

Regular Meeting of the
Board of Trustees of the Utah Transit Authority

Wednesday, August 7, 2019, 9:00 a.m.
Utah Transit Authority Headquarters
669 West 200 South, Salt Lake City, Utah
Golden Spike Conference Rooms



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|--|----------------------------------|
| 1. Call to Order & Opening Remarks | Chair Carlton Christensen |
| 2. Pledge of Allegiance | Chair Carlton Christensen |
| 3. Safety First Minute | Amy Cornell-Titcomb |
| 4. Public Comment Period | Bob Biles |
| 5. Approval of July 31, 2019 Board Meeting Minutes | Chair Carlton Christensen |
| 6. Agency Report | Steve Meyer |
| a. University of Utah Union Building Bus Bay Construction Update | |
| 7. R2019-08-01 – Resolution Establishing Oversight of Pension Committee | Trustee Kent Millington |
| 8. R2019-08-02 – Resolution Approving International Travel to the 2019 Rail-Volution Conference in Vancouver, British Columbia, Canada | Chair Carlton Christensen |
| 9. R2019-08-03 – Resolution Authorizing Construction Amendments Under the Construction Manager/General Contractor Contract for First/Last Mile Connection Program of Projects (TIGER Grant) | Mary DeLoretto |
| 10. Awarding of Lifetime Transit Passes to Jerry Benson and Spouse in Recognition of 33 Years of Service to UTA | Steve Meyer |
| 11. Contracts, Disbursements and Grants | |
| a. Change Order: Depot District Clean Fuels Tech Center Design and Engineering Services (Stantec Engineering) | Mary DeLoretto |

- b. Change Order: Airport Station Relocation Construction Manager and General Contractor (Kiewit Infrastructure West) Mary DeLoretto
- c. Change Order: FrontRunner Positive Train Control Construction Management and General Contractor (Rocky Mountain Systems Services) Eddy Cumins
- d. Pre-procurement: Auto-Body and Collision Repair Eddy Cumins

12. Discussion Items

- a. Independent Monitor Report Rees Morgan and Sean Coyle, Coblentz Patch Duffy & Bass LLP

RECESS

- b. Service Choices Coverage Scenarios Laura Hanson and Alex Beim
- c. Bus Stop Master Plan Laura Hanson
- d. Health and Wellness Program Report Kim Ulibarri

13. Other Business

- a. Next meeting: August 21, 2019

Chair Carlton Christensen

14. Closed Session

- a. Strategy Session To Discuss Collective Bargaining

Chair Carlton Christensen

15. Adjourn

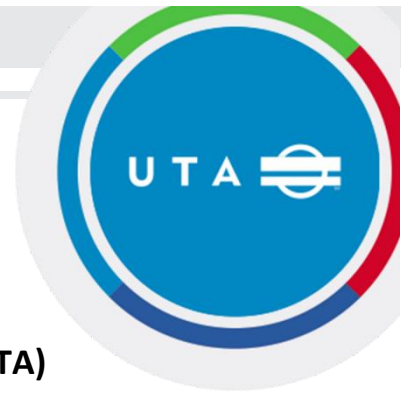
Chair Carlton Christensen

Public Comment: Members of the public are invited to provide comment during the public comment period. Comment may be provided in person or online through www.rideuta.com. In order to be considerate of time and the agenda, comments are limited to 2 minutes per individual or 5 minutes for a designated spokesperson representing a group. Comments may also be sent via e-mail to boardoftrustees@rideuta.com.

Special Accommodation: Information related to this meeting is available in alternate format upon request by contacting callredge@rideuta.com or (801) 287-3536. Request for accommodations should be made at least two business days in advance of the scheduled meeting.

BE ALERT, ACCIDENTS HURT





**Minutes of the Meeting
of the
Board of Trustees of the Utah Transit Authority (UTA)
held at UTA FrontLines Headquarters located at
669 West 200 South, Salt Lake City, Utah
July 31, 2019**

Board Members Present:

Carlton Christensen, Chair
Beth Holbrook
Kent Millington

Also attending were members of UTA staff, as well as interested citizens and members of the media.

Call to Order, Opening Remarks, and Pledge of Allegiance. Chair Christensen welcomed attendees and called the meeting to order at 9:02 a.m. Following Chair Christensen's opening remarks, the board and meeting attendees recited the Pledge of Allegiance.

Safety First Minute. Chair Christensen yielded the floor to Lamount Worth, UTA Video Security Administrator, for a brief safety message.

Public Comment Period. Bob Biles, acting in the capacity of secretary to the board, read an online comment received from George Chapman. The comment is attached as an appendix to the minutes.

Approval of July 17, 2019 Board Meeting Minutes. A motion to approve the July 17, 2019 Board Meeting Minutes with a minor correction on page 2 to appropriately number Resolution R2019-07-02 (instead of R2017-07-02) was made by Trustee Holbrook and seconded by Trustee Millington. The motion carried unanimously.

Agency Report. Steve Meyer, UTA Interim Executive Director, noted that UTA was not awarded a no-lo grant for additional electric buses. He said construction plans for the new bus bays near the Union Building at the University of Utah are 90% complete with construction scheduled to

commence on August 5. He then spoke about support the agency provides to first responders in emergency situations.

Discussion ensued. Questions on end of line arrangements at the University of Utah and whether first response support is reimbursable were posed by the board and answered by Mr. Meyer.

Financial Report – June 2019. Bob Biles, UTA Chief Financial Officer, was joined by Eddy Cumins, UTA Chief Operating Officer. Mr. Biles reviewed the June 2019 Financial Report, which included the financial dashboard, sales tax collections, expense variance by mode, and expense variance by type. Discussion ensued. Questions on ridership trends, parts inventory, and parts failures were posed by the board and answered by staff.

Chair Christensen noted the next five resolutions on the agenda were discussed in previous open meetings, including meetings of the Advisory Council, as appropriate.

R2019-07-03 Resolution Adopting Board Policy 4.1 – Fares.

A motion to approve R2019-07-03 was made by Trustee Millington and seconded by Trustee Holbrook. The motion carried unanimously with aye votes from Trustee Millington, Trustee Holbrook, and Chair Christensen.

R2019-07-04 Resolution Approving the Midvalley Connector Bus Rapid Transit Project Locally Preferred Alternative. Chair Christensen noted that the resolution identifies the route but not the capital funding associated with the project.

A motion to approve R2019-07-04 was made by Trustee Millington and seconded by Trustee Holbrook. The motion carried unanimously with aye votes from Trustee Millington, Trustee Holbrook, and Chair Christensen.

R2019-07-05 Resolution Approving a Second Amendment of the Authority's 2019 Budget (Capital Projects).

A motion to approve R2019-07-05 was made by Trustee Millington and seconded by Trustee Holbrook. The motion carried unanimously with aye votes from Trustee Millington, Trustee Holbrook, and Chair Christensen.

R2019-07-06 Resolution Approving a Third Amendment of the Authority's 2019 Budget (Operations Reallocation).

A motion to approve R2019-07-06 was made by Trustee Holbrook and seconded by Trustee Millington. The motion carried unanimously with aye votes from Trustee Holbrook, Trustee Millington, and Chair Christensen.

R2019-07-07 Resolution Revising the Authority's GRAMA Fee Schedule.

A motion to approve R2019-07-07 was made by Trustee Millington and seconded by Trustee Holbrook. The motion carried unanimously with aye votes from Trustee Millington, Trustee Holbrook, and Chair Christensen.

R2019-07-08 Resolution Approving the August 2019 Change Day Title VI Equity Analysis.

Andrew Gray, UTA Civil Rights Compliance Officer for Title VI & Disadvantaged Business Enterprises, delivered a presentation on the Title VI analysis performed in advance of the August 2019 change day. He noted the analysis did not identify any disparate impacts on or disproportionate burdens to minority populations. Discussion ensued. Questions on minority percentages, outreach with populations affected by route changes, and efforts to obtain public feedback on route changes were posed by the board and answered by staff.

A motion to approve R2019-07-08 was made by Trustee Millington and seconded by Trustee Holbrook. The motion carried unanimously with aye votes from Trustee Millington, Trustee Holbrook, and Chair Christensen.

