miseo, Lisa M Scavetta, Individually

of Paramus, NJ, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind them thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the insurance company and all the acts of said Attorney, pursuant to the authority hereby given is hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law and Resolutions, printed on the reverse hereof, duly adopted, as indicated, by the Board of Directors of the insurance company.

In Witness Whereof, The Continental Insurance Company has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 5th day of January, 2017.

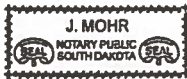


The Continental Insurance Company

Paul T. Bruflat
Paul T. Bruflat Vice President

State of South Dakota, County of Minnehaha, ss:

On this 5th day of January, 2017, before me personally came Paul T. Bruflat to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of The Continental Insurance Company, a Pennsylvania insurance company, described in and which executed the above instrument; that he knows the seal of said insurance company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said insurance company and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said insurance company.



My Commission Expires June 23, 2021

J. Mohr
J. Mohr Notary Public

CERTIFICATE

I, D. Bult, Assistant Secretary of The Continental Insurance Company, a Pennsylvania insurance company, do hereby certify that the Power of Attorney herein above set forth is still in force, and further certify that the By-Law and Resolution of the Board of Directors of the insurance company printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said insurance company this 19th day of June, 2017.



The Continental Insurance Company

D. Bult
D. Bult Assistant Secretary

CORPORATE ACKNOWLEDGMENT

Form 152

STATE OF NEW JERSEY

COUNTY OF BERGEN

On this 19th day of June, 2017, before me personally came Mary R. McKee to me known, who, being by me duly sworn, did depose and say that she/he resides in Saddle Brook, NJ that she/he is the Attorney-In-Fact of the Berkshire Hathaway Specialty Insurance Company the corporation described in and which executed the above instrument that she/he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(SEAL)



LISA M. SCAVETTA
NOTARY PUBLIC OF NEW JERSEY
ID # 50016460
My Commission Expires 6/4/2020

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY

1314 Douglas Street, Suite 1400, Omaha, Nebraska 68102

ADMITTED ASSETS*

	<u>12/31/2016</u>	<u>9/30/2016</u>	<u>12/31/2015</u>
Total invested assets	\$ 3,707,827,160	\$ 3,227,738,364	\$ 3,186,498,049
Premium & agent balances (net)	193,621,498	217,789,751	111,888,220
All other assets	185,024,482	149,308,523	73,200,653
Total Admitted Assets	<u>\$ 4,086,473,140</u>	<u>\$ 3,594,836,638</u>	<u>\$ 3,371,586,922</u>

LIABILITIES & SURPLUS*

	<u>12/31/2016</u>	<u>9/30/2016</u>	<u>12/31/2015</u>
Loss & loss exp. unpaid	\$ 142,981,337	\$ 115,650,774	\$ 33,586,302
Unearned premiums	160,310,927	147,682,695	62,997,856
All other liabilities	446,041,395	299,250,489	230,891,273
Total Liabilities	<u>749,333,659</u>	<u>562,583,958</u>	<u>327,475,431</u>
Total Policyholders' Surplus	<u>3,337,139,481</u>	<u>3,032,252,680</u>	<u>3,044,111,491</u>
Total Liabilities & Surplus	<u>\$ 4,086,473,140</u>	<u>\$ 3,594,836,638</u>	<u>\$ 3,371,586,922</u>

* Assets, liabilities and surplus are presented on a Statutory Accounting Basis as promulgated by the NAIC and/or the laws of the company's domiciliary state.

A.M. Best: A++ Rating

Standard & Poor's: AA+ Rating



Power Of Attorney

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY NATIONAL INDEMNITY COMPANY / NATIONAL LIABILITY & FIRE INSURANCE COMPANY

Know all men by these presents, that BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at 100 Federal Street, 20th Floor, Boston, Massachusetts 02110, NATIONAL INDEMNITY COMPANY, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at 3024 Harney Street, Omaha, Nebraska 68131, and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, a corporation existing under and by virtue of the laws of the State of Connecticut and having an office at 100 First Stamford Place, Stamford, Connecticut 06902 (hereinafter collectively the "Companies"), pursuant to and by the authority granted as set forth herein, do hereby name, constitute and appoint: Andrew Waterbury, Sherryanne M. DePirro, Elliott Wolfe, Mary R. McKee, Maria L. Spadaccini, Nicholas F. Walsh, Lisa M. Scavetta, Vincent C. Misco, 650 From Road of the city of Paramus State of New Jersey, their true and lawful attorney(s)-in-fact to make, execute, seal, acknowledge, and deliver, for and on their behalf as surety and as their act and deed, any and all undertakings, bonds, or other such writings obligatory in the nature thereof, in pursuance of these presents, the execution of which shall be as binding upon the Companies as if it has been duly signed and executed by their regularly elected officers in their own proper persons. This authority for the Attorney-in-Fact shall be limited to the execution of the attached bond(s) or other such writings obligatory in the nature thereof.

In witness whereof, this Power of Attorney has been subscribed by an authorized officer of the Companies, and the corporate seals of the Companies have been affixed hereto this date of November 18, 2014. This Power of Attorney is made and executed pursuant to and by authority of the Bylaws, Resolutions of the Board of Directors, and other Authorizations of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, which are in full force and effect, each reading as appears on the back page of this Power of Attorney, respectively.

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY,

[Signature]

By: David Fields, Executive Vice President



NATIONAL INDEMNITY COMPANY, NATIONAL LIABILITY & FIRE INSURANCE COMPANY,

[Signature]

By: David Fields, Vice President



NOTARY

State of Massachusetts, County of Suffolk, ss:

On this 18th day of November, 2014 before me appeared David Fields, Executive Vice President of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY and Vice President of NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, who being duly sworn, says that his capacity is as designated above for such Companies; that he knows the corporate seals of the Companies; that the seals affixed to the foregoing instrument are such corporate seals; that they were affixed by order of the board of directors or other governing body of said Companies pursuant to its Bylaws, Resolutions and other Authorizations, and that he signed said instrument in that capacity of said Companies.

[Notary Seal]



[Signature]

Notary Public

I, Brennan Neville, the undersigned, Assistant Secretary of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies which is in full force and effect and has not been revoked. IN TESTIMONY WHEREOF, I have hereunto affixed the seals of said companies this date of June 19, 2014.



[Signature]

Assistant Secretary

To verify the authenticity of this Power of Attorney please contact us at BHSI Surety Department, Berkshire Hathaway Specialty Insurance Company, 100 Federal Street, 20th Floor, Boston, MA 02110 | (617) 936-2971 or by email at Courtney.Walker@bhsispecialty.com. THIS POWER OF ATTORNEY IS VOID IF ALTERED. To notify us of a claim please contact us on our 24-hour toll free number at (855) 453-9675, via email at claimsnotice@bhsispecialty.com, via fax to (617) 507-8259, or via mail.

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY (BYLAWS)

ARTICLE V.
CORPORATE ACTIONS

....
EXECUTION OF DOCUMENTS:

....
Section 6.(b) The President, any Vice President or the Secretary, shall have the power and authority:

- (1) To appoint Attorneys-in-fact, and to authorize them to execute on behalf of the Company bonds and other undertakings, and
- (2) To remove at any time any such Attorney-in-fact and revoke the authority given him.

NATIONAL INDEMNITY COMPANY (BY-LAWS)

Section 4. Officers, Agents, and Employees:

A. The officers shall be a President, one or more Vice Presidents, a Secretary, one or more Assistant Secretaries, a Treasurer, and one or more Assistant Treasurers none of whom shall be required to be shareholders or Directors and each of whom shall be elected annually by the Board of Directors at each annual meeting to serve a term of office of one year or until a successor has been elected and qualified, may serve successive terms of office, may be removed from office at any time for or without cause by a vote of a majority of the Board of Directors, and shall have such powers and rights and be charged with such duties and obligations as usually are vested in and pertain to such office or as may be directed from time to time by the Board of Directors; and the Board of Directors or the officers may from time to time appoint, discharge, engage, or remove such agents and employees as may be appropriate, convenient, or necessary to the affairs and business of the corporation.

NATIONAL INDEMNITY COMPANY (BOARD RESOLUTION ADOPTED AUGUST 6, 2014)

RESOLVED, That the President, any Vice President or the Secretary, shall have the power and authority to (1) appoint Attorneys-in-fact, and to authorize them to execute on behalf of this Company bonds and other undertakings and (2) remove at any time any such Attorney-in-fact and revoke the authority given.

NATIONAL LIABILITY & FIRE INSURANCE COMPANY (BY-LAWS)

ARTICLE IV

Officers

Section 1. Officers, Agents and Employees:

A. The officers shall be a president, one or more vice presidents, one or more assistant vice presidents, a secretary, one or more assistant secretaries, a treasurer, and one or more assistant treasurers, none of whom shall be required to be shareholders or directors, and each of whom shall be elected annually by the board of directors at each annual meeting to serve a term of office of one year or until a successor has been elected and qualified, may serve successive terms of office, may be removed from office at any time for or without cause by a vote of a majority of the board of directors. The president and secretary shall be different individuals. Election or appointment of an officer or agent shall not create contract rights. The officers of the Corporation shall have such powers and rights and be charged with such duties and obligations as usually are vested in and pertain to such office or as may be directed from time to time by the board of directors; and the board of directors or the officers may from time to time appoint, discharge, engage, or remove such agents and employees as may be appropriate, convenient, or necessary to the affairs and business of the Corporation.

NATIONAL LIABILITY & FIRE INSURANCE COMPANY (BOARD RESOLUTION ADOPTED AUGUST 6, 2014)

RESOLVED, That the President, any Vice President or the Secretary, shall have the power and authority to (1) appoint Attorneys-in-fact, and to authorize them to execute on behalf of this Company bonds and other undertakings and (2) remove at any time any such Attorney-in-fact and revoke the authority given.

PERFORMANCE AND PAYMENT BOND

SURETY AUTHORIZATION

June 19, 2017

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

Re: Flatiron Constructors, Inc.
Contract No. 201734065
Project Name: Park Hill Storm, Phase V
Contract Amount: \$7,638,647.98
Performance & Payment Bond Number: 015055208 (Liberty Mutual Lead Surety)

Dear Assistant City Attorney:

The Performance and Payment Bonds covering the above captioned project were executed by Liberty Mutual Insurance Company, Travelers Casualty and Surety Company of America, Fidelity and Deposit Company of Maryland/Zurich American Insurance Company, Federal Insurance Company, The Continental Insurance Company and Berkshire Hathaway Specialty Insurance Company on June 19, 2017.

We hereby authorize the City and County of Denver, Department of Public Works, to date the bond to coincide with the date of the contract.

If you should have any additional questions or concerns, please don't hesitate to give me a call at 201-267-7510.

Thank you.

Sincerely,

Liberty Mutual Insurance Company
Travelers Casualty and Surety Company of America
Fidelity and Deposit Company of Maryland/Zurich American Insurance Company
Federal Insurance Company
The Continental Insurance Company
Berkshire Hathaway Specialty Insurance Company

BY: 
Mary R. McKee, Attorney-in-Fact

Client#: 337

FLATINTERMTN

ACORD™

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 06/19/2017

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

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

PRODUCER: Turner Surety & Ins. Brokerage, Mack Cali Centre II, 650 From Road, Suite 295, Paramus, NJ 07652. CONTACT NAME: TSIB Inc., PHONE: 201 267-7500, FAX: 201-267-7532, E-MAIL ADDRESS: flatironcerts@tsibinc.com. INSURER(S) AFFORDING COVERAGE: INSURER A: Zurich American Insurance Compa, NAIC #: 16535.

COVERAGES CERTIFICATE NUMBER: 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

Table with columns: INSR LTR, TYPE OF INSURANCE, ADDL INSR, SUBR WVD, POLICY NUMBER, POLICY EFF (MM/DD/YYYY), POLICY EXP (MM/DD/YYYY), LIMITS. Rows include Commercial General Liability (GLO59397079), Automobile Liability (BAP593970809), and Workers Compensation (WC654246208).

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: Park Hill Storm, Phase V
Contract Control No: 210734065

As required by written contract, the City and County of Denver, it's Elected an Appoint Officials, Employees and Volunteers are included as Additional Insureds as respects the Commercial General Liability and Business Automobile Liability.

CERTIFICATE HOLDER CANCELLATION

CERTIFICATE HOLDER: City and County of Denver, Attn: David Relaford, 201 W. Colfax Ave., Dept 614, Denver, CO 80202. 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: [Signature]



NOTICE OF APPARENT LOW BIDDER
(SAMPLE)

Current Date

To:

Gentlemen:

The MANAGER OF PUBLIC WORKS has considered the Bids submitted on May 19, 2017 for work to be done and materials to be furnished in and for:

PROJECT No. 201734065 PARK HILL STORM, PHASE V

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

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

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

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

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

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

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

PROJECT NO. 201734065

Page 2

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

Dated at Denver, Colorado this _____ day of _____ 20__.

CITY AND COUNTY OF DENVER

By _____

Executive Director of Public Works

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

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



Current Date

**NOTICE TO PROCEED
(SAMPLE)**

Name
Company
Street
City/State/Zip

CONTRACT NO. 201734065, PARK HILL STORM, PHASE V

In accordance with General Contract Condition 302 of the Standard Specifications for Construction, General Contract Conditions, 2011 Edition, you are hereby authorized and directed to proceed on _____ with the work of constructing contract number 201734065, as set forth in detail in the contract documents for the City and County of Denver.

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

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

Sincerely,

Lesley B. Thomas
City Engineer

cc:

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

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Certificate of Contract Release
(SAMPLE)

Date

Name
Company
Street
City/State/Zip

RE: Certificate of Contract Release for
201734065, PARK HILL STORM, PHASE V

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

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

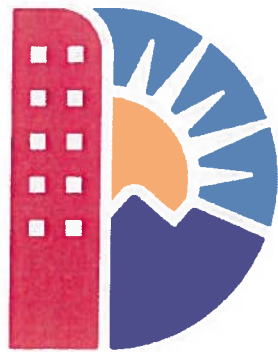
Contractor's Signature

Date Signed

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

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

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THE MILE HIGH CITY

PREVAILING WAGE RATES

Contract No. 201734065

PARK HILL STORM, PHASE V

APRIL 14, 2017



Office of Human Resources
Denver's Human Resource Agency

201 W. Colfax, Department 412
Denver, CO 80202
p: 720.913.5751
f: 720.913.5720
www.denvergov.org/humanresources

TO: All Users of the City of Denver Prevailing Wage Schedules
FROM: Susan Keller, Human Resources Technician
DATE: April 7, 2017
SUBJECT: Latest Change to Prevailing Wage Schedules

Please be advised, prevailing wage rates for some building, heavy, and highway construction trades have not been updated by the United States Department of Labor (DOL) since March 1, 2002. The Career Service Board, in their meeting held on April 21, 2011, approved the use of the attached supplemental wage rates until prevailing wage rates for these classifications of work are again published by the United States Department of Labor in accordance with the Davis-Bacon Act.

The effective date for this publication will be **Friday, April 7, 2017** and applies to the City and County of Denver for **HEAVY CONSTRUCTION PROJECTS** in accordance with the Denver Revised Municipal Code, Section 20-76(c).

General Wage Decision No. CO170012
Superseded General Decision No. CO20160012
Modification No. 3
Publication Date: 4/7/17
(8 pages)

Unless otherwise specified in this document, apprentices shall be permitted only if they are employed pursuant to, and individually registered in, a bona fide apprenticeship program registered with the U.S. Department of Labor (DOL). The employer and the individual apprentice must be registered in a program, which has received prior approval, by the DOL. Any employer, who employs an apprentice and is found to be in violation of this provision, shall be required to pay said apprentice the full journeyman scale.

For questions please call (720) 913-5726.

Attachments as listed above.

General Decision Number: CO170012 04/07/2017 CO12

Superseded General Decision Number: CO20160012

State: Colorado

Construction Type: Heavy

Counties: Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo and Weld Counties in Colorado.

HEAVY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	01/20/2017
2	02/03/2017
3	04/07/2017

ASBE0028-001 07/01/2016

	Rates	Fringes
Asbestos Workers/Insulator (Includes application of all insulating materials, protective coverings, coatings and finishings to all types of mechanical systems).....	\$ 29.73	13.93

BRCO0007-004 01/01/2017

ADAMS, ARAPAHOE, BOULDER, BROOMFIELD, DENVER, DOUGLAS AND JEFFERSON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 26.62	7.99

BRCO0007-006 05/01/2016

EL PASO AND PUEBLO COUNTIES

Rates	Fringes
-------	---------

BRICKLAYER.....\$ 24.95 9.39

ELEC0012-004 09/01/2016

PUEBLO COUNTY

	Rates	Fringes
ELECTRICIAN		
Electrical contract over \$1,000,000.....	\$ 28.00	11.00+3%
Electrical contract under \$1,000,000.....	\$ 24.85	11.00+3%

ELEC0068-001 01/01/2017

ADAMS, ARAPAHOE, BOULDER, BROOMFIELD, DENVER, DOUGLAS,
JEFFERSON, LARIMER, AND WELD COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 33.85	14.09

ELEC0111-001 01/01/2016

	Rates	Fringes
Line Construction:		
Groundman.....	\$ 18.79	22.25%+\$5.45
Line Equipment Operator.....	\$ 29.40	22.25%+\$5.45
Lineman and Welder.....	\$ 42.14	25.25%+\$5.45

ELEC0113-002 06/01/2015

EL PASO COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 30.00	14.95

ELEC0969-002 06/01/2015

MESA COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 24.00	7.92

ENGI0009-001 10/23/2013

	Rates	Fringes
Power equipment operators:		
Blade: Finish.....	\$ 25.04	9.15
Blade: Rough.....	\$ 24.73	9.15
Bulldozer.....	\$ 24.73	9.15
Cranes: 50 tons and under..	\$ 24.88	9.15
Cranes: 51 to 90 tons.....	\$ 25.04	9.15
Cranes: 91 to 140 tons.....	\$ 25.19	9.15
Cranes: 141 tons and over...	\$ 25.97	9.15
Forklift.....	\$ 24.37	9.15

Mechanic.....	\$ 24.88	9.15
Oiler.....	\$ 24.01	9.15
Scraper: Single bowl under 40 cubic yards.....	\$ 24.88	9.15
Scraper: Single bowl, including pups 40 cubic yards and over and tandem bowls.....	\$ 25.04	9.15
Trackhoe.....	\$ 24.88	9.15

* IRON0024-003 01/01/2017

	Rates	Fringes
Ironworkers:.....	\$ 26.05	21.20
Structural		

LABO0086-001 05/01/2009

	Rates	Fringes
Laborers:		
Pipelayer.....	\$ 18.68	6.78

PLUM0003-005 06/01/2016

ADAMS, ARAPAHOE, BOULDER, BROOMFIELD, DENVER, DOUGLAS,
JEFFERSON, LARIMER AND WELD COUNTIES

	Rates	Fringes
PLUMBER.....	\$ 38.43	15.19

PLUM0058-002 07/01/2016

EL PASO COUNTY

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 35.60	13.65

PLUM0058-008 07/01/2016

PUEBLO COUNTY

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 35.60	13.65

PLUM0145-002 07/01/2016

MESA COUNTY

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 35.17	11.70

PLUM0208-004 06/01/2015

ADAMS, ARAPAHOE, BOULDER, BROOMFIELD, DENVER, DOUGLAS,
JEFFERSON, LARIMER AND WELD COUNTIES

	Rates	Fringes
PIPEFITTER.....	\$ 35.35	13.39

SHEE0009-002 07/01/2016		

	Rates	Fringes
Sheet metal worker.....	\$ 32.56	15.96

TEAM0455-002 07/01/2015		

	Rates	Fringes
Truck drivers:		
Pickup.....	\$ 19.66	4.02
Tandem/Semi and Water.....	\$ 20.29	4.02

