EXHIBIT 1 - SCOPE

PROJECT AMENDMENT SCOPE OF WORK UNDERSTANDING

Tasks 7 – 10 are for a pre-cast concrete box culvert to be installed as a pedestrian crossing from the Southwest corner of E.96th Ave and Telluride to the Northwest corner with Reunion. The pedestrian tunnel is intended to provide a drainage inlet which will be connected to main line storm sewer within E. 96th Ave. The existing main line storm sewer will need to relocated at a deeper elevation to accommodate the tunnel crossing. In addition, several other utilities, including but not limited to, existing water line and dry utilities need to be accommodated.

PROJECT PROCESSING

This set of plans will be a completely stand-alone package from the E. 96th Bid set. In addition, this package will be a combined FIR/FOR process, with limited FIR (30%) plans and will require an FIR meeting with Commerce City and a separate public meeting. The FOR or final design plans will follow the City's typical FOR process.

Contractor will provide the following:

TASK 7 - DATA COLLECTION

1. Initial Tasks, Engineering Research and Project Management:
   - 1.1. Conduct a project kick-off meeting to review schedule and task priorities.
   - 1.2. At the kick-off meeting, or shortly thereafter, create and provide an updated Project Management Plan and Project Quality Plan specific to this effort.
   - 1.3. Update the Project Schedule in consultation with City Staff. Modifications will be made as necessary with appropriate justification and will be subject to review and approval by the City.
   - 1.4. Coordinate work activities with other consultants or City staff
   - 1.5. Release surveying and geotechnical sub-consultants to proceed with updating documents to include the pedestrian underpass area.

2. Right-of-Way Research and Ownership Map - Right-of-way (ROW) acquisition, and easements or temporary construction easements acquisition will be required for the length of the Project along 96th Avenue. Work shall also include ROW negotiation and acquisition, preparation of ROW plans and legal descriptions, and preparation of environmental documentation and reports.

   - 2.1. Establish the location of the E. 96th Avenue right-of-way from record information, so that the need for acquisition of property can be determined.
   - 2.2. Prepare and submit an ownership map reflecting the right-of-way limits based on record information, without purchasing title commitments. Show current recorded names of owners, their addresses, and their Property Identification Number (PIN) per the County Assessor.
   - 2.3. Prepare a right-of-way tabulation of properties detailing parcel number, owner's name, address & phone number, location, area of parcel, date of most recent legal description, and purpose of acquisition (ROW, or type of easement).

2.4. Complete appraisals of each property for acquisition of area necessary for construction of widened E. 96th Avenue, bike lanes and/or sidewalks.

2.5. Complete the acquisition of right-of-way and temporary easements necessary to construct the Project. This task includes but is not limited to conducting appraisals, preparing offer letters, conducting negotiations in good faith, preparing final legal descriptions and exhibits, coordinating City Council approvals, coordinate and attending real estate closings, and coordinating with the City's legal counsel.

Assumptions:

- Scope and fee includes two (2) parcels for row acquisition.
- The City of Commerce City is able to obtain rights-of-way and easements through good-faith negotiations with affected property owners. Eminent domain and/or other legal proceedings are not required for property acquisition.
- If right-of-way and/or easements are not obtained that effect design, permitting, schedule, and/or construction then impact to scope, schedule, and fee will be determined at that time.

PROJECT DELIVERABLES (TASK 7)

The Engineer shall deliver to the City the designated number of copies of the following documents at appropriate times during the Project, as outlined in this Scope of Services. The Engineer shall provide electronic versions of all deliverables upon request.

Two (2) copies each:

- Minutes of Onsite Kick-off Meeting (Task 7.1.1.1)
- Project Schedule (Task 7.1.1.3)
- Ownership Map (Task 7.2.2.3)

TASK 8 - PRELIMINARY (FIR) DESIGN

1. Preliminary Drainage Plans – Field Inspection Review (F.I.R. Plans):
   1.1. Prepare preliminary plans to include the following items:
      - Title Sheet/Notes/General Details
      - Survey Control Diagram and Notes
      - Ownership Tabulation Sheet
      - Ownership Map
      - Preliminary Drainage Plans: 40-scale Plan & Profile sheets for the main storm sewer lowering and the lateral outlet pipe for the tunnel. (3-sheets)
      - Preliminary Pedestrian Tunnel Plans: 20-scale Plan & Profiles for the tunnel crossing. (2- sheets)
      - Preliminary Grading Paving Plans: 20-scale (3-sheets)

   1.2 Prepare an F.I.R.-level Opinion of Probable Construction Cost.

2. Utility Coordination:

2.1 Send copies of preliminary plans to utility districts and companies to request verification of existing and proposed utility locations shown on the plans per Colorado Subsurface Utility Law (SB18-167) Level D.

