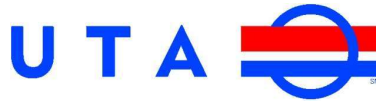


**Utah Transit Authority**  
 669 West 200 South  
 Salt Lake City, Utah 84101  
 Phone: (801) 741-8885  
 Fax: (801) 741-8892



CHANGE ORDER

No. 6

TITLE: Point of the Mountain Transit Project Contract #19-03038TP Stage 2, Amendment 6 DATE: 2/22/2023  
 PROJECT/CODE: MSP216 - Point of Mountain AA/EIS This is a change order to CONTRACT No: 19-03038TP  
 TO: Parametrix  
 ATTN: John Willis

DESCRIPTION OF CHANGE: Brief scope, references to scope defining documents such as RFIs, submittals, specified drawings, exhibits, etc.

This scope of work amends the work program for Contract #19-03038TP, Amendment 5, for the Point of the Mountain (POM) Transit project. Amendment 5 provided for conceptual design and for the completion of the environmental document for the POM preferred alternative. Amendment 5 was executed in May 2021.

Subsequently, the State of Utah legislature requested additional information about the Project in fall 2021, and in March 2022, passed legislation that provided additional funding to advance the project, placed the Project under the Utah Department of Transportation (UDOT), and directed the Project to examine rail alternatives in an alternatives analysis. This amendment shows the revisions and updates to the Amendment 5 scope to address project adjustments requested by Utah Transit Authority (UTA)/UDOT, and to support the reallocation of existing funds to continue Phase 2, including planning for the additional alternatives analysis and completing environmental review.

This amendment extends project management and administrative services from the original June 2023 completion of work through to the end of June 2024.

Direction or Authorization to Proceed (DAP) previously executed: YES \_\_\_ NO X

It is mutually agreed upon, there is a schedule impact due to this Change order: YES X NO \_\_\_

The amount of any adjustment to time for Substantial Completion and/or Guaranteed Completion or Contract Price includes all known and stated impacts or amounts, direct, indirect and consequential, (as of the date of this Change Order) which may be incurred as a result of the event or matter giving rise to this Change Order. Should conditions arise subsequent to this Change Order that impact the Work under the Contract, including this Change Order, and justify a Change Order under the Contract, or should subsequent Change Orders impact the Work under this Change Order, UTA or the Contractor may initiate a Change Order per the General Provisions, to address such impacts as may arise.

Current Change Order		Contract		Schedule	
Lump Sum:	<del>XXXXXXX</del> \$1,193,045	Original Contract Sum:	\$757,351	Final Completion Date Prior to This Change:	6/30/2023
Unit Cost:	-	Net Change by Previously Authorized Changes:	\$3,486,831	<b>Contract Time Change This Change Order (Calendar Days):</b>	<b>366</b>
Cost Plus:	-	<b>Previous Project Total:</b>	<b>\$4,244,182</b>	Final Completion Date as of This Change Order:	6/30/2024
T&M NTE:	<b>\$1,193,045 -</b>	Net Change This Change Order:	\$1,193,045		
<b>Total:</b>	<b>\$1,193,045</b>	<b>Current Project Total:</b>	<b>\$5,437,227</b>		

ACCEPTED: DocuSigned by:  
 By: John Willis  
2E7AD8BEB8914E5  
 Date: 2/1/2023

**John Willis**  
 Parametrix

By: \_\_\_\_\_  
 Date: \_\_\_\_\_  
**Marcus Bennett**  
 Project Manager <\$25,000

By: \_\_\_\_\_  
 Date: \_\_\_\_\_  
**David Hancock**  
 Dir. of Capital Development <\$75,000

By: \_\_\_\_\_  
 Date: \_\_\_\_\_  
**Mary DeLoretto**  
 Chief Service Dev Officer <\$200,000

By: \_\_\_\_\_  
 Date: \_\_\_\_\_  
**Vicki Woodward**  
 Procurement

DocuSigned by:  
 By: Michael Bell  
70E33A415BA44F6  
 Date: 2/1/2023  
**Mike Bell**  
 Attorney General >\$10,000

By: \_\_\_\_\_  
 Date: \_\_\_\_\_  
**Jay Fox**  
 Executive Director >\$200,000



**Change Order Summary Worksheet**  
 Previously Authorized Changes

<b>Contract</b>	<b>19-03038TP PAR</b>
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<b>Change Order No</b>	<b>Date</b>	<b>Amount of CO</b>	<b>Running Contract Total</b>	<b>Subject</b>
Original Contract			\$757,351	
1	10/18/2019	\$24,153	\$781,504	Additional Public Involvement Assistance
2	6/19/2020	\$0	\$781,504	No Cost Time extension
3	10/16/2020	\$0	\$781,504	No Cost Time Extension
4	3/19/2021	\$0	\$781,504	No Cost Time Extension
5	5/26/2001	\$3,462,678	\$4,244,182	Exercise Option to Refine LPA Conceptual Design and
<b>Total to Date</b>		<b>\$ 3,486,831</b>		

# SCOPE OF WORK

## Utah Transit Authority Point of the Mountain Transit Project Contract #19-03038TP Stage 2, Amendment 6

### PURPOSE OF THE AMENDMENT

This scope of work amends the work program for Contract #19-03038TP, Amendment 5, for the Point of the Mountain (POM) Transit project. Amendment 5 provided for conceptual design and for the completion of the environmental document for the POM preferred alternative. Amendment 5 was executed in May 2021. Subsequently, the State of Utah legislature requested additional information about the Project in fall 2021, and in March 2022, passed legislation that provided additional funding to advance the project, placed the Project under the Utah Department of Transportation (UDOT), and directed the Project to examine rail alternatives in an alternatives analysis. This amendment shows the revisions and updates to the Amendment 5 scope to address project adjustments requested by Utah Transit Authority (UTA)/UDOT, and to support the reallocation of existing funds to continue Phase 2, including planning for the additional alternatives analysis and completing environmental review.

This amendment extends project management and administrative services from the original June 2023 completion of work through to the end of June 2024.

### SUMMARY

Parametrix (the Consultant) is to advance further study of two primary rail modal alternatives to be considered in addition to the BRT Alternative described in Amendment 5. The revised scope of work under Amendment 6 adds the development of (1) light rail and (2) diesel or electric multiple-unit rail (XMU) for the fixed guideway transit system from FrontRunner Draper Station to South Triumph Station with transit connections to FrontRunner Lehi Station. As a result, bus rapid transit (BRT) and rail alternatives will continue to Stage 2, to complete Conceptual Engineering (CE), environmental documentation and approval, with a revised alternatives analysis to help determine the mode.

This Contract Amendment amends Tasks 1 through 6, makes no changes to unfunded optional Tasks 7 and 8, and adds Task 9 for the Alternatives Analysis:

#### Task 1 – Project Management

##### Subtask 1.1 Project Management Activities

*Re-aligned scope, no new fee*

This task is extended to December 2023, including weekly team meetings through the delivery of the alternatives analysis (approximately March 2023), and then bi-weekly (every two weeks) for the ongoing environmental review to Federal Transit Administration (FTA) release of the Environmental Assessment by fall 2023.

### Subtask 1.6 Risk Assessment

*Re-aligned scope, no new fee.*

For the additional rail/BRT Alternative Analysis (AA), the task provides for two risk related workshops as directed by UTA/UDOT. The risk assessment workshops will be framed to support the revised Alternatives Analysis on the three transit modes and will provide input into the AA screening criteria for risk.

### Subtask 1.7 Owner Directed Reserves

This new subtask is for unanticipated efforts on the Point of the Mountain Transit Project. These efforts must be defined in writing (scope/cost/hours) with the written approval of the UTA project manager (by email) before proceeding.

## Task 2 – Project Refinements and Conceptual Engineering

Task 2 includes Project Refinement, CE design, and advanced conceptual engineering for BRT and rail alternatives, as well as operations analysis to support the conceptual planning of operations and maintenance facilities.

This amendment refines the purpose of some of the products to support a comparative alternatives analysis of rail and BRT alternatives, including capital and operations cost estimating, design compatibility with facilities owned or managed by UDOT, cities, Point of the Mountain State Land Use Authority (POMSLA), and conceptual planning for operations and maintenance facilities. It also supports review of UTA's applicable design standards and operating procedures.

### Subtask 2.1 Engineering Task Management

This task is assumed to continue through the anticipated completion of the alternatives analysis process through a selection of a preferred alternative in March 2023 and adds resources for the management of the two additional core rail alternatives.

### Subtask 2.2 Agency/Stakeholder Coordination

Amendment 5 focused resources for this task on the BRT alternative and are now largely complete. However, the coordination to date addressed many of the localized design questions that would also apply to rail alternatives. Further coordination meetings to accommodate rail alternatives development are to be conducted under other tasks.

### Subtask 2.3 Survey Base Map

No changes are needed.

### Subtask 2.4 Project Refinements and Screening

Amendment 5 addressed the majority of the project refinements needed to define a BRT alternative, but the underlying factors affecting these refinements also support the development and analysis of rail alternatives. No additional effort under this subtask is required.

### Subtask 2.5 Conceptual Engineering

Amendment 6 extends the task to cover the development of light-rail transit (LRT) and diesel multiple unit/electric multiple unit (DMU/EMU) rail alternatives to a similar level of detail as BRT and assumes the majority

## SCOPE OF WORK (continued)

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of the rail alignments would be similar to the alignment for BRT. Additional conceptual engineering for rail would focus on the design and operational standards that would apply to rail operating on a similar alignment. However, this amendment adds the following:

- Development of rail CE plans including identification of civil improvements, stations, retaining walls, structures, similar to the BRT definition.
- For the purposes of reviewing travel times, operational analyses, fleet, O&M facility considerations and annual operating costs, the DMU/EMU alternative will be progressed as three separate sub-alternatives that share the same conceptual alignment but which differ in terms of rail technologies (vehicles and train control) and regulatory compliance:
  - Stand-alone DMU service not physically connected to FrontRunner tracks and not subject to FRA regulation,
  - Integrated DMU service physically connected to FrontRunner tracks and therefore subject to FRA regulation,
  - Stand-alone EMU service not physically connected to FrontRunner tracks and not subject to FRA regulation.
- Develop rough order of magnitude (ROM) preliminary cost ranges: The Consultant will prepare ROM estimates will be prepared for rail alternatives using the same methodology as developed in the transit study to support Subtask 2.7 Mode Review. The unit prices are based on past UTA projects and infilled with supplemental information from other constructed transit projects. Cost estimates for BRT and rail alternatives to support Subtask 2.7 Mode Review, will be developed based on the CE plan set. ROM estimate includes project soft costs, operations and maintenance (O&M) facilities and potential right-of-way (ROW) acquisition costs.
- ROM cost estimates for up to six different segments and termini locations among the alternatives will be developed to support Task 6 Funding. ROM estimate includes project soft costs, O&M facilities, and potential ROW acquisition costs.