R2019-07-09 Resolution Authorizing Establishment of an Employer-Paid Defined Contribution 401a Retirement Plan. Kim Ulibarri, UTA Chief People Officer, highlighted key considerations in establishing the 401a retirement option. Specifically:

- The UTA Advisory Council established a defined contribution plan as an alternative retirement option for the UTA Board of Trustees.
- This benefit option, if selected by the employee, is an alternative to the defined benefit pension plan. Participants cannot be enrolled in both plans.
- The Advisory Council established the plan with a 15.5% employer contribution rate after reviewing similar plans from other public agencies with average contribution rates ranging from 14.2% to 15.9%.
- The UTA Board of Trustees has extended the optional benefit to the executive positions within UTA to attract candidates to these positions that are generally more susceptible to at-will provisions of employment.

Discussion ensued. Questions clarifying the difference between a defined benefit and defined contribution plan and the possibility for vested employees who advance to the executive level to switch from a defined benefit to a defined contribution plan were posed by the board and answered by Ms. Ulibarri.

A motion to approve R2019-07-09 was made by Trustee Holbrook and seconded by Trustee Millington. The motion carried unanimously with aye votes from Trustee Holbrook, Trustee Millington, and Chair Christensen.

R2019-07-10 Resolution Approving the Execution of an Interlocal Agreement with the Utah Department of Transportation for Transfer of Tax Revenues to UTA. Mr. Biles explained the legislative history associated with the tax revenues referenced in the resolution.

A motion to approve R2019-07-10 was made by Trustee Millington and seconded by Trustee Holbrook. The motion carried unanimously with aye votes from Trustee Millington, Trustee Holbrook, and Chair Christensen.

R2019-07-11 Resolution Authorizing Execution of Lease-Purchase Agreements for Transit Vehicles. Mr. Biles summarized the resolution, which authorizes the lease-purchase of vanpool, paratransit, and bus vehicles. Discussion ensued. A question on interest rates was posed by the board and answered by Mr. Biles.

A motion to approve R2019-07-11 was made by Trustee Holbrook and seconded by Trustee Millington. The motion carried unanimously with aye votes from Trustee Holbrook, Trustee Millington, and Chair Christensen.

Contracts, Disbursements, and Grants.

Contract: Ogden-Weber BRT Design (Jacobs Engineering). Mary DeLoretto, UTA Acting Chief Service Development Officer, described the contract, which is for the final design of the Ogden-Weber bus rapid transit (BRT) project. Discussion ensued. Questions on local funding and subcontracts included in the contract were posed by the board and answered by Ms. DeLoretto.

A motion to approve the contract was made by Trustee Holbrook and seconded by Trustee Millington. The motion carried unanimously with aye votes from Trustee Holbrook, Trustee Millington, and Chair Christensen.

Change Order: TIGER Phase 2 Amendment 9 – GREENbike Expansion (Granite). Ms. DeLoretto was joined by Heather Bening, UTA Project Manager II. Ms. DeLoretto explained the change order, which is for the construction of seven new GREENbike bike share stations in Salt Lake City and South Salt Lake. The project is part of the Transportation Investment Generating Economic Recovery (TIGER) program of projects. It was noted that no UTA funds were included in the local match for this project. Discussion ensued. Questions on the contract total and timeline for implementation were posed by the board and answered by staff.

A motion to approve the change order was made by Trustee Millington and seconded by Trustee Holbrook. The motion carried unanimously with aye votes from Trustee Millington, Trustee Holbrook, and Chair Christensen.

Revenue Contract: Educational Pass Agreement (Weber State University). Monica Morton, UTA Fares Director, described the three-year education pass agreement with Weber State University, which will provide 20,000 authorized users with a premium transit pass. Discussion ensued. A question on equity with pass programs with other higher education institutions was posed by the board and answered by Ms. Morton.

A motion to approve the revenue contract was made by Trustee Holbrook and seconded by Trustee Millington. The motion carried unanimously with aye votes from Trustee Holbrook, Trustee Millington, and Chair Christensen.

Disbursement: Light Rail Parts Inventory (Siemens). Mr. Biles explained the purpose of the disbursement, which is for payment on invoices generated as part of UTA's supply chain forecasted inventory strategy for light rail parts. Discussion ensued. A question on the possibility of devising parameters for authorizing these types of expenses was posed by the board and answered by Mr. Biles.

A motion to approve the disbursement was made by Trustee Millington and seconded by Trustee Holbrook. The motion carried unanimously with aye votes from Trustee Millington, Trustee Holbrook, and Chair Christensen.

Grant: Federal Transit Administration FY2019 Integrated Mobility Innovation (IMI) Development Grant. Mr. Meyer indicated the purpose of the grant would be to deploy a Phase 2 autonomous shuttle pilot project. The project objectives include fully integrating the shuttle service with the UTA transit network and testing a no-operator/host shuttle.

Discussion Items.

2020 Budget Transit Financial Plan, Budget Assumptions, and Targets. Mr. Biles was joined by Mr. Cumins. Mr. Biles delivered a presentation on the July 2019 Transit Financial Plan (TFP). He compared changes between the January 2019 TFP and the July 2019 TFP and budget targets between 2019 and 2020. Discussion ensued. Questions on the budgetary pinch point projected for 2021, 5% sales tax growth assumption, composition of state of good repair expenses, inclusion of expenses for express bus on the Mountain View corridor, early debt retirement, bonding, assumptions for 2020 budget, the ability to test "what-if" scenarios in the TFP, and administration costs were posed by the board and answered by staff.

Chair Christensen called for a brief recess at 10:44 a.m.

The meeting resumed at 10:51 a.m.

UTA Open Data Portal. Jonathan Yip, UTA Senior Manager of Operations Analysis & Solutions, was joined by Nichol Bourdeaux, UTA Chief Communication & Marketing Officer, and Somerset Ellis, UTA GIS-Asset Administrator. Mr. Yip spoke about the purpose of, information available through, and possible uses of the UTA Open Data Portal. The portal will be launched sometime in the fall of 2019. Discussion ensued. Questions on current accessibility to and services included in the portal were posed by the board and answered by staff. Chair Christensen recommended making the portal accessible from the UTA website home page, educating local technical advisory groups, and working with the metropolitan planning organizations to provide layered access to the data. Trustee Millington suggested improved branding for the portal. Trustee Holbrook suggested targeting the Utah League of Cities & Towns annual meeting for a launch date.

GREENbike Program. Ms. DeLoretto was joined by Ben Bolte, GREENbike Founder & Director. Mr. Bolte provided information on GREENbike's background, its history with UTA, its future plans, and benefits GREENbike provides to UTA. Ms. DeLoretto then spoke about the transit benefits of UTA's partnership with, and the agency's commitment to GREENbike. Discussion ensued. Questions on GREENbike expansion into other communities, consideration of high-density areas as a potential market, and location of current maintenance facilities were posed by the board and answered by Mr. Bolte and Ms. DeLoretto.

Other Business.

Next Meeting. The next meeting of the board will be on Wednesday, August 7, 2019 at 9:00 a.m.

Closed Session. Chair Christensen stated there were matters to be discussed in closed session related to collective bargaining. A motion for a closed session was made by Trustee Millington and seconded by Trustee Holbrook. The motion carried unanimously and the board moved into closed session at 11:27 a.m.

Open Session. A motion to return to open session was made by Trustee Holbrook and seconded by Trustee Millington. The motion carried unanimously and the board returned to open session at 12:15 p.m.

Adjournment. The meeting was adjourned at 12:16 p.m. by motion.

Transcribed by Cathie Griffiths
Executive Assistant to the Board Chair
Utah Transit Authority
cgriffiths@rideuta.com
801.237.1945

This document is not intended to serve as a full transcript as additional discussion may have taken place; please refer to the meeting materials, audio, or video located at <https://www.utah.gov/pmn/sitemap/notice/549031.html> for entire content.

This document along with the digital recording constitute the official minutes of this meeting.

UNAPPROVED

APPENDIX

Online Public Comment to the Board of Trustees of the Utah Transit Authority (UTA) Board Meeting July 31, 2019

Received July 30, 2019:

I would appreciate reading these into the record st Wednesday's meeting:

I am against spending \$45 million for the Mid Valley BRT for 2200 passengers a day since it may remove lanes of traffic that could handle 10,000 vehicles a day from a road that is already congested

I am against charging fees for basic information from UTA since it discourages public engagement.

I am against the equity analysis since I believe the westside of SLC is not getting timely service that the east side gets due to zig zags, turns and going in circles. Equity analysis should include time to go downtown.

I urge UTA to add a Green Bike station at the end of the S Line to allow more use from Central Pointe. Tourists use Green Bike downtown and the Parleys Trail to Bonneville Shoreline Trail could be a tourist destination. And Sugar House developers pay funds to Bike Share to lower parking requirements.