SUCO2001-006 12/20/2001		

	Rates	Fringes
BOILERMAKER.....	\$ 17.60	
Carpenters:		
Form Building and Setting...	\$ 16.97	2.74
All Other Work.....	\$ 15.14	3.37
Cement Mason/Concrete Finisher...	\$ 17.31	2.85
IRONWORKER, REINFORCING.....	\$ 18.83	3.90
Laborers:		
Common.....	\$ 11.22	2.92
Flagger.....	\$ 8.91	3.80
Landscape.....	\$ 12.56	3.21
Painters:		
Brush, Roller & Spray.....	\$ 15.81	3.26
Power equipment operators:		
Backhoe.....	\$ 16.36	2.48
Front End Loader.....	\$ 17.24	3.23
Skid Loader.....	\$ 15.37	4.41

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Office of Human Resources
Supplemental rates
(Specific to the Denver Projects)
(Supp #74, Date: 02-03-2012)

Classification		Base	Fringe
Ironworkers (Ornamental)		\$24.80	\$10.03
Laborers: Janitors/Yardmen		\$17.68	\$8.22
Laborers:			
	GROUP 1	\$18.18	\$8.27
	GROUP 2	\$21.59	\$8.61
Laborers: (Tunnel)			
	GROUP 1	\$18.53	\$8.30
	GROUP 2	\$18.63	\$8.31
	GROUP 3	\$19.73	\$8.42
	GROUP 4	\$21.59	\$8.61
	GROUP 5	\$19.68	\$8.42
Laborers (Removal of Asbestos)		\$21.03	\$8.55
Line Construction:			
	Lineman, Gas Fitter/Welder	\$36.88	\$9.55
	Line Eq Operator/Line Truck Crew	\$25.74	\$8.09
Millwrights		\$28.00	\$10.00
Power Equipment Operators (Tunnels Above and Below Ground, shafts and raises):			
	GROUP 1	\$25.12	\$10.81
	GROUP 2	\$25.47	\$10.85
	GROUP 3	\$25.57	\$10.86
	GROUP 4	\$25.82	\$10.88
	GROUP 5	\$25.97	\$10.90
	GROUP 6	\$26.12	\$10.91
	GROUP 7	\$26.37	\$10.94
Power Equipment Operators:			
	GROUP 1	\$22.97	\$10.60
	GROUP 2	\$23.32	\$10.63
	GROUP 3	\$23.67	\$10.67
	GROUP 4	\$23.82	\$10.68
	GROUP 5	\$23.97	\$10.70
	GROUP 6	\$24.12	\$10.71
	GROUP 7	\$24.88	\$10.79
Truck Drivers:			
	GROUP 1	\$18.42	\$10.00
	GROUP 2	\$19.14	\$10.07
	GROUP 3	\$19.48	\$10.11
	GROUP 4	\$20.01	\$10.16
	GROUP 5	\$20.66	\$10.23
	GROUP 6	\$21.46	\$10.31

POWER EQUIPMENT OPERATOR CLASSIFICATIONS
(TUNNELS ABOVE AND BELOW GROUND, SHAFTS, AND RAISES):

GROUP 1 - Brakeman

GROUP 2 - Motorman

GROUP 3 - Compressor

GROUP 4 - Air Tractors; Grout Machine; Gunnite Machine; Jumbo Form

GROUP 5 - Concrete Placement Pumps; Mucking Machines and Front End Loaders, Underground, Slusher; Mine Hoist Operator; Mechanic

GROUP 6 - Mechanic Welder

GROUP 7 - Mole

NOTE: Any equipment listed below being used in tunnel work, below or above ground shall be paid not less than \$2.00 per hour above the listed wage rates.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS:

GROUP 1 - Air compressor, brakeman, drill operator - smaller than Watson 2500 and similar, operators of 5 or more light plants, welding machines, generators, single unit conveyor, pumps, vacuum well point system, tractor, under 70 hp with or without attachments compressors, 360 C.F.M. or less.

GROUP 2 - Conveyor, handling **building** materials, ditch witch and similar trenching machine, haulage motor man, pugmill, portable screening plant with or without a spray bar, screening plants, with classifier.

GROUP 3 - Asphalt screed, asphalt plant, backfiller, bituminous spreader or laydown machine; cableway signalman, caisson drill, William MF, similar or larger; C.M.I. and similar, concrete batching plants, concrete finish machine, concrete gang saw on concrete paving, concrete mixer, less than 1 yd., concrete placement pumps, under 8 inches, distributors, bituminous surfaces dozer, drill, diamond or core, drill rigs, rotary, churn, or cable tool, elevating graders, elevator operator, equipment, lubricating and service engineer, grout machine, gunnite machine, hoist, 1 drum, horizontal directional drill operator, sandblasting machine, single unit portable crusher, with or without washer, tie tamper, wheel mounted, tractor, 70 hp and over with or without attachments, trenching machine operator, winch on truck.

GROUP 4 - Cable operated power shovels, draglines, articulated truck operator, clamshells, and backhoes, 5 cubic yards and under, concrete mixer over 1 cubic yard, concrete paver 34E or similar, concrete placement pumps, 8 inches and over, grade checker, hoist, 2 drums, hydraulic backhoe, 3/4 yds and over, loader, over 6 cubic yards, mechanic, mixer mobile, multiple unit portable crusher, with or without washer; pile driver, tractor with side boom, roto- mill and similar, welder.

GROUP 5 - Cable operated power shovels, draglines, clamshells and backhoes over 5 cubic yards, caisson drill Watson 2500 similar or larger, hoist 3 drum or more, mechanic - welder (heavy-duty).

GROUP 6 - Cableway, derrick, quad nine push unit, wheel excavator, belt or elevating loader

GROUP 7 - tower cranes all types

LABORER CLASSIFICATIONS:

GROUP 1 -Erosion Control, Dowel Bars; Fence Erectors; Gabion Basket and Reno mattresses; Signaling, Metal Mesh; Stake Caser; Traffic Control Devices; Tie Bars and Chairs in Concrete; Paving; Waterproofing Concrete; Air, Gas, Hydraulic Tools and Electrical Tool Operators; Barco Hammers; Cutting Torches; drill; diamond and core drills; Core, diamond, air track including but not limited to; Joy, Mustang, PR-143, 220 Gardner-Denver, Hydrosonic, and water blaster operator; Chuck Tender; Electric hammers; Jackhammers; Hydraulic Jacks; Tampers; Air Tampers; Automatic Concrete Power Curbing Machines; Concrete Processing Material; Concrete Tender; Operators of concrete saws on pavement (other than gangsaws); Power operated Concrete Buggies; Hot Asphalt Labor; Asphalt Curb Machines; Paving Breakers; Transverse Concrete Conveyor Operator; Cofferdams; Boxtenders; Caisson 8' to 12'; Caisson Over 12'; Jackhammer Operators in Caissons over 12'; Labor applicable to Pipe coating or Wrapping; Pipe Wrappers, Plant and Yard; Relining

Pipe; Hydroliner (a plastic may be used to waterproof); Pipelayer on Underground Bores; Sewer, Water, Gas, Oil Conduit; Enamalers on Pipe, inside and out, Mechanical Grouters; Monitors; Jeep Holiday Detector Men; Pump Operators; Rakers; Vibrators; Hydro- broom, Mixer Man; Gunnite Nozzlemen; Shotcrete Operator; and chain saws, gas and electric; Sand Blaster; Licensed Powdermen; Powdermen and Blaster; Siphons; Signalmen; Dumpman/spotter; Grade Checker.

GROUP 2 - Plug and galleys in dams; Scalars; any work on or off Bridges 40' above the ground performed by Laborers working from a Bos'n Chair, Swing Stage, Life Belt, or Block and Tackle as a safety requirement.

TUNNEL LABORER CLASSIFICATIONS:

GROUP 1 - Outside Laborer - Above ground

GROUP 2 - Minimum Tunnel Laborer, Dry Houseman

GROUP 3 - Cable or Hose Tenders, Chuck Tenders, Concrete Laborers, Dumpmen, Whirley Pump Operators

GROUP 4 - Tenders on Shotcrete, Guniting and Sand Blasting; Tenders, core and Diamond Drills; Pot Tenders

GROUP 5 - Collapsible Form Movers and Setters; Miners; Machine Men and Bit Grinders; Nippers; Powdermen and Blasters; Reinforcing Steel Setters; Timbermen (steel or wood tunnel support, including the placement of sheeting when required); and all Cutting and Welding that is incidental to the Miner's work; Tunnel Liner Plate Setters; Vibrator Men, Internal and External; Unloading, stopping and starting of Moran Agitator Cars; Diamond and Core Drill Operators; Shotcrete operator; Gunnite Nozzlemen; Sand Blaster; Pump Concrete Placement Men.

Laborers (Removal of Asbestos) Removal or encapsulation of Asbestos Material (including removal of asbestos from mechanical systems that are going to be scraped) and work involving the removal, handling, or dealing with toxic or hazardous waste.

TRUCK DRIVER CLASSIFICATIONS:

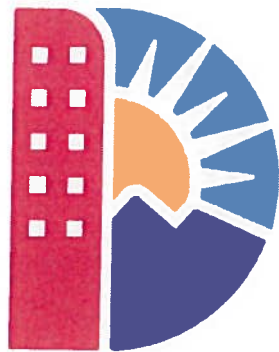
GROUP 1 - Sweeper Truck, Flat Rack Single Axle and Manhaul, Shuttle Truck or Bus.

GROUP 2 - Dump Truck Driver to and including 6 cubic yards, Dump Truck Driver over 6 cubic yards to and including 14 cubic yards, Straddle Truck Driver, Liquid and Bulk Tankers Single Axle, Euclid Electric or Similar, Multipurpose Truck Specialty and Hoisting.

GROUP 3 - Truck Driver Snow Plow.

GROUP 4 - Cement Mixer Agitator Truck over 10 cubic yards to and including 15 cubic yards.

WELDERS: Receive rate prescribed for craft performing operation to which welding is incidental.

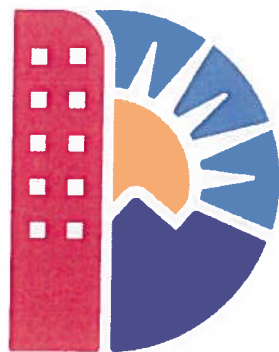


DENVER[®]
THE MILE HIGH CITY

TECHNICAL SPECIFICATIONS

Contract No. 201734065

PARK HILL STORM, PHASE V
APRIL 14, 2017



DENVER[®]
THE MILE HIGH CITY

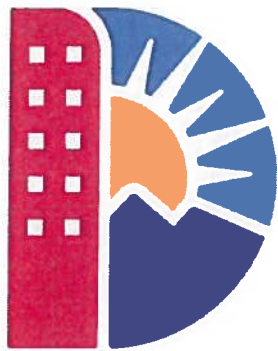
DEPARTMENT OF PUBLICWORKS

Drawings

Contract No. 201734065

PARK HILL STORM, PHASE V
APRIL 14, 2017

CITY AND COUNTY OF DENVER
STATE OF COLORADO



DENVER[®]
THE MILE HIGH CITY

Department of Public Works

Addenda

Contract Number: 201734065

PARK HILL STORM, PHASE V

April 14, 2017

CITY AND COUNTY OF DENVER

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS

CONTRACT NO: 201734065
PROJECT NAME: Park Hill Storm, Phase V

ADDENDUM NO. 1 TO CONTRACT DOCUMENTS

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

POSTPONEMENT OF BID OPENING

Notice is hereby given that Sealed Bids for Contract No. 201734065, Park Hill Storm, Phase V are hereby postponed from May 19, 2017. Sealed bids will be received at 201 W. Colfax Ave., Denver, CO 80202 no later than:

11:00 a.m., Local Time
June 6, 2017
Room 6.G.7

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



Lesley B. Thomas
City Engineer

5.10.17

Date

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

Contractor

ADDENDUM NO. 1

DATE: _____

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

**CONTRACT NO: 201734065
PROJECT NAME: PARK HILL STORM, PHASE V**

ADDENDUM NO. 2 TO CONTRACT DOCUMENTS

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

QUESTIONS AND ANSWERS

Q1. Are we required to submit an Insurance Certification with our bid on May 19?

A1. No. The Certificate of Insurance is required upon execution of the Contract Documents by the Apparent Low Bidder evidencing the Apparent Low Bidder's satisfactory compliance with the insurance requirements set forth in the Contract Documents.

Q2. Can you please define what street classification Dahlia Street is as related to the traffic control and phasing notes?

A2. Traffic and Phasing Note 2 on Plan Sheet 2 states that "The streets named above are classified as collectors." Note 3 used to be above Note 2. Dahlia is a collector.

Q3. What are the dates that each of the railroad spur lines can be shut down for construction?

A3. There are no dates specified. There are four railroad crossings: one BNSF spur, and three private lines. Of these private lines, two will be removed and replaced while one will just be removed. The Contractor must coordinate with the two private businesses to ensure railroad deliveries if/when they occur. The Contractor must coordinate with BNSF according to the agreement.

Q4. Is there a specific roadway material width and thickness to be used for the temporary roadways required at Stapleton Drive and temporary access for Safeway?

A4. There are no temporary roadways planned on Stapleton Drive. For the Safeway, temporary access assumes 11.5" of asphalt similar to what is shown on the paving plan. Regarding width, assume a width to match the gated driveway at approximate station 40+30 (west side of Dahlia).

Q5. Please define the steel casing wall thickness for the 36" casing of the sewer line under the BNSF spur line?

A5. Please refer to the Wastewater Capital Projects Management Standard Construction Specifications (SCS) section 7.1.5.4 second paragraph. Also refer to AREMA Manual for Railway Engineering Section 5.3 Table 1-5-5. Minimum of 0.531 inches.

Q6. Please define the steel casing wall thickness for the 22" casing of the waterline under the BNSF spur line?

A6. Please refer to the Wastewater Capital Projects Management Standard Construction Specifications (SCS) section 7.1.5.4 second paragraph. Also refer to AREMA Manual for Railway Engineering Section 5.3 Table 1-5-5. Minimum of 0.344 inches.

Q7. Can you please provide some plans for the temporary asphalt patching requirement for this project, is this to be the temporary access roadways?

A7. There are no planned locations for temporary asphalt paving. This bid item is intended to cover situations where temporary asphalt must be laid to ensure access to a business, across a backfilled trench. There is a note on Plan Sheet 13 that mentions "temporary asphalt paving driveway" – this was intended to refer to the temporary nature of the driveway, not the type of asphalt.

Q8. Can you please describe the particulars related the railroad control bid item since this seems to apply to the BNSF spur line, please include minimum insurance requirements, flagging requirements and any other traffic control or specific railroad inspection and permit fees?

A8. Please refer to the Wastewater Capital Projects Management Standard Constructions Specifications Measurement and Payment (M&P) 42-1 Railroad Control. This bid item requires the contractor to follow all BNSF requirements. Please also refer to the agreement with BNSF for a division of labor (BNSF crew vs Contractor crew). Even though BNSF will be removing and replacing their own tracks, the Contractor may be required to flag during project construction, when near the tracks. This item covers all four tracks and is intended to cover all BNSF requirements.

Q9. The general notes of the drawings indicate that the contractor is to coordinate with the railroad spur agencies, can you please provide contact information for each?

A9. After contract award, the Contractor and the City will meet with BNSF and the three businesses for coordination. The BNSF track is active. Two businesses do not receive deliveries and one of their tracks is being permanently removed. One business averages two deliveries per year according to our conversations.

Q10. Are contractors to assume that all materials excavated from the site are to be clean of hazardous contaminates on this project?

A10. Please refer to the Geotechnical Baseline Report (GBR), the Materials Management Plan and the Geotechnical Data Report (GDR) which are in the appendix. None of the above mention hazardous contaminates. All excess excavated material must be hauled to DADS.

Q11. Can you provide a list of qualified contractors that can perform the removal and replacement of the BNSF track work required on this project?

A11. Per the agreement, BNSF's union crew will remove and replace their own track. The Contractor's future subcontractor will remove the three private tracks and replace two. There are multiple qualified contractors in the area who can do this work. The two private tracks must be replaced per BNSF standards however the subcontractor will not be "approved" by BNSF.

Q12. Has the City & County of Denver and Denver Wastewater talked to Denver Traffic, CDOT and Safeway about the upcoming closures related to this project and how will this affect the closure restrictions of this project?

A12. Denver Traffic (CCD Transportation and Mobility) approved the Traffic and Phasing Notes on Plan Sheet 2. Refer to Appendix K to see discussions with Safeway. In all cases, local access must be maintained in a manner not to negatively impact ongoing operations of businesses in the area.

Q13. Can you provide a detail showing how the connection is to be made of the proposed manholes over the tunnel section at IH-70?

A13. No detail will be provided. During the submittal phase, the Contractor must submit a plan which describes how to make these connections. One possible method would be to excavate, remove the casing, build the manhole and tie everything in.

Q14. Can a profile drawing be provided showing the existing grade of the side slope of IH70 which will be disturbed when the new manhole A11.2special is constructed?

A14. No detail will be provided. Grading may be necessary and this will be included in the cost of manhole.

Q15. Can the bid date be postponed to gather more technical information concerning this project?

A15. The bid opening date has been postponed including addenda which shall include the final draft of the BNSF agreement.

Q17. Can you provide approximate sewer flow rates of the existing sewer to determine bypass routes and pump sizes for this project, we also need a bid item for the sewer bypass?

A17. The flow rates will not be provided since they are out of date. The contractor is encouraged to go to the site and investigate prior to bid. Bypass Pumping is included in the cost of pipe. The Contractor will be required to submit a Bypass Pumping Plan and obtain City concurrence on this plan.

Q18. Will the street occupancy permit be waived on this project since it is a City & County of Denver Project?

A18. The Contractor must obtain Street Occupancy Permits however the permit fee will be waived.

Q19. Can a standard utility trench detail be provided including the particular bedding requirements for this project?

A19. No detail will be provided. Refer to WMD Standard Detail S-301.1 Figure 1. Also refer to SCS 5.0.

Q20. Can a detail be provided showing the sanitary service tap reconnections?

A20. No detail will be provided. See note 2 on Plan Sheets 4 through 8 which references section 2.11 of the WMD Criteria Manual. We interpret the aggregate 135-degree change to mean horizontal change. We do not anticipate any cleanouts on this project.

Q21. How will the award of this project be made, base bid only or total bid?

A21. The intent of the City is to award the base bid as a minimum. If funding is available for the base bid plus alternate, then the city will award to the low bidder of that combination. The decision will be made after bids are opened and evaluated.

Q22. If traffic control including flagging and uniformed traffic control officers is indeed required 24/7 this will be a significant dollar amount (approximately \$1.0 million), is this the Cities intent and if not please provide further clarification?

A22. Refer to Traffic and Phasing Note 3 on Plan Sheet 2. The Contractor must coordinate with every business to determine their hours of operation and their hours of deliveries. Hard closures, soft closures and flaggers can be used in combination to maintain access during "construction hours". The Contractor must determine how to maintain access outside "construction hours". Uniformed Traffic Control Officers are typically only used at signalized intersections when overriding traffic signals. UTCOs seem unnecessary for maintaining business access however they may be needed for the two Stapleton Drives at times.

Q23. 20-1 Asphaltic Temporary Patching - Where is this item to be used? There is no reference in the plans.

A23. Please refer to answer number 6 above.