### Assumptions

- In absence of UTA design standards for DMU/EMU rail technology, the design team will coordinate with UTA and UDOT and will incorporate information provided by industry outreach of other sources through UTA and UDOT. The rail standards applied for the development of conceptual designs for rail alternatives will be documented in the Project Design Criteria. UTA will determine if such design criteria are acceptable to their standards for rail design.

### Deliverables

- Draft and Final conceptual plan/profile and cross section sheets to define project footprint and general facility characteristics to support environmental review and agency/stakeholder coordination for rail, including XMU and LRT. Sheet set includes the following:
  - Up to four general sheets.
  - Up to 20 conceptual plan and profile sheets.
  - One typical gate crossing plan.
  - One typical LRT station plan.
  - Up to five typical cross sections for rail guideway.

## SCOPE OF WORK (continued)

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- Up to three bridge elevation plans.
- Plans show UTA rail corridor right-of-way, project footprint, rough channelization limits, best known development plans adjacent to stations.
- Draft and Final UDOT, Roadway and Non-motorized and Development Compatibility Report.
- Draft and Final ROM cost ranges for CE plans for BRT and rail to support Subtask 2.7 Mode Review.
- Up to six additional ROM cost estimates for different termini to support phasing and implementation in Task 6.

### Subtask 2.5A Cost Validation Preparation

This added subtask is partnered with a new Subtask 2.5B Cost Validation. This work expands upon the ROM costs completed in Subtask 2.5. The scope of work will breakdown the ROM cost estimates into smaller units of measure based on the common ground alignments for XMU, LRT, and BRT. Previous units of measure were completed using an average cost per linear route foot. This work breaks down the units of measure into more specific quantities based on the design assumptions in the CE plans completed in Subtask 2.5. Additional work in this expansion of unit prices will include a refinement of the ROW acquisitions and O&M capital costs and fleet costs from Subtask 2.6.3.

Below is a summary of the anticipated work:

- Unit price refinement from ROM cost estimates.
- Development of master cost opinion spreadsheet.
- Preliminary ROW square footage impacts and temporary construction easements to be provided to UTA/UDOT for additional ROW analysis for costs.
- For LRT only: Inclusion of DC traction power substation and Overhead Contact System (OCS) costs.
- For EMU sub-alternative only: Inclusion of AC traction power substation and Overhead Contact System (OCS) costs.
- For rail only: Inclusion of train control (signaling) and grade crossing warning devices costs for both rail alternatives.
- For Integrated DMU sub-alternative only: Inclusion of Positive Train Control (PTC) on-board and wayside costs given that the sub-alternative will have a physical (track) connection to the FrontRunner system.
- For all modes: Fleet capital costs including provision for one “protect” (standby) vehicle, spare vehicle margin, supplier maintenance training program and spare parts inventory.

### Assumptions

- UDOT will complete ROW analysis to determine preliminary ROW costs to be used in the cost validation Subtask 2.5B.
- Unit quantities are based on the common ground segment alignments.
- One initial update to the cost opinion spreadsheet is anticipated after the initial Cost Validation meeting.
- A subsequent update the cost opinion spreadsheet will occur after O&M information is completed.

## Deliverables

- Draft master cost opinion spreadsheet with unit prices (empty).
- Final master cost opinion spreadsheet with ROW and O&M costs included.
- ROW mapping sheets from geographic information system and associated ROW impact spreadsheet with parcel information.

## Subtask 2.5B Cost Validation

This subtask is new work to be completed to support a cost validation process to be conducted by UTA/UDOT with outside consultant(s). Consultant shall share background information generated in Subtask 2.5 and Subtask 2.5A to support this effort. In addition, Consultant will complete a cost opinion based the Subtask 2.5A to be included in the cost validation comparison effort. The cost validation process will be managed and hosted by UTA/UDOT and/or other consultants. In addition to the cost opinion, Consultant will support the cost validation in addressing design questions and providing background materials produced in Subtask 2.5. The cost validation will be based off the CE packages and developed for BRT and two rail alternatives. The outcome of the cost validation process will be summarized by Consultant in a memo or chapter to be included in the Revised Alternative Analysis (Task 9). Work will include the following:

- Scope of work review for BRT with UTA/UDOT for inclusion in the ROM cost estimate.
- Scope of work review for the LRT and XMU Alternatives (including distinctions among the three XMU sub-alternatives) with UTA/UDOT for inclusion in the ROM cost estimate.
- Kick off meeting with third-party reviewer to discuss cost validation content.
- Post cost validation review meeting for questions and resolutions.
- Technical finding summary of cost validation process and findings to be included in the revised AA document.

## Assumptions

- UDOT will complete ROW analysis to determine preliminary ROW costs.
- UDOT/UTA will manage the cost validation process and provide a mediator.

## Deliverables

- Draft master cost opinion spreadsheet with unit prices.
- Final master cost opinion spreadsheet with ROW and O&M costs included.
- Draft and Final Cost Validation Finding Summary, to be included in the revised alternatives analysis.

## Subtask 2.5C Advanced Engineering

This subtask is new work to be completed to support Task 9. Work in this subtask will provide additional engineering analysis that may be included in the backup documentation of the refined AA process, or in response to technical questions raised during risk assessment, design, and environmental reviews, or as part of cost and constructability assessments. Anticipated work in this subtask includes up to 15 focused studies to evaluate potential changes to the project's common ground alignment. In addition, these studies will advance engineering to reduce/minimize project risks and/or support cost determinations. These mini studies will be conducted at the

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## SCOPE OF WORK (continued)

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direction of UTA/UDOT. The Consultant will maintain a tracking list of the status of studies, including the definition of each study as directed by UTA/UDOT, deliverable assumptions for each study, and schedule and effort assumptions. Topics will include the following:

- Travel demand modeling related to a FrontRunner station at the Point.
- Existing ROW mapping by surveyors.
- Up to 5,000 feet of Quality Level B utility mapping.
- Up to 3,000 feet of Quality Level C utility mapping.
- Up to 15 Test Holes.
- Advanced structural considerations.
- Up to 6 iterations of providing project executive leadership frameworks of

Additional Topics may include:

- Identifying potential opportunities for single tracking of certain major structures while ensuring that planned frequencies can be reliably operated.
- Blue Line extension consideration with potential project costs.
- Or other variations/defections from the common ground segment.

### Assumptions

- The Consultant shall maintain a tracking list of studies.

The Consultant shall provide written definition to UTA of study assumptions, level of effort and schedule prior to beginning work on the study.

### Subtask 2.6 Operations and Maintenance Base Analysis

Subtask 2.6.1 Conceptual Operations Plan and Operation and Maintenance Base Siting Requirements for Bus Rapid Transit and Subtask 2.6.2 Base Alternative Screening and Concept Design for Bus Rapid Transit were completed as part of Amendment 5.

### Subtask 2.6.3 Rail Conceptual Operations Plan and Operation and Maintenance Base Siting Considerations

New scope, no new fee.

This is a new subtask to support the development of rail alternatives with a base definition of the rail operations and maintenance facilities. UTA has identified preferred and minimum options for the rail operating scenarios and their facilities. Therefore, this task does not address a review of various other siting options for rail.

The Consultant shall support UTA in defining the preferred and minimum maintenance and operations (O&M) facility requirements for meeting the project's rail operating requirements. The team will consider four types of rail and the associated O&M:

- Stand-alone DMU not compliant with FRA regulations and incompatible with FrontRunner,
- Federal Railroad Administration (FRA) compliant DMU (compatible with FrontRunner),

## SCOPE OF WORK (continued)

- Stand-alone EMU not compliant with FRA regulations and incompatible with FrontRunner, and
- Light rail not compliant with FRA regulations but consistent with the existing UTA TRAX network.

Each rail technology will require a plan for operations and maintenance. The Consultant will assess the location and site development feasibility assessment for a facility within the developed parameters of a preferred scenario and a minimum acceptable scenario. For BRT, the team will utilize the information produced in Subtask 2.6.1 and Subtask 2.6.2 for the preferred operation BRT scenario, and will utilize the existing bus operations facility for the minimum operating scenario.

At a conceptual level, the Consultant shall assist UTA in developing and confirming the following:

- Identification of additional fleet needs to operate the Point of the Mountain Project, including standby (“protect”) vehicle and spares.
- Practical travel times in each direction for each station pair, consistent with the signaling system appropriate to the rail technology, to support revised alternatives analysis in Task 9.
- With support from UTA operations staff, general concepts to estimate maintenance base size and functional requirements for light rail – including a preferred scenario and a minimum acceptable scenario.
- With support from UTA operations staff, definition of maintenance base size and functional requirements for stand-alone DMU and for stand-alone EMU– including a preferred scenario and a minimum acceptable scenario.
- With support from UTA operations staff, definition of maintenance base size and functional requirements for integrated DMU including a high-level assessment of whether long-term maintenance and overhaul type work can be accommodated at the existing FrontRunner Warm Springs facility (if so, only a minimum acceptable scenario on the alignment will be advanced).
- With support from UTA operations staff, use information developed in Subtask 2.6.1 and Subtask 2.6.2 for BRT to define a preferred scenario and a minimum acceptable scenario.
- Review of operator facility/comfort requirements at terminal stations with UTA operations staff for each of the two rail alternative alignments. Work with UTA to determine annual operations and maintenance costs to be included in the revised alternatives analysis for all options.
- Travel time implications due to FRA Positive Train Control requirements if the Point of the Mountain alignment is connected to the national rail network via FrontRunner.

### O&M Facility Requirements Analysis

- Work with UTA and Consultant Team staff to characterize the functional requirements and staffing for a “preferred” LRT facility and a “minimum acceptable” LRT facility.
- Provide general assumptions to assist UTA to determine conceptual feasibility of the general modifications/expansions required at the existing FrontRunner Warm Springs Vehicle Maintenance Facility to support maintenance and inspection of the integrated DMU fleet.
- Work with UTA and Consultant Team staff to characterize the functional requirements and staffing for a “preferred” XMU facility and a “minimum acceptable” XMU facility with distinctions depending on EMU or DMU sub-alternatives and whether the XMU alignment is physically connected to FrontRunner or not
- Work with UTA and Consultant Team staff to characterize the functional requirements and staffing for a “preferred” BRT facility and a “minimum acceptable” BRT facility.