2.2 Identify utility conflicts and potential relocations. Determine locations where utility potholes should be dug to confirm whether conflicts exist or not. Release potholing subconsultant to perform field work.

2.3 Before the F.I.R. meeting, meet with the affected utility companies that will be significantly impacted by the Project, including but not limited to, South Adams County Water and Sanitation District and United Power regarding the Project's impacts to their utilities.

2.4 At the start of the F.I.R. meeting, a utility coordination session will be held with utility company representatives to review conflicts, determine how the conflicts should be resolved, and determine who is financially responsible for work required to resolve the conflict.

2.5 A "Memorandum of Design – Utilities" will be prepared to include a list of locations where conflicts exist between utilities and proposed roadway construction and where utility facilities will need to be relocated.

3. Preliminary Drainage Analysis

3.1. Establish drainage basin boundaries and flows draining to the pedestrian tunnel.

3.2. Using the Mile High Flood District (formerly known as the Urban Drainage and Flood Control District) Urban Storm Drainage Criteria Manual and the CDOT Design Guide, analyze flows on pavements and determine storm sewer and inlet requirements for the underpass.

4. Structural engineering and plan production for retaining walls and connection to box culvert structures.

5. Project Coordination:

5.1. Attend regular progress meetings as appropriate. At least three (3) meetings with up to three (3) consultant staff members are included in the scope of work during the preliminary design phase.

5.2. Prepare and distribute written minutes of meetings required for the Project, including any meetings held with the County, utility companies, and jurisdictional entities.

6. Public Coordination:

6.1. Attend one (1) public open house meeting. At least three members of the consultant's staff will attend the meeting.

6.2. After the public meeting, prepare a report summarizing the notification process, attendance, intent of the meeting, exhibits / handouts, and public comments.

PROJECT DELIVERABLES: TASK 8

Two (2) copies each:

- F.I.R. Preliminary Underpass Plans (11"x17") (Task 8.1.1.1)

Two (2) copies each:

- Phase II Drainage Report (Task 8.3.3.2)
- F.I.R.-level Opinion of Probable Construction Cost (Task 8.1.1.2)
- Memorandum of Design – Utilities (Task 8.2.2.5)
- Appendix to Memorandum of Design – Roadway (Task 2.7.7)

One (1) copy of each:

- Minutes of Meetings and Phone Conversations (Task 8.5.5.1)
- Pdf files of Public Meeting Exhibits (Task 8.6.6.2)
- Public Meeting Report (Task 8.6.6.2)

TASK 9 - FINAL (FOR) DESIGN

Following Commerce City review of the preliminary plans and, at the direction of Commerce City, the following final design work tasks will be completed:

1. Prepare Title Sheet/Notes/General Details based on C3 comments
2. Survey Control Diagram and Notes based on C3 comments
3. Ownership Tabulation Sheet based on C3 comments
4. Ownership Map based on C3 comments
5. Final Drainage Plans: 40-scale Plan & Profile sheets for the main storm sewer lowering and the lateral outlet pipe for the tunnel. Based on C3 comments. (3-sheets)
6. Final Pedestrian Tunnel Plans: 20-scale Plan & Profiles for the tunnel crossing. Based on C3 comments (2-sheets)
7. Final Grading Paving Plans: Based on C3 comments 20-scale (3-sheets)
8. Construction phasing typical sections and plans (schematic)
9. Final structural retaining wall and culvert plans and details.
10. Lighting and Electrical Plans.
    - 10.1 Coordinate with electric service provider for service connection for power and lighting for pedestrian tunnel.
    - 10.2 Prepare lighting plan and electrical plan for pedestrian tunnel.
11. Prepare Summary of Approximate Quantities.
    - 11.1 Prepare quantity tabulations for individual items. Anticipated tabulations include construction surveying, removals/resets/adjust items, earthwork, guardrail, concrete items, surfacing, fencing, storm sewers and others listed in subsequent sections of the Scope.