Q24. 20-2ce Asphalt Surface Course & 20-3ce Asphalt Base Course - From the cross sections on plan sheet no. 13, it appears that the intent is to reconstruct/replace all of the asphalt paving on Dahlia, from curb to curb. Is the plan to remove and replace all the asphalt pavement from curb to curb? Please provide the limits of full depth removal and reconstruction, at least by station at the north end, Stapleton Dr N, Stapleton Dr S, and the south end of the project. Are there any other bid items where asphalt base course and surface course will be incidental and not paid under these bid items, i.e. the 84" RCP or the 24" Sanitary Sewer? If so, please specify.

A24. The Contractor must protect all asphalt outside of the trench limits. Enough asphalt quantity was included in this project to replace the entire asphalt section (curb lip to curb lip, approximate station 24+75 to 48+15), if necessary and at the direction of the City Construction Project Manager. Since asphalt paving bid items were included, paving is not incidental to 84" pipe or 24" pipe.

Q25. The bore pits for the jack & bore items should be within the asphalt reconstruct area. Will the repaving of these be included in the asphalt items, or is it expected to be incidental?

A25. Since asphalt paving bid items were included, paving is not incidental to bore pits.

Q26. 2-3.4 Remove Concrete Valley Gutter & 12-3.2 5' Concrete Valley Gutter - Notes on plan sheets call for "Contractor to protect existing 5' pan (typical)". Notes on the cross sections call for "5' pan to be removed and replaced at the direction of the construction project manager". Plan quantities appear to be enough to completely remove and replace the 5' gutter pan on both sides of Dahlia, north of Stapleton Dr. N. What is the intent regarding the 5' gutter pan? Is the intent to remove and replace the entire stretch or only selected pieces.

A26. The Contractor must protect all valley gutter except for sections that must be removed for proposed storm inlets and sanitary service connections. Enough valley gutter quantity was included in this project to remove and replace all the valley gutter north of I-70, if necessary and at the direction of the City Construction Project Manager.

Q27. 2-1.2a Remove Concrete Curb & Gutter & 2-2.1 Remove Concrete Sidewalk & 12-1.1 6" Curb & Gutter 2' Pan (CDOT T2, IIB) & 12-2.1 Concrete Sidewalk - Cross section for Dahlia St (South of I-70) indicates for the west side of the street, "C&G and sidewalk to be protected or removed and replaced at the direction of the construction project manager". There is no reference made to the C&G and sidewalk on the east side of the street, either to protect and save it or replace it. Plan quantities appear to be enough to completely remove one side of the street, apparently, the west side. What is the intent regarding the C&G and sidewalk? Is the intent to remove and replace the entire stretch or only selected pieces.

A27. The label on sheet 13 was intended to point to both sides, east and west. The Contractor must protect all curb, gutter and sidewalk except for sections that must be removed for storm inlets and sanitary sewer laterals. Enough curb, gutter and sidewalk quantity was included in this project to remove and replace half of both sides, south of I-70, if necessary and at the direction of the City Construction Project Manager.

Q28. 2-1.4 Remove Handicap Concrete Curb Ramp 1,500 sf & 12-1.8 Handicap Concrete Curb Ramp 2,000 sf - The only reference in the plans is on plan sheet no. 13 which indicates the existing to be replaced with 4 each CCD Type 3 Curb Ramps and 4 each CCD Type 4 Curb Ramps at the Dahlia and Stapleton Dr N and S intersections. The plan quantities for these items appear to be high for only 8 ramps, unless it included the entire curb return, PCR to PCR, including the C&G, curb ramp and sidewalk. What is the expected/required to be included in this bid item?

A28. Due to high tractor-trailer traffic, these corners are driven over and broken quite often. These corners will need to be constructed thicker than usual. The extra quantity is intended to compensate the contractor for this thicker concrete work.

Q29. Asphalt Patch - There is no bid item for any permanent asphalt patch. There will be a need for permanent asphalt patch to construct the 5' gutter pan and the curb returns/handicap ramps at Stapleton Dr N & S, unless stipulated as incidental. There is new waterline work on the west side of Dahlia St from Stapleton Dr S and to Stapleton Dr N for which the removal and replacement of C&G and sidewalk and asphalt paving is expected to be incidental to that work. Expect the same for the sanitary sewer work in Stapleton Dr N. Please identify, quantify and provide details for the permanent patching required?

A29. Since asphalt paving items have been included in the contract, paving will not be incidental to the curb, gutter, and valley gutter bid items on the street side. The two-foot-wide asphalt patch necessary on the private property side will be incidental to concrete sidewalk and valley gutter bid items.

Q30. 20-4 Asphalt Rotomill - What are the pay limits of the asphalt rotomilling, including areas to be milled full depth (including the expected depth of milling) and areas to be milled for an asphalt overlay (assumed to be 2.5" to match the depth of the asphalt surface course)? From the measurement and payment in the specifications: No measurement for payment will be made under this bid item for rotomilling within the designated pipe trench limits...to be constructed. These costs shall be included in the unit price bid for the related pipe... Please clarify if this is the intent. Is the rotomilling intended to cover all the asphalt that has to be removed on the project?

A30. Refer to WMD Standard Detail S-301.1 Figure 1. Rotomilling is included in the cost of pipe for that dimension Bf. Rotomilling outside that dimension will be paid for as 20-4 Asphalt Rotomilling per SY-IN which accounts for depth.

Q31. 8-2 Remove Fire Hydrant Assembly (2 ea.) & 8-3 Reset or Install Fire Hydrant Assembly (2 ea.) - Can only find 1 fire hydrant on the Denver Water plans. Where is the other fire hydrant? It appears that the other fire hydrant is located just south of the Stapleton Dr S and will be either temporarily shut down or relocated to the south of bore pit. This work is not included in the Denver Water Only plans. Please clarify.

A31. Correct. The fire hydrant at approximate station 38+20 may need to be replaced or relocated. The was discovered after the Denver Water Plans were approved.

Q32. 2-20b Remove Railroad Tracks & 36-1 Install Railroad Tracks - When is the grade crossing construction agreement with BNSF expected?

A32. A final draft of this agreement will be included in the addenda prior to bid opening.

Q33. Remove Concrete Headwall - Could not find this in the plans. Where is the headwall?

- A33.** Refer to the description note under the bid item on the bid form. This bid item is intended to compensate the Contractor for removing the existing 84" concrete plug, storing and reinstalling at the upstream end of the project. It is correct that there is no headwall.
- Q34.** 2-11.2d Remove Existing 15" Storm Sewer Pipe - Could not find this in the plans. Where is this pipe to be removed?
- A34.** Refer to sheet 5 of the plans at approximate station 38+00. This existing pipe is possibly crushed or compromised.
- Q35.** 34-16.8 Adjust Existing Inlet Structure (3 ea.) - Can only find 1 inlet to adjust in the plans. Where are the other 2 inlets to be adjusted?
- A35.** Refer to plan sheet 13. These inlets that may need adjustment are near the proposed curb ramps along the two Stapleton Drives. Correct that only one is called out.
- Q36.** Subgrade Material (Select Backfill) (4,000 ton) - The only possible reference in the plans is in the General Notes. "Compaction of top two feet of street paving subgrade in trenches shall meet 95% modified proctor compaction." It can be assumed that the top two feet in the trenches will be select backfill, but it is only assumed. Please clarify where is this material going and at what depth?
- A36.** If native material has a PI less than 20, it can be used as backfill material on the project, including the top two feet of the trench. If an area is encountered where the PI is greater than 20 then Select Backfill material would need to be imported and used if enough good native is not stockpiled.
- Q37.** With the depth of the new sanitary sewer line it will likely require the use of vertical bends to make the connection. However, CCD Wastewater standards require cleanouts on services with bends in them. This would require cleanouts in the ROW which is not typically an acceptable location for cleanouts. Please clarify what CCD WWD is looking for in the new connections.
- A37.** See note 2 on Plan Sheets 4 through 8 which references section 2.11 of the WMD Criteria Manual. We interpret the aggregate 135-degree change to mean horizontal change. We do not anticipate any cleanouts on this project. It is preferred to use 45-degree bends for drops in elevation. The contractor should plan to chase the lateral far enough back to utilize 45-degree bends.
- Q38.** There is a fiber optic line that is tentatively located in conflict with the 36" bore. If, this is located and it conflicts with the 36" bore who is responsible for relocating the fiber optic line?
- A38.** Refer to General Note 9 on Plan Sheet 2. Please also refer to SCS 3.04. It is the Contractor's responsibility to coordinate the relocation of all utilities in conflict. In some cases, the City has already begun coordinating these relocations to expedite the beginning of construction. For example, Xcel is in the process of relocating the gas main.
- Q39.** Does CCD WWD have flow information from the sanitary lines coming from the Safeway facility?
- A39.** No.
- Q40.** If the Add Alt is not awarded what does the connection of the new 24" and the existing 18" look like?
- A40.** Very similar to approximate station 48+10 on plan sheet 6.
- Q41.** Is there a location that the contractor can access the sanitary lines coming from the Safeway property to preform bypass pumping?
- A41.** Unknown. The Contractor will need to meet with Safeway regarding business access so this can be discussed at that time.
- Q42.** Can we use common fill to backfill the space above the 24" sewer in the joint trench?
- A42.** Refer to WMD Standard Detail S-301.1 Figure 1. Also refer to SCS 5.0. Acceptable native material (PI less than 20) may be used above the bedding zone and filter fabric of the 24" sanitary sewer.
- Q43.** Can you generally describe the agreement with BNSF?

A43. There are four sets of rail lines on the project. From north to south, the first will be removed and replaced, the second will be removed, the third (BNSF) will be removed and replaced by BNSF, and the fourth will be removed and replaced. The contractor will be required to coordinate with BNSF regarding schedule and anticipated timeline of track removal by BNSF. The contractor must be familiar with the BNSF requirements to know how far away to stop excavations until the track has been removed. After BNSF has removed their tracks, the contractor will lay pipe, backfill and place ballast material according to BNSF standards.

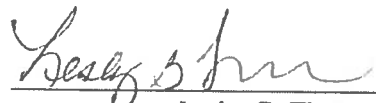
Q44. What type of public outreach/information do you anticipate on this project?

A44. The contractor is required to coordinate with all stakeholders of the project including residents and businesses affected by the project (please refer to General Contract Conditions Section 703). Many of these businesses have heavy trucking traffic and will require very clear communication regarding schedule, traffic control setups and detours. The City is also considering using a consultant to help with public information. In this case, the Contractor will need to work closely with them to help inform the public. The Contractor should bid assuming this consultant will not be there.

Q45. The quantity of track removal is 327 LF while the quantity of track replacement is 250 LF. If we are removing three tracks and replacing two, the quantities don't seem to add up since the average track crossing is approximately 80 LF.

A45. This will be corrected in addenda. The track removal item will be decreased to approximately 3 X 80. The track replacement will remain the same. The 80 LF of track replacement (for the BNSF spur) is intended to compensate the contractor to install the ballast material, per BNSF standards, and pricing should reflect this.

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



Lesley B. Thomas
City Engineer

5.17.17

Date

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

Contractor

ADDENDUM NO. 2

DATE: _____

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

**CONTRACT NO: 201734065
PROJECT NAME: PARK HILL STORM, PHASE V**

ADDENDUM NO. 3 TO CONTRACT DOCUMENTS

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

BID FORM PACKAGE

Replace existing page BF-6.1 through BF-6.8 with BF-6.1 ADD #3 through BF-6.8 ADD #3.

BID DOCUMENT PACKAGE

Replace existing page SQ-1 through SQ-5 with SQ-1 ADD #3 through SQ-5 ADD #3.

Replace existing page SQ-1 ALT 1 through SQ-2 ALT 1 with SQ-1 ALT 1 ADD #3 through SQ-2 ALT 1 ADD #3.

DRAWINGS

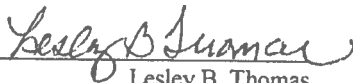
Replace existing Plan Sheet 4 with Revised Plan Sheet 4

Replace existing Plan Sheet 9 with Revised Plan Sheet 9

GRADE CROSSING CONSTRUCTION AGREEMENT

Pursuant to Appendix E of the Technical Specifications, provided with this Addendum No. 3 is a current draft of the proposed Grade Crossing Construction Agreement between the City and BNSF. The City anticipates executing the Crossing Agreement in substantially the form provided before work commences on the Project. A final signed copy of the Crossing Agreement will be provided to the Contractor when it is available. With regard to work to be completed within or near the BNSF railroad right-of-way, the Contractor will be bound by the terms set forth in the Crossing Agreement, specifically the terms and procedures described in Exhibit C to the Crossing Agreement and the separate agreement attached to Crossing Agreement as Exhibit C-1.

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



Lesley B. Thomas
City Engineer

5-22-17

Date

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

Contractor

Date

ADDENDUM NO. 3

Bid Form

<i>Pay Item #</i>	<i>Bid Item Description and Unit Price</i>	<i>Estimated Quantity</i>	<i>Estimated Cost</i>
01-52.13	TEMPORARY OFFICE FACILITIES at the unit price of \$ _____ lump sum	1 LS	\$ _____
2-1.2a	REMOVE 6" CONCRETE CURB AND/OR GUTTER at the unit price of \$ _____ per linear foot	210 LF	\$ _____
2-1.4	REMOVE HANDICAP CONCRETE CURB RAMP Including Curb Return, (Walk, C&G) at the unit price of \$ _____ per square foot	1,500 SF	\$ _____
2-2.1	REMOVE CONCRETE SIDEWALK at the unit price of \$ _____ per square foot	1,260 SF	\$ _____
2-3.4	REMOVE CONCRETE STREET INTERSECTION GUTTER (CROSSPAN) AND/OR VALLEY GUTTER Remove 5' Valley Gutter and Cross Pan at the unit price of \$ _____ per square foot	10,800 SF	\$ _____
2-6	REMOVE CONCRETE HEADWALL Remove Existing 84" Concrete Plug, Store and Reinstall at Upstream end of project at the unit price of \$ _____ each	1 EA	\$ _____
2-11.1c	REMOVE EXISTING 12" SANITARY SEWER PIPE at the unit price of \$ _____ per linear foot	20 LF	\$ _____
2-11.1e	REMOVE EXISTING 18" SANITARY SEWER PIPE at the unit price of \$ _____ per linear foot	210 LF	\$ _____
2-11.2c	REMOVE EXISTING 12" STORM SEWER PIPE at the unit price of \$ _____ per linear foot	55 LF	\$ _____

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
2-11.2d	REMOVE EXISTING 15" STORM SEWER PIPE At the Direction of Project Manager at the unit price of \$ _____ per linear foot	100 LF	\$ _____
2-11.5a	ABANDON EXISTING 8" SEWER PIPE at the unit price of \$ _____ per linear foot	460 LF	\$ _____
2-11.5c	ABANDON EXISTING 12" SEWER PIPE at the unit price of \$ _____ per linear foot	150 LF	\$ _____
2-11.5c	ABANDON EXISTING 12" SEWER PIPE Abandon Existing 18" Sewer Pipe at the unit price of \$ _____ per linear foot	250 LF	\$ _____
2-12.1	REMOVE EXISTING SANITARY MANHOLE at the unit price of \$ _____ each	2 EA	\$ _____
2-12.3	ABANDON EXISTING SANITARY MANHOLE at the unit price of \$ _____ each	6 EA	\$ _____
2-13.1	REMOVE EXISTING STORM INLET at the unit price of \$ _____ each	1 EA	\$ _____
2-17.3	REMOVE AND REPLACE/RELOCATE SIGN at the unit price of \$ _____ each	2 EA	\$ _____
2-20b	REMOVE RAILROAD TRACKS Remove 3 Sets of Private RR Tracks at the unit price of \$ _____ per linear foot	250 LF	\$ _____
02-22.13	VIBRATION ASSESSMENT at the unit price of \$ _____ lump sum	1 LS	\$ _____
2-23	REMOVE DECORATIVE LANDSCAPING 4799 Dahlia Street at the unit price of \$ _____ lump sum	1 LS	\$ _____

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
3-7a	HEALTH & SAFETY PLAN at the unit price of \$ _____ lump sum	1 LS	\$ _____
3-7b	MATERIAL MANAGEMENT PLAN at the unit price of \$ _____ lump sum	1 LS	\$ _____
5-2a	SUBGRADE MATERIAL (SELECT BACKFILL) at the unit price of \$ _____ per ton	4,000 TON	\$ _____
5-9	PERMEATION GROUTING 84" Storm Jacking at the unit price of \$ _____ per linear foot	351 LF	\$ _____
5-9	PERMEATION GROUTING 24" Sanitary Jacking at the unit price of \$ _____ per linear foot	351 LF	\$ _____
8-1.1b	6" DIP AWWA C151, CLASS 50 WATER LINE at the unit price of \$ _____ per linear foot	97 LF	\$ _____
8-1.2b	INSTALL 6" WATER VALVE at the unit price of \$ _____ each	1 EA	\$ _____
8-1.3d	12" PVC AWWA C900, CLASS 150 at the unit price of \$ _____ per linear foot	525 LF	\$ _____
8-1.3d	12" PVC AWWA C900, CLASS 150 12" Fusable PVC w/ 22" Steel Casing Pipe (Underneath Railway) at the unit price of \$ _____ per linear foot	85 LF	\$ _____
8-1.5a	LEAD SERVICE LINE REPLACEMENT, <2" ID Copper Line at the unit price of \$ _____ per linear foot	120 LF	\$ _____

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
8-1.5b	LEAD SERVICE LINE REPLACEMENT, >2" ID Copper Line Greater than or equal to 2-inches at the unit price of \$ _____ per linear foot	120 LF	\$ _____
8-2	REMOVE FIRE HYDRANT ASSEMBLY at the unit price of \$ _____ each	2 EA	\$ _____
8-3	RESET OR INSTALL FIRE HYDRANT ASSEMBLY at the unit price of \$ _____ each	2 EA	\$ _____
8-4	REMOVE EXISTING WATER LINE 12" D.I.P within Trench Limits, abandon 350 LF underneath I-70 at the unit price of \$ _____ per linear foot	1,600 LF	\$ _____
12-1.1	6" CURB AND GUTTER 2' PAN (CD0T T2, IIB) at the unit price of \$ _____ per linear foot	210 LF	\$ _____
12-1.8	HANDICAP CONCRETE CURB RAMP (Including Curb Return-Walk and C&G) at the unit price of \$ _____ per square foot	2,000 SF	\$ _____
12-2.1	CONCRETE SIDEWALK at the unit price of \$ _____ per square foot	1,260 SF	\$ _____
12-3.2	5' CONCRETE VALLEY GUTTER (See Plans for Detail) at the unit price of \$ _____ per square foot	10,300 SF	\$ _____
12-5.1	CONCRETE DRIVEWAY PAVING (Commercial) at the unit price of \$ _____ per square foot	365 SF	\$ _____
20-1	ASPHALTIC TEMPORARY PATCHING at the unit price of \$ _____ per square yard inch	5,500 SY-IN	\$ _____