**RESOLUTION OF THE BOARD OF TRUSTEES OF THE UTAH TRANSIT
AUTHORITY ESTABLISHING OVERSIGHT OF THE UTAH TRANSIT AUTHORITY
EMPLOYEE RETIREMENT PLAN AND TRUST AGREEMENT'S PENSION
COMMITTEE**

No. R2019-08-01

August 7, 2019

WHEREAS, the Utah Transit Authority (the "Authority") is a public transit district organized under the laws of the State of Utah and was created to transact and exercise all of the powers provided for in the Utah Limited Purpose Local Government Entities-Local Districts Act and the Utah Public Transit District Act;

WHEREAS, the Board of Trustees has adopted the Utah Transit Authority Employee Retirement Plan and Trust Agreement (the "Pension Plan") to provide retirement benefits to the Authority's employees;

WHEREAS, the Plan creates the Pension Committee and establishes it as the administrator of the Pension Plan;

WHEREAS, the Pension Committee makes decisions regarding assumptions and contribution rates that impact the Pension Plan, adopts policies for the Pension Plan, and receives reports from various contractors providing professional services to the Pension Plan;

WHEREAS, the Pension Committee has been designated as the administrator of the ICMA Retirement Corporation Prototype 457 Deferred Compensation Plan ("457 Plan");

WHEREAS, the Board of Trustees desires to provide oversight of the Pension Plan and the 457 Plan in keeping with its responsibilities to provide leadership to and governance of the Authority.

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees of the Utah Transit Authority:

1. That the Pension Committee shall provide quarterly reports to the Board of Trustees on the status of the Pension Plan and the 457 Plan.
2. That the Pension Committee shall present proposed changes in funding assumptions and contribution rates affecting the Pension Plan to the Board of Trustees for review and approval prior to adoption.
3. That the Pension Committee shall present a proposed Pension Plan investment manager to the Board of Trustees for approval prior to entering into a contract for investment management services.

4. That the Pension Committee shall present its proposed policies and procedures regarding the Pension Plan to the Board of Trustees for review and approval prior to adoption.
5. That the Pension Committee shall forward all reports created by contractors providing professional services to the Pension Plan to the Board of Trustees.
6. That the Board of Trustees formally ratifies actions taken by the Authority, including those taken by the Interim Executive Director and staff, that are necessary or appropriate to give effect to this Resolution.
7. That the corporate seal be attached hereto.

Approved and adopted this 7th day of August 2019.

Carlton Christensen, Chair
Board of Trustees

ATTEST:

Robert K. Biles, Secretary/Treasurer

(Corporate Seal)

Approved As To Form:

Legal Counsel

**RESOLUTION OF THE BOARD OF TRUSTEES OF THE UTAH TRANSIT
AUTHORITY APPROVING INTERNATIONAL TRAVEL TO THE
2019 RAIL~VOLUTION CONFERENCE IN VANCOUVER, BRITISH
COLUMBIA, CANADA**

R2019-08-02

August 7, 2018

WHEREAS, the Utah Transit Authority (the “Authority”) is a large public transit district organized under the laws of the State of Utah and was created to transact and exercise all of the powers provided for in the Utah Limited Purpose Local Government Entities – Local Districts Act and the Utah Public Transit District Act; and

WHEREAS, Board of Trustees Policy No. 2.1 requires the Board to approve any international travel of the Authority’s employees for Authority business; and

WHEREAS, the Authority desires to send Trustee Beth Holbrook and TOD Project Manager Jordan Swain to the 2019 Rail~Volution Conference in Vancouver, British Columbia in which planning for growth, and administering transit-oriented development are highlighted through industry speakers, engaging in peer-to-peer learning and roundtable discussions, and participating in technical tours.

NOW, THEREFORE, BE IT RESOLVED by the Board of the Authority:

1. That the Board hereby authorizes Beth Holbrook, employed by the Authority as Trustee, and Jordan Swain, employed by the Authority as TOD Project Manager, to travel to the 2019 Rail~Volution Conference scheduled for September 8, 2019 through September 11, 2019 in Vancouver, British Columbia, Canada.

2. That the Board hereby ratifies any and all actions taken by the Authority's Interim Executive Director and/or Executive Director, and staff in furtherance of and effectuating the intent of this Resolution.

3. That the corporate seal be attached hereto.

Approved and adopted this 7th day of August.

Carlton Christensen, Chair
Board of Trustees

ATTEST:

Robert K. Biles, Secretary/Treasurer

(Corporate Seal)

Approved As To Form:

Legal Counsel

**RESOLUTION OF THE BOARD OF TRUSTEES OF THE UTAH TRANSIT
AUTHORITY AUTHORIZING CONSTRUCTION AMENDMENTS UNDER THE
CONSTRUCTION MANAGER/GENERAL CONTRACTOR CONTRACT FOR
FIRST/LAST MILE CONNECTION PROGRAM OF PROJECTS**

No. R2019-08-03

August 7, 2019

WHEREAS, the Utah Transit Authority (the “Authority”) is a large public transit district organized under the laws of the State of Utah and was created to transact and exercise all of the powers provided for in the Utah Limited Purpose Local Government Entities- Local Districts Act and the Utah Public Transit District Act; and

WHEREAS, for the past several years, the Authority has been working with cities, counties and other public stakeholders (the “Stakeholders”) on a jointly planned program of capital projects that will facilitate access and improve connections to the Authority’s public transit system (collectively the “Projects”); and

WHEREAS, the Authority has: (i) obtained a grant of federal assistance (the “TIGER Grant”) for these Projects; (ii) secured (or contracted to secure) local match commitments from the Stakeholders for certain Stakeholder-sponsored Projects; and (iii) budgeted Authority funds for certain Authority-sponsored Projects; and

WHEREAS, the Board of Trustees recognize that the Authority executed, on April 11, 2018, a Construction Manager/General Contractor Contract Agreement (the “CM/GC Contract”) with Granite Construction Company (the “Contractor”); and

WHEREAS, the CM/GC Contract requires that UTA execute amendments to the CM/GC Contract (“Phase 2 Amendments”) before the Contractor can move Projects to Phase 2 of the TIGER Grant; and

WHEREAS, the Board of Trustees understands and recognizes that a number of the first and last mile projects, a list of which is attached as Exhibit A, are ready to proceed to Phase 2 of the Program; and

WHEREAS, the Authority’s Board of Trustees desires to provide the Interim Executive Director or the Executive Director, under the terms of the CM/GC Contract, with the authority to execute Phase 2 Construction Services Amendments for the projects during the 2019 calendar year consistent with the overall TIGER Grant Construction Budget.

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees of the Utah Transit Authority:

1. That the Board of Trustees hereby authorizes the Interim Executive Director, or Executive Director, under the terms of the CM/GC Contract, to execute Phase 2 Construction Services Amendments for the projects listed in Exhibit A as first and last mile projects under the terms of Phase 2 of the Program.
2. That the cumulative amount obligated under any Phase 2 Amendments executed pursuant to such authority shall not exceed the TIGER Grant Construction Budget.
3. That any Phase 2 Amendment that would cause the Authority to exceed the TIGER Grant Construction Budget shall require additional approval of the Board.
4. That any Phase 2 Amendment for a Stakeholder-sponsored Project shall not include a lump sum price exceeding the sum of: (i) the TIGER Grant funds that have been budgeted for such project; and (ii) the total local match commitment provided by or on behalf of the applicable Stakeholder.
5. That all Phase 2 Amendments must be presented to the Board as informational items by the Executive Director.
6. That the corporate seal be attached hereto.

Approved and adopted this 7th day of August 2019.