11.2. Prepare detail sheets for various miscellaneous Project components.

11.3. Prepare Project Special Provisions and Standard Special Provisions (e.g. technical specifications) to augment the most recent adopted Colorado Department of Transportation's Standard Specifications for Road and Bridge Construction.

11.4. Prepare F.O.R.-level Opinion of Probable Construction Cost based on the Summary of Approximate Quantities. If the use of IGAs or utility cost sharing agreements is anticipated for various Project elements, costs for these items, including each party's tentative payment obligations, will be broken out in the Project opinion of probable construction cost.

11. Final Utility Coordination:

11.1. Once the utility potholing services are performed (soon after the F.I.R.) and the conflict locations are verified per Colorado Subsurface Utility Law (SB18-167) Level B, Engineer will conduct a Utility Coordination Meeting. All affected utility companies shall be invited to the meeting. The purposes of the meeting will be to:

- Review conflicts
- Confirm how the conflicts should be resolved
- Confirm who is financially responsible for work required to resolve the conflict
- Confirm which portions of the work will be performed by Utility Company versus City Contractor forces
- Confirm the duration or expected completion date of the utility work and the advance notification time requirements.

11.2. Conduct field reviews with utility owners as required.

11.3. Revise plans to reflect input from utility owners at the Utility Coordination Meeting and field reviews.

11.4. Prepare Utility Clearance Letters listing specific utility work elements that the Contractor shall perform, specific utility work elements that the utility owner shall perform, the duration or expected completion date of the utility work, and advance notification time requirements.

11.5. Submit the letters to the utility companies requesting their signature and return of the letters.

11.6. Prepare a utility specification listing all utility owners adjacent to the Project and the provisions of the "Utility Clearance Letters".

12. Final Drainage Report:

12.1. Revise grading details, and other drainage details based on F.I.R. comments.

12.2. Prepare storm sewer profiles.

12.3. Design permanent Best Management Practices to meet Commerce City's MS-4 requirements for water quality for the proposed roadway improvements.

12.4. Prepare Erosion Control Plans for construction of the Project. The plans will depict schematically the measures to be used to minimize erosion and sedimentation during construction. The plans will be at a scale of 1"=100'. The Erosion Control Plans shall accommodate and address the differing requirements for each proposed phase of construction.

12.5. Prepare a Phase III Drainage report in accordance with the requirements of the Mile High Flood District (formerly known as the Urban Drainage and Flood Control District) Urban Storm Drainage Criteria Manual.

13. Final Design Coordination:

13.1. Attend regular progress meetings as appropriate. At least three (3) meetings with up to three (3) consultant staff members are included in the scope of work during the final design phase.

13.2. Arrange and attend Final Office Review (F.O.R.) meeting with Commerce City staff and other affected parties, as required by Commerce City.

13.3. Prepare and distribute minutes of the F.O.R. meeting.

13.4. Make minor plan revisions after the F.O.R. as requested by Commerce City. Submit two sets of plans (22" x 34"), five set of plans (11" x 17") and seven sets of technical specifications (8.5" x 11") with F.O.R. comments incorporated ("Post-FOR Plans and Specs") to Commerce City for approval. Revisions to plans will be made for a period of 4 weeks after the Final Office Review Meeting based on Commerce City staff input and minor modifications required due to right-of-way negotiations.

13.5. Submit one Record Set of Approved Post-F.O.R. Plans (8-1/2" x 14") and Specifications with a P.E. Seal to Commerce City.

14. Final Landscape and Irrigation Plans

Landscape and irrigation design plans are to be prepared to be separate from the roadway plan set so that they can be bid as a separate project, if required. The bid set, however, will be developed at the same time as the underpass bid package. Revisions and changes to the landscaping plans that may occur after the underpass construction package is advertised are not included in the basic services, and will be completed as an additional service under Section 4.