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
34-7.3g	24" DIAMETER PVC PIPE WITH STEEL CASING 36" Steel Casing Pipe (Under BNSF Tracks) at the unit price of \$ _____ per linear foot	116 LF	\$ _____
34-11.1g	24" DIAMETER PVC PIPE BY JACKING/BORING WITH STEEL CASING 36" Steel Casing Pipe Jacked Under I-70 at the unit price of \$ _____ per linear foot	351 LF	\$ _____
34-11.6w	84" RPMP BY JACKING/BORING 84" RPMP Jacked Under I-70 at the unit price of \$ _____ per linear foot	351 LF	\$ _____
34-11.9w	84" RPMP BY OPEN CUT (for SN & PN see additional notes) 84" RPMP (Manufacture to Provide SN & PN) at the unit price of \$ _____ per linear foot	149 LF	\$ _____
34-12.1a	4' DIAMETER PRECAST MANHOLE WITH TYPE A BASE & CONCENTRIC CONE at the unit price of \$ _____ each	1 EA	\$ _____
34-12.1a	4' DIAMETER PRECAST MANHOLE WITH TYPE A BASE & CONCENTRIC CONE Manhole greater than 20-feet at the unit price of \$ _____ each	6 EA	\$ _____
34-12.2a	5' DIAMETER PRECAST MANHOLE WITH TYPE A BASE & CONCENTRIC CONE Manhole greater than 20-feet at the unit price of \$ _____ each	2 EA	\$ _____
34-12.4a	CAST-IN-PLACE TYPE B MANHOLE WITH TYPE A TOP SLAB at the unit price of \$ _____ each	4 EA	\$ _____
34-13.1c	12" PIPE OUTSIDE DROP at the unit price of \$ _____ each	2 EA	\$ _____

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
34-13.1e	18" PIPE OUTSIDE DROP at the unit price of \$ _____ each	1 EA	\$ _____
34-15.1a	SANITARY SEWER TAP LOCATION AND VERIFICATION at the unit price of \$ _____ each	9 EA	\$ _____
34-15.2	RECONNECT SANITARY SEWER SERVICES (TAPS) (OPEN CUT) at the unit price of \$ _____ each	9 EA	\$ _____
34-15.3	UTILITY EXPLORATORY INVESTIGATION at the unit price of \$ _____ each	120 EA	\$ _____
34-16.1b	#14 INLET (L=9') Inlet greater than 6-feet at the unit price of \$ _____ each	1 EA	\$ _____
34-16.1c	#14 INLET (L=12') Inlet greater than 6-feet at the unit price of \$ _____ each	1 EA	\$ _____
34-16.3b	DOUBLE #16 VALLEY INLET Inlet greater than 6-feet at the unit price of \$ _____ each	4 EA	\$ _____
34-16.8	ADJUST EXISTING INLET STRUCTURE at the unit price of \$ _____ each	3 EA	\$ _____
36-1	INSTALL RAILROAD TRACKS Replace 2 Private RR Crossings and Subballast layer for BNSF Spur Track, per the current BNSF Standards and Details at the unit price of \$ _____ per linear foot	250 LF	\$ _____
40-6	DECORATIVE LANDSCAPING 4799 Dahlia St and any other locations that are disturbed. at the unit price of \$ _____ each	1 EA	\$ _____

Pay Item #	Bid Item Description and Unit Price	Estimated Quantity	Estimated Cost
41-1	TRAFFIC CONTROL at the unit price of \$ _____ lump sum	1 LS	\$ _____
42-1	RAILROAD CONTROL at the unit price of \$ _____ lump sum	1 LS	\$ _____
43-1b	STORM WATER MANAGEMENT (SCENARIO 2) See SCS 23.0 at the unit price of \$ _____ lump sum	1 LS	\$ _____
45-2	QUALITY CONTROL TESTING at the unit price of \$ _____ lump sum	1 LS	\$ _____
46-1	PAVEMENT MARKING (PAINT) at the unit price of \$ _____ per square foot	100 SF	\$ _____
46-2	EPOXY PAVEMENT MARKING Permanent striping at the unit price of \$ _____ per square foot	650 SF	\$ _____
46-3	THERMOPLASTIC PAVEMENT MARKING Stop Bars and Cross Walks at the unit price of \$ _____ per square foot	150 SF	\$ _____
50-1	MOBILIZATION at the unit price of \$ _____ lump sum	1 LS	\$ _____



DENVER

THE MILE HIGH CITY

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
201734065

Park Hill Storm, Phase V STATEMENT OF QUANTITIES

Item No.	Description	Estimated Quantity	
01-52.13	TEMPORARY OFFICE FACILITIES Lump Sum	1	LS
2-1.2a	REMOVE 6" CONCRETE CURB AND/OR GUTTER Per Linear Foot	210	LF
2-1.4	REMOVE HANDICAP CONCRETE CURB RAMP Including Curb Return, (Walk, C&G) Per Square Foot	1,500	SF
2-2.1	REMOVE CONCRETE SIDEWALK Per Square Foot	1,260	SF
2-3.4	REMOVE CONCRETE STREET INTERSECTION GUTTER (CROSSPAN) AND/OR VALLEY GUTTER Remove 5' Valley Gutter and Cross Pan Per Square Foot	10,800	SF
2-6	REMOVE CONCRETE HEADWALL Remove Existing 84" Concrete Plug, Store and Reinstall at Upstream end of project Each	1	EA
2-11.1c	REMOVE EXISTING 12" SANITARY SEWER PIPE Per Linear Foot	20	LF
2-11.1e	REMOVE EXISTING 18" SANITARY SEWER PIPE Per Linear Foot	210	LF
2-11.1c	REMOVE EXISTING 12" STORM SEWER PIPE Per Linear Foot	55	LF
2-11.1d	REMOVE EXISTING 15" STORM SEWER PIPE At the Direction of Project Manager Per Linear Foot	100	LF
2-11.5a	ABANDON EXISTING 8" SEWER PIPE Per Linear Foot	460	LF
2-11.5c	ABANDON EXISTING 12" SEWER PIPE Per Linear Foot	150	LF
2-11.5c	ABANDON EXISTING 12" SEWER PIPE Abandon Existing 18" Sewer Pipe Per Linear Foot	250	LF
2-12.1	REMOVE EXISTING SANITARY MANHOLE Each	2	EA
2-12.3	ABANDON EXISTING SANITARY MANHOLE Each	6	EA
2-13.1	REMOVE EXISTING STORM INLET Each	1	EA



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CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS

201734065

Park Hill Storm, Phase V

STATEMENT OF QUANTITIES

Item No.	Description	Estimated Quantity	
2-17.3	REMOVE AND REPLACE SIGN Each	2	EA
2-20b	REMOVE RAILROAD TRACKS Remove 3 Sets of Private RR Tracks Per Linear Foot	250	LF
02-22.13	VIBRATION ASSESSMENT Lump Sum	1	LS
2-23	REMOVE DECORATIVE LANDSCAPING 4799 Dahlia Street Lump Sum	1	LS
3-7a	HEALTH & SAFETY PLAN Lump Sum	1	LS
3-7b	MATERIAL MANAGEMENT PLAN Lump Sum	1	LS
5-2a	SUBGRADE MATERIAL (SELECT BACKFILL) Ton	4,000	TON
5-9	PERMEATION GROUTING 84" Storm Jacking Per Linear Foot	351	LF
5-9	PERMEATION GROUTING 24" Sanitary Jacking Per Linear Foot	351	LF
8-1.1b	6" DIP AWWA C151, CLASS 50 WATER LINE Per Linear Foot	97	LF
8-1.2b	INSTALL 6" WATER VALVE Each	1	EA
8-1.3d	12" PVC AWWA C900, CLASS 150 Per Linear Foot	525	LF
8-1.3d	12" PVC AWWA C900, CLASS 150 12" Fusable PVC w/ 22" Steel Casing Pipe (Uderneath Railway) Per Linear Foot	85	LF
8-1.5a	LEAD SERVICE LINE REPLACEMENT, <2" ID Copper Line Per Linear Foot	120	LF
8-1.5b	LEAD SERVICE LINE REPLACEMENT, >2" ID Copper Line Greater than or equal to 2-inches Per Linear Foot	120	LF
8-2	REMOVE FIRE HYDRANT ASSEMBLY Each	2	EA
8-3	RESET OR INSTALL FIRE HYDRANT ASSEMBLY Each	2	EA



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THE MILE HIGH CITY

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS

201734065

Park Hill Storm, Phase V
STATEMENT OF QUANTITIES

Item No.	Description	Estimated Quantity	
8-4	REMOVE EXISTING WATER LINE 12" D.I.P within Trench Limits, abandon 350 LF underneath I-70 Per Linear Foot	1,600	LF
12-1.1	6" CURB AND GUTTER 2' PAN (CDOT T2, IIB) Per Linear Foot	210	LF
12-1.8	HANDICAP CONCRETE CURB RAMP (Including Curb Return-Walk and C&G) Per Square Foot	2,000	SF
12.2.1	CONCRETE SIDEWALK Per Square Foot	1,260	SF
12-3.2	5' CONCRETE VALLEY GUTTER (See Plans for Detail) Per Square Foot	10,300	SF
12-5.1	CONCRETE DRIVEWAY PAVING (Commercial) Per Square Foot	365	SF
20-1	ASPHALTIC TEMPORARY PATCHING Per Square Yard Inch	5500	SY-IN
20-2ce	ASPHALT SURFACE COURSE, SX, RAP 20%, N=100, 64-22. Surface Course SX, RAP 20%, N=100, 64-22 (2.5-inches) Per Square Yard Inch	22,000	SY-IN
20-3ce	ASPHALT BASE COURSE, S, RAP 20%, N=100, 64-22. Base Course S, RAP 20%, N=100, 64-22 (9-inches) Per Square Yard Inch	80,000	SY-IN
20-4	ASPHALT ROTOMILL Per Square Yard Inch	70,000	SY-IN
34-2.3d	15" DIAMETER C-76 RCP, CLASS III Per Linear Foot	100	LF
34-2.3e	18" DIAMETER C-76 RCP, CLASS III Per Linear Foot	142	LF
34-2.3t	84" DIAMETER C-76 RCP, CLASS III Per Linear Foot	877	LF
34-2.5t	84" DIAMETER C-76 RCP, CLASS V Under BNSF Tracks and McMillian Sales Corp Per Linear Foot	120	LF
34-7.1a	8" DIAMETER ASTM D-3034 SDR 35, PVC PIPE Per Linear Foot	50	LF
34-7.1c	12" DIAMETER ASTM D-3034 SDR 35, PVC PIPE Per Linear Foot	135	LF



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CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS

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Park Hill Storm, Phase V

STATEMENT OF QUANTITIES

Item No.	Description	Estimated Quantity	
34-7.1g	24" DIAMETER PVC PIPE Per Linear Foot	1,035	LF
34-7.3g	24" DIAMETER PVC PIPE WITH STEEL CASING 36" Steel Casing Pipe (Under BNSF Tracks) Per Linear Foot	116	LF
34-11.1g	24" DIAMETER PVC PIPE BY JACKING/BORING WITH STEEL CASING 36" Steel Casing Pipe Jacked Under I-70 Per Linear Foot	351	LF
34-11.6w	84" DIAMETER RPMP BY JACKING/BORING 84" RPMP JACKED UNDER I-70 Per Linear Foot	351	LF
34-11.9w	84" RPMP BY OPEN CUT (for SN & PN see additional notes) 84" RPMP (Manufacture to Provide SN & PN) Per Linear Foot	149	LF
34-12.1a	4' DIAMETER PRECAST MANHOLE WITH TYPE A BASE & CONCENTRIC CONE Each	1	EA
34-12.1c	4' DIAMETER PRECAST MANHOLE WITH TYPE A BASE & CONCENTRIC CONE Manhole greater than 20-feet Each	6	EA
34-12.2a	5' DIAMETER PRECAST MANHOLE WITH TYPE A BASE & CONCENTRIC CONE Manhole greater than 20-feet Each	2	EA
34-12.4a	CAST-IN-PLACE TYPE B MANHOLE WITH TYPE A TOP SLAB Each	4	EA
34-13.1c	12" PIPE OUTSIDE DROP Each	2	EA
34-13.1e	18" PIPE OUTSIDE DROP Each	1	EA
34-15.1a	SANITARY SEWER TAP LOCATION AND VERIFICATION Each	9	EA
34-15.2	RECONNECT SANITARY SEWER SERVICES (TAPS) (OPEN CUT) Each	9	EA



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CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS

201734065

Park Hill Storm, Phase V

STATEMENT OF QUANTITIES

Item No.	Description	Estimated Quantity	
34-15.3	UTILITY EXPLORATORY INVESTIGATION Each	120	EA
34-16.1b	#14 INLET (L=9') Inlet greater than 6-feet Each	1	EA
34-16.1c	#14 INLET (L=12') Inlet greater than 6-feet Each	1	EA
34-16.3b	DOUBLE #16 VALLEY INLET Inlet greater than 6- feet Each	4	EA
34-16.8	ADJUST EXISTING INLET STRUCTURE Each	3	EA
36-1	INSTALL RAILROAD TRACKS Replace 2 Private RR Crossings and Subballast layer for BNSF Spur Track, Per the current BNSF Standards and Details Per Linear Foot	250	LF
40-6	DECORATIVE LANDSCAPING 4799 Dahlia St and any other locations that are disturbed. Each	1	EA
41-1	TRAFFIC CONTROL Lump Sum	1	LS
42-1	RAILROAD CONTROL Lump Sum	1	LS
43-1b	STORM WATER MANAGEMENT (SCENARIO 2) Lump Sum	1	LS
45-2	QUALITY CONTROL TESTING Lump Sum	1	LS
46-1	PAVEMENT MARKING (PAINT) Per Square Foot	100	SF
46-2	EXPOXY PAVEMENT MARKING Permanent striping Per Square Foot	650	SF
46-3	THERMOPLASTIC PAVEMENT MARKING Stop Bars and Cross Walks Per Square Foot	150	SF
50-1	MOBILIZATION Lump Sum	1	LS



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THE MILE HIGH CITY

CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS

201734065

Park Hill Storm, Phase V

STATEMENT OF QUANTITIES

Item No.	Description	Estimated Quantity	
2-1.2a	REMOVE 6" CONCRETE CURB AND/OR GUTTER Per Linear Foot	1,000	LF
2-2.1	REMOVE CONCRETE SIDEWALK Per Square Foot	5,000	SF
2-11.1e	REMOVE EXISTING 18" SANITARY SEWER PIPE Per Linear Foot	850	LF
2-12.1	REMOVE EXISTING SANITARY MANHOLE Each	2	EA
2-16.1	REMOVE CHAIN LINK FENCE Temporary Access Safeway Each	60	EA
8-4	REMOVE EXISTING WATER LINE 12" D.I.P within Trench Limits, abandon 350 LF underneath I-70 Per Linear Foot	900	LF
12-1.1	6" CURB AND GUTTER 2' PAN (CD0T T2, IIB) Per Linear Foot	1,000	LF
12.2.1	CONCRETE SIDEWALK Per Square Foot	5,000	SF
16-3	CHAIN LINK FENCE Temporary Access Safeway Per Linear Foot	60	LF
20-1	ASPHALTIC TEMPORARY PATCHING Per Square Yard Inch	3,000	SY-IN
20-2ce	ASPHALT SURFACE COURSE, SX, RAP 20%, N=100, 64-22. Surface Course SX, RAP 20%, N=100, 64-22 (2.5-inches) Per Square Yard Inch	11,500	SY-IN
20-3ce	ASPHALT BASE COURSE, S, RAP 20%, N=100, 64- 22. Base Course S, RAP 20%, N=100, 64-22 (9-inches) Per Square Yard Inch	42,500	SY-IN
20-4	ASPHALT ROTOMILL Per Square Yard Inch	20,000	SY-IN
34-2.3h	27" DIAMETER C-76 RCP, CLASS III Per Linear Foot	50	LF
34-2.3t	84" DIAMETER C-76 RCP, CLASS III Per Linear Foot	838	LF
34-7.1e	18" DIAMETER PVC PIPE Assumed size, could be smaller Per Linear Foot	47	LF

Contract No. 201734065
Parkhill Ph V

SQ-1 ALT 1
ADD #3

May 22, 2017

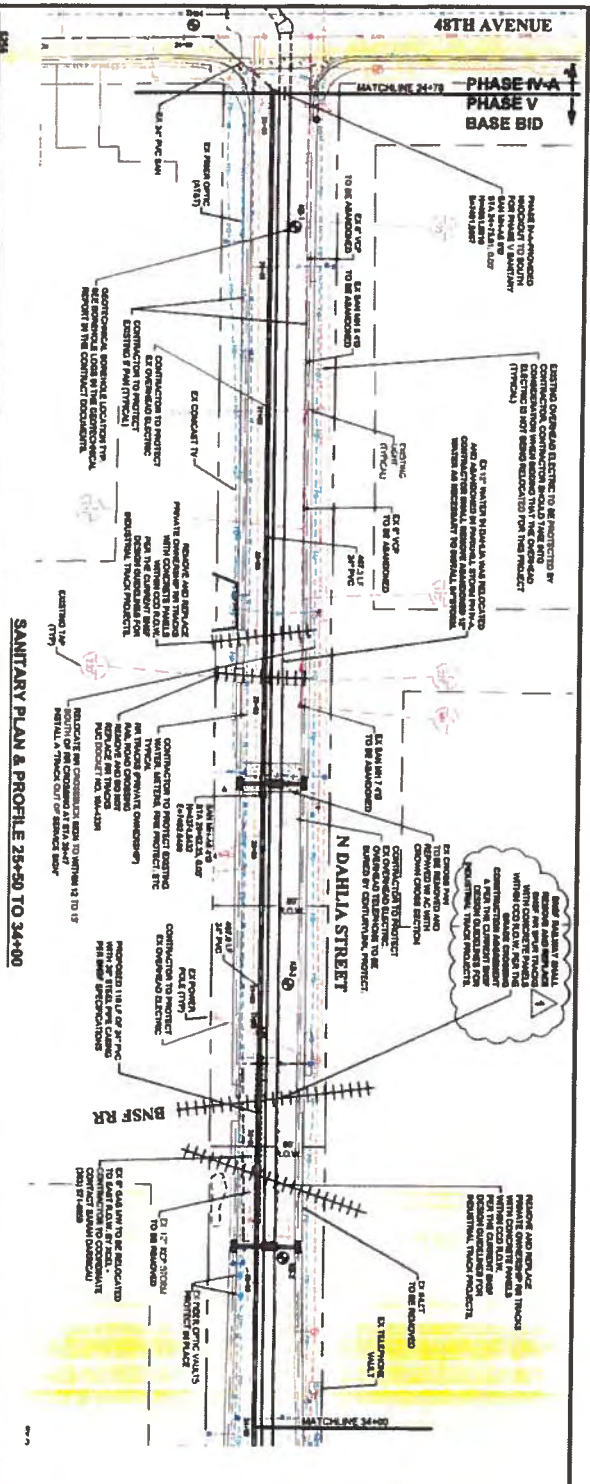
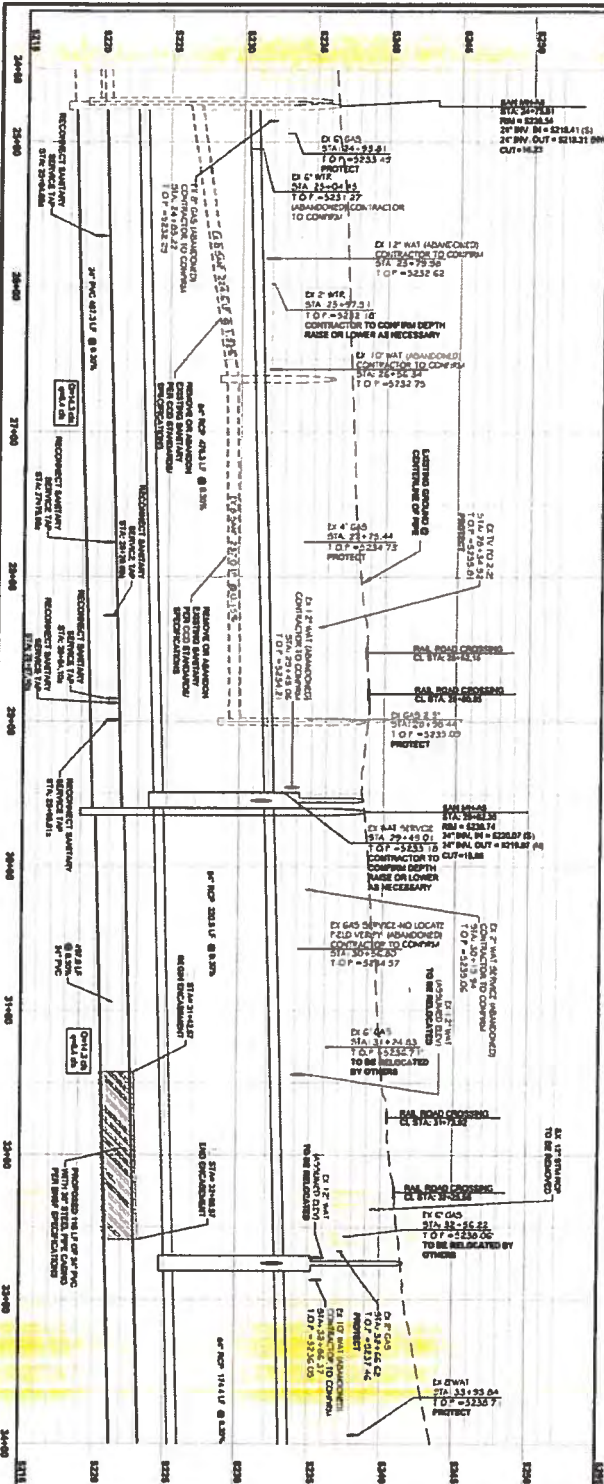