Carlton Christensen, Chair
Board of Trustees

ATTEST:

(Corporate Seal)

Robert K. Biles, Secretary/Treasurer

Approved As To Form:

Legal Counsel

Exhibit A

**Contract 18-2398TP Construction Manager/General Contractor Agreement
TIGER Grant First/Last Mile-Contract (MSP205)
Granite Construction
2018-2019 Budgets**

April 2018-July 2019

		Project Budget/Funding Sources						
Amend No.	Scope (Project ID)	Project Budget	TIGER Grant	Local Match	UTA-Local	UTA-Prop 1	Contract Amount	Effective Date
N/A	Pre-Construction Services (All Projects)	Varies-See Individual Project Budgets					\$297,390.00	04/11/18
1	Ogden Grant Ave (OG_BKL_4)	\$3,821,900.00	\$2,644,525.00	\$373,270.00		\$804,105.00	\$3,752,910.56	07/27/18
2	Farmington Swk & ADA Ramps (FAR_ADA_1; FAR_SWK 4, FAR_SWK 7; FAR_CWI_3)	\$1,146,768.00	\$911,713.00	\$175,410.00		\$59,645.00	\$978,675.00	09/27/18
3	Bountiful ADA Ramps (BOU_ADA_1)	\$419,143.00	\$204,746.00	\$51,186.00		\$163,211.00	\$369,916.00	10/11/18
4	Parley's Trail (SSL_MUP_2)	\$673,925.60	\$492,398.00	\$181,527.60			\$519,440.00	10/30/18
5	SOJ_HER_DRA Bike Lanes (SOJ_BKL_2; SOJ_BKL_4; SOJ_BKL_5; SOJ_BKL_6; SOJ_BKL_7; HER_BKL_8; DRA_BKL_5)	\$157,252.00	\$74,146.00	\$70,461.00	\$12,646.00		\$126,750.00	11/20/18
6	Summit County Bike Shares (SUCo_BKS_1)	\$860,437.00	\$688,350.00	\$172,087.00			\$687,626.00	04/11/19
7	Tooele Bike Lanes (TOCo_BKL_1; TOCo_BKL_2)	\$459,787.00	\$313,285.00			\$146,501.00	\$360,023.19	05/01/19
8	Midvale Crosswalk Improvement (MID_CWI_1)	\$573,278.00	\$158,622.00	\$414,656.00			\$411,379.98	06/05/19
9	GREENbike Expansion (SLC_BKS_1)	\$873,473.00	\$680,453.00	\$193,020.00			\$708,615.59	TBD
10	Farmington Projects (FAR_BKL_1, FAR_SWK_3, FAR_CWI_1, FAR_CWI_6)	\$201,590.00	\$52,286.00	\$149,304.00			\$181,393.04	TBD
TOTALS		\$9,187,553.60	\$6,220,524.00	\$1,780,921.60	\$12,646.00	\$1,173,462.00	\$8,394,119.36	

August 2019-December 2019

		Project Budget/Funding Sources					Anticipated Contract
Amend No.	Scope (Project ID)	Project Budget	TIGER Grant	Local Match	UTA-Local	UTA-Prop 1	Amount
11	Sandy Multi-Use Path (SAN_MUP_1)	\$3,721,726.00	\$2,177,381.00	\$1,544,345.00			\$3,188,585.00
12	Millcreek Sidewalk (MIL_SWK_1)	\$394,712.00	\$315,769.00	\$78,942.00			\$313,395.00
13	Lehi Overhead Pedestrian Bridge (LEH_OP_1)	\$5,282,740.00	\$3,254,389.00	\$2,028,351.00			\$4,396,019.00
14	West Jordan Railroad Crossing (WEJ_RRX_2)	\$156,499.00	\$79,899.00	\$67,000.00	\$9,600.00		\$120,783.00
15	UTA Wayfinding	\$90,139.00	\$72,049.00	\$600.00	\$15,247.00	\$2,242.00	\$81,125.10
16	UTA Bike Parking	\$158,900.00	\$127,146.00		\$25,563.00	\$6,191.00	\$143,010.00
17	UTA Bus Stop Improvements	\$116,976.00	\$93,581.00		\$6,975.00	\$16,420.00	\$105,278.40
18	UTA Bike Repair Stands	\$39,939.00	\$31,960.00		\$7,182.00	\$799.00	\$35,945.10
TOTALS		\$9,961,631.00	\$6,152,174.00	\$3,719,238.00	\$64,567.00	\$25,652.00	\$8,384,140.60



CONTRACT ROUTING FORM

Department * Supply Chain

Existing Contract? Yes

Existing Contract Number * 18-02931

Contract Section

Procurement

Board Review Date * 08/07/2019

Document Type * Change Order

Requisition #	Original	Change Order
	5948	5948

Please upload the contract or requisition here	18-2931TP Stantec CO #2.pdf	459KB
	TCR - ICE Stantec Redesign of the Maintenance Bldg.pdf	67.52KB
	18-02931 Signed Contract between UTA and Stantec.pdf	1.67MB

Contract Title * Depot District Clean Fuels Tech Center Engineering Services

Contractor Name * Stantec Engineering

Description / Purpose * This is a change order between UTA and Stantec Architecture Inc. for the design of a new maintenance building in lieu of re-purposing the old locomotive building for the maintenance shop for the Depot District Clean Fuels Technology Center (DDCFTC). The existing contract with Stantec for \$2,220,059 was to complete the design for the DDCFTC, including re-purposing the old locomotive shop. This change order for an additional \$1,144,353 is for the new building design. The cost for this change order is covered by the contingency listed in the approved project requisition. The contract end date is still 12/31/2021. The new design will be sized to service a 150 bus fleet with capability for future expansion to service a 250 bus fleet. The new design is being pursued to reduce the high costs of re-purposing the old building, by as much as \$10-12 million. The total construction cost of the re-purposing the old building was estimated by the CM/GC at \$32.2 million plus overhead and profit for a total of \$37.7 million. The estimated cost of the new building is anticipated to be in the range of \$26 to \$27 million with overhead and profit. The design schedule is 9 months with an early release package of earthwork and foundations to keep the project on schedule. The 5-year project budget for the DDCFTC is \$72 million. The total project with the estimated CM/GC construction costs came in at \$93.6 million. Construction cost escalation outpaced the initial independent cost estimate of \$70.5 million. The current planning with Value Engineering reductions and a new maintenance building is expected to reduce the cost by approximately \$17 million bringing the project within \$4.6 million of the current \$72 million budget. Additional sources of funding, value engineering and cost savings are being explored to make up the current \$4.6 million budget deficit.

Contract Administrator * Pickett, Teresa

Project Manager * Greg Thorpe

Base Contract Effective Dates * Beginning 11/29/2018

* Ending 12/31/2021

Contract Type * SERVICES

Procurement Method * Sole Source

Sole-Source Reason * Substantial Duplication of Costs

Number of Responding Firms

\$ Value of Next Lowest Bidder

Base Contract Term (Months) * 37

Contract Options (Months) * 0

Option to Renew? * Yes No

Extension Start Date

End Date

Financial Section

Procurement

Existing Contract Value	Amendment Amount	New/total Contract Value *
--------------------------------	-------------------------	-----------------------------------

\$ 2,220,059.00	\$ 1,144,353.00	\$ 3,364,412.00
-----------------	-----------------	-----------------

Qty	Unit Price \$	Annual/One-Time Value	\$ 1,144,353.00
------------	----------------------	------------------------------	------------------------

Attachment **Is the amount an estimate? *** Yes No

Is the amount a one-time purchase or annual recurring purchase? * One-time Recurring

Account Code * 40-
3102.6891
2

Capital Project Code MSP102

Budgeted? * Yes

Funding Source * Local No

Budget amount * \$ 27,115,817.00

Will this contract require support from another department? * Yes No

Is the other department(s) aware of this contract and the required support? * Yes No N/A

Has the Qualified Health Insurance Certificate been verified? * Yes No N/A

Approval Section

1)Legal/Compliance Review * Bell, Mike

2)Accounting Approval Needed? * Yes No 2)Accounting Review * Bingham, Troy

3)Risk Approval Needed? * Yes No

4)IT Approval Needed? * Yes No

5)Add Additional Approval? * Yes No

6)Manager/Program Manager * Thorpe, E Gregory

7)Dir, Sr. Mgr, or RGM * Turner, Grey L

8)Chief * DeLoretto, Mary Louise

9)Executive Director * Meyer, William Steven

Board Approval Required Board Approval Date

Print this page

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



CHANGE ORDER

No. 2

TITLE: Depot District Clean Fuel Technology Center-Maintenance Building Design DATE: 7/30/2019
 PROJECT/CODE: MSP102 - Depot District This is a change order to CONTRACT No: 18-02931TP
 TO: Stantec Architecture Inc.
 ATTN: Merlin Maley

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

This is a change order between UTA and Stantec Architecture Inc. for the design of a new maintenance building in lieu of repurposing the old locomotive building for the maintenance shop for the Depot District Clean Fuels Technology Center (DDCFTC). The existing contract with Stantec for \$2,200,059 was to complete the design for the DDCFTC, including repurposing the old locomotive shop. This change order for an additional \$1,144,353 is for the new building design. The cost for this change order is covered by the contingency listed in the approved project requisition. The contract end date is still 12/31/2021. The new design will be sized to service a 150 bus fleet with capability for future expansion to service a 250 bus fleet. The new design is being pursued to reduce the high costs of repurposing the old building, by as much as \$10-12 million. The total construction cost of the repurposing the old building was estimated by the CM/GC contractor at \$32.2 million plus overhead and profit for a total of \$37.7 million. The estimated cost of the new building is anticipated to be in the range of \$26 to \$27 million with overhead and profit. The design schedule is 9 months with an early release package of earthwork and foundations to keep the project on schedule.