## SCOPE OF WORK (continued)

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- Develop concept-level prototype building and site layouts of the preferred/minimum facilities for LRT and XMU, based upon the defined parameters (vehicle size, fleet size, staffing, functional requirements) with yard track concept design performed by Consultant.
- Prepare concept-level capital cost estimates for the seven to eight prototype facilities for rail.
- Prepare concept-level capital cost estimate for the Bluffdale BRT facility.
- Contribute to the technical memorandum: Conceptual Operations Plan and OMF Siting Considerations.

### Assumptions

- Up to four meetings with UTA Operations (light rail and commuter rail) to determine preferred scenario and minimum operating scenario.
- Rail O&M facility will be located within rail corridor or will utilize existing UTA-owned property.
- Bus Rapid Transit O&M facility will be located at the Bluffdale site, as previously located in Subtask 2.6.2
- Annual O&M generated by UTA staff to be reviewed by the Consultant and compared to its own estimates.
- Assessments of train scheduling compatibility with current or future FrontRunner operations, or details of the feasibility of maintenance and operations utilizing an existing UTA rail base would be completed by UTA or others; the analysis covered by Amendment 6 is limited to describing the characteristics for an FRA-compliant vehicle for the Point of Mountain line to access the FrontRunner tracks.

### Exclusions

The following work will not be included within the scope of work:

- Developing concept designs and capital cost estimates for modifying a portion of the existing UTA Warm Springs FrontRunner Maintenance Facility to support maintenance of DMU vehicles there.
- Evaluating the feasibility of using other UTA facilities for specialized work (e.g., wheel truing, paint/body, truck shop, overhaul).
- Identification, evaluation, and screening of potential sites for a rail maintenance facility.

### Deliverables

- Final Technical Memorandum: Conceptual Operations Plan and Operation and Maintenance Base Siting Considerations for Rail.
- Additional fleet requirements and cost, to support Subtask 2.5B Cost Validation.
- Travel times for XMU (three sub-alternatives), LRT, BRT, and backup documentation to support Task 9 and, when coupled with peak service frequency and spare margin assumptions, future fleet requirements.
- Draft and Final conceptual plan/profile sheets to define project footprint and general facility characteristics to support environmental review.
- Capital costs for preferred/minimum operating scenarios to be included in Subtask 2.5B Cost Validation.
- Annualized O&M costs of LRT and the three XMU sub-alternatives to support Task 9.

- PowerPoint presentations and meeting minutes to support O&M-focused meetings.

### Subtask 2.7. Mode Review

This task is to respond to third-party interests and subsequent inquiries requesting further detail regarding rail and rail technology. It includes a review of evaluation criteria applied in Stage 1 (namely, cost and influence on engineering considerations) will be considered, as well as other factors used in the Transit Study (Stage 1). The mode evaluation covers the development of documents and presentation covering factors that influenced mode choice as part of the Transit Study (Stage 1) and coordinate with project partners on this updated mode information. This subtask was funded with a modification to the Environmental Scope noted in Task 3.

#### Subtask 2.7.1 Rail Alternatives Design Approach Review

Subtask 2.7.1 includes the following activities to confirm standards governing rail design development and potential standards and guidelines to be used in developing and evaluating rail alternatives. It includes two workshops:

- *Lehi and Draper Rail Options Workshop to review and provide feedback on rail option development connecting to the FrontRunner stations in Lehi and Draper:*
  - Assume one workshop:
    - Stakeholders: UTA (capital development, planning, light rail operations), Draper, Lehi, Mountainland Association of Governments (MAG), and UDOT.
- *Design and operating standards, including grades, turn radii, platform size and operating requirements:*
  - Assume one workshop:
    - Stakeholders: UTA (capital development, planning, light rail/commuter rail operations), Draper, MAG, and UDOT

#### Deliverables

- Materials for workshops including agenda, summary meeting notes, and supporting documents.

#### Subtask 2.7.2 Rail Engineering and Cost Estimating

This new subtask defines a conceptual alternative for rail alternatives in the Point of the Mountain “Common Ground Segment.” Following a similar alignment as the BRT concept, the Consultant will make modifications to accommodate the geometric and system requirements of rail. The rail alternatives will include an FRA-compliant multiple-unit vehicle that follow similar design standards as a light rail vehicle, initially using UTA’s Light Rail Design Criteria for design guidance but also considering publicly available design standards for FRA-compliant rail vehicles. There are three main areas to re-evaluate:

##### *FrontRunner Draper to Bangerter Highway:*

- Modifications to horizontal alignment and vertical profile.
- Updates to station locations based on horizontal/vertical modifications.
- Updates to design speeds based on revised horizontal curvature.
- Updates to vertical profile to accommodate extra structure depth.

SCOPE OF WORK (continued)

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- Evaluation of under/over existing railroad tracks.
- Concepts for POM transfers or stations and amenities at existing FrontRunner stations.

*Bangerter Highway to SR-92:*

- Modifications to alignment to account for minimum horizontal curvature.
- Modification to vertical profile design and structural limits based minimum/maximum vertical grade for rail.
- Revised structural depths based on light rail criteria.
- Updates to station locations based on horizontal/vertical modifications.
- Updates to design speeds based on revised curvature vertical profile to accommodate.

*SR-92 to FrontRunner Lehi:*

- *Revisions based on termini point determined above:*
  - Modifications to horizontal alignment and vertical profile.
  - Updates to station locations based on horizontal/vertical modifications.
  - Updates to design speeds based on revised curvature vertical profile to accommodate.
  - Specific to FrontRunner Lehi termini:
    - Evaluation of crossing I-15 with a new structure.
    - Access into FrontRunner Lehi station.
    - Reconfiguration of existing station and amenities.
    - Consideration for interlining with existing FrontRunner tracks (similar to FrontRunner Draper above).

*Other engineering considerations, operational constraints, and factors to be developed and documented:*

- A conceptual Operations and Maintenance (O&M) scenario based on DMU/EMU and development of O&M costs.
- Updates to travel times based on engineering revisions.
- ROM Cost Estimate:
  - Revised format to follow SCC codes for tracking purposes.
  - Updated rail ROM costs adapting ROM costs previously developed for BRT.
  - Escalated to future year to align with projected schedule.

**Assumptions**

- Conceptual designs and ROM cost estimates will be developed primarily for mode comparison purposes and would not produce formal plan sets or involve the same levels of iterative QA/QC processes, or UTA and agency reviews as assumed in BRT conceptual engineering.
- Parametrix will utilize the UTA Light Rail Design Criteria for design guidance.
- Information on considerations for interlining at FrontRunner stations will be provided by UTA staff.

## SCOPE OF WORK (continued)

- No additional survey information will be obtained for the purpose of the evaluation.

**Deliverables**

- Rail and BRT high level concept roll plots.
- Updated ROM cost estimate for rail and BRT.
- O&M Considerations Memorandum.

**Subtask 2.7.3 Mode Re-Evaluation**

This new task addresses written direction from UTA to summarize and present factors previously considered in a comparison of rail modes to BRT, and includes additional presentations and responses to requests for information. The additional comparative evaluation of rail and BRT modes applies similar criteria used in the POM Transit Study Level 2 analysis (Stage 1). The efforts focus on criteria that showed differentiation in the POM Transit Study Level 2 analysis (Stage 1). Evaluation criteria for this re-evaluation include (key criteria in bold):

- **Ridership:**
  - Using Wasatch Front Regional Council (WFRC)/MAG model for 2030 and 2050 forecast years
- **Cost Considerations**
- **Timing and Implementation Considerations**
- **Funding Considerations** – This is a new criterion not evaluated in the transit study. This criterion will discuss relevant funding considerations based on project cost, ridership, and mode.
- **Operational Factors/Considerations:**
  - O&M Cost Considerations.
  - Constructability Considerations.
  - Transit Speed and Reliability.
  - Ability to serve desired station locations – This criterion was not explicitly evaluated in the transit study, but considers the ability to serve the desired station locations along the corridor.
  - Potential built environmental effects.
  - Potential natural environmental effects.

**Deliverables**

- Presentations and Background documents for UTA to support communications with legislators and others.
- Development of a consolidated set of past presentations for the administrative record and project files and for reference in the documentation developed for Task 9 Alternatives Analysis.

**Subtask 2.7.4 Topic Series and Project Reframing**

This subtask involves developing a planning framework and revised project approach and schedule to meet the intent of HB322 (2022 legislative session) requiring an alternatives analysis for rail alternatives along with BRT. It includes a framework to support project decision making for mode, further summaries, and presentations with UTA and UDOT to review previous products and findings. It also includes developing details of the approach,

schedule, process, and information needs to comply with HB322. The efforts include coordination with UDOT as a project lead, with an anticipated 12-week Topic Series of meetings to cover the history of the project and plans for moving the project forward for the AA and the entry into environmental and project development phases.

### Deliverables

- Topic Series meeting materials and agendas, including PDFs of Conceptboard materials.
- Recorded videos of topic series meetings.
- One-page memorandum for truncated version of project framework plan.
- Updated baseline schedules for project delivery.
- Comparative schedules for sequential delivery of Alternatives Analysis.

### Task 3 – Environmental Analysis and Documentation

The Environmental Analysis and Documentation task is designed to support a State Environmental Study Report as well as to assist in meeting the requirements for federal funding. Amendment 6 expands the range of alternatives to cover BRT and two rail modal alternatives and allowing up to five options for length/terminus variations, maintenance sites or localized alignment section variations.

#### Subtask 3.1 Environmental Task Management

Additional task management associated with additional alternatives.

#### Subtask 3.2 Agency Coordination

Additional agency coordination associated with additional alternatives.

#### Subtask 3.3 National Environmental Policy Act (NEPA) Analysis and Documentation

*This task is for addition of alternatives to be covered.*

This amendment confirms the assumption that the additional Alternatives Analysis and detailed cost, implementation, or funding information will be incorporated by reference rather than included in the environmental document.

At UTA's written direction in fall 2021, budget resources to complete rounds of review beyond UTA's initial review were redirected to Subtask 2.7.3 to provide additional mode review and other support for UTA's legislative engagement in 2021 and 2022. This amendment restores funding needed to allow the completion of the environmental review.

#### Subtask 3.4 Supplemental Environmental Analysis or Expanded Documentation

*No new scope or budget, clarification only*

Funding resources for this supplemental analysis task would be based on direction from UTA and with additional funding, because the original task budget is now to be utilized to address the addition of rail alternatives to the environmental document.