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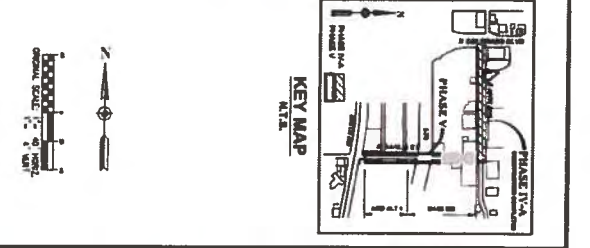
CITY AND COUNTY OF DENVER
DEPARTMENT OF PUBLIC WORKS
201734065

Park Hill Storm, Phase V
STATEMENT OF QUANTITIES

Item No.	Description	Estimated Quantity	
34-7.1f	21" DIAMETER PVC PIPE Per Linear Foot	845	LF
34-12.1c	4' DIAMETER PRECAST MANHOLE WITH TYPE A BASE & CONCENTRIC CONE Manhole greater than 20-feet Each	4	EA
34-12.4a	CAST-IN-PLACE TYPE B MANHOLE WITH TYPE A TOP SLAB Manhole greater than 20-feet Each	2	EA
34-13.1e	18" PIPE OUTSIDE DROP Each	1	EA
34-13.1f	21" PIPE OUTSIDE DROP Each	1	EA
34-15.1a	SANITARY SEWER TAP LOCATION AND VERIFICATION Each	2	EA
34-15.2	RECONNECT SANITARY SEWER SERVICES (TAPS) (OPEN CUT) Each	2	EA
34-15.3	UTILITY EXPLORATORY INVESTIGATION Each	50	EA
41-1	TRAFFIC CONTROL Lump Sum	1	LS
46-1	PAVEMENT MARKING (PAINT) Per Square Foot	100	SF
46-2	EXPOXY PAVEMENT MARKING Permanent striping Per Square Foot	1,500	SF
46-3	THERMOPLASTIC PAVEMENT MARKING Stop Bars and Cross Walks Per Square Foot	300	SF



- NOTES:**
1. ALL NEW SANITARY SERVICE LINES SHALL BE 12\"/>



PARK HILL STORM, PHASE V

PRO TRACKING NO: PWT2017-001

PROJECT MASTER NO: 2010-PROJMSTR-0000087

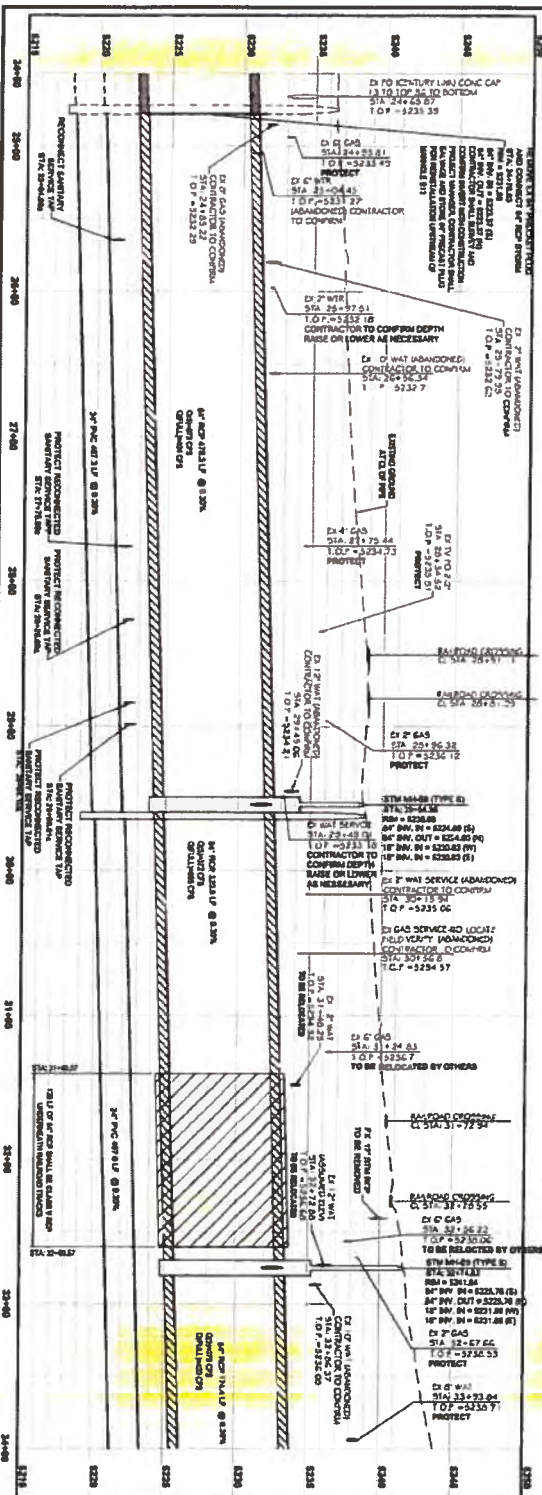
SANITARY PLAN & PROFILE 25-50 TO 34+00

CITY AND COUNTY OF DENVER
 DEPARTMENT OF PUBLIC WORKS
 ENGINEERING DIVISION
 CAPITAL PROJECT MANAGEMENT
 3500 W. JRD AVE. DENVER, CO 80237
 TEL: (303) 449-3471 FAX: (303) 646-3447

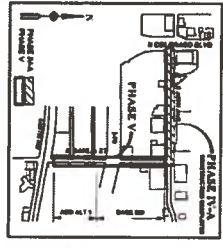
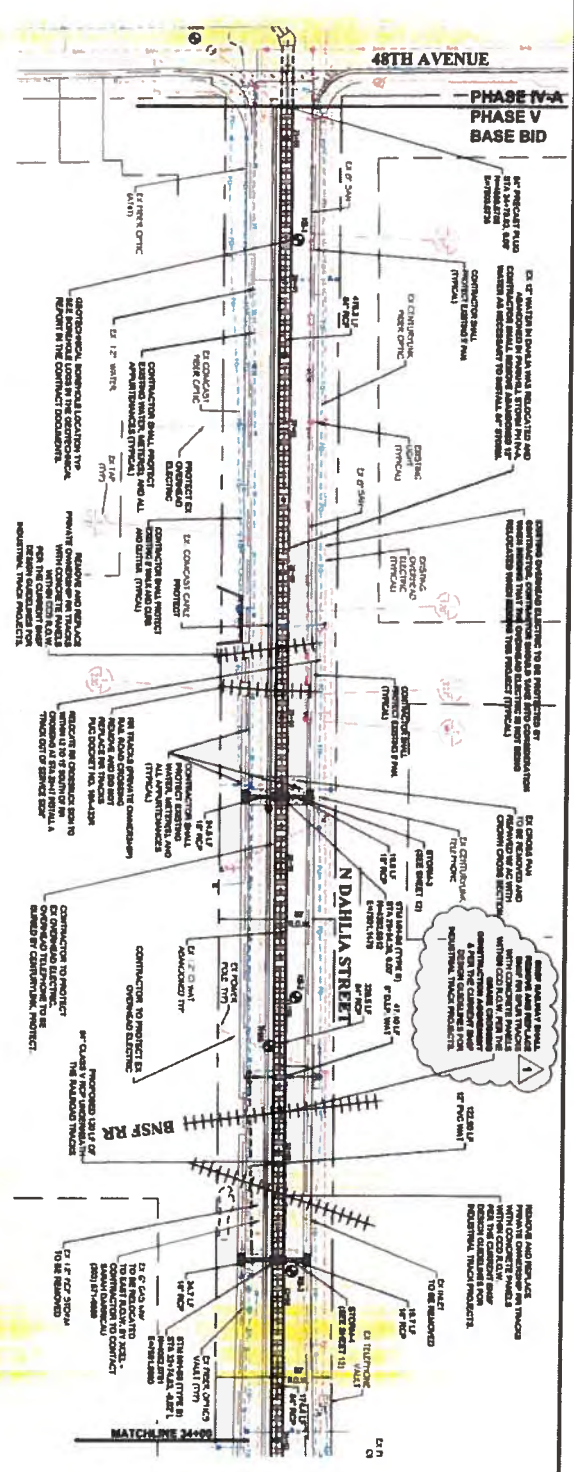
DENVER
 THE BLUE ROCK CITY

CALL US AT 311 TO REPORT A PROBLEM OR FOR MORE INFORMATION

NO.	REVISIONS	DATE	BY
1			



STORM PLAN & PROFILE 25+50.00 TO 34+00.00



- NOTES:**
1. STORM SEWER MAIN AND LATERALS SHALL BE 18" DIA. UNLESS OTHERWISE NOTED.
 2. ALL LATERALS SHALL BE 18" DIA. UNLESS OTHERWISE NOTED.
 3. ALL LATERALS SHALL BE 18" DIA. UNLESS OTHERWISE NOTED.
 4. ALL LATERALS SHALL BE 18" DIA. UNLESS OTHERWISE NOTED.
 5. ALL LATERALS SHALL BE 18" DIA. UNLESS OTHERWISE NOTED.
 6. ALL LATERALS SHALL BE 18" DIA. UNLESS OTHERWISE NOTED.
 7. ALL LATERALS SHALL BE 18" DIA. UNLESS OTHERWISE NOTED.
 8. ALL LATERALS SHALL BE 18" DIA. UNLESS OTHERWISE NOTED.
 9. ALL LATERALS SHALL BE 18" DIA. UNLESS OTHERWISE NOTED.
 10. ALL LATERALS SHALL BE 18" DIA. UNLESS OTHERWISE NOTED.

NO.	DESCRIPTION OF WORK	DATE	BY
1	PHASE V	10/17/17	ASD
2	PHASE V	10/17/17	ASD
3	PHASE V	10/17/17	ASD
4	PHASE V	10/17/17	ASD
5	PHASE V	10/17/17	ASD
6	PHASE V	10/17/17	ASD
7	PHASE V	10/17/17	ASD
8	PHASE V	10/17/17	ASD
9	PHASE V	10/17/17	ASD
10	PHASE V	10/17/17	ASD

PARK HILL STORM, PHASE V

PRO TRACKING NO: PWT2017-001
 PROJECT MASTER NO: 2010-PROJUMSTR-0000087
 STORM PLAN & PROFILE 25+50.00 TO 34+00.00

CITY AND COUNTY OF DENVER
 DEPARTMENT OF PUBLIC WORKS
 ENGINEERING DIVISION
 CAPITAL PROJECT MANAGEMENT
 2000 W 3RD AVE, DENVER, CO 80202
 TEL: (303) 446-3417 FAX: (303) 446-3467



CALL LATE
 AND BE DRIVING PAYS
 BEFORE YOU DIG
 1-800-333-3333

GRADE CROSSING CONSTRUCTION AGREEMENT

BNSF File No.: BF10010577
Mile Post 7
Line Segment 904
U.S. DOT Number 057063P
Market Line

This Agreement ("Agreement"), is executed to be effective as of this ____ day of _____, 20__ ("Effective Date"), by and between BNSF RAILWAY COMPANY, a Delaware corporation ("BNSF"), and the City and County of Denver, a municipal corporation and political subdivision of the State of Colorado ("Agency").

RECITALS:

WHEREAS, BNSF owns and operates a line of railroad in and through the City and County of Denver, State of Colorado;

WHEREAS, in the interest maintaining and improving certain public utility services, the Agency is undertaking a project to relocate certain utility lines under the existing Dahlia at-grade crossing (the "Project"), located at BNSF Line Segment 904 and Milepost 7, and designated by D.O.T. No. 057063P (the "Dahlia Location"), by open trench of the of the railroad crossing to be replaced with a new railroad crossing in accordance with the plans and specifications described in Exhibit A attached hereto and incorporated herein;

WHEREAS, the real estate beneath the Dahlia Location is owned by the Agency and all operations conducted by BNSF at the Dahlia Location are pursuant to a revocable permit issued by the Agency under Denver Ordinance Number 125, Series of 1954, dated June 14, 1954 (the "Revocable Permit"); and

WHEREAS, the Agency is willing to allow the Revocable Permit to remain in place while the Agency proceeds to complete the Project on its property, and BNSF is willing to allow the work to proceed within the Dahlia Location, on and subject to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the mutual covenants and agreements of the parties contained herein, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

ARTICLE I SCOPE OF WORK

1. The term "Project" as used herein includes any and all work related to the relocation of the utilities under the Dahlia Location railroad crossing by Agency and replacement of railroad crossing at U.S. D.O.T No. 057063P, (hereinafter referred to as the "Crossing") by BNSF, more particularly described on Exhibit A.

ARTICLE II RAILROAD OBLIGATIONS

In consideration of the covenants of Agency set forth herein and the faithful performance thereof, BNSF agrees as follows:

1. BNSF will furnish all labor, materials, tools, and equipment for railroad work required for the construction of the Project (the "Railroad Work"), such Railroad Work and a summary of the estimated actual cost thereof being as shown on Exhibit B attached hereto and made a part hereof (the "BNSF Cost Summary"). In addition to the BNSF

Cost Summary, Exhibit B includes a maximum cost commitment for all work related to the Project and the Railroad Work and all other costs and obligations which may be imposed on the Agency under this Agreement which is hereby accepted by the parties (the "Maximum BNSF Cost Commitment"). Any item of work incidental to the items listed on Exhibit B not specifically mentioned therein may be included as a part of this Agreement upon written approval of Agency, which approval will not be unreasonably withheld. In addition to the work specified in Exhibit B, the Project shall include the following Railroad Work by BNSF:

- (a) Procurement of materials, equipment and supplies necessary for the railroad work;
- (b) Preliminary engineering, design, and contract preparation;
- (c) Furnishing of flagging services during construction of the Project as required and set forth in further detail on Exhibit C, attached to this Agreement and made a part hereof;
- (d) Furnishing engineering and inspection as required in connection with the construction of the Project;
- (e) Removal and disposal of the existing crossing surfaces from the Crossing; and
- (f) Installation of one 56-foot concrete crossing surface for the one track complete with new rail, ties, ballast, fasteners, along with appropriate surfacing, to carry the improved roadway and sidewalks.

2. BNSF will do all Railroad Work set forth in Article II, Section 1 above on an actual cost basis, when BNSF, in its sole discretion, determines it is required by its labor agreements to perform such work with its own employees working under applicable collective bargaining agreements.

3. Agency agrees to reimburse BNSF for work of an emergency nature caused by Agency or Agency's contractor in connection with the Project which BNSF deems is reasonably necessary for the immediate restoration of railroad operations or for the protection of persons or BNSF property. Such work may be performed by BNSF without prior approval of Agency and Agency agrees to fully reimburse BNSF for all such emergency work; provided that BNSF shall promptly notify Agency of such work and the relevant circumstances as soon as possible after BNSF identifies the need to perform such work.

4. BNSF may charge Agency for insurance expenses, including self-insurance expenses, when such expenses cover the cost of Employer's Liability (including, without limitation, liability under the Federal Employer's Liability Act) in connection with the construction of the Project. Such charges will be considered part of the actual cost of the Project provided that they are shown and included on the BNSF Cost Summary and the Maximum BNSF Cost Commitment.

5. During the construction of the Project, BNSF will send Agency progressive invoices detailing the costs of the Railroad Work performed by BNSF under this Agreement. Agency must reimburse BNSF for completed work within forty-five (45) days of the date of the invoice for such work. Upon completion of the Project, BNSF will send Agency a detailed invoice of final costs, segregated as to labor and materials for each item in the recapitulation shown on Exhibit B; provided that in no event (except as otherwise expressly provided for in this Agreement) shall the Agency be obligated to pay any amount in excess of the Maximum BNSF Cost Commitment. Pursuant to this section and Article IV, Section 7 herein, Agency must pay the final invoice within ninety (90) days of the date of the final invoice. BNSF will assess a finance charge of .033% per day (12% per annum) on any unpaid sums or other charges due under this Agreement which are past its credit terms. The finance charge continues to accrue daily until the date payment is received by BNSF, not the date payment is made or the date postmarked on the payment. Finance charges will be assessed on delinquent sums and other charges as of the end of the month and will be reduced by amounts in dispute and any unposted payments received by the month's end. Finance charges will be noted on invoices sent to Agency under this section.

ARTICLE III AGENCY OBLIGATIONS

In consideration of the covenants of BNSF set forth herein and the faithful performance thereof, Agency agrees as follows:

1. BNSF hereby acknowledges receipt of the plans and specifications for the Project as described on Exhibit A attached hereto and made a part hereof (the "Plans"). The BNSF Cost Summary has been prepared by BNSF based upon the work shown in the Plans as submitted by the Agency.
2. Agency must make any required application and obtain all required permits and approvals for the construction of the Project.
3. Agency must acquire all rights of way necessary for the construction of the Project.
4. Agency must make any and all arrangements, in compliance with BNSF's Utility Accommodation Manual (<http://www.bnsf.com/communities/faqs/pdf/utility.pdf>), for the installation or relocation of wire lines, pipe lines and other facilities owned by private persons, companies, corporations, political subdivisions or public utilities other than BNSF which may be necessary for the construction of the Project.
5. Agency must construct the Project as shown on the Plans (attached Exhibit A) and do all work ("Agency's Work") provided for in the Plans for the Project, except the Railroad Work that will be performed by BNSF hereunder. Agency must furnish all labor, materials, tools and equipment for the performance of Agency's Work. The principal elements of Agency's Work are as follows:
 - (a) Design and reconstruction of Dahlia including relocation of utilities;
 - (b) Intentionally left blank;
 - (c) Intentionally left blank
 - (d) Perform all necessary grading and paving, including backfill of excavations and restoration of disturbed vegetation on BNSF's right-of-way and Denver Permit;
 - (e) Provide suitable drainage, both temporary and permanent;
 - (f) Provide all barricades, lights, flagmen or traffic control devices necessary for preventing vehicular traffic from using a portion of the Crossing, during the installation of the concrete crossing surfaces.
 - (g) Construct asphalt roadway surface on approaches to the track as shown in the Plans (roadway surface will match elevation of the track crossing surface and remain level to a point at least thirty (30) feet from the nearest rail and any concrete headers will be constructed no closer than 5'6" (preferably 6'0") from the centerline of the track to provide for a minimum of 11'0" (preferably 12'0") opening for track and railroad crossing surface);
 - (h) Intentionally left blank;
 - (i) Job site cleanup including removal of all construction materials, concrete debris, surplus soil, refuse, contaminated soils, asphalt debris, litter and other waste materials to the reasonable satisfaction of BNSF;
 - (j) Intentionally left blank;
 - (k) Intentionally left blank;
 - (l) Intentionally left blank;
6. The Agency will place any required advanced railroad crossing signs and standard pavement markings.