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 ___ NO X

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:	\$1,144,353	Original Contract Sum:	\$2,220,059	Final Completion Date Prior to This Change:	12/31/2021
Unit Cost:	-	Net Change by Previously Authorized Changes:	\$53,460	Contract Time Change This Change Order (Calendar Days):	0
Cost Plus:	-	Previous Project Total:	\$2,273,519	Final Completion Date as of This Change Order:	12/31/2021
Total:	\$1,144,353	Net Change This Change Order:	\$1,144,353		
		Current Project Total:	\$3,417,872		

ACCEPTED:

By: _____
 Date: _____
 Greg Thorpe
 Project Manager <\$10,000

By: _____
 Date: _____
 Mary DeLoretto
 Director of Capital Projects <\$50,000

By: _____
 Date: _____
 Merlin Maley
 Stantec Architecture Inc.

By: _____
 Date: _____
 Teresa Pickett
 Procurement

By: _____
 Date: _____
 Michael Bell
 Legal Review

By: _____
 Date: _____
 W. Steve Meyer
 Interim Executive Director >\$100,000



CHANGE ORDER CHECKLIST

Contract:	18-02931TP	Change Order No.:	2
Change Order Title:	Depot District Clean Fuel Technology Center-Maintenance Building Design	PCO No.:	2
Summary of Change	<p>This is a change order between UTA and Stantec Architecture Inc. for the design of a new maintenance building in lieu of repurposing the old locomotive building for the maintenance shop for the Depot District Clean Fuels Technology Center (DDCFTC). The existing contract with Stantec for \$2,200,059 was to complete the design for the DDCFTC, including repurposing the old locomotive shop. This change order for an additional \$1,144,353 is for the new building design. The cost for this change order is covered by the contingency listed in the approved project requisition. The contract end date is still 12/31/2021. The new design will be sized to service a 150 bus fleet with capability for future expansion to service a 250 bus fleet. The new design is being pursued to reduce the high costs of repurposing the old building, by as much as \$10-12 million.</p> <p>The total construction cost of the repurposing the old building was estimated by the CM/GC contractor at \$32.2 million plus overhead and profit for a total of \$37.7 million. The estimated cost of the new building is anticipated to be in the range of \$26 to \$27 million with overhead and profit. The design schedule is 9 months with an early release package of earthwork and foundations to keep the project on schedule.</p>	Time Completion Change: (Days/Date)	N/A
		UTA Cost Estimate:	\$1,140,788
DCM Approval Date:	N/A	Contractor Estimate:	\$1,555,365
CCC Approval Date:	04/19/2019	Change Order Value:	\$1,144,353

Change Order Category:

Administrative Procedure:
 Differing Site Condition:
 Configuration Change: X
 Safety Issue:

Environmental Issue:
 Security Issue:
 Value Engineering:
 Utilities:

Betterment:
 Other:

Is this a Federally Funded Contract? Yes No

The change order file must contain information in sufficient detail to support an audit

Y/N/NA (If NO, Comments must be included)

Y	1	Is there a clear description of the pertinent facts for this change?	
Y	2	Was an independent estimate received before the contractor estimate and is there a clear record of negotiations including cost and price analysis information and deviations between the independent estimates and agreed upon price and is this price fair & reasonable?	CO is higher than ICE by \$3,565 which is less than 1%. UTA determines the price to be fair and reasonable.
Y	3	Is there reference to the applicable contract section allowing the change?	Article 7.0
Y	4	Is there adequate justification for the change; i.e., added scope, changed conditions, betterment etc.	
Y	5	Was agreement reached prior to starting any work on this change?	
NA	6	Are there third party funding participants and have their approval(s) been received in writing?	



Change Order Summary Worksheet
Previously Authorized Changes

Contract 18-02931TP STA

Change Order No	Date	Amount of CO	Running Contract Total	Subject
Original Contract			\$2,220,059	
1	4/19/2019	\$53,460	\$2,273,519	Updated Construction Cost Estimate
Total to Date		\$ 53,460		



Stantec Architecture Inc
1050 17th Street, Suite A200
Denver, CO 80265

July 7, 2019

2270351402/01 Management/Contracts/00_Stantec Construction Contract/01_Prime Agreement/Maintenance Redesign

Attention: Greg Thorpe, P.E.

Utah Transit Authority
669 West 200 South
Salt Lake City, UT 84101

Dear Greg,

Reference: DDCFTC – Maintenance Redesign Proposal, Revised From June 25 Proposal

As requested, I am providing you our team proposal to redesign DDCFTC's Maintenance Building as a ground up new building in lieu of refurbishing the existing 100 year old locomotive building. Barry Newton and I will continue to serve UTA as the Stantec leadership team. As a senior architect, Barry will lead the design and coordination efforts, and I will continue to serve as the Project Principal and architect of record. Our design and engineering team remains in place, which has existed since the very beginning of this incredible project.

- CRSA: Associate Architect, Landscape Architect, LEED coordination
- HDR|MDG: Equipment consultant
- Jacobs: Civil Engineers
- Reaveley: Structural Engineers
- Colvin: Mechanical Engineers, Energy Modeling
- Spectrum: Electrical Engineers
- Fuel Solutions: Fueling Designer

Per our value engineering discussion on June 18, 2019 with UTA and Big D construction, the phase 1, 150 bus program will be the basis of design for this re-design effort. This will include the following (approximate square feet), as determined during the 2013 programming effort.

- Maintenance Administration: 7,300 SF
- Maintenance Shop: 48,300 SF
- Materials Handling: 12,900 SF
- **TOTAL: 68,500 SF**

The current design for Administration and Operations will remain intact as much as possible but will require some modifications based on the new maintenance building design and changes to the connector wing (which directly

Reference: DDCFTC – Maintenance Redesign Proposal, Revised From June 25 Proposal

connects Administration, Operations, and Maintenance – all under one roof). We will also incorporate UTA accepted value engineering changes collaboratively determined by Big D Construction, UTA, and the Stantec Team.

In order to deliver full design in the requested six-month schedule, we have modified the common delivery and review process (30%, 60%, 90%, 100%) to the following deliverables schedule, following our Notice to Proceed from UTA and/or contract change order:

- Design Charrette and Concept Design: 4 weeks
- 50% Contract Documents Review and Pricing: 12 weeks
- 90% Contract Documents Review: 12 weeks
- 100% For Construction Drawings: 5 weeks
- **Estimated delivery = week of March 8, 2020 (March 13)**

This schedule accommodates the two-week Holiday period. Stantec's offices are typically closed between Christmas and New Year's, and this is a popular vacation period.


Included you will find our scope of work and fee proposal. Per our contract, the individual rates have been updated to reflect 2019 actual direct labor rates + our previously approved overhead rates. Profit is an additional 10% lump sum on top of our total labor rates and will be invoiced at percent complete on a monthly basis.

The Stantec Team total Base fee budget is **\$1,144,353.00** (all labor, expenses, and Energy Modeling).

LEED registration with GBCI is not included and will be paid directly by UTA, or through Stantec via a change order for the certification fees. We acknowledge UTA's design to certify the project to a LEED V4.0, Gold or higher level. We do not guarantee LEED Gold certification, and payment for our services cannot be dictated by obtaining LEED certification.

If you have any questions regarding the content of this proposal, or services to be performed during construction, please do not hesitate to contact me directly, Greg. This will be a monumental project once its completed and Stantec is honored to be included on UTA's team!