## Task 4 – Communications and Outreach

### Subtask 4.1 Agency, Stakeholder and Public Outreach

This task remains focused on outreach related to the environmental review and providing support to UTA staff conducting outreach. In addition to developing technical content for public meetings (covered under previous scope), the consultant team will also lead the development of public meeting outreach and strategy, including development of a public meeting plan for each meeting and execution of said plan. This will likely include creating and providing social media updates, developing website updates, coordinating meeting logistics, and executing online and in-person public meetings. Additional communication and outreach that is necessary for the new Task 9 Alternatives Analysis is excluded from Task 4 and is included as a subtask in Task 9.

Prior to Amendment 6, UTA provided written direction to the Consultant for services to support Subtask 2.7 Mode Review, including staff coordination, materials, and content to aid in discussions with Utah state legislators.

### Subtask 4.2 Communications

*No changes to this scope of work.*

## Task 5 – Traffic and Transportation Analysis

### Subtask 5.1 Data Collection and Internal Refinement Concept Evaluation

*No changes to this scope of work.*

### Subtask 5.2 Traffic Modeling

*Re-aligned scope, no new fee.*

To support the additional rail alternatives, VISSIM transportation models will be developed and run for the following conditions at Bangerter Highway crossing in Draper, I-15 Crossing in Draper, South Triumph Station access to Triumph Boulevard, with an allowance for up to four additional locations affecting an intersecting street or facility, based on agency coordination and methods development.

With the addition of rail alternatives, the scope assumes that in most locations, traffic modeling for the project would not vary substantially by modal alternative or in analysis of traffic for the environmental document. The documentation for this task will describe the project's basis for predicting conservative assumptions for traffic performance; i.e., the alternative with the highest levels of delay and the least reduction of traffic in a given location/area would be the basis for identifying impacts and potential mitigation, compared to a No Build. If a given location is relatively close to an impact or operational threshold requiring mitigation for a given alternative, the allowance for analyzing additional locations may be used to further assess mitigation needs.

To support air quality analysis, detailed traffic analysis at the two most congested intersections will be conducted for additional modes. Delay and queueing output measures will be provided to feed into air quality models.

### Subtask 5.3 Travel Demand Modeling

This subtask will include ridership forecasting and modeling coordination with WFRC, MAG, UTA, and UDOT as applicable to support Alternatives Analysis and an assessment of the potential for the Project to pursue.

## SCOPE OF WORK (continued)

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Model runs will be provided for current year and 2050 (or the future year determined by UTA, which may include consideration of grant requirements) using the WFRC/MAG Travel Demand Model and the FTA Simplified Trips on Project Software (STOPS) model currently developed by UTA for use on other projects.

The WFRC/MAG model version that will be used for this work will be determined in coordination with WFRC/MAG and the project team. Underlying highway and transit network assumptions will be developed for both No Build and Build conditions for alternatives that will be run through the model. Up to six meetings with UTA, UDOT, WFRC/MAG will be assumed for coordination and to document the assumptions, including transportation project assumptions, and up to 80 hours would be available for model updates or refinements for either the STOPS model or the WFRC model. The initial model would be developed assuming the BRT alternative, and up to three sensitivity tests would be run to evaluate rail alternatives and other factors that may influence the model, including free fare, parking restrictions, or other transit network improvements such as increased frequency on FrontRunner and adjustment in local transit to feed to the FrontRunner project.

Scope items related to multiple runs for a Preferred Alternative to meet the requirements for a potential federal Capital Investment Grant (CIG) are no longer included, and instead, a series of sensitivity tests will be performed, in conjunction with a revised Task 6.

### Subtasks 5.4 Technical Memorandum

This task is amended to include rail alternatives in a Transportation Technical Memorandum analyzing the effects of the project Build alternatives and No Build conditions. The impacts of individual alternatives will be identified in the environmental document but assumes in most locations, they would share a common operating condition and have similar technical basis for determining their relative potential impacts compared to No Build. The two rail alternatives would not involve detailed analysis of differences in modal performance unless such differences would materially affect operating conditions, traffic impacts, or mitigation.

### Subtask 5.5 Transportation Section of Environmental Document

*No changes to this scope of work.*

## Task 6 – Funding, Implementation, and Operations

### Subtask 6.1 Project Development Planning

*Re-aligned scope, no new fee.*

This subtask has been refined to support the Alternatives Analysis to provide UTA and UDOT with an assessment of how the current Point of the Mountain project would rate within the various FTA CIG Programs and in other federal aid programs appropriate for transit capital projects, as well as recommendations, when needed, about how individual rating criteria could be improved in order to make the project more competitive for federal funding.

The task is modified to support UTA and UDOT decisions regarding the Project's potential for FTA CIG funding and related threshold requirements, using a representative alternative to represent the cost and benefits of the fixed guideway project. The Task 6 scope assumes that the Subtask 5.3 Travel Demand Modeling would provide supporting forecast information, with the regional model used as the initial basis for comparisons, in part to allow comparisons between modal alternatives and to evaluate project scenarios to test in Subtask 5.3, including fare free, network redesign, etc., or modifications to the Project's length and scope. The STOPS model currently being

## SCOPE OF WORK (continued)

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applied by UTA for the FrontRunner program and for other projects would also be exercised for comparison purposes, but as noted in Subtask 5.3, additional modifications or development to the model would be limited to 80 hours of effort, including coordination with and review by others.

### Deliverables

- Snapshot of a representative project (assuming the BRT alternative as a basis) FTA CIG ratings well as recommendations, as needed, for how rating could be improved.
- Memorandum discussing test scenarios applying regional travel demand model and STOPS to evaluate potential measures and modifications to improve CIG ratings.
- High-level CIG milestone schedule with durations and key inputs (e.g., information, funding requirements, etc.).
- Draft rating and draft timelines for BRT as a representative fixed guideway alternative in the lower range of overall project costs.
- Projections for draft ratings and draft timelines for rail alternatives.
- Draft rating templates for 2-3 scenarios

### Subtask 6.2 Funding and Implementation Strategy

*Re-aligned scope, limited new fee for Zions Bank, no new fee for Parametrix.*

An initial conceptual funding and Implementation Strategy will be developed to support Task 9 alternatives analysis and to inform potential future decisions regarding the scale/affordability of the project and its implementation timeline. This plan will identify up to eight categories of current federal and local funding sources (including existing sources, new revenue options, potential legislative efforts, etc.), expected revenues (from ridership/fare collection, increases in property tax, and other revenue streams), and implementation strategies, a draft timeline for project delivery or phasing, and the timing/windows for various funding sources. A comparative summary of funding and implementation opportunities and constraints by modal alternative will be included. This task assumes up to three workshops with UTA staff and others as part of the development of potential public and potentially private funding sources. For each potential funding source identified, the analysis will characterize the funding potentially available, the timing and general requirements, and a comparison between modes.

### Deliverables

- Draft and Final Funding and Implementation Strategy Memorandum (including interim materials to support workshops with UTA and others).

### Subtask 6.3 Operations Planning

This subtask's products and budget is removed, due to duplication with new tasks.

## Task 9 – Rail and Bus Rapid Transit Alternatives Analysis (Level 3 Analysis)

### Subtask 9.1 Revised Alternatives Analysis (Level 3 Analysis)

The Consultant will provide a Revised Alternatives Analysis (Revised AA) report with an additional section designed to meet the intent of HB322 (2022 legislative session) and guide project decision making regarding mode and implementation. The intent of the Revised AA is to update and re-evaluate previous evaluation criteria

## SCOPE OF WORK (continued)

and refine based on updated design and new information that has been brought to bear. In addition, new criteria will also be explored. This task will report document work conducted primarily in other tasks, with exceptions as noted. These criteria, which would be confirmed with UTA/UDOT and project stakeholders, are anticipated to include:

Criteria	Scope Assumptions
Capital Costs	<ul style="list-style-type: none"> <li>Capital cost development, including for operations and maintenance (O&amp;M) facilities is included in Subtask 2.5 and Subtask 2.6.</li> <li>Capital cost validation/third-party review is included in Subtask 9.2. This effort will include support on cost validation, facilitating workshops with client and partners, and documenting findings as a separate deliverable.</li> </ul>
Operational Costs and Considerations	<ul style="list-style-type: none"> <li>Capital O&amp;M facility costs for bus rapid transit (BRT) and rail options will be developed under Subtask 2.6.</li> <li>Annual operating costs will be developed under Subtask 2.6.</li> <li>Additional qualitative information on operating considerations/challenges/opportunities will be included in this criteria such as: seating capacity, energy efficiency, regulatory requirements for Federal Railroad Administration (FRA)-compliant/non-compliant rail.</li> </ul>
Ridership	<ul style="list-style-type: none"> <li>Ridership will be developed as described in Subtask 5.3 and will include both opening year and 2050.</li> </ul>
Local Plan Compatibility	<ul style="list-style-type: none"> <li>This criterion has been evaluated previously under Subtask 2.7 and will be evaluated and expanded upon as needed.</li> </ul>
Economic Development	<p>Explore market conditions in the study area and consider benefits to economic development. Information will expand upon Stage 1 work. Deliverables will include a white paper to provide information on economic development specific to the project, with up to 2 roundtable discussions with project partners.</p>
Timing, Funding, and Implementation Considerations (including phasing/cost reduction options)	<ul style="list-style-type: none"> <li>Funding and implementation findings will be described based on work conducted under Subtask 6.1 and Subtask 6.2.</li> <li>Estimates on timing of revenue service will be expanded upon from previous mode review work (Subtask 2.7 and previous Transit Study).</li> <li>Phasing and cost reduction options for each alternative will be described (new analysis). A memorandum will be produced summarizing the potential options and implications of each.</li> </ul>
Regional Connection Considerations	<ul style="list-style-type: none"> <li>This criteria will describe connections to regional transit facilities, including FrontRunner and Central Corridor Transit Study</li> </ul>
Comparative Risk and Constructability Considerations	<ul style="list-style-type: none"> <li>If available, additional information will be provided on constructability considerations produced for Subtask 1.5, or by a high-level draft review of the risk assessment categories identified by Federal Transit Administration (FTA) as part of its Capital Improvement Grant (CIG) funding program.</li> </ul>
Potential Environmental Effects (Built and Natural)	<ul style="list-style-type: none"> <li>Based on environmental review happening concurrently in Task 3, updated environmental effects will be discussed in greater detail than previously provided.</li> </ul>
Travel Time and Percentage Exclusive	<ul style="list-style-type: none"> <li>Updated travel times and exclusivity information will be prepared.</li> </ul>

## Deliverables

- Draft and Revised Draft, and Final Alternatives Analysis Report (with Executive Summary for Decision Makers).
- Up to eight draft and final summary presentations of findings to support briefings to stakeholders and UTA/UDOT.

### Subtask 9.2 Coordination with Industry

Industry refers to rail vehicle manufacturers, rail systems suppliers, other transit agencies, consultants, industry experts, local business interest groups etc.