7. The Agency must give BNSF's Project Engineer no less than thirty (30) days written notice to proceed ("Notice to Proceed") with the Railroad Work when the Agency is prepared to proceed with the Project (which may be included as part of the notice required under Article IV, Section 9). BNSF will not begin the Railroad Work (including, without limitation, procurement of supplies, equipment or materials) until written Notice to Proceed is received from Agency. Upon receipt of the Notice to Proceed, BNSF shall promptly commence and diligently pursue completion of the Railroad Work.

8. The Agency's Work must be performed by Agency or Agency's contractor in a manner that will not endanger or interfere with the safe and timely operations of BNSF and its facilities. With regard to the work to be completed by the Agency within 25-feet of the centerline of the existing railroad crossing area (the "ROW Area"), after BNSF has removed the existing tracks and related materials from the ROW Area as part of the Railroad Work, Agency shall use reasonable efforts to complete those portions of the Project that will directly impact the ROW Area within thirty (30) days after commencing such work, subject to delays caused by BNSF or other events beyond the reasonable control of Agency or its contractor(s). Agency will provide BNSF with notice of not less than two (2) days prior to the date on which Agency anticipates completing its work within the ROW Area. If the Agency has not completed its work within the ROW Area prior to the expiration of the 30-day period specified above, Agency will be obligated to pay BNSF a per diem change for the delay in the following amount:

\$ _____ per day

9. For all work related to the Project performed by the prime contractors on behalf of the Agency, Agency shall require the contractors to comply with the provisions of the attached Exhibit C and execute the agreement attached hereto as Exhibit C-1.

10. If and to the extent that flagging services are necessary during the completion of work on the Project by the Agency or its contractor(s), Agency shall require its contractor(s) to notify BNSF's Roadmaster at least ten (10) business days prior to date on which such services are required. Additionally, Agency shall require its contractor(s) to notify BNSF's Project Engineer (Rafer Nichols, Phone Number: (303) 480-6586, and Email Address: rafer.nichols@BNSF.com) within ten (10) business days prior to commencing any work within 25-feet of the railway track provided that the railway track is in place and operational at the time of such work.

11. Agency must include the following provisions in any contract with its contractor(s) performing work on said Project:

- (a) The Contractor is placed on notice that fiber optic, communication and other cable lines and systems (collectively, the "Lines") owned by various telecommunications companies may be buried on BNSF's property or right-of-way. The locations of these Lines have been included on the plans based on information from the telecommunications companies. The contractor will be responsible for contacting BNSF and the telecommunications companies and notifying them of any work that may damage these Lines or facilities and/or interfere with their service. The contractor must also mark all Lines shown on the plans or marked in the field in order to verify their locations. The contractor must also use all reasonable methods when working in the BNSF right-of-way or on BNSF property to determine if any other Lines (fiber optic, cable, communication or otherwise) may exist.
- (b) Failure to mark or identify these Lines will be sufficient cause for BNSF's Project Engineer, Rafer Nichols at (303) 480-6586 to stop construction at no cost to the Agency or BNSF until these items are completed.
- (c) The Contractor will be responsible for the rearrangement of any facilities or Lines determined to interfere with the construction. The Contractor must cooperate fully with any telecommunications company(ies) in performing such rearrangements.

13. Agency must incorporate Exhibit C and Exhibit C-1 in Agency's prime contract for construction of the Project.

14. Except as otherwise provided below in this Section 14, all construction work performed hereunder by Agency for the Project will be pursuant to a contract or contracts to be let by Agency, and all such contracts must include the following:

- (a) All work performed under such contract or contracts within the limits of BNSF's right-of-way must be performed in a good and workmanlike manner in accordance with plans and specifications approved by BNSF;
- (b) Changes or modifications during construction that affect safety or BNSF operations must be subject to BNSF's approval;
- (c) No work will be commenced within BNSF's right-of-way until each of the prime contractors employed in connection with said work must have (i) executed and delivered to BNSF an agreement substantially in the form of Exhibit C-1, and (ii) delivered to and secured BNSF's approval of the required insurance; and
- (d) To facilitate scheduling for the Project, BNSF and Agency's contractor will establish mutually agreeable work windows for the Project with BNSF's Project Engineer, and otherwise comply with the procedures set forth in Article III, Section 10, with regard to notifications to the Project Engineer. BNSF has the right at any time to revise or change the work windows, due to train operations or service obligations; provided that the Project Engineer shall give reasonable prior notice of any such changes to Agency and its contractor(s). BNSF will not be responsible for any additional costs and expenses resulting from a change in work windows.

15. Agency must advise the BNSF Project Engineer, in writing, of the completion date of the Project within thirty (30) days after such completion date. Additionally, Agency must notify BNSF's Project Engineer, in writing, of the date on which Agency and/or its Contractor will meet with BNSF for the purpose of making final inspection of the Project.

16. Agency HEREBY RELEASES (AND AGENCY HEREBY AGREES TO CAUSE ITS CONTRACTOR TO indemnify, defend and hold harmless) BNSF, its affiliated companies, partners, successors, assigns, legal representatives, officers, directors, shareholders, employees and agents for, from and against any and all claims, liabilities, fines, penalties, costs, damages, losses, liens, causes of action, suits, demands, judgments and expenses (including, without limitation, court costs and attorneys' fees) of any nature, kind or description of any person (including, without limitation, the employees of the parties hereto) or entity directly or indirectly arising out of, resulting from or related to (in whole or in part) (i) the performance, or failure to perform by the contractor OR ANY OF ITS subcontractors, employees, or agents, its work or any obligation under this Agreement, (ii) the sole or contributing acts or omissions of THE contractor OR ANY OF ITS subcontractors, employees, or agents in, on, or about the construction site, or (Iii) an act or omission of THE CONTRACTOR, or its officers, agents, invitees, employees or contractors or anyone directly or indirectly employed by any of them, or anyone they control or exercise control over. THE LIABILITY ASSUMED BY THE CONTRACTOR WILL NOT BE AFFECTED BY THE FACT, IF IT IS A FACT, THAT THE DAMAGE, DESTRUCTION, INJURY OR DEATH WAS OCCASIONED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF BNSF, ITS AGENTS, SERVANTS, EMPLOYEES OR OTHERWISE, EXCEPT TO THE EXTENT THAT SUCH CLAIMS ARE PROXIMATELY CAUSED BY THE INTENTIONAL MISCONDUCT OR GROSS NEGLIGENCE OF BNSF. THE LIABILITY ASSUMED BY AGENCY WILL NOT INCLUDE ANY claims, liabilities, fines, penalties, costs, damages, losses, liens, causes of action, suits, demands, judgments and expenses (including, without limitation, court costs and attorneys' fees) of any nature, kind or description ARISING FROM OR RELATING TO ANY act or omission of BNSF or its officers, agents, invitees, employees or contractors or anyone directly or indirectly employed by any of them, or anyone they control or exercise control over RELATING TO OR IN CONNECTION WITH THE PERFORMANCE, OR FAILURE TO PERFORM, OF THE RAILROAD WORK BY BNSF OR ANY OTHER OBLIGATION OF BNSF UNDER THIS AGREEMENT.

ARTICLE IV **JOINT OBLIGATIONS**

IN CONSIDERATION of the premises, the parties hereto mutually agree to the following:

1. All work contemplated in this Agreement must be performed in a good and workmanlike manner and each portion must be promptly commenced by the party obligated hereunder to perform the same and thereafter diligently prosecuted to conclusion in its logical order and sequence. Furthermore, any changes or modifications during construction which affect BNSF will be subject to BNSF's approval prior to the commencement of any such changes or modifications.
2. The work hereunder must be done in accordance with the matters set forth on Exhibit A and Exhibit B attached hereto.
3. Agency must require its contractor(s) to reasonably adhere to the Project's construction schedule for all Project work. The parties hereto mutually agree that BNSF's failure to complete the Railroad Work in accordance with the construction schedule due to inclement weather or unforeseen railroad emergencies will not constitute a breach of this Agreement by BNSF and will not subject BNSF to any liability. Regardless of the requirements of the construction schedule, BNSF reserves the right to reallocate the labor forces assigned to complete the Railroad Work in the event of an emergency to provide for the immediate restoration of railroad operations of either BNSF or its related railroads, or to protect persons or property on or near any BNSF owned property. BNSF will not be liable for any additional costs or expenses resulting from any such reallocation of its labor forces. The parties mutually agree that any reallocation of labor forces by BNSF pursuant to this provision and any direct or indirect consequences or costs resulting from any such reallocation will not constitute a breach of this Agreement by BNSF.
4. BNSF will have the right to stop construction work on the Project if any of the following events take place: (i) Agency (or any of its contractors), in BNSF's opinion, prosecutes the Project work in a manner that is hazardous to BNSF property or the safe movement of railroad traffic and such events occur (a) while BNSF's railroad track is in place and operational at the Dahlia Location and (b) within 25-feet of such track; or (ii) the insurance described in the attached Exhibit C-1 is canceled during the course of the Project. The work stoppage will continue until all necessary actions are taken by Agency or its contractor to rectify the situation to the reasonable satisfaction of BNSF's Project Engineer or until proof of additional insurance has been delivered to and accepted by BNSF. Any such work stoppage under this provision will not give rise to any liability on the part of BNSF. BNSF's right to stop the work is in addition to any other rights BNSF may have under this Agreement.
5. The primary contact for the Agency for the Project shall be the following individual:

Andy Stewart
Wastewater Capital Projects Management
City and County of Denver
(303) 446-3510
Andy.Stewart@denvergov.org
6. Agency must supervise and inspect the operations of all Agency contractors relating to the Project and within the Crossing to ensure compliance with the plans and specifications approved by BNSF, the terms of this Agreement. If BNSF determines that proper supervision and inspection are not being performed by Agency personnel at any time during construction of the Project, BNSF has the right to temporarily stop construction (within or adjacent to its operating right-of-way). Construction of the Project will not proceed until Agency corrects the situation to BNSF's reasonable satisfaction. If BNSF feels the situation is not being corrected in an expeditious manner, BNSF will immediately notify Andy Stewart for appropriate corrective action.
7. Pursuant to this section and Article II, Section 6 herein, Agency must, reimburse BNSF in full for the actual costs of all work performed by BNSF under this Agreement (including taxes, such as applicable sales and use taxes, business and occupation taxes, and similar taxes) up to the Maximum BNSF Cost Commitment.

8. All expenses detailed in statements sent to Agency pursuant to Article II, Section 6 herein will comply with the terms and provisions of the Title 23 U.S. Code, Title 23 Code of Federal Regulations, and the Federal-Aid Policy Guide, U.S. Department of Transportation, as amended from time to time, which manual is hereby incorporated into and made a part of this Agreement by reference. The parties mutually agree that BNSF's preliminary engineering, design, and contract preparation costs described in Article II, Section 2 herein are part of the costs of the Project (as shown in the BNSF Cost Summary) even though such work may have preceded the date of this Agreement.

9. The construction of the Project will not commence until Agency gives BNSF's Project Engineer thirty (30) days prior written notice of such commencement. The commencement notice will reference BNSF's file number BF10010577 and D.O.T. Crossing No. 057063P and must state the time that construction activities will begin.

10. In addition to the terms and conditions set forth elsewhere in this Agreement, BNSF and the Agency agree to the following terms upon completion of construction of the Project:

(a) Agency will own and be fully responsible for repairs, maintenance, future construction or reconstruction of the Dahlia roadway.

(b) Agency will maintain the elevation of the Dahlia roadway approaches to match the elevation on the railroad track crossing surfaces and to be no more than three (3) inches above or six (6) inches below top-of-rail elevation at a distance measured thirty (30) feet from the nearest rail.

(c) BNSF will, at its sole cost and expense, operate and maintain the new crossing surfaces, from end-of-tie to end-of-tie, in proper condition; provided that, notwithstanding the preceding provision, if any regulations, ordinances, acts, rules or other laws subsequently passed or amended by the Agency or any other governmental or legislative authority increase the Agency's maintenance obligations, BNSF will receive the benefit of any such regulations, ordinances, acts, rules or other laws.

11. Any books, papers, records and accounts of the parties hereto relating to the work hereunder or the costs or expenses for labor and material connected with the construction will at all reasonable times be open to inspection and audit by the agents and authorized representatives of the parties hereto, as well as the State of Colorado and the Federal Highway Administration, for a period of one (1) year from the date of the final BNSF invoice under this Agreement.

12. The covenants and provisions of this Agreement are binding upon and inure to the benefit of the successors and assigns of the parties hereto. Notwithstanding the preceding sentence, neither party hereto may assign any of its rights or obligations hereunder without the prior written consent of the other party.

13. In the event construction of the Project does not commence within one year of the Effective Date, this Agreement will become null and void.

14. The obligations of the City under this Agreement or any renewal shall extend only to monies appropriated annually by the Denver City Council, paid into the Treasury of the City, and encumbered for the purpose of the Agreement, for the purposes of this Agreement. The Parties acknowledge that (i) they do not by this Agreement irrevocably pledge present cash reserves for payments in future fiscal years, and (ii) this Agreement is not intended to create a multiple-fiscal year direct or indirect debt or financial obligation of the Parties, beyond the scope of this Agreement.

15. Neither termination nor expiration of this Agreement will release either party from any liability or obligation under this Agreement, whether of indemnity or otherwise, resulting from any acts, omissions or events happening prior to the date of termination or expiration.

16. To the maximum extent possible, each provision of this Agreement will be interpreted in such a manner as to be effective and valid under applicable law. If any provision of this Agreement is prohibited by, or held to be invalid under, applicable law, such provision will be ineffective solely to the extent of such prohibition or invalidity and the remainder of the provision will be enforceable.

17. This Agreement (including exhibits and other documents, manuals, etc. incorporated herein) is the full and complete agreement between BNSF and Agency with respect to the subject matter herein and supersedes any and all other prior agreements between the parties hereto.

18. Any notice provided for herein or concerning this Agreement must be in writing and will be deemed sufficiently given when sent by certified mail, return receipt requested, to the parties at the following addresses:

BNSF: BNSF's Manager Public Projects

Agency: _____

DRAFT

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed and attested by its duly qualified and authorized officials as of the day and year first above written.

BNSF RAILWAY COMPANY

By:

Printed Name:

Title:

WITNESS:

AGENCY
City and County of Denver

WITNESS:

By:

Printed Name:

Title:

Exhibit A

[Insert Crossing Plan Sheets]

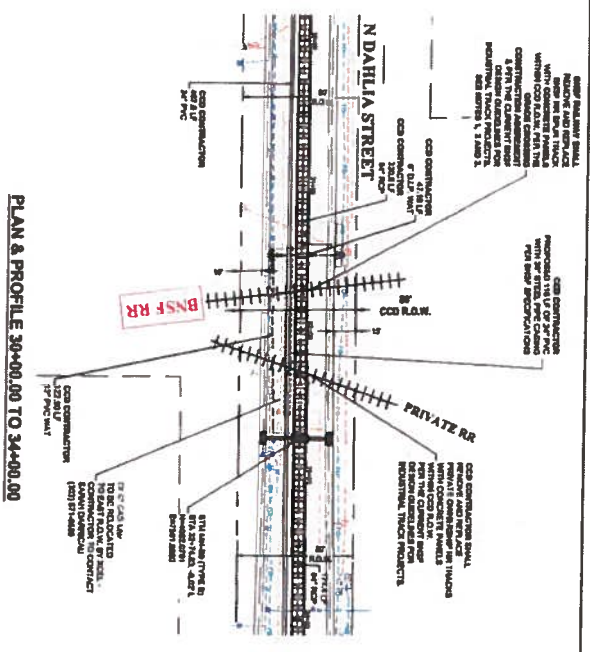
DRAFT

Contract No. 201734065
Parkhill Ph V

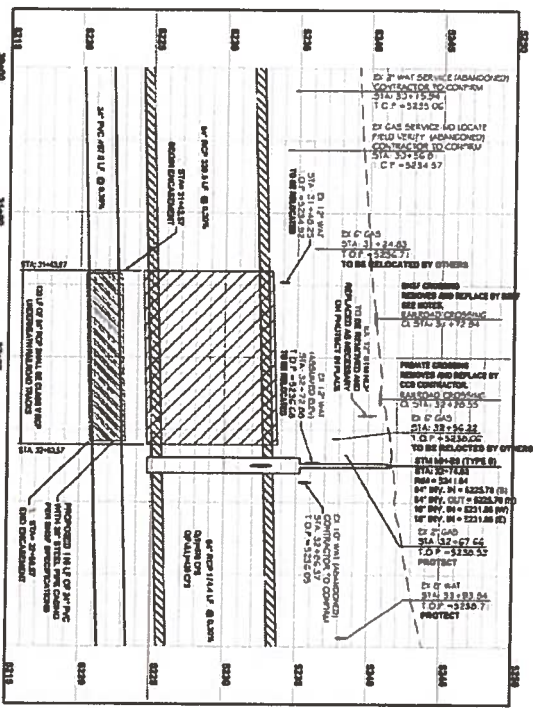
ADD #3

May 22, 2017

EXHIBIT A

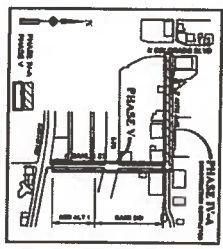


PLAN & PROFILE 30+00.00 TO 34+00.00



- NOTES:**
1. THE CITY AND COUNTY OF DENVER (CCD) CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE 12" WATER MAIN UNDERNEATH THE BNSF RR TRACK. CCD CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINAGE AND BRUSHING AND SHALL ALSO BE RESPONSIBLE FOR THE INSTALLATION AND COMPACTION OF THE 12" WATER MAIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUANTITY OF 100 CY OF SUBBALLAST MATERIAL FOR THE BNSF CROSSING.
 2. CCD CONTRACTOR SHALL WORK WITH A BNSF PROJECT ENGINEER TO DETERMINE THE TOP ELEVATION OF THE SUBBALLAST MATERIAL WILL NOT BE LOWER THAN THE TOP OF TRACK ELEVATION TO BE HIGHER THAN ELEVATION SHOWN.
 3. BNSF SHALL CONSTRUCT THE NEW CONCRETE PANEL TRACK SO THAT THE TOP ELEVATION OF THE CONCRETE PANEL IS BETWEEN ELEVATION 2644.4 AND 2644.6.