Sincerely,



July 7, 2019
Greg Thorpe, P.E.
Page 3 of 3

Reference: DDCFTC – Maintenance Redesign Proposal, Revised From June 25 Proposal

Merlin Maley AIA, LEED AP, NCARB
Principal

Phone: 303-575-8497
Mobile: 303-921-8708
Merlin.maley@stantec.com

Attachment: UTA SOW_New Maintenance Building.docx, UTA DDCFTC Garage_Task 5_Maintenance Redesign_Stantec Team 1.xlsx
c. Barry Newton (Stantec), Grey Turner (UTA)

SCOPE OF WORK: TASK 5 – DESIGN OF NEW MAINTENANCE FACILITY

Changes from 6/25/19 proposal

APPLICABLE CODES

- 2018 International Building Code
- 2018 International Energy Conservation Code
- 2018 National Fire Protection Association
- 2018 International Fuel Gas Code
- 2018 International Mechanical Code
- 2018 International Plumbing Code
- 2017 National Electrical Code

WORK PLAN & SUB-TASKS

- Design Charrette
- Concept Design Presentation
- 50% Contract Documents Review and Pricing
- 90% Contract Documents Review
- 100% Contract Documents, Issued for Construction
- LEED V4 Documentation and Energy Modeling

Revit 2019 will be utilized throughout the design process. Navisworks/Revitso will be utilized for collision check and overall coordination review. Pricing will be by the CMGC contractor.

Stantec expects the CMGC contractor to provide a continuously updated cost management log for review during our OAC meetings. Accepted items will be incorporated into the contract documents.

EXCLUSIONS

- Commissioning
- Enhanced Commissioning
- LEED Registration Fees with GBCI

DESIGN CHARRETTE (1 WEEK)

The Stantec team will participate in a 3 day charrette with UTA in Salt Lake City to kick off the redesign of the maintenance facility. This charrette will utilize the preferred Scheme G from the 2013 Master Plan charrettes as the starting point, to further define and develop the site plan and concept plans for the new building, as well as identify the necessary changes (if any) to the current Administration/Operations addition.



Required Travel			
Purpose	Firm	Attendees	3 Days, 2 Nights (\$1,050 per person expense budget)
Design Charrette	Stantec Architecture	Maley, Newton, Berastegui	\$3,150
	HDR MDG	Booth, Kraegel, Kim	\$3,150

CONCEPT DESIGN PRESENTATION (3 WEEKS)

Approximately three weeks after the design charrette, Stantec will present updated conceptual plans and informal renderings to UTA for review and acceptance. This presentation will include updated exterior finish material samples and any revised interior finish samples that were changed through V/E. We will also review the equipment plans and equipment binder for acceptance by UTA.

BIM Level of Development 150-200.

Required Travel			
Purpose	Firm	Attendees	2 Day, 1 Night (\$800 per person expense budget)
Concept Design Presentation	Stantec Architecture	Maley, Newton, Berastegui	\$2,400
	HDR MDG	Booth, Kraegel	\$1,600

50% CONTRACT DOCUMENTS REVIEW & PRICING (12 WEEKS)

The Stantec team will be integrating the current design of the new Administration and Operations Building with the new design of the maintenance building. Accepted Value Engineering changes by UTA will be incorporated across all buildings.

1 in person OAC meeting is included in this phase, and and bi-weekly OAC meetings via Skype/conference call.

1 in person design team coordination meeting is included in this phase, and and bi-weekly coordination meetings via Skype/conference call, individual calls with consultants as necessary.

1 in person 50% Design Deliverables meeting is included.

BIM Level of Development 200 – 250.

Our detailed scope of work includes the following:

- Architecture, Lighting Design, and Interior Design
 - Coordination with all new systems and equipment
 - Demolition Plans
 - Architectural site plan
 - Architectural elevations
 - Architectural sections



- Architectural Wall sections
- Door schedules
- Window Schedules
- Louver Schedules
- Room finish schedules
- Architectural Details
- Architectural renderings
- 90% design specifications
- Civil Engineering
 - Horizontal Control & Paving Plans
 - Site Utility Plans
 - Site Grading Plans
 - Site Drainage Plans
 - Grading Details
 - Storm Drain Profiles
 - Final Drainage Report
 - Earthwork coordination for permitting

Civil Assumptions/limitations:

- Assume that Maintenance Building will be rotated to be parallel to the East property line.
- Bus Canopy sizes & layout have not been determined (part of Schematic design)
- No Re-design of Parking Area West of Administration building
- No Re-design of the Wash Building site
- Final Design will be for 150 Bus capacity (not accounting for future expansion)

Civil Exclusions:

- Environmental Planning
- Cost Estimating
- Traffic Study
- Demolition plans
- Erosion Control Plans, NPDES permitting or SWPP Plan/Report

- Structural Engineering
 - Foundation Plans
 - Framing Plans
 - Roof Framing Plan
 - Structural Details
- Landscape Architecture
 - On-site landscape design
 - Planting legend
 - Planting details
 - Irrigation plan
- Mechanical Engineering
 - Mechanical equipment and ductwork plans
 - Mechanical equipment schedule
 - Mechanical details
 - Mechanical engineering calculations
- Electrical Engineering
 - Electrical equipment plan
 - Site lighting plan
 - Site electrical and conduit plans
 - Electrical engineering schedules
 - Electrical engineering details
 - Electrical one-line
- Lighting Design
 - Lighting plans
 - Luminaire Schedule



- Lighting Control plans
- Low Voltage Engineering
 - Audio/Visual
 - Fire Alarm
 - Security
 - Site WIFI Design
- Plumbing Engineering
 - Plumbing plans
 - Plumbing fixture schedule
 - Plumbing details
 - Plumbing one-line diagram
- Equipment Design and Process Piping
 - Equipment plans
 - Equipment Schedule
 - Process piping plans
 - Equipment binder update

Deliverables

- Bi-weekly review meetings with UTA and CMGC
- 50% Demolition Plans
- 50% Code Analysis
- 50% Architectural floor plans
- 50% Architectural roof plans
- 50% Architectural elevations
- 50% Architectural sections
- 50% Architectural wall sections
- 50% Door schedule and types
- 50% Window schedule, types
- 50% Wall types
- 50% Room finish schedule
- 50% Interior, exterior details
- 50% Landscape plans
- 50% Civil grading plans
- 50% Stormwater plans
- 50% Stormwater details
- 50% Utility plans
- 50% Utility plan and profile of utilities
- 50% Utility details
- 50% Structural foundation plans
- 50% Mechanical & Plumbing plans
- 50% Mechanical & Plumbing schedules
- 50% Electrical plans
- 50% Electrical one-lines
- 50% Electrical schedules
- 50% Audio Visual plans
- 50% Fire Alarm plans
- 50% Security plans
- 50% Site WIFI plans (raceways and mounting locations, equipment to be installed by UTA)
- 50% Equipment plans
- 50% Equipment process piping plans
- 50% Equipment binder
- 50% Specifications
- 50% Round Robin Review



Required Travel			
Purpose	Firm	Attendees	2 Day, 1 Night (\$800 per person expense budget)
50% Design OAC and Design Coordination Meetings	Stantec Architecture	Newton, Lischer	\$1,600
	HDR MDG	Booth, Kraegel	\$1,600
50% Design Review, QAQC	Stantec Architecture	Maley, Newton, Lischer	\$2,400
	HDR MDG	Booth, Kraegel, Kim	\$2,400

90% CONTRACT DOCUMENTS & REVIEW (12 WEEKS)

The Stantec team will be integrating the current design of the new Administration and Operations Building with the new design of the maintenance building. Accepted Value Engineering changes by UTA will be incorporated across all buildings.

1 in person OAC meeting is included in this phase, and and bi-weekly OAC meetings via Skype/conference call.

1 in person design team coordination meeting is included in this phase, and and bi-weekly coordination meetings via Skype/conference call, individual calls with consultants as necessary.

1 in person 90% Design Deliverables meeting is included.

BIM Level of Development 200 – 350.