The Consultant will work with the industry, as directed by UTA/UDOT. Work may include the following:

- Preparation for Request for Information (RFI) on rail technology, “Buy America” compliance, FRA traditional and/or alternative crash worthiness regulatory compliance and/or costs, including identification of rail vehicle manufacturers capable of supplying suitable LRT, DMU or EMU vehicles
- Outreach to other transit agencies on their experience with XMU rail technologies, including better understanding distinctions between DMU and EMU performance, maximum practical effective grades, and approach to crash worthiness regulatory compliance.
- Coordination with local businesses.

Work not to exceed 700 hours.

#### Deliverables

- Chapter to be included within the report for Subtask 9.1 on proven rail technology.

### Subtask 9.3 Coordination with Agencies

**To support Subtask 9.1**, Consultant will support UTA in preparing materials and content to aid in discussions with UDOT. **This is new scope not covered in Change Order 5.** This will include strategy discussions, material development, and coordination with UTA in support of each meeting. This work will include up to five meetings at the following Revised AA points:

- Revised AA Workshops (summer 2022)
- Fall check-in (fall 2022)
- Draft recommendation (January 2023)
- Final recommendation (March 2023)
- One additional meeting, as needed
- Up to three informal UDOT leadership briefings, as needed

**Facilitation of the existing Technical Advisory Committee (TAC)/Steering Committee** to provide project information updates. This is included in scope above; no new activities are proposed.

#### Assumptions

- Up to two Consultant staff may be requested to attend meetings and/or debriefs.

#### Deliverables

- Materials (Word documents, PowerPoint presentations, etc.) to support each meeting.
- Supporting Docs: Rail/BRT Refinements Process Memorandum to be included in the Revised Alternatives Analysis.

## Subtask 9.4 Coordination with POMSLA

This subtask is to provide resources to support Subtask 9.1 in the Alternatives Analysis as well as the depiction of the Point as a concurrent but separate project discussed in the Environmental Assessment. The Consultant will work closely with POMSLA and their incoming developers to maintain compatibility between the Point's development plans and the modal and alignment alternatives being considered for the transit project. This work will include coordination with POMSLA on the definition and evaluation of the core transit alternatives and up to three subalignment variations. It will also include updates to the development timing and potential implementation of the project in conjunction with POMSLA and a review of evaluation criteria, cost estimates, transportation effects and other environmental findings. Assumes bi-weekly (every two weeks) coordination meetings through the completion of the Alternatives Analysis and the FTA Draft of the Environmental Assessment (approximately February 2023).

Work not to exceed 250 hours.

### Assumptions

- Up to two Consultant staff attending bi-weekly (every two weeks) meetings and/or briefing meetings.

### Deliverables

- Materials (Word documents, PowerPoint presentations, etc.) to support each meeting.
- Meeting notes and action items.
- Alternatives Analysis chapter or appendix summarizing POMSLA coordination and alternatives considered as part of this ongoing coordination.

Not-to-Exceed Amounts: All amounts for both labor hours and cost/price shown in the Budget – Attachment B are not-to-exceed (NTE) amounts. The Consultant will be reimbursed for hours and costs incurred up to the NTE amount provided milestone deliverables are provided in a satisfactory manner and claimed costs are allowable.

Invoicing and Payments: Consultant may invoice on a monthly basis for verifiable and allowable hours and costs expended during the preceding month provided that associated deliverables which are due have been delivered in accordance with the Project Schedule contained in Schedule – Attachment C and are acceptable to UTA.

## GENERAL ASSUMPTIONS

- Content highlighted in yellow will be redacted in the version of this contract that will be published in the UTA board meeting minutes
- Parametrix rates are determined based on an overhead rate of [REDACTED] % and an additional fee of [REDACTED] %
  - Parametrix will submit prime staff additions for rate approvals prior to submitting invoices that include the associated staff labor hours.
  - Parametrix will annually submit rate change approval requests for prime staff according to staff labor rate changes
  - Parametrix will manage subconsultant fees and rates consistent with industry best practices and consistent with prime agreement with UTA. Parametrix will seek rate approvals of subconsultants from UTA in unique circumstances according to their judgement.
  - Contract rates will not be adjusted according to changes in annual firm overhead rates.

- Parametrix elects to cap most senior Parametrix staff rates to a maximum of [REDACTED], to be adjusted annually for inflation. Specialized personnel may be approved at higher rates with the approval of the UTA Project Manager.
- Key personnel as shown in Exhibit B. When replacement staff for key personnel are proposed, revised, replacements are subject to UTA's approval. Replacement key personnel qualifications will be submitted to UTA for approval prior to submitting invoices that include the associated staff labor hours in that role.
- Parametrix may subcontract for scope as approved in writing by UTA.
- Parametrix may re-allocate subtask budgets within a task without UTA's approval. Re-allocation of budgets between tasks and subconsultants requires UTA's approval in writing.
- Alternatives Analysis chapter or appendix summarizing POMSLA coordination and alternatives considered as part of this ongoing coordination.
- Any direct expenses not shown in the contract will be approved in writing in advance of travel by UTA.

## Point of the Mountain Amendment 6 Estimate Summary

Cost Needed to Complete

### Labor Summary

Task	Hours	Subtotal with Reallocations
1. Project Management	860	\$ 200,136.80
2. Concept Refinement and Conceptual Engineering	2682	\$ 510,309.20
3. Environmental Analysis and Documentation	325	\$ 37,071.20
4. Communications and Outreach	204	\$ 25,329.74
5. Traffic and Transportation Analysis	196	\$ 34,438.56
6. Funding, Implementation, and Operations	24	\$ 4,900.00
9. Rail and Bus Rapid Transit Alternatives Analysis	1924	\$ 377,059.72
<b>Total Labor</b>	<b>6215</b>	<b>\$ 1,189,245.22</b>
<b>Total Direct Expenses</b>		<b>\$ 3,800.00</b>
<b>Stage 2 Total</b>		<b>\$ 1,193,045.22</b>



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**Point of the Mountain Transit Study Budget Reallocation by Task  
Contract 19-03038TP**

<b>Task</b>	<b>Amendment 6 Budget Ask</b>
<b>1. Project Management</b>	<b>\$200,136.80</b>
Subtask 1.1	\$0.00
Subtask 1.2	\$0.00
Subtask 1.3	\$0.00
Subtask 1.4	\$0.00
Subtask 1.5	\$0.00
Subtask 1.6	\$0.00
<i>NEW Subtask 1.7</i>	\$200,136.80
<b>2. Concept Refinements and Conceptual Engineering</b>	<b>\$510,309.20</b>
Subtask 2.1	\$0.00
Subtask 2.2	\$0.00
Subtask 2.3	\$0.00
Subtask 2.4	\$0.00
Subtask 2.5	\$30,945.04
<i>NEW Subtask 2.5a</i>	\$25,352.12
<i>NEW Subtask 2.5b</i>	\$26,978.12
<i>NEW Subtask 2.5c</i>	\$150,665.76
Subtask 2.6	\$0.00
<i>NEW Subtask 2.7</i>	\$157,768.16
<i>CR</i>	\$0.00
<i>CSA</i>	\$0.00
<i>IT</i>	\$0.00
<i>KR</i>	\$118,600.00
<i>OT</i>	\$0.00
<i>TER</i>	\$0.00
<i>HOR</i>	\$0.00
<i>LTK</i>	\$0.00
<b>3. Environmental Analysis and Documentation</b>	<b>\$37,071.20</b>
Subtask 3.1	\$0.00
Subtask 3.2	\$9,820.40
Subtask 3.3	\$6,855.04
Subtask 3.4	\$0.00
Subtask 3.5	\$20,395.76
<i>CR</i>	\$0.00
<i>CSA</i>	\$0.00

<b>4. Communications and Outreach</b>	<b>\$25,329.74</b>
Subtask 4.1	\$0.00
NEW Subtask 4.1A	\$0.00
Subtask 4.2	\$0.00
HOR	\$25,329.74
<b>5. Traffic and Transportation</b>	<b>\$34,438.56</b>
Subtask 5.1	\$0.00
Subtask 5.2	\$0.00
Subtask 5.3	\$20,809.76
Subtask 5.4	\$13,628.80
Subtask 5.5	\$0.00
<b>6. Funding, Implementation and Operations</b>	<b>\$4,900.00</b>
Subtask 6.1	\$0.00
Subtask 6.2	\$0.00
Subtask 6.3	\$0.00
ZF	\$4,900.00
<b>9. Rail and Bus Rapid Transit Alternative Analysis</b>	<b>\$377,059.72</b>
NEW Subtask 9.1	\$90,501.08
NEW Subtask 9.2	\$16,092.72
NEW Subtask 9.3	\$16,092.72
NEW Subtask 9.4	\$16,092.72
HOR	\$198,360.48
LTK	\$39,920.00
<b>EXP2. Direct Expenses</b>	<b>\$3,800.00</b>
PMX	\$0.00
CR	\$0.00
CSA	\$0.00
LTK	\$2,800.00
Horrocks	\$1,000.00
L2	\$0.00
AG	\$0.00
MER	\$0.00
<b>ESC. Escalation</b>	<b>\$0.00</b>
<b>Totals</b>	<b>\$1,193,045.22</b>

Parametrix											
Daryl Wendle	Morgan Stumpf	Adrianna Stanley	Cori Klein	Adam Birdsall	Matt Deml	Brad Phillips/Sr. Consultant	Greg Brink	Sam Daleo	Sam Erickson	Jennifer Valentine	Amanda Lucas
Principal in Charge**	Project Manager**	Design Lead**	Engineer III	Structural Lead	Senior Consultant	Senior Consultant	Risk Management	Engineering QA/QC**	BRT Operations	Funding and Operations Lead**	Technical Editor
\$283.00	\$217.78	\$187.56	\$106.26	\$191.86	\$283.00	\$283.00	\$410.60	\$215.91	\$186.79	\$179.56	\$124.71