PROJECT BENCH MARK:
 CCD BM 7208, USGOLD'S BENCHMARK DISK,
 NE CORNER OF E SMITH RD & N DAHLIA ST,
 APPROX. 300 FEET DUE EAST OF NE CORNER
 ELEVATION MAGD 26 = 2627.23



PARK HILL STORM, PHASE V PRO TRACKING NO: PWT2017-001 PROJECT MASTER NO: 2010-PROJMSR-0000087 BNSF EXHIBIT A	CITY AND COUNTY OF DENVER DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION CAPITAL PROJECT MANAGEMENT 3000 W 3RD AVE, DENVER, CO 80222 TEL: (303) 446-3617 FAX: (303) 446-3647	<p>CALL URCC TWO WORKING DAYS BEFORE YOU DIG 1-800-441-1111 WWW.URCC.CO</p>	NO. 1 ELEVATION OF ELEVATION DATE	BY
			2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12

EXHIBIT B

Railroad Work
BNSF Cost Summary
Maximum BNSF Cost Commitment

DRAFT

EXHIBIT "C"

CONTRACTOR REQUIREMENTS

1.01 General:

- 1.01.01 The Contractor must cooperate with BNSF RAILWAY COMPANY, hereinafter referred to as "Railway" where work is over or under on or adjacent to Railway property and/or right-of-way, hereafter referred to as "Railway Property", during the construction of _____

- 1.01.02 The Contractor must execute and deliver to the Railway duplicate copies of the Exhibit "C-1" Agreement, in the form attached hereto, obligating the Contractor to provide and maintain in full force and effect the insurance called for under Section 3 of said Exhibit "C-1". Questions regarding procurement of the Railroad Protective Liability Insurance should be directed to Rosa Martinez at Marsh, USA, 214-303-8519.

- 1.01.03

1.01.04

- 1.01.05 The Contractor is responsible for determining and complying with all Federal, State and Local Governmental laws and regulations, including, but not limited to environmental laws and regulations (including but not limited to the Resource Conservation and Recovery Act, as amended; the Clean Water Act, the Oil Pollution Act, the Hazardous Materials Transportation Act, CERCLA), and health and safety laws and regulations. The Contractor hereby indemnifies, defends and holds harmless Railway for, from and against all fines or penalties imposed or assessed by Federal, State and Local Governmental Agencies against the Railway which arise out of Contractor's work under this Agreement.
- 1.01.06 The Contractor must notify (Agency) at _____ and Railway's Manager Public Projects, telephone number () _____ before commencing any work on Railway Property. Contractor's notification to Railway must refer to Railway's file _____.
- 1.01.07 For any bridge demolition and/or falsework above any tracks or any excavations located with any part of the excavations located within, whichever is greater, twenty-five (25) feet of the nearest track or intersecting a slope from the plane of the top of rail on a 2 horizontal to 1 vertical slope beginning at eleven (11) feet from centerline of the nearest track, both measured perpendicular to center line of track, the Contractor must furnish the Railway five sets of working drawings showing details of construction affecting Railway Property and tracks. The working drawing must include the proposed method of installation and removal of falsework, shoring or cribbing, not included in the contract plans and two sets of structural calculations of any falsework, shoring or cribbing. For all excavation and shoring submittal plans, the current "BNSF-UPRR Guidelines for Temporary Shoring" must be used for determining the design loading conditions to be used in shoring design, and all calculations and submittals must be in accordance with the current "BNSF-UPRR Guidelines for Temporary Shoring". All submittal drawings and calculations must be stamped by a registered professional engineer licensed to practice in the state the project is located. All calculations must take into consideration railway surcharge loading and must be designed to meet American Railway Engineering and Maintenance-of-Way Association (previously known as American Railway Engineering Association) Coopers E-80 live loading standard. All drawings and calculations must be stamped by a registered professional engineer licensed to practice in the state the project is located. The Contractor must not begin work until notified by the Railway that plans have been approved. The Contractor will be required to use lifting devices such as, cranes and/or winches to place or to remove any falsework over Railway's tracks. In no case will the Contractor be relieved of responsibility for results obtained by the implementation of said approved plans.

- 1.01.08 Subject to the movement of Railway's trains, Railway will cooperate with the Contractor such that the work may be handled and performed in an efficient manner. The Contractor will have no claim whatsoever for any type of damages or for extra or additional compensation in the event his work is delayed by the Railway.

1.02 [Intentionally Omitted]

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1.03 Railway Requirements

- 1.03.01
- 1.03.02 The Contractor must notify the Railway's Division Engineer _____ at (_____) _____ and provide blasting plans to the Railway for review seven (7) calendar days prior to conducting any blasting operations adjacent to or on Railway's Property.
- 1.03.03 The Contractor must abide by the following temporary clearances during construction:
 - 15'-0" Horizontally from centerline of nearest track
 - 21'-6" Vertically above top of rail
 - 27'-0" Vertically above top of rail for electric wires carrying less than 750 volts
 - 28'-0" Vertically above top of rail for electric wires carrying 750 volts to 15,000 volts
 - 30'-0" Vertically above top of rail for electric wires carrying 15,000 volts to 20,000 volts
 - 34'-0" Vertically above top of rail for electric wires carrying more than 20,000 volts
- 1.03.04 Upon completion of construction, the following clearances shall be maintained: [Note to Drafter: The vertical clearance should mirror the final negotiated design clearance]
 - 25' Horizontally from centerline of nearest track
 - 23' 6" Vertically above top of rail
- 1.03.05 Any infringement within State statutory clearances due to the Contractor's operations must be submitted to the Railway and to the (Agency) and must not be undertaken until approved in writing by the Railway, and until the (Agency) has obtained any necessary authorization from the State Regulatory Authority for the infringement. No extra compensation will be allowed in the event the Contractor's work is delayed pending Railway approval, and/or the State Regulatory Authority's approval.
- 1.03.06 In the case of impaired vertical clearance above top of rail, Railway will have the option of installing tell-tales or other protective devices Railway deems necessary for protection of Railway operations. The cost of tell-tales or protective devices will be borne by the Agency.
- 1.03.07 The details of construction affecting the Railway's Property and tracks not included in the contract plans must be submitted to the Railway by (Agency) for approval before work is undertaken and this work must not be undertaken until approved by the Railway.
- 1.03.08 At other than public road crossings, the Contractor must not move any equipment or materials across Railway's tracks until permission has been obtained from the Railway. The Contractor must obtain a "Temporary Construction Crossing Agreement" from the Railway prior to moving his equipment or materials across the Railway's tracks. The temporary crossing must be gated and locked at all times when not required for use by the Contractor. The temporary crossing for use of the Contractor will be constructed and, at the completion of the project, removed at the expense of the Contractor.
- 1.03.09 Discharge, release or spill on the Railway Property of any hazardous substances, oil, petroleum, constituents, pollutants, contaminants, or any hazardous waste is prohibited and Contractor must immediately

notify the Railway's Resource Operations Center at 1(800) 832-5452, of any discharge, release or spills in excess of a reportable quantity. Contractor must not allow Railway Property to become a treatment, storage or transfer facility as those terms are defined in the Resource Conservation and Recovery Act or any state analogue.

- 1.03.10 The Contractor upon completion of the work covered by this contract, must promptly remove from the Railway's Property all of Contractor's tools, equipment, implements and other materials, whether brought upon said property by said Contractor or any Subcontractor, employee or agent of Contractor or of any Subcontractor, and must cause Railway's Property to be left in a condition acceptable to the Railway's representative.

1.04 Contractor Roadway Worker on Track Safety Program and Safety Action Plan:

- 1.04.01 Each Contractor that will perform work within 25 feet of the centerline of a track must develop and implement a Roadway Worker Protection/On Track Safety Program and work with Railway Project Representative to develop an on track safety strategy as described in the guidelines listed in the on track safety portion of the Safety Orientation. This Program must provide Roadway Worker protection/on track training for all employees of the Contractor, its subcontractors, agents or invitees. This training is reinforced at the job site through job safety briefings. Additionally, each Contractor must develop and implement the Safety Action Plan, as provided for on the web site www.BNSFContractor.com, which will be made available to Railway prior to commencement of any work on Railway Property. During the performance of work, the Contractor must audit its work activities. The Contractor must designate an on-site Project Supervisor who will serve as the contact person for the Railway and who will maintain a copy of the Safety Action Plan, safety audits, and Material Safety Datasheets (MSDS), at the job site.

[Note to Drafter: when appropriate insert e-RailSafe language as follows:

1.04.02

1.05 Railway Flagger Services:

- 1.05.01 The Contractor must give Railway's Roadmaster (telephone _____) a minimum of five (5) calendar days advance notice when flagging services will be required so that the Roadmaster can make appropriate arrangements (i.e., bulletin the flagger's position). If flagging services are scheduled in advance by the Contractor and it is subsequently determined by the parties hereto that such services are no longer necessary, the Contractor must give the Roadmaster five (5) working days advance notice so that appropriate arrangements can be made to abolish the position pursuant to union requirements.
- 1.05.02 Unless determined otherwise by Railway's Project Representative, Railway flagger will be required and furnished when Contractor's work activities are located over, under and/or within twenty-five (25) feet measured horizontally from centerline of the nearest track and when cranes or similar equipment positioned beyond 25-feet from the track centerline could foul the track in the event of tip over or other catastrophic occurrence, but not limited thereto for the following conditions:
 - 1.05.02a When, upon inspection by Railway's Representative, other conditions warrant.
 - 1.05.02b When any excavation is performed below the bottom of tie elevation, if, in the opinion of Railway's representative, track or other Railway facilities may be subject to movement or settlement.
 - 1.05.02c When work in any way interferes with the safe operation of trains at timetable speeds.
 - 1.05.02d When any hazard is presented to Railway track, communications, signal, electrical, or other facilities either due to persons, material, equipment or blasting in the vicinity.
 - 1.05.02e Special permission must be obtained from the Railway before moving heavy or cumbersome objects or equipment which might result in making the track impassable.
- 1.05.03 Flagging services will be performed by qualified Railway flaggers.

- 1.05.03a Flagging crew generally consists of one employee. However, additional personnel may be required to protect Railway Property and operations, if deemed necessary by the Railways Representative.
- 1.05.03b Each time a flagger is called, the minimum period for billing will be the eight (8) hour basic day.
- 1.05.03c The cost of flagger services provided by the Railway will be borne by (Agency) and is included in the BNSF Cost Summary and the Maximum BNSF Cost Commitment under the Agreement. The estimated cost for one (1) flagger is approximately between \$800.00-\$1,600.00 for an eight (8) hour basic day with time and one-half or double time for overtime, rest days and holidays. The estimated cost for each flagger includes vacation allowance, paid holidays, Railway and unemployment insurance, public liability and property damage insurance, health and welfare benefits, vehicle, transportation, meals, lodging, radio, equipment, supervision and other costs incidental to performing flagging services. Negotiations for Railway labor or collective bargaining agreements and rate changes authorized by appropriate Federal authorities may increase actual or estimated flagging rates.
- 1.05.03d The average train traffic on this route is _____ freight trains per 24-hour period at a timetable speed _____ MPH and _____ passenger trains at a timetable speed of _____ MPH.

1.06 Contractor General Safety Requirements

- 1.06.01 Work in the proximity of railway track(s) is potentially hazardous where movement of trains and equipment can occur at any time and in any direction. All work performed by contractors within 25 feet of any track must be in compliance with FRA Roadway Worker Protection Regulations.
- 1.06.02 Before beginning any task on Railway Property, a thorough job safety briefing must be conducted with all personnel involved with the task and repeated when the personnel or task changes. If the task is within 25 feet of any track, the job briefing must include the Railway's flagger, as applicable, and include the procedures the Contractor will use to protect its employees, subcontractors, agents or invitees from moving any equipment adjacent to or across any Railway track(s).
- 1.06.03 Workers must not work within 25 feet of the centerline of any track without an on track safety strategy approved by the Railway's Project Representative. When authority is provided, every contractor employee must know: (1) who the Railway flagger is, and how to contact the flagger, (2) limits of the authority, (3) the method of communication to stop and resume work, and (4) location of the designated places of safety. Persons or equipment entering flag/work limits that were not previously job briefed, must notify the flagger immediately, and be given a job briefing when working within 25 feet of the center line of track.
- 1.06.04 When Contractor employees are required to work on the Railway Property after normal working hours or on weekends, the Railway's representative in charge of the project must be notified. A minimum of two employees must be present at all times.
- 1.06.05 Any employees, agents or invitees of Contractor or its subcontractors under suspicion of being under the influence of drugs or alcohol, or in the possession of same, will be removed from the Railway's Property and subsequently released to the custody of a representative of Contractor management. Future access to the Railway's Property by that employee will be denied.
- 1.06.06 Any damage to Railway Property, or any hazard noticed on passing trains must be reported immediately to the Railway's representative in charge of the project. Any vehicle or machine which may come in contact with track, signal equipment, or structure (bridge) and could result in a train derailment must be reported immediately to the Railway representative in charge of the project and to the Railway's Resource Operations Center at 1(800) 832-5452. Local emergency numbers are to be obtained from the Railway representative in charge of the project prior to the start of any work and must be posted at the job site.
- 1.06.07 For safety reasons, all persons are prohibited from having pocket knives, firearms or other deadly weapons in their possession while working on Railway's Property.

- 1.06.08 All personnel protective equipment (PPE) used on Railway Property must meet applicable OSHA and ANSI specifications. Current Railway personnel protective equipment requirements are listed on the web site, www.BNSFContractor.com, however, a partial list of the requirements include: a) safety glasses with permanently affixed side shields (no yellow lenses); b) hard hats; c) safety shoe with: hardened toes, above-the-ankle lace-up and a defined heel; and d) high visibility retro-reflective work wear. The Railway's representative in charge of the project is to be contacted regarding local specifications for meeting requirements relating to hi-visibility work wear. Hearing protection, fall protection, gloves, and respirators must be worn as required by State and Federal regulations. (NOTE – Should there be a discrepancy between the information contained on the web site and the information in this paragraph, the web site will govern.)
- 1.06.09 The Contractor must not pile or store any materials, machinery or equipment closer than 25'-0" to the center line of the nearest Railway track. Materials, machinery or equipment must not be stored or left within 250 feet of any highway/rail at-grade crossings OR TEMPORARY CONSTRUCTION CROSSING, where storage of the same will obstruct the view of a train approaching the crossing. Prior to beginning work, the Contractor must establish a storage area with concurrence of the Railway's representative.
- 1.06.10 Machines or vehicles must not be left unattended with the engine running. Parked machines or equipment must be in gear with brakes set and if equipped with blade, pan or bucket, they must be lowered to the ground. All machinery and equipment left unattended on Railway's Property must be left inoperable and secured against movement. (See internet Engineering Contractor Safety Orientation program for more detailed specifications)
- 1.06.11 Workers must not create and leave any conditions at the work site that would interfere with water drainage. Any work performed over water must meet all Federal, State and Local regulations.
- 1.06.12 All power line wires must be considered dangerous and of high voltage unless informed to the contrary by proper authority. For all power lines the minimum clearance between the lines and any part of the equipment or load must be; 200 KV or below - 15 feet; 200 to 350 KV - 20 feet; 350 to 500 KV - 25 feet; 500 to 750 KV - 35 feet; and 750 to 1000 KV - 45 feet. If capacity of the line is not known, a minimum clearance of 45 feet must be maintained. A person must be designated to observe clearance of the equipment and give a timely warning for all operations where it is difficult for an operator to maintain the desired clearance by visual means.

1.07 Excavation:

- 1.07.01 Before excavating, the Contractor must determine whether any underground pipe lines, electric wires, or cables, including fiber optic cable systems are present and located within the Project work area. The Contractor must determine whether excavation on Railway's Property could cause damage to buried cables resulting in delay to Railway traffic and disruption of service to users. Delays and disruptions to service may cause business interruptions involving loss of revenue and profits. Before commencing excavation, the Contractor must contact BNSF's Field Engineering Representative (_____). All underground and overhead wires will be considered HIGH VOLTAGE and dangerous until verified with the company having ownership of the line. It is the Contractor's responsibility to notify any other companies that have underground utilities in the area and arrange for the location of all underground utilities before excavating.
- 1.07.02 The Contractor must cease all work and notify the Railway immediately before continuing excavation in the area if obstructions are encountered which do not appear on drawings. If the obstruction is a utility and the owner of the utility can be identified, then the Contractor must also notify the owner immediately. If there is any doubt about the location of underground cables or lines of any kind, no work must be performed until the exact location has been determined. There will be no exceptions to these instructions.
- 1.07.03 All excavations must be conducted in compliance with applicable OSHA regulations and, regardless of depth, must be shored where there is any danger to tracks, structures or personnel.

- 1.07.04 Any excavations, holes or trenches on the Railway's Property must be covered, guarded and/or protected when not being worked on. When leaving work site areas at night and over weekends, the areas must be secured and left in a condition that will ensure that Railway employees and other personnel who may be working or passing through the area are protected from all hazards. All excavations must be back filled as soon as possible.

1.08 Hazardous Waste, Substances and Material Reporting:

- 1.08.01 If Contractor discovers any hazardous waste, hazardous substance, petroleum or other deleterious material, including but not limited to any non-containerized commodity or material, on or adjacent to Railway's Property, in or near any surface water, swamp, wetlands or waterways, while performing any work under this Agreement, Contractor must immediately: (a) notify the Railway's Resource Operations Center at 1(800) 832-5452, of such discovery: (b) take safeguards necessary to protect its employees, subcontractors, agents and/or third parties: and (c) exercise due care with respect to the release, including the taking of any appropriate measure to minimize the impact of such release.

1.09 Personal Injury Reporting

- 1.09.01 The Railway is required to report certain injuries as a part of compliance with Federal Railroad Administration (FRA) reporting requirements. Any personal injury sustained by an employee of the Contractor, subcontractor or Contractor's invitees while on the Railway's Property must be reported immediately (by phone mail if unable to contact in person) to the Railway's representative in charge of the project. The Non-Employee Personal Injury Data Collection Form contained herein is to be completed and sent by Fax to the Railway at 1(817) 352-7595 and to the Railway's Project Representative no later than the close of shift on the date of the injury.



NON-EMPLOYEE PERSONAL INJURY DATA COLLECTION

(If injuries are in connection with rail equipment accident/incident, highway rail grade crossing accident or automobile accident, ensure that appropriate information is obtained, forms completed and that data entry personnel are aware that injuries relate to that specific event.)

Injured Person Type:

- Passenger on train (C)
- Non-employee (N)
(i.e., emp of another railroad, or, non-BNSF emp involved in vehicle accident, including company vehicles)
- Contractor/safety sensitive (F)
- Contractor/non-safety sensitive (G)
- Volunteer/safety sensitive (H)
- Volunteer/other non-safety sensitive (I)
- Non-trespasser (D) - to include highway users involved in highway rail grade crossing accidents who did not go around or through gates
- Trespasser (E) - to include highway users involved in highway rail grade crossing accidents who went around or through gates
- Non-trespasser (J) - Off railroad property

If train involved, Train ID:

Transmit attached information to Accident/Incident Reporting Center by:

Fax 1-817-352-7595 or by Phone 1-800-697-6736 or email to: Accident-Reporting.Center@BNSF.com

Officer Providing Information:

(Name)

(Employee No.)

(Phone #)

REPORT PREPARED TO COMPLY WITH FEDERAL ACCIDENT REPORTING REQUIREMENTS AND PROTECTED FROM DISCLOSURE PURSUANT TO 49 U.S.C. 20903 AND 83 U.S.C. 490

NON-EMPLOYEE PERSONAL INJURY DATA COLLECTION

INFORMATION REQUIRED TO BE COLLECTED PURSUANT TO FEDERAL REGULATION. IT SHOULD BE USED FOR COMPLIANCE WITH FEDERAL REGULATIONS ONLY AND IT IS NOT INTENDED TO PRESUME ACCEPTANCE OF RESPONSIBILITY OR LIABILITY.