Our detailed scope of work includes the following:

- Architecture, Lighting Design, and Interior Design
 - Coordination with all new systems and equipment
 - Demolition Plans
 - Architectural site plan
 - Architectural elevations
 - Architectural sections
 - Architectural Wall sections
 - Door schedules
 - Window Schedules
 - Louver Schedules
 - Room finish schedules
 - Architectural Details
 - Architectural renderings
 - 90% design specifications
- Civil Engineering
 - Horizontal Control & Paving Plans
 - Site Utility Plans
 - Site Grading Plans
 - Site Drainage Plans
 - Grading Details
 - Storm Drain Profiles
 - Final Drainage Report
 - Earthwork coordination for permitting

Civil Assumptions/limitations:

- Assume that Maintenance Building will be rotated to be parallel to the East property line.
- Bus Canopy sizes & layout have not been determined (part of Schematic design)



- No Re-design of Parking Area West of Administration building
- No Re-design of the Wash Building site
- Final Design will be for 150 Bus capacity (not accounting for future expansion)

Civil Exclusions:

- Environmental Planning
 - Cost Estimating
 - Traffic Study
 - Demolition plans
 - Erosion Control Plans, NPDES permitting or SWPP Plan/Report
- Structural Engineering
 - Foundation Plans
 - Framing Plans
 - Roof Framing Plan
 - Structural Details
 - Landscape Architecture
 - On-site landscape design
 - Planting legend
 - Planting details
 - Irrigation plan
 - Mechanical Engineering
 - Mechanical equipment and ductwork plans
 - Mechanical equipment schedule
 - Mechanical details
 - Mechanical engineering calculations
 - Electrical Engineering
 - Electrical equipment plan
 - Site lighting plan
 - Site electrical and conduit plans
 - Electrical engineering schedules
 - Electrical engineering details
 - Electrical one-line
 - Lighting Design
 - Lighting plans
 - Luminaire Schedule
 - Lighting Control plans
 - Low Voltage Engineering
 - Audio/Visual
 - Fire Alarm
 - Security
 - Site WIFI Design
 - Plumbing Engineering
 - Plumbing plans
 - Plumbing fixture schedule
 - Plumbing details
 - Plumbing one-line diagram
 - Equipment Design and Process Piping
 - Equipment plans
 - Equipment Schedule
 - Process piping plans
 - Equipment binder update

Deliverables

- Bi-weekly review meetings with UTA and CMGC
- 90% Demolition Plans
- 90% Code Analysis



- 90% Architectural floor plans
- 90% Architectural roof plans
- 90% Architectural elevations
- 90% Architectural sections
- 90% Architectural wall sections
- 90% Door schedule and types
- 90% Window schedule, types
- 90% Wall types
- 90% Room finish schedule
- 90% Interior, exterior details
- 90% Landscape plans
- 90% Civil grading plans
- 90% Stormwater plans
- 90% Stormwater details
- 90% Utility plans
- 90% Utility plan and profile of utilities
- 90% Utility details
- 90% Structural foundation plans
- 90% Mechanical & Plumbing plans
- 90% Mechanical & Plumbing schedules
- 90% Electrical plans
- 90% Electrical one-lines
- 90% Electrical schedules
- 90% Audio Visual plans
- 90% Fire Alarm plans
- 90% Security plans
- 90% Site WIFI plans (raceways and mounting locations, equipment to be installed by UTA)
- 90% Equipment plans
- 90% Equipment process piping plans
- 90% Equipment binder
- 90% Specifications
- 90% Round Robin Review
- 90% Collision and Coordination Review

Required Travel			
Purpose	Firm	Attendees	2 Day, 1 Night (\$800 per person expense budget)
90% Design OAC and Design Coordination Meetings	Stantec Architecture	Newton, Lischer	\$1,600
	HDR MDG	Booth, Kraegel	\$1,600
90% Design Review, QAQC	Stantec Architecture	Maley, Newton, Lischer	\$2,400
	HDR MDG	Booth, Kraegel, Kim	\$2,400

100% FOR CONSTRUCTION CONTRACT DOCUMENTS (5 WEEKS)

The Stantec team will be integrating the current design of the new Administration and Operations Building with the new design of the maintenance building. Accepted Value Engineering changes by UTA will be incorporated across all buildings.

No in person meetings are included.

BIM Level of Development 250 – 350.



Our detailed scope of work includes the following:

- Architecture, Lighting Design, and Interior Design
 - Coordination with all new systems and equipment
 - Demolition Plans
 - Architectural site plan
 - Architectural elevations
 - Architectural sections
 - Architectural Wall sections
 - Door schedules
 - Window Schedules
 - Louver Schedules
 - Room finish schedules
 - Architectural Details
 - Architectural renderings
 - 100% design specifications
- Civil Engineering
 - Horizontal Control & Paving Plans
 - Site Utility Plans
 - Site Grading Plans
 - Site Drainage Plans
 - Grading Details
 - Storm Drain Profiles
 - Final Drainage Report
 - Earthwork coordination for permitting

Civil Assumptions/limitations:

- Assume that Maintenance Building will be rotated to be parallel to the East property line.
 - Bus Canopy sizes & layout have not been determined (part of Schematic design)
 - No Re-design of Parking Area West of Administration building
 - No Re-design of the Wash Building site
 - Final Design will be for 150 Bus capacity (not accounting for future expansion)
- Structural Engineering
 - Foundation Plans
 - Framing Plans
 - Roof Framing Plan
 - Structural Details
 - Landscape Architecture
 - On-site landscape design
 - Planting legend
 - Planting details
 - Irrigation plan
 - Mechanical Engineering
 - Mechanical equipment and ductwork plans
 - Mechanical equipment schedule
 - Mechanical details
 - Mechanical engineering calculations
 - Electrical Engineering
 - Electrical equipment plan
 - Site lighting plan
 - Site electrical and conduit plans
 - Electrical engineering schedules
 - Electrical engineering details
 - Electrical one-line
 - Lighting Design
 - Lighting plans
 - Luminaire Schedule



- Lighting Control plans
- Low Voltage Engineering
 - Audio/Visual
 - Fire Alarm
 - Security
 - Site WIFI Design
- Plumbing Engineering
 - Plumbing plans
 - Plumbing fixture schedule
 - Plumbing details
 - Plumbing one-line diagram
- Equipment Design and Process Piping
 - Equipment plans
 - Equipment Schedule
 - Process piping plans
 - Equipment binder update

Deliverables

- Bi-weekly review meetings with UTA and CMGC
- 100% Demolition Plans
- 100% Code Analysis
- 100% Architectural floor plans
- 100% Architectural roof plans
- 100% Architectural elevations
- 100% Architectural sections
- 100% Architectural wall sections
- 100% Door schedule and types
- 100% Window schedule, types
- 100% Wall types
- 100% Room finish schedule
- 100% Interior, exterior details
- 100% Landscape plans
- 100% Civil grading plans
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- 100% Utility plan and profile of utilities
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- 100% Mechanical & Plumbing schedules
- 100% Electrical plans
- 100% Electrical one-lines
- 100% Electrical schedules
- 100% Audio Visual plans
- 100% Fire Alarm plans
- 100% Security plans
- 100% Site WIFI plans (raceways and mounting locations, equipment to be installed by UTA)
- 100% Equipment plans
- 100% Equipment process piping plans
- 100% Equipment binder
- 100% Specifications



Required Travel - None			
Purpose	Firm	Attendees	Nights

LEED V4 – GOLD OR HIGHER, DESIGN & DOCUMENTATION

CRSA will manage and direct the LEED process with the goal to achieve LEED v4 Gold. Stantec does not guarantee LEED Gold certification. Services include integrating sustainable goals into the design and construction documents, LEED documentation, and consultant coordination of LEED related items. Stantec will also actively participate in establishment of the LEED Goals and checklist review.

A commissioning agent and enhanced commissioning is not included in this scope of work. UTA can elect to hire directly, or Stantec can add these services as an additional service.