Project Role  
Key personnel denoted with \*\*

Approved loaded bill rate

Task No./WBS Key	Parametrix Activity	Labor Dollars	Labor Hours	Daryl Wendle	Morgan Stumpf	Adrianna Stanley	Cori Klein	Adam Birdsall	Matt Deml	Brad Phillips/Sr. Consultant	Greg Brink	Sam Daleo	Sam Erickson	Jennifer Valentine	Amanda Lucas
1	Stage 1														
21 (Phase 2 Task 1)	Project Management	\$200,136.80	860	20	400	200	0	0	0	80	80	0	0	80	0
Subtask 1.1	Project Management Activities	\$0.00	0												
Subtask 1.2	Team Meetings	\$0.00	0												
Subtask 1.3	Project Management Plan	\$0.00	0												
Subtask 1.4	Quality Management Plan	\$0.00	0												
Subtask 1.5	Risk Assessment	\$0.00	0												
Subtask 1.6	Maintain Administrative Record	\$0.00	0												
NEW Subtask 1.7	NEW Owner Directed Reserves	\$200,136.80	860	20	400	200				80	80			80	
22 (Phase 2 Task 2)	Concept Refinement and Conceptual Engineering	\$391,709.20	2090	20	380	400	470	124	62	104	0	64	20	130	76
Subtask 2.1	Engineering Task Management	\$7,985.08	38		12	18				4		4			
Subtask 2.2	Agency/Stakeholder Coordination	\$0.00	0												
Subtask 2.3	Survey Base Mapping	\$0.00	0												
Subtask 2.4	Preferred Alternative Refinements and Screening	\$0.00	0												
Subtask 2.5	Conceptual Engineering	\$27,702.32	168		32	52	60	24							
NEW Subtask 2.5a	Cost Validation Preparation	\$22,605.40	152		16	30	50	12	4						
NEW Subtask 2.5b	Cost Validation	\$24,982.48	116		40			8	8	20		20			20
NEW Subtask 2.5c	Advanced Engineering	\$150,665.76	776		120	200	200	40	40	40					16
Subtask 2.6	Operations and Maintenance Base Analysis	\$0.00	0												
NEW Subtask 2.7	NEW Mode Review/Alternative Analysis Framework	\$157,768.16	840	20	160	100	160	40	10	40		40	20	130	40
23 (Phase 2 Task 3)	Environmental Analysis and Documentation	\$54,557.80	325	28	0	16	0	0	0	0	0	0	0	0	0
Subtask 3.1	Environmental Task Management	\$17,486.60	83	22											
Subtask 3.2	Agency Coordination	\$9,620.40	50	6											
Subtask 3.3	NEPA Environmental Analysis and Documentation	\$6,855.04	44												
Subtask 3.4	Supplemental Environmental Analysis/Expanded Documentation	\$0.00	0												
Subtask 3.5	GIS, Graphics and Simulations	\$20,395.76	148			16									
24 (Phase 2 Task 4)	Communications and Outreach	\$0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtask 4.1	Agency, Stakeholder and Public Outreach	\$0.00	0												
NEW Subtask 4.1A	Legislative Subcommittee Presentation	\$0.00	0												
Subtask 4.2	Communications (4 Updates)	\$0.00	0												
25 (Phase 2 Task 5)	Traffic and Transportation Analysis	\$34,438.56	196	0	0	0	0	0	0	0	0	0	0	0	0
Subtask 5.1	Data Collection and Internal Refinement Concept Eval	\$0.00	0												
Subtask 5.2	Traffic Modeling	\$0.00	0												
Subtask 5.3	Travel Demand Modeling	\$20,809.76	116												
Subtask 5.4	Technical Memorandum	\$13,628.80	80												
Subtask 5.5	Transportation Section of Environmental Documentation	\$0.00	0												
26 (Phase 2 Task 6)	Funding, Implementation and Operations	\$0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtask 6.1	Project Development Planning	\$0.00	0												
Subtask 6.2	Funding and Implementation	\$0.00	0												
Subtask 6.3	Operations Planning	\$0.00	0												
29 (New Phase 2 Task 9)	Rail and Bus Rapid Transit Alternatives Analysis	\$138,779.24	744	16	208	196	64	0	0	0	0	0	0	240	0
NEW Subtask 9.1	Revised AA Level 3	\$90,501.08	504	16	100	64	64							240	
NEW Subtask 9.2	Coordination with Industry	\$16,092.72	80		36	44									
NEW Subtask 9.3	Coordination with Agencies	\$16,092.72	80		36	44									
NEW Subtask 9.4	Coordination with POMSLA	\$16,092.72	80		36	44									
EXP2	Expenses	\$0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
PMX	Parametrix														
MER	Meridian														
		\$819,621.60	4215	84	988	812	534	124	62	184	80	64	20	450	76

		\$819,838.36	4215	\$23,772.00	\$215,166.64	\$152,298.72	\$56,742.84	\$23,790.64	\$17,546.00	\$52,072.00	\$32,848.00	\$13,818.24	\$3,735.80	\$80,802.00	\$9,477.96
	Expenses														
	Total	\$819,838.36													

				Sarah Crackenberger	Ian Kilpatrick	Erin Ferguson	Claire Hoffman	Kaylee Moser	Charles Allen	Kelly Betteridge	Jennifer John	Heather McLaughlin-Kolb	Josh Ahmann	Chad Tinsley	Planner I	
				Project Controls/Project Accountant**	GIS Lead	Environmental Lead**	Ecosystems	Wetlands	Transportation and Traffic Lead**	Funding	Travel Demand Modeling	Communications Lead**	GIS Technician	GIS Technician	Environmental team support	
				Approved loaded bill rate	\$117.15	\$114.81	\$184.60	\$184.51	\$127.51	\$200.72	\$222.76	\$278.82	\$136.21	\$175.90	\$132.34	\$105.00
Task No./WBS Key	Parametrix Activity	Labor Dollars	Labor Hours													
1	Stage 1															
21 (Phase 2 Task 1)	Project Management	\$200,136.80	860	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtask 1.1	Project Management Activities	\$0.00	0													
Subtask 1.2	Team Meetings	\$0.00	0													
Subtask 1.3	Project Management Plan	\$0.00	0													
Subtask 1.4	Quality Management Plan	\$0.00	0													
Subtask 1.5	Risk Assessment	\$0.00	0													
Subtask 1.6	Maintain Administrative Record	\$0.00	0													
NEW Subtask 1.7	NEW Owner Directed Reserves	\$200,136.80	860													
22 (Phase 2 Task 2)	Concept Refinement and Conceptual Engineering	\$391,709.20	2090	0	0	0	0	0	40	0	160	0	0	20	20	
Subtask 2.1	Engineering Task Management	\$7,985.08	38													
Subtask 2.2	Agency/Stakeholder Coordination	\$0.00	0													
Subtask 2.3	Survey Base Mapping	\$0.00	0													
Subtask 2.4	Preferred Alternative Refinements and Screening	\$0.00	0													
Subtask 2.5	Conceptual Engineering	\$27,702.32	168													
NEW Subtask 2.5a	Cost Validation Preparation	\$22,605.40	152											20	20	
NEW Subtask 2.5b	Cost Validation	\$24,982.48	116													
NEW Subtask 2.5c	Advanced Engineering	\$150,665.76	776								120					
Subtask 2.6	Operations and Maintenance Base Analysis	\$0.00	0													
NEW Subtask 2.7	NEW Mode Review/Alternative Analysis Framework	\$157,768.16	840						40		40					
23 (Phase 2 Task 3)	Environmental Analysis and Documentation	\$54,557.80	325	0	40	137	0	0	0	0	0	0	0	104	0	
Subtask 3.1	Environmental Task Management	\$17,486.60	83			61										
Subtask 3.2	Agency Coordination	\$9,820.40	50			44										
Subtask 3.3	NEPA Environmental Analysis and Documentation	\$6,855.04	44			20								24		
Subtask 3.4	Supplemental Environmental Analysis/Expanded Documentation	\$0.00	0													
Subtask 3.5	GIS, Graphics and Simulations	\$20,395.76	148		40	12								80		
24 (Phase 2 Task 4)	Communications and Outreach	\$0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	
Subtask 4.1	Agency, Stakeholder and Public Outreach	\$0.00	0													
NEW Subtask 4.1A	Legislative Subcommittee Presentation	\$0.00	0													
Subtask 4.2	Communications (4 Updates)	\$0.00	0													
25 (Phase 2 Task 5)	Traffic and Transportation Analysis	\$34,438.56	196	0	0	0	0	0	88	20	0	0	0	0	0	
Subtask 5.1	Data Collection and Internal Refinement Concept Eval	\$0.00	0													
Subtask 5.2	Traffic Modeling	\$0.00	0													
Subtask 5.3	Travel Demand Modeling	\$20,809.76	116						48	20						
Subtask 5.4	Technical Memorandum	\$13,628.80	80						40							
Subtask 5.5	Transportation Section of Environmental Documentation	\$0.00	0													
26 (Phase 2 Task 6)	Funding, Implementation and Operations	\$0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	
Subtask 6.1	Project Development Planning	\$0.00	0													
Subtask 6.2	Funding and Implementation	\$0.00	0													
Subtask 6.3	Operations Planning	\$0.00	0													
29 (New Phase 2 Task 9)	Rail and Bus Rapid Transit Alternatives Analysis	\$138,779.24	744	0	20	0	0	0	0	0	0	0	0	0	0	
NEW Subtask 9.1	Revised AA Level 3	\$90,501.08	504		20											
NEW Subtask 9.2	Coordination with Industry	\$16,092.72	80													
NEW Subtask 9.3	Coordination with Agencies	\$16,092.72	80													
NEW Subtask 9.4	Coordination with POMSLA	\$16,092.72	80													
EXP2	Expenses	\$0.00		0	0	0	0	0	0	0	0	0	0	0	0	
PMX	Parametrix															
MER	Meridian															
		\$819,621.60	4215	0	60	137	0	0	128	20	160	0	0	124	20	
		\$819,838.36	4215	\$0.00	\$6,888.60	\$25,290.20	\$0.00	\$0.00	\$25,692.16	\$4,455.20	\$44,611.20	\$0.00	\$0.00	\$16,410.16	\$2,100.00	
	Expenses															
	Total	\$819,838.36														

Planner II

Project Role  
Key personnel denoted with \*\*  
Environmental team support  
Approved loaded bill rate  
\$140.00