1. Accident City/St: _____ 2. Date: _____ Time: _____
County: _____ 3. Temperature: _____ 4. Weather: _____
(if non BNSF location)

Mile Post / Line Segment: _____

5. Driver's License No (and state) or other ID: _____ SSN (required): _____

6. Name (last, first, mi): _____

7. Address: _____ City: _____ St: _____ Zip: _____

8. Date of Birth: _____ and/or Age: _____ Gender: _____
(if available)

Phone Number: _____ Employer: _____

9. Injury: _____ 10. Body Part: _____
(i.e., Laceration, etc.) (i.e., Hand, etc.)

11. Description of Accident (To include location, action, result, etc.):

12. Treatment:
 First Aid Only _____
 Required Medical Treatment _____
 Other Medical Treatment _____

13. Dr. Name: _____ Date: _____

14. Dr. Address:
Street: _____ City: _____ St: _____ Zip: _____

15. Hospital Name: _____

16. Hospital Address:
Street: _____ City: _____ St: _____ Zip: _____

17. Diagnosis: _____

REPORT PREPARED TO COMPLY WITH FEDERAL ACCIDENT REPORTING REQUIREMENTS AND PROTECTED FROM DISCLOSURE PURSUANT TO 49 U.S.C. 20903 AND 83 U.S.C. 490

EXHIBIT "C-1"

Agreement Between
BNSF RAILWAY COMPANY
and the
CONTRACTOR

Railway File: _____

Agency Project: _____

<%Contractor.LegalName%> [Insert contractor's legal name here](hereinafter called "Contractor"), has entered into an agreement (hereinafter called "Agreement") dated _____, 201_, [***Drafter's Note: insert the date of the contract between the Agency and the Contractor here] with [Drafter's Note: insert the name of the Agency here] for the performance of certain work in connection with the following project: _____ Performance of such work will necessarily require Contractor to enter BNSF RAILWAY COMPANY (hereinafter called "Railway") right of way and property (hereinafter called "Railway Property"). The Agreement provides that no work will be commenced within Railway Property until the Contractor employed in connection with said work for [insert Agency name here] (i) executes and delivers to Railway an Agreement in the form hereof, and (ii) provides insurance of the coverage and limits specified in such Agreement and Section 3 herein. If this Agreement is executed by a party who is not the Owner, General Partner, President or Vice President of Contractor, Contractor must furnish evidence to Railway certifying that the signatory is empowered to execute this Agreement on behalf of Contractor.

Accordingly, in consideration of Railway granting permission to Contractor to enter upon Railway Property and as an inducement for such entry, Contractor, effective on the date of the Agreement, has agreed and does hereby agree with Railway as follows:

1) RELEASE OF LIABILITY AND INDEMNITY

Contractor hereby waives, releases, indemnifies, defends and holds harmless Railway for all judgments, awards, claims, demands, and expenses (including attorneys' fees), for injury or death to all persons, including Railway's and Contractor's officers and employees, and for loss and damage to property belonging to any person, arising in any manner from Contractor's or any of Contractor's subcontractors' acts or omissions in connection with work performed on or about Railway's property or right-of-way. THE LIABILITY ASSUMED BY CONTRACTOR WILL NOT BE AFFECTED BY THE FACT, IF IT IS A FACT, THAT THE DESTRUCTION, DAMAGE, DEATH, OR INJURY WAS OCCASIONED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF RAILWAY, ITS AGENTS, SERVANTS, EMPLOYEES OR OTHERWISE, EXCEPT TO THE EXTENT THAT SUCH CLAIMS ARE PROXIMATELY CAUSED BY THE INTENSIONAL MISCONDUCT OR GROSS NEGLIGENCE OF RAILWAY.

THE INDEMNIFICATION OBLIGATION ASSUMED BY CONTRACTOR INCLUDES ANY CLAIMS, SUITS OR JUDGMENTS BROUGHT AGAINST RAILWAY UNDER THE FEDERAL EMPLOYEE'S LIABILITY ACT, INCLUDING CLAIMS FOR STRICT LIABILITY UNDER THE SAFETY APPLIANCE ACT OR THE LOCOMOTIVE INSPECTION ACT, WHENEVER SO CLAIMED.

Contractor further agrees, at its expense, in the name and on behalf of Railway, that it will adjust and settle all claims made against Railway, and will, at Railway's discretion, appear and defend any suits or actions of law or in equity brought against Railway on any claim or cause of action arising or growing out of or in any manner connected with any liability assumed by Contractor under this Agreement for which Railway is liable or is alleged to be liable. Railway will give notice to Contractor, in writing, of the receipt or dependency of such claims and thereupon Contractor must proceed to adjust and handle to a conclusion such claims, and in the event of a suit being brought against Railway, Railway may forward summons and complaint or other process in connection therewith to Contractor, and Contractor, at Railway's discretion, must defend, adjust, or settle such suits and protect, indemnify, and save harmless Railway from and against all damages, judgments, decrees, attorney's fees, costs, and expenses growing out of or resulting from or incident to any such claims or suits.

In addition to any other provision of this Agreement, in the event that all or any portion of this Article shall be deemed to be inapplicable for any reason, including without limitation as a result of a decision of an applicable court, legislative enactment or regulatory order, the parties agree that this Article shall be interpreted as requiring Contractor to indemnify Railway to the fullest

extent permitted by applicable law. THROUGH THIS AGREEMENT THE PARTIES EXPRESSLY INTEND FOR CONTRACTOR TO INDEMNIFY RAILWAY FOR RAILWAY'S ACTS OF NEGLIGENCE.

It is mutually understood and agreed that the assumption of liabilities and indemnification provided for in this Agreement survive any termination of this Agreement.

2) TERM

This Agreement is effective from the date of the Agreement until (i) the completion of the project set forth herein, and (ii) full and complete payment to Railway of any and all sums or other amounts owing and due hereunder.

3) INSURANCE

Contractor shall, at its sole cost and expense, procure and maintain during the life of this Agreement the following insurance coverage:

A. Commercial General Liability insurance. This insurance shall contain broad form contractual liability with a combined single limit of a minimum of \$2,000,000 each occurrence and an aggregate limit of at least \$4,000,000 but in no event less than the amount otherwise carried by the Contractor. Coverage must be purchased on a post 2004 ISO occurrence form or equivalent and include coverage for, but not limit to the following:

- ◆ Bodily Injury and Property Damage
- ◆ Personal Injury and Advertising Injury
- ◆ Fire legal liability
- ◆ Products and completed operations

This policy shall also contain the following endorsements, which shall be indicated on the certificate of insurance:

- ◆ The definition of insured contract shall be amended to remove any exclusion or other limitation for any work being done within 50 feet of railroad property.
- ◆ Waiver of subrogation in favor of and acceptable to Railway.
- ◆ Additional insured endorsement in favor of and acceptable to Railway.
- ◆ Separation of insureds.
- ◆ The policy shall be primary and non-contributing with respect to any insurance carried by Railway.

It is agreed that the workers' compensation and employers' liability related exclusions in the Commercial General Liability insurance policy(s) required herein are intended to apply to employees of the policy holder and shall not apply to *Railway* employees.

No other endorsements limiting coverage as respects obligations under this Agreement may be included on the policy with regard to the work being performed under this agreement.

B. Business Automobile Insurance. This insurance shall contain a combined single limit of at least \$1,000,000 per occurrence, and include coverage for, but not limited to the following:

- ◆ Bodily injury and property damage
- ◆ Any and all vehicles owned, used or hired

The policy shall also contain the following endorsements or language, which shall be indicated on the certificate of insurance:

- ◆ Waiver of subrogation in favor of and acceptable to Railway.
- ◆ Additional insured endorsement in favor of and acceptable to Railway.
- ◆ Separation of insureds.
- ◆ The policy shall be primary and non-contributing with respect to any insurance carried by Railway.

C. Workers Compensation and Employers Liability insurance including coverage for, but not limited to:

- ◆ Contractor's statutory liability under the worker's compensation laws of the state(s) in which the work is to be performed. If optional under State law, the insurance must cover all employees anyway.

- ◆ Employers' Liability (Part B) with limits of at least \$500,000 each accident, \$500,000 by disease policy limit, \$500,000 by disease each employee.

This policy shall also contain the following endorsements or language, which shall be indicated on the certificate of insurance:

- ◆ Waiver of subrogation in favor of and acceptable to Railway.
- D. Railroad Protective Liability insurance naming only the *Railway* as the Insured with coverage of at least \$2,000,000 per occurrence and \$6,000,000 in the aggregate. The policy Must be issued on a standard ISO form CG 00 35 12 04 and include the following:
- ◆ Endorsed to include the Pollution Exclusion Amendment
 - ◆ Endorsed to include the Limited Seepage and Pollution Endorsement.
 - ◆ Endorsed to remove any exclusion for punitive damages.
 - ◆ No other endorsements restricting coverage may be added.
 - ◆ The original policy must be provided to the *Railway* prior to performing any work or services under this Agreement
 - ◆ Definition of "Physical Damage to Property" shall be endorsed to read: "means direct and accidental loss of or damage to all property owned by any named insured and all property in any named insured' care, custody, and control arising out of the acts or omissions of the contractor named on the Declarations.

In lieu of providing a Railroad Protective Liability Policy, Licensee may participate (if available) in Railway's Blanket Railroad Protective Liability Insurance Policy.

Other Requirements:

Where allowable by law, all policies (applying to coverage listed above) shall contain no exclusion for punitive damages.

Contractor agrees to waive its right of recovery against *Railway* for all claims and suits against *Railway*. In addition, its insurers, through the terms of the policy or policy endorsement, waive their right of subrogation against *Railway* for all claims and suits. Contractor further waives its right of recovery, and its insurers also waive their right of subrogation against *Railway* for loss of its owned or leased property or property under Contractor's care, custody or control.

Allocated Loss Expense shall be in addition to all policy limits for coverages referenced above.

Contractor is not allowed to self-insure without the prior written consent of *Railway*. If granted by *Railway*, any self-insured retention or other financial responsibility for claims shall be covered directly by Contractor in lieu of insurance. Any and all *Railway* liabilities that would otherwise, in accordance with the provisions of this Agreement, be covered by Contractor's insurance will be covered as if Contractor elected not to include a deductible, self-insured retention or other financial responsibility for claims.

Prior to commencing services, Contractor shall furnish to *Railway* an acceptable certificate(s) of insurance from an authorized representative evidencing the required coverage(s), endorsements, and amendments. The certificate should be directed to the following address:

BNSF Railway Company
c/o CertFocus
P.O. Box 140528
Kansas City, MO 64114
Toll Free: 877-576-2378
Fax number: 817-840-7487
Email: BNSF@certfocus.com
www.certfocus.com

Contractor shall notify *Railway* in writing at least 30 days prior to any cancellation, non-renewal, substitution or material alteration.

Any insurance policy shall be written by a reputable insurance company acceptable to *Railway* or with a current Best's Guide Rating of A- and Class VII or better, and authorized to do business in the state(s) in which the service is to be provided.

If coverage is purchased on a "claims made" basis, Contractor hereby agrees to maintain coverage in force for a minimum of three years after expiration, cancellation or termination of this Agreement. Annually Contractor agrees to provide evidence of such coverage as required hereunder.

Contractor represents that this Agreement has been thoroughly reviewed by Contractor's insurance agent(s)/broker(s), who have been instructed by Contractor to procure the insurance coverage required by this Agreement.

Not more frequently than once every five years, *Railway* may reasonably modify the required insurance coverage to reflect then-current risk management practices in the railroad industry and underwriting practices in the insurance industry.

If any portion of the operation is to be subcontracted by Contractor, Contractor shall require that the subcontractor shall provide and maintain insurance coverage(s) as set forth herein, naming *Railway* as an additional insured, and shall require that the subcontractor shall release, defend and indemnify *Railway* to the same extent and under the same terms and conditions as Contractor is required to release, defend and indemnify *Railway* herein.

Failure to provide evidence as required by this section shall entitle, but not require, *Railway* to terminate this Agreement immediately. Acceptance of a certificate that does not comply with this section shall not operate as a waiver of Contractor's obligations hereunder.

The fact that insurance (including, without limitation, self-insurance) is obtained by Contractor shall not be deemed to release or diminish the liability of Contractor including, without limitation, liability under the indemnity provisions of this Agreement. Damages recoverable by *Railway* shall not be limited by the amount of the required insurance coverage.

In the event of a claim or lawsuit involving *Railway* arising out of this agreement, Contractor will make available any required policy covering such claim or lawsuit.

These insurance provisions are intended to be a separate and distinct obligation on the part of the Contractor. Therefore, these provisions shall be enforceable and Contractor shall be bound thereby regardless of whether or not indemnity provisions are determined to be enforceable in the jurisdiction in which the work covered hereunder is performed.

For purposes of this section, *Railway* shall mean "Burlington Northern Santa Fe LLC", "BNSF Railway Company" and the subsidiaries, successors, assigns and affiliates of each.

4) SALES AND OTHER TAXES

In the event applicable sales taxes of a state or political subdivision of a state of the United States are levied or assessed in connection with and directly related to any amounts invoiced by Contractor to *Railway* ("Sales Taxes"), *Railway* shall be responsible for paying only the Sales Taxes that Contractor separately states on the invoice or other billing documents provided to *Railway*; *provided, however*, that (i) nothing herein shall preclude *Railway* from claiming whatever Sales Tax exemptions are applicable to amounts Contractor bills *Railway*, (ii) Contractor shall be responsible for all sales, use, excise, consumption, services and other taxes which may accrue on all services, materials, equipment, supplies or fixtures that Contractor and its subcontractors use or consume in the performance of this Agreement, (iii) Contractor shall be responsible for Sales Taxes (together with any penalties, fines or interest thereon) that Contractor fails to separately state on the invoice or other billing documents provided to *Railway* or fails to collect at the time of payment by *Railway* of invoiced amounts (except where *Railway* claims a Sales Tax exemption), and (iv) Contractor shall be responsible for Sales Taxes (together with any penalties, fines or interest thereon) if Contractor fails to issue separate invoices for each state in which Contractor delivers goods, provides services or, if applicable, transfers intangible rights to *Railway*.

Upon request, Contractor shall provide *Railway* satisfactory evidence that all taxes (together with any penalties, fines or interest thereon) that Contractor is responsible to pay under this Agreement have been paid. If a written claim is made against Contractor for Sales Taxes with respect to which *Railway* may be liable for under this Agreement, Contractor shall promptly notify *Railway* of such claim and provide *Railway* copies of all correspondence received from the taxing authority. *Railway* shall have the right to contest, protest, or claim a refund, in *Railway*'s own name, any Sales Taxes paid by *Railway* to Contractor or for which *Railway* might otherwise be responsible for under this Agreement; *provided, however*, that if *Railway* is not permitted by law to contest any such Sales Tax in its own name, Contractor shall, if requested by *Railway* at *Railway*'s sole cost and expense, contest in

Contractor's own name the validity, applicability or amount of such Sales Tax and allow Railway to control and conduct such contest.

Railway retains the right to withhold from payments made under this Agreement amounts required to be withheld under tax laws of any jurisdiction. If Contractor is claiming a withholding exemption or a reduction in the withholding rate of any jurisdiction on any payments under this Agreement, before any payments are made (and in each succeeding period or year as required by law), Contractor agrees to furnish to Railway a properly completed exemption form prescribed by such jurisdiction. Contractor shall be responsible for any taxes, interest or penalties assessed against Railway with respect to withholding taxes that Railway does not withhold from payments to Contractor.

5) EXHIBIT "C" CONTRACTOR REQUIREMENTS

The Contractor must observe and comply with all provisions, obligations, requirements and limitations contained in the Agreement, and the Contractor Requirements set forth on Exhibit "C" attached to the Agreement and this Agreement, including, but not be limited to, payment of all costs incurred for any damages to Railway roadbed, tracks, and/or appurtenances thereto, resulting from use, occupancy, or presence of its employees, representatives, or agents or subcontractors on or about the construction site. Contractor shall execute a Temporary Construction Crossing Agreement or Private Crossing Agreement (<http://www.bnsf.com/communities/faqs/permits-real-estate/>), for any temporary crossing requested to aid in the construction of this Project, if approved by BNSF.

IN WITNESS WHEREOF, each of the parties hereto has caused this Agreement to be executed by its duly authorized officer the day and year first above written.

<%Contractor.LegalName%> BNSF Railway Company

By: By:

Printed Name: Name:
Manager Public Projects
Title:

Accepted and effective this _____ day of 20__.

Contact Person:

Address:

City:

State: Zip:

Fax:

Phone:

E-mail:

1 **BY AUTHORITY**

2 RESOLUTION NO. CR17-0826
3 SERIES OF 2017

COMMITTEE OF REFERENCE:
Land Use, Transportation & Infrastructure

4 **A RESOLUTION**

5 **Approving a proposed Design-Build Contract between the City and County of**
6 **Denver and Saunders Construction, LLC, for the design and construction of the**
7 **City Park Golf Course Improvement project.**

8
9 **BE IT RESOLVED BY THE COUNCIL OF THE CITY AND COUNTY OF DENVER:**

10 **Section 1.** The proposed Design-Build Contract between the City and County of Denver and
11 Saunders Construction, LLC, in the words and figures contained and set forth in that form of Contract
12 available in the office and on the web page of City Council, and to be filed in the office of the Clerk
13 and Recorder, Ex-Officio Clerk of the City and County of Denver, under City Clerk's Filing No.
14 201736093-00 is hereby approved.

15 COMMITTEE APPROVAL DATE: July 25, 2017

16 MAYOR-COUNCIL DATE: August 1, 2017

17 PASSED BY THE COUNCIL: _____

18 _____ - PRESIDENT

19 ATTEST: _____ - CLERK AND RECORDER,
20 EX-OFFICIO CLERK OF THE
21 CITY AND COUNTY OF DENVER

22 PREPARED BY: John G. McGrath, Assistant City Attorney DATE: August 3, 2017

23 Pursuant to section 13-12, D.R.M.C., this proposed resolution has been reviewed by the Office of
24 the City Attorney. We find no irregularity as to form, and have no legal objection to the proposed
25 resolution. The proposed resolution is submitted to the City Council for approval pursuant to § 3.2.6
26 of the Charter.

27
28 Kristin M. Bronson, Denver City Attorney

29
30 BY:  _____, Assistant City Attorney DATE: Aug 3, 2017 _____,

BY AUTHORITY

RESOLUTION NO. CR17-0826
SERIES OF 2017

COMMITTEE OF REFERENCE:
Land Use, Transportation & Infrastructure

A RESOLUTION

Approving a proposed Design-Build Contract between the City and County of Denver and Saunders Construction, LLC, for the design and construction of the City Park Golf Course Improvement project.

BE IT RESOLVED BY THE COUNCIL OF THE CITY AND COUNTY OF DENVER:

Section 1. The proposed Design-Build Contract between the City and County of Denver and Saunders Construction, LLC, in the words and figures contained and set forth in that form of Contract available in the office and on the web page of City Council, and to be filed in the office of the Clerk and Recorder, Ex-Officio Clerk of the City and County of Denver, under City Clerk's Filing No. 201736093-00 is hereby approved.

COMMITTEE APPROVAL DATE: July 25, 2017

MAYOR-COUNCIL DATE: August 1, 2017

PASSED BY THE COUNCIL: _____ August 14, 2017

Al B... - PRESIDENT

ATTEST: _____ - CLERK AND RECORDER,
EX-OFFICIO CLERK OF THE
CITY AND COUNTY OF DENVER

PREPARED BY: John G. McGrath, Assistant City Attorney DATE: August 3, 2017

Pursuant to section 13-12, D.R.M.C., this proposed resolution has been reviewed by the Office of the City Attorney. We find no irregularity as to form, and have no legal objection to the proposed resolution. The proposed resolution is submitted to the City Council for approval pursuant to § 3.2.6 of the Charter.

Kristin M. Bronson, Denver City Attorney

BY: _____, Assistant City Attorney DATE: Aug 3, 2017 _____