- Selection of specific plant materials and seed mixtures.
- Preparation of irrigation details and specifications (specifications based on CDOT Standard Specifications for Road and Bridge Construction, latest version anticipated to be released in 2019).
- Preparation of final layout plans showing the proposed landscape elements.
- Preparation of plant list, plant counts and landscape cost estimates.
- Preparation of planting details.
- Preparation of irrigation construction plans.
- Preparation of tabulation of planting quantities and irrigation quantities.

PROJECT DELIVERABLES: TASK 9

Two (2) copies each:

- F.O.R. Underpass Plans (11" x 17" plans) and Technical Specifications (Task 9)

To include:

- Title Sheet and Notes (Task 9.1)
- Detailed Grading Plans (Task 9.7)
- Final Pedestrian Tunnel Plans (Task 9.6)
- Final Retaining Wall Plans (Task 9.9)
- Storm Drainage Plans & Profiles (Task 9.5)
- Storm Drainage Details (Task 9.5)
- F.O.R. Landscaping Plans (11" x 17" plans) and Technical Specifications (Task 9.14)

Two (2) copies each:

- Phase III Drainage report (Task 9.12)
- Right-of-Way Descriptions and Exhibits (Task 9.4)
- Right-of-Way Tabulation of Properties (Task 9.3)
- F.O.R.-level Opinion of Probable Construction Cost (Task 9.11.4)

One (1) copy each:

- Utility Clearance Letters (Task 9.11.4)
- Electronic version (Excel) of Right-of-Way Tabulation of Properties (Task 9.3)
- Original 11" x 17" Final Plans and Technical Specifications (with Post-FOR revisions) (Task 9.13.5)
- Plans and Technical Specifications with P.E. Stamp (Record Set) (Task 9.13.5)

TASK 10 – BID DOCUMENTS

Bid Services:

1. Prepare the Bid Package, including bid forms, Project Special Provisions, Standard Special Provisions, which will comprise the Contract Documents. Standard Commerce City and CDOT forms and formats will be used for the Contract Documents.
2. Attend the Pre-Bid meeting and prepare the meeting minutes.
3. Prepare addenda to the bid plans and specifications during the advertisement period, as requested by Commerce City.
4. Attend the Bid Opening and prepare bid tabulation for the Project.
5. Reproduction of plans for distribution to prospective bidders is not included in the Base Scope of Services, but can be done as an additional service per the standard hourly rates.
6. Provide the following deliverables (2 copies each):
    - Bid Package
    - Bid Tabulation

- Addenda

TASK 11 – SOUND WALL STUDY

1 Contractor will provide the following services:

1. Perform a traffic noise analysis in accordance with federal Department of Transportation (DOT) standards.
2. Conduct a site visit, identify adjacent land use development and photo document representative receivers that might be impacted by highway traffic noise and may benefit from feasible and reasonable noise abatement.
3. Determine existing and predicted noise levels for representative receivers, as follows:
   - For transportation activities on new location, take field measurements of existing noise levels. Field measurements shall be accomplished with sound meters that meet or exceed American National Standards Institute (ANSI) S1.4-1983, Type 2.
   - For transportation activities not on new location, perform computer modeling of existing noise levels and predicted (future) noise levels.
   - Computer modeling shall be accomplished with the latest FHWA approved Traffic Noise Model (TNM) software program.
4. Identify impacted receivers in accordance with the absolute and relative impact criteria.
5. Consider and evaluate all required noise abatement measures for impacted receivers in accordance with the feasible and reasonable criteria.
6. Propose noise abatement measures that are both feasible and reasonable.
7. Determine predicted (future) noise impact contours for transportation activities where there is adjacent undeveloped property where residential or commercial development is likely to occur in the near future.

PROJECT DELIVERABLES: TASK 11

Two (2) copies each:

- Final Sound Wall Study (Task 11.1.1)

TASK 12 – POTHOLING FOR SUBSURFACE UTILITY ENGINEERING (SUE) LOCATOR

PROJECT DELIVERABLES: TASK 12

- Pothole Utility Summary (Task 12)

TASK 13 – SURVEY WORK FOR NEW COMCAST LINE

PROJECT DELIVERABLES: TASK 13

- Mapping of New Comcast Line (Task 13)