Task No./WBS Key	Parametrix Activity	Labor Dollars	Labor Hours	
I	Stage 1			
21 (Phase 2 Task 1)	Project Management	\$200,136.80	860	0
Subtask 1.1	Project Management Activities	\$0.00	0	
Subtask 1.2	Team Meetings	\$0.00	0	
Subtask 1.3	Project Management Plan	\$0.00	0	
Subtask 1.4	Quality Management Plan	\$0.00	0	
Subtask 1.5	Risk Assessment	\$0.00	0	
Subtask 1.6	Maintain Administrative Record	\$0.00	0	
NEW Subtask 1.7	NEW Owner Directed Reserves	\$200,136.80	860	
22 (Phase 2 Task 2)	Concept Refinement and Conceptual Engineering	\$391,709.20	2090	0
Subtask 2.1	Engineering Task Management	\$7,985.08	38	
Subtask 2.2	Agency/Stakeholder Coordination	\$0.00	0	
Subtask 2.3	Survey Base Mapping	\$0.00	0	
Subtask 2.4	Preferred Alternative Refinements and Screening	\$0.00	0	
Subtask 2.5	Conceptual Engineering	\$27,702.32	168	
NEW Subtask 2.5a	Cost Validation Preparation	\$22,605.40	152	
NEW Subtask 2.5b	Cost Validation	\$24,982.48	116	
NEW Subtask 2.5c	Advanced Engineering	\$150,665.76	776	
Subtask 2.6	Operations and Maintenance Base Analysis	\$0.00	0	
NEW Subtask 2.7	NEW Mode Review/Alternative Analysis Framework	\$157,768.16	840	
23 (Phase 2 Task 3)	Environmental Analysis and Documentation	\$54,557.80	325	0
Subtask 3.1	Environmental Task Management	\$17,486.60	83	
Subtask 3.2	Agency Coordination	\$9,820.40	50	
Subtask 3.3	NEPA Environmental Analysis and Documentation	\$6,855.04	44	
Subtask 3.4	Supplemental Environmental Analysis/Expanded Documentation	\$0.00	0	
Subtask 3.5	GIS, Graphics and Simulations	\$20,395.76	148	
24 (Phase 2 Task 4)	Communications and Outreach	\$0.00	0	0
Subtask 4.1	Agency, Stakeholder and Public Outreach	\$0.00	0	
NEW Subtask 4.1A	Legislative Subcommittee Presentation	\$0.00	0	
Subtask 4.2	Communications (4 Updates)	\$0.00	0	
25 (Phase 2 Task 5)	Traffic and Transportation Analysis	\$34,438.56	196	88
Subtask 5.1	Data Collection and Internal Refinement Concept Eval	\$0.00	0	
Subtask 5.2	Traffic Modeling	\$0.00	0	
Subtask 5.3	Travel Demand Modeling	\$20,809.76	116	48
Subtask 5.4	Technical Memorandum	\$13,628.80	80	40
Subtask 5.5	Transportation Section of Environmental Documentation	\$0.00	0	
26 (Phase 2 Task 6)	Funding, Implementation and Operations	\$0.00	0	0
Subtask 6.1	Project Development Planning	\$0.00	0	
Subtask 6.2	Funding and Implementation	\$0.00	0	
Subtask 6.3	Operations Planning	\$0.00	0	
29 (New Phase 2 Task 9)	Rail and Bus Rapid Transit Alternatives Analysis	\$138,779.24	744	0
NEW Subtask 9.1	Revised AA Level 3	\$90,501.08	504	
NEW Subtask 9.2	Coordination with Industry	\$16,092.72	80	
NEW Subtask 9.3	Coordination with Agencies	\$16,092.72	80	
NEW Subtask 9.4	Coordination with POMSLA	\$16,092.72	80	
EXP2	Expenses	\$0.00		0
PMX	Parametrix			
MER	Meridian			
		\$819,621.60	4215	88

		\$819,838.36	4215	\$12,320.00
	Expenses			
	Total	\$819,838.36		

Krebs			
Rick Krebs			
Lead Cost Estimator	Krebs Structures	Senior Estimator	Estimator

Approved Bill rates

\$227.50	\$195.00	\$195.00	\$192.00
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<b>1</b>	<b>Stage 1</b>						
<b>21 (Phase 2 Task 1)</b>	<b>Project Management</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	Subtask 1.1 Project Management Activities	\$0.00	0				
	Subtask 1.2 Team Meetings	\$0.00	0				
	Subtask 1.3 Project Management Plan	\$0.00	0				
	Subtask 1.4 Quality Management Plan	\$0.00	0				
	Subtask 1.5 Risk Assessment	\$0.00	0				
	Subtask 1.6 Maintain Administrative Record	\$0.00	0				
	NEW Subtask 1.7 NEW Owner Directed Reserves	\$0.00	0				
<b>22 (Phase 2 Task 2)</b>	<b>Concept Refinement and Conceptual Engineering</b>	<b>\$118,600.00</b>	<b>592</b>	<b>112</b>	<b>160</b>	<b>160</b>	<b>160</b>
	Subtask 2.1 Engineering Task Management	\$0.00	0				
	Subtask 2.2 Agency/Stakeholder Coordination	\$0.00	0				
	Subtask 2.3 Survey Base Mapping	\$0.00	0				
	Subtask 2.4 Preferred Alternative Refinements and Screening	\$0.00	0				
	Subtask 2.5 Conceptual Engineering	\$0.00	0				
	NEW Subtask 2.5a Cost Validation Preparation	\$59,300.00	296	56	80	80	80
	NEW Subtask 2.5b Cost Validation	\$59,300.00	296	56	80	80	80
	NEW Subtask 2.5c Advanced Engineering	\$0.00	0				
	Subtask 2.6 Operations and Maintenance Base Analysis	\$0.00	0				
	NEW Subtask 2.7 NEW Mode Review/Alternative Analysis Framework	\$0.00	0				
<b>23 (Phase 2 Task 3)</b>	<b>Environmental Analysis and Documentation</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	Subtask 3.1 Environmental Task Management	\$0.00	0				
	Subtask 3.2 Agency Coordination	\$0.00	0				
	Subtask 3.3 NEPA Environmental Analysis and Documentation	\$0.00	0				
	Subtask 3.4 Supplemental Environmental Analysis/Expanded Documentation	\$0.00	0				
	Subtask 3.5 GIS, Graphics and Simulations	\$0.00	0				
<b>24 (Phase 2 Task 4)</b>	<b>Communications and Outreach</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	Subtask 4.1 Agency, Stakeholder and Public Outreach	\$0.00	0				
	NEW Subtask 4.1A Legislative Subcommittee Presentation	\$0.00	0				
	Subtask 4.2 Communications (4 Updates)	\$0.00	0				
<b>25 (Phase 2 Task 5)</b>	<b>Traffic and Transportation Analysis</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	Subtask 5.1 Data Collection and Internal Refinement Concept Eval	\$0.00	0				
	Subtask 5.2 Traffic Modeling	\$0.00	0				
	Subtask 5.3 Travel Demand Modeling	\$0.00	0				
	Subtask 5.4 Technical Memorandum	\$0.00	0				
	Subtask 5.5 Transportation Section of Environmental Documentation	\$0.00	0				
<b>26 (Phase 2 Task 6)</b>	<b>Funding, Implementation and Operations</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	Subtask 6.1 Project Development Planning	\$0.00	0				
	Subtask 6.2 Funding and Implementation	\$0.00	0				
	Subtask 6.3 Operations Planning	\$0.00	0				
<b>29 (New Phase 2 Task 9)</b>	<b>Rail and Bus Rapid Transit Alternatives Analysis</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	NEW Subtask 9.1 Revised AA Level 3	\$0.00	0				
	NEW Subtask 9.2 Coordination with Industry	\$0.00	0				
	NEW Subtask 9.3 Coordination with Agencies	\$0.00	0				
	NEW Subtask 9.4 Coordination with POMSLA	\$0.00	0				
		<b>\$118,600.00</b>	<b>592</b>	<b>112</b>	<b>160</b>	<b>160</b>	<b>160</b>

		<b>\$118,600.00</b>	<b>592</b>	<b>\$25,480.00</b>	<b>\$31,200.00</b>	<b>\$31,200.00</b>	<b>\$30,720.00</b>
	Expenses						
	Total	<b>\$118,600.00</b>					

Horrocks				
Claire Woodman	Shane Marshall	Katie Williams	Jordan DeMik	
Sr Project Manager				
Approved Bill Rate	\$231.88	\$326.08	\$97.13	\$75.07

I		Stage 1					
<b>21 (Phase 2 Task 1)</b>	<b>Project Management</b>		<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 1.1	Project Management Activities		\$0.00	0			
Subtask 1.2	Team Meetings		\$0.00	0			
Subtask 1.3	Project Management Plan		\$0.00	0			
Subtask 1.4	Quality Management Plan		\$0.00	0			
Subtask 1.5	Risk Assessment		\$0.00	0			
Subtask 1.6	Maintain Administrative Record		\$0.00	0			
NEW Subtask 1.7	NEW Owner Directed Reserves		\$0.00	0			
<b>22 (Phase 2 Task 2)</b>	<b>Concept Refinement and Conceptual Engineering</b>		<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 2.1	Engineering Task Management		\$0.00	0			
Subtask 2.2	Agency/Stakeholder Coordination		\$0.00	0			
Subtask 2.3	Survey Base Mapping		\$0.00	0			
Subtask 2.4	Preferred Alternative Refinements and Screening		\$0.00	0			
Subtask 2.5	Conceptual Engineering		\$0.00	0			
NEW Subtask 2.5a	Cost Validation Preparation		\$0.00	0			
NEW Subtask 2.5b	Cost Validation		\$0.00	0			
NEW Subtask 2.5c	Advanced Engineering		\$0.00	0			
Subtask 2.6	Operations and Maintenance Base Analysis		\$0.00	0			
NEW Subtask 2.7	NEW Mode Review/Alternative Analysis Framework		\$0.00	0			
<b>23 (Phase 2 Task 3)</b>	<b>Environmental Analysis and Documentation</b>		<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 3.1	Environmental Task Management		\$0.00	0			
Subtask 3.2	Agency Coordination		\$0.00	0			
Subtask 3.3	NEPA Environmental Analysis and Documentation		\$0.00	0			
Subtask 3.4	Supplemental Environmental Analysis/Expanded Documentation		\$0.00	0			
Subtask 3.5	GIS, Graphics and Simulations		\$0.00	0			
<b>24 (Phase 2 Task 4)</b>	<b>Communications and Outreach</b>		<b>\$25,329.74</b>	<b>204</b>	<b>40</b>	<b>4</b>	<b>80</b>
Subtask 4.1	Agency, Stakeholder and Public Outreach		\$25,329.74	204	40	4	80
NEW Subtask 4.1A	Legislative Subcommittee Presentation		\$0.00	0			
Subtask 4.2	Communications (4 Updates)		\$0.00	0			
<b>25 (Phase 2 Task 5)</b>	<b>Traffic and Transportation Analysis</b>		<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 5.1	Data Collection and Internal Refinement Concept Eval		\$0.00	0			
Subtask 5.2	Traffic Modeling		\$0.00	0			
Subtask 5.3	Travel Demand Modeling		\$0.00	0			
Subtask 5.4	Technical Memorandum		\$0.00	0			
Subtask 5.5	Transportation Section of Environmental Documentation		\$0.00	0			
<b>26 (Phase 2 Task 6)</b>	<b>Funding, Implementation and Operations</b>		<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 6.1	Project Development Planning		\$0.00	0			
Subtask 6.2	Funding and Implementation		\$0.00	0			
Subtask 6.3	Operations Planning		\$0.00	0			
<b>29 (New Phase 2 Task 9)</b>	<b>Rail and Bus Rapid Transit Alternatives Analysis</b>		<b>\$198,360.48</b>	<b>1016</b>	<b>596</b>	<b>100</b>	<b>160</b>
NEW Subtask 9.1	Revised AA Level 3		\$113,740.00	600	360	40	100
NEW Subtask 9.2	Coordination with Industry		\$43,119.20	220	100	40	40
NEW Subtask 9.3	Coordination with Agencies		\$31,160.48	148	100	16	16
NEW Subtask 9.4	Coordination with POMSLA		\$10,340.80	48	36	4	4
EXP2	Expenses		\$1,000.00	0	0	0	0
HOR	Horrocks		\$1,000.00				
			\$224,690.22	1220	636	104	240

		\$222,716.00	1220	\$147,475.68	\$33,912.32	\$23,311.20	\$18,016.80
	Expenses	\$1,000.00					
	Total	\$223,716.00					

LTK					
Chelsea Farnsworth	Bill Lipfort	Dennis Page	Ned Parker	Mike Ringrose	Gina Smith
Rail Operations Analysis	Senior Rail Operations Advisor	Rail O&M Costing	Rail Vehicle Technology	Rail Vehicle Maintenance Facilities	Technical Support
Approved	Billed	Rates			
\$200.00	\$410.00	\$236.00	\$290.00	\$315.00	\$93.00

1	Stage 1								
<b>21 (Phase 2 Task 1)</b>	<b>Project Management</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 1.1	Project Management Activities	\$0.00	0						
Subtask 1.2	Team Meetings	\$0.00	0						
Subtask 1.3	Project Management Plan	\$0.00	0						
Subtask 1.4	Quality Management Plan	\$0.00	0						
Subtask 1.5	Risk Assessment	\$0.00	0						
Subtask 1.6	Maintain Administrative Record	\$0.00	0						
NEW Subtask 1.7	NEW Owner Directed Reserves	\$0.00	0						
<b>22 (Phase 2 Task 2)</b>	<b>Concept Refinement and Conceptual Engineering</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 2.1	Engineering Task Management	\$0.00	0						
Subtask 2.2	Agency/Stakeholder Coordination	\$0.00	0						
Subtask 2.3	Survey Base Mapping	\$0.00	0						
Subtask 2.4	Preferred Alternative Refinements and Screening	\$0.00	0						
Subtask 2.5	Conceptual Engineering	\$0.00	0						
NEW Subtask 2.5a	Cost Validation Preparation	\$0.00	0						
NEW Subtask 2.5b	Cost Validation	\$0.00	0						
NEW Subtask 2.5c	Advanced Engineering	\$0.00	0						
Subtask 2.6	Operations and Maintenance Base Analysis	\$0.00	0						
NEW Subtask 2.7	NEW Mode Review/Alternative Analysis Framework	\$0.00	0						
<b>23 (Phase 2 Task 3)</b>	<b>Environmental Analysis and Documentation</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 3.1	Environmental Task Management	\$0.00	0						
Subtask 3.2	Agency Coordination	\$0.00	0						
Subtask 3.3	NEPA Environmental Analysis and Documentation	\$0.00	0						
Subtask 3.4	Supplemental Environmental Analysis/Expanded Documentation	\$0.00	0						
Subtask 3.5	GIS, Graphics and Simulations	\$0.00	0						
<b>24 (Phase 2 Task 4)</b>	<b>Communications and Outreach</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 4.1	Agency, Stakeholder and Public Outreach	\$0.00	0						
NEW Subtask 4.1A	Legislative Subcommittee Presentation	\$0.00	0						
Subtask 4.2	Communications (4 Updates)	\$0.00	0						
<b>25 (Phase 2 Task 5)</b>	<b>Traffic and Transportation Analysis</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 5.1	Data Collection and Internal Refinement Concept Eval	\$0.00	0						
Subtask 5.2	Traffic Modeling	\$0.00	0						
Subtask 5.3	Travel Demand Modeling	\$0.00	0						
Subtask 5.4	Technical Memorandum	\$0.00	0						
Subtask 5.5	Transportation Section of Environmental Documentation	\$0.00	0						
<b>26 (Phase 2 Task 6)</b>	<b>Funding, Implementation and Operations</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 6.1	Project Development Planning	\$0.00	0						
Subtask 6.2	Funding and Implementation	\$0.00	0						
Subtask 6.3	Operations Planning	\$0.00	0						
<b>29 (New Phase 2 Task 9)</b>	<b>Rail and Bus Rapid Transit Alternatives Analysis</b>	<b>\$39,920.00</b>	<b>164</b>	<b>24</b>	<b>20</b>	<b>0</b>	<b>80</b>	<b>0</b>	<b>40</b>
NEW Subtask 9.1	Revised AA Level 3	\$0.00	0						
NEW Subtask 9.2	Coordination with Industry	\$19,960.00	82	12	10		40		20
NEW Subtask 9.3	Coordination with Agencies	\$0.00	0						
NEW Subtask 9.4	Coordination with POMSLA	\$19,960.00	82	12	10		40		20
		<b>\$39,920.00</b>	<b>164</b>	<b>24</b>	<b>20</b>	<b>0</b>	<b>80</b>	<b>0</b>	<b>40</b>

		\$39,920.00	164	\$4,800.00	\$8,200.00	\$0.00	\$23,200.00	\$0.00	\$3,720.00
	Expenses	\$2,800.00							
	Total	\$42,720.00							

Zions			
Susie Becker	Aaron Montgomery	Megan Weber	Kylie Jacobsen
Funding Lead	Analyst	Analyst	Admin Assistant
\$225.00	\$150.00	\$125.00	\$75.00

Approved Bill rates

I	Stage 1							
<b>21 (Phase 2 Task 1)</b>	<b>Project Management</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 1.1	Project Management Activities	\$0.00	0					
Subtask 1.2	Team Meetings	\$0.00	0					
Subtask 1.3	Project Management Plan	\$0.00	0					
Subtask 1.4	Quality Management Plan	\$0.00	0					
Subtask 1.5	Risk Assessment	\$0.00	0					
Subtask 1.6	Maintain Administrative Record	\$0.00	0					
NEW Subtask 1.7	NEW Owner Directed Reserves	\$0.00	0					
<b>22 (Phase 2 Task 2)</b>	<b>Concept Refinement and Conceptual Engineering</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 2.1	Engineering Task Management	\$0.00	0					
Subtask 2.2	Agency/Stakeholder Coordination	\$0.00	0					
Subtask 2.3	Survey Base Mapping	\$0.00	0					
Subtask 2.4	Preferred Alternative Refinements and Screening	\$0.00	0					
Subtask 2.5	Conceptual Engineering	\$0.00	0					
NEW Subtask 2.5a	Cost Validation Preparation	\$0.00	0					
NEW Subtask 2.5b	Cost Validation	\$0.00	0					
NEW Subtask 2.5c	Advanced Engineering	\$0.00	0					
Subtask 2.6	Operations and Maintenance Base Analysis	\$0.00	0					
NEW Subtask 2.7	NEW Mode Review/Alternative Analysis Framework	\$0.00	0					
<b>23 (Phase 2 Task 3)</b>	<b>Environmental Analysis and Documentation</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 3.1	Environmental Task Management	\$0.00	0					
Subtask 3.2	Agency Coordination	\$0.00	0					
Subtask 3.3	NEPA Environmental Analysis and Documentation	\$0.00	0					
Subtask 3.4	Supplemental Environmental Analysis/Expanded Documentation	\$0.00	0					
Subtask 3.5	GIS, Graphics and Simulations	\$0.00	0					
<b>24 (Phase 2 Task 4)</b>	<b>Communications and Outreach</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 4.1	Agency, Stakeholder and Public Outreach	\$0.00	0					
NEW Subtask 4.1A	Legislative Subcommittee Presentation	\$0.00	0					
Subtask 4.2	Communications (4 Updates)	\$0.00	0					
<b>25 (Phase 2 Task 5)</b>	<b>Traffic and Transportation Analysis</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Subtask 5.1	Data Collection and Internal Refinement Concept Eval	\$0.00	0					
Subtask 5.2	Traffic Modeling	\$0.00	0					
Subtask 5.3	Travel Demand Modeling	\$0.00	0					
Subtask 5.4	Technical Memorandum	\$0.00	0					
Subtask 5.5	Transportation Section of Environmental Documentation	\$0.00	0					
<b>26 (Phase 2 Task 6)</b>	<b>Funding, Implementation and Operations</b>	<b>\$4,900.00</b>	<b>24</b>	<b>18</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>0</b>
Subtask 6.1	Project Development Planning	\$0.00	0					
Subtask 6.2	Funding and Implementation	\$4,900.00	24	18	4	2		
Subtask 6.3	Operations Planning	\$0.00	0					
<b>29 (New Phase 2 Task 9)</b>	<b>Rail and Bus Rapid Transit Alternatives Analysis</b>	<b>\$0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
NEW Subtask 9.1	Revised AA Level 3	\$0.00	0					
NEW Subtask 9.2	Coordination with Industry	\$0.00	0					
NEW Subtask 9.3	Coordination with Agencies	\$0.00	0					
NEW Subtask 9.4	Coordination with POMSLA	\$0.00	0					
		<b>\$4,900.00</b>	<b>24</b>	<b>18</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>0</b>

		\$4,900.00	24	\$4,050.00	\$600.00	\$250.00	\$0.00
	Expenses						
	Total	\$4,900.00					



State of Utah

SPENCER J. COX  
Governor

DEIDRE M. HENDERSON  
Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E.  
*Executive Director*

TERIANNE S. NEWELL, P.E.  
*Deputy Director of Planning and Investment*

LISA J. WILSON, P.E.  
*Deputy Director of Engineering and Operations*

January 23, 2023

Board of Trustees  
Utah Transit Authority  
669 West 200 South  
Salt Lake City, Utah 84101

Dear Board of Trustees:

Re: UDOT Support for Point of the Mountain Amendment

I am writing on behalf of the Utah Department of Transportation (UDOT), to express support for Contract Amendment 6 for the Point of the Mountain Transit Project. This additional effort is required to complete the project's revised alternative analysis and subsequent environmental document.

Please reach out to me with any questions at [brianja@utah.gov](mailto:brianja@utah.gov) or 385-414-1092.

Sincerely,

A handwritten signature in cursive script, appearing to read "B. Allen".

Brian Allen, PE  
Transit Program Director  
Utah Department of Transportation