SCOPE OF SERVICES -						TOTAL			
New Maintenance Building in lieu of Locomotive Shop Remodel						33 165	Weeks Days	33 165	Weeks Days
Personnel	Name	To Be updated annually	To Be updated annually	7/29/19 - 3/13/20 Task 5 Maintenance Building Redesign	TOTAL:				
						Classification	Direct Labor Rate	Overhead (XXX%)	Billable Rate DL+OH+PM
STANTEC						165.25%			
Principal	Merlin Maley	\$67.51	\$111.56	\$179.07	165	\$29,547	165	\$29,547	
Senior Project Architect	Barry Newton	\$49.04	\$81.04	\$130.08	1155	\$150,241	1,155	\$150,241	
Architect/Designer	Barbara Berastegui	\$53.31	\$88.09	\$141.40	40	\$5,656	40	\$5,656	
Architect	Miles Lischer	\$35.80	\$59.16	\$94.96	1155	\$109,678	1,155	\$109,678	
Intern Architect	TBD	\$30.00	\$49.58	\$79.58	400	\$31,830	400	\$31,830	
Administration	Sandy Gerulat	\$42.00	\$69.41	\$111.41	24	\$2,674	24	\$2,674	
		\$0.00	\$0.00	\$0.00	0	\$0	0	\$0	
		\$0.00	\$0.00	\$0.00	0	\$0	0	\$0	
		\$0.00	\$0.00	\$0.00	0	\$0	0	\$0	
LABOR TOTAL						2939	\$329,626	2,939	\$329,626
LUMP SUM PROFIT						10%		\$32,963	
FIRM TOTAL								2,939	\$362,589
Estimated Reimbursable Travel Expenses									
	Airfare	Hotel (per night)	Mileage (per mile)	QTY					
Airfare Total	\$ 400.00			16	\$6,400	16	\$6,400.00		
Hotel Total		\$ 169.00		19	\$3,211	19	\$3,211.00		
Mileage Total			\$.55 per mile x 50 miles	16	\$440	16	\$440.00		
Meals Total (Budget, out of town travelers)			\$ 65.00	48	\$3,120	48	\$3,120.00		
Airport Parking (per day)			\$ 24.00	48	\$1,152	48	\$1,152.00		
Rental Car			\$ 75.00	13	\$975	13	\$975.00		
Estimated Reimbursable Printing Costs									
Small Format Printing	\$0.10			500	\$50	500	\$50.00		
Large Format Printing (B&W)	\$12.00			500	\$6,000	500	\$6,000.00		
Large Format Printing (color)	\$40.00			25	\$1,000	25	\$1,000.00		
Estimated Expenses Total:						\$22,348	\$22,348		
STANTEC						\$384,936			
CRSA									
						176.2%			
Architect 3	John Ewanowski	\$41.00	\$72.24	\$113.24	132	\$14,948	132	\$14,948	
Architect 2	Laura Smith	\$34.80	\$61.32	\$96.12	132	\$12,688	132	\$12,688	
Architect 1	Zach Heslop	\$25.00	\$44.05	\$69.05	396	\$27,344	396	\$27,344	
LEED Manager	Laura Smith	\$34.80	\$61.32	\$96.12	462	\$44,406	462	\$44,406	
Landscape Architect	Kelly Gillman	\$56.25	\$99.11	\$155.36	30	\$4,661	30	\$4,661	
Landscape Designer	Melissa Fryer	\$31.70	\$55.86	\$87.56	24	\$2,101	24	\$2,101	
Landscape Designer	Paul Stead	\$24.00	\$42.29	\$66.29	40	\$2,652	40	\$2,652	
			\$0.00						
LABOR TOTAL						1216	\$108,799	1,216	\$108,799
LUMP SUM PROFIT						10%		\$10,879.93	
FIRM TOTAL								1,216	\$119,679
Estimated Reimbursable Travel Expenses									
	Airfare	Hotel (per night)	Mileage (per mile)	QTY					
Airfare Total	\$ 400.00			0	\$0	0	\$0.00		
Hotel Total		\$ 169.00		0	\$0	0	\$0.00		
Mileage Total			\$ 0.55	0	\$0	0	\$0.00		
Meals Total (Budget, out of town travelers)			\$ 65.00	0	\$0	0	\$0.00		
Airport Parking (per day)			\$ 24.00	0	\$0	0	\$0.00		
Rental Car			\$ 75.00	0	\$0	0	\$0.00		
Estimated Reimbursable Printing Costs									
Small Format Printing	\$0.10			500	\$50	500	\$50.00		
Large Format Printing (B&W)	\$12.00			500	\$6,000	500	\$6,000.00		
Large Format Printing (color)	\$40.00			25	\$1,000	25	\$1,000.00		
Estimated Expenses Total:						\$7,050	\$7,050		
CRSA						\$126,729			
Colvin Engineering Associates, Inc.									
						170.0%			
Principal	Stephen Connor	\$67.88	\$115.39	\$183.27	20	\$3,665	20	\$3,665	
Senior Project Manager	Jarrett Capstick	\$51.88	\$88.19	\$140.07	198	\$27,734	198	\$27,734	
Senior Engineer	Gabe Legorburu	\$41.25	\$70.12	\$111.37	198	\$22,051	198	\$22,051	
Engineer	Tyler Rolfsema	\$36.25	\$61.62	\$97.87	396	\$38,757	396	\$38,757	
BIM Modeler	Aga Wozniak	\$30.00	\$51.00	\$81.00	396	\$32,075	396	\$32,075	
Intern	General	\$20.00	\$34.00	\$54.00	176	\$9,504	176	\$9,504	
Secretarial	General	\$25.00	\$42.50	\$67.50	32	\$2,160	32	\$2,160	
			\$0.00						
LABOR TOTAL						1416	\$135,946	1,416	\$135,946
LUMP SUM PROFIT						10%		\$13,594.63	
FIRM TOTAL								1,416	\$149,541

Estimated Reimbursable Travel Expenses

	Airfare	Hotel (per night)	Mileage (per mile)	QTY			
Energy Modeling for LEED V4 (lump sum)	\$ -			0	\$0	0	\$15,000.00
Hotel Total		\$ -		0	\$0	0	\$0.00
Mileage Total			\$ -	0	\$0	0	\$0.00
Meals Total (Budget, out of town travelers)					\$ -	0	\$0.00
Airport Parking (per day)					\$ -	0	\$0.00
Rental Car					\$ -	0	\$0.00
Estimated Reimbursable Printing Costs							
Small Format Printing	\$0.10			0	\$0	0	\$0.00
Large Format Printing (B&W)	\$12.00			0	\$0	0	\$0.00
Large Format Printing (color)	\$40.00			0	\$0	0	\$0.00
Estimated Expenses Total:					\$0		\$15,000
Colvin Engineering Associates, Inc.							\$164,541

HDR|MDG

165.0%

Sr. Facility Design Manager	Booth	\$73.66	\$121.54	\$195.20	140	\$27,328	\$27,328
Sr. MEP Engineer	McMahon	\$67.45	\$111.29	\$178.74	75	\$13,406	\$13,406
Sr. MEP Designer	Benson	\$41.55	\$68.56	\$110.11	220	\$24,224	\$24,224
Sr. Facility Designer	Bond	\$45.03	\$74.30	\$119.33	25	\$2,983	\$2,983
Sr. Facility Designer	Rieger	\$39.82	\$65.70	\$105.52	25	\$2,638	\$2,638
Project Coordinator	To	\$33.99	\$56.08	\$90.07	0	\$0	\$0
Project Assistant	Foster	\$22.12	\$36.50	\$58.62	210	\$12,310	\$12,310
Project Accountant	Gonzales	\$31.33	\$51.69	\$83.02	20	\$1,660	\$1,660
Facility Designer	Kraegel	\$30.30	\$50.00	\$80.30	160	\$12,847	\$12,847
Facility Designer	Yong	\$25.84	\$42.64	\$68.48	160	\$10,956	\$10,956
Facility Designer	Jandaghi Jafari	\$29.54	\$48.74	\$78.28	40	\$3,131	\$3,131
Facility Designer	Shrestha	\$26.71	\$44.07	\$70.78	40	\$2,831	\$2,831
Facility Designer	Sun	\$30.30	\$50.00	\$80.30	40	\$3,212	\$3,212
LABOR TOTAL					1155	\$117,526	\$117,526
LUMP SUM PROFIT					10%		\$11,753
FIRM TOTAL							\$129,279

Estimated Reimbursable Travel Expenses

	Airfare	Hotel (per night)	Mileage (per mile)	QTY			
Airfare Total	\$ 400.00			15	\$6,000	15	\$6,000.00
Hotel Total		\$ 169.00		18	\$3,042	18	\$3,042.00
Mileage Total			\$ 0.55	15	\$8	15	\$8.25
Meals Total (Budget, out of town travelers)					\$ 65.00	33	\$2,145.00
Airport Parking (per day)					\$ 24.00	33	\$792.00
Rental Car					\$ 75.00	13	\$975.00
Estimated Reimbursable Printing Costs							
Small Format Printing	\$0.10			3000	\$0	3,000	\$0.00
Large Format Printing (B&W)	\$12.00			100	\$1,200	100	\$1,200.00
Large Format Printing (color)	\$40.00			0	\$0	0	\$0.00
Estimated Expenses Total:					\$14,162		\$14,162
HDR MDG							\$143,441

Jacobs

114.2%

Project Manager	Yorgason	\$91.41	\$104.41	\$195.82	33	\$6,462	\$6,462
Project Engineer	Taylor	\$57.76	\$65.97	\$123.73	175	\$21,653	\$21,653
Project Engineer	Dahl	\$62.52	\$71.41	\$133.93	50	\$6,697	\$6,697
Drainage	Oram	\$31.23	\$35.67	\$66.90	80	\$5,352	\$5,352
Project Engineer	Adams	\$52.30	\$59.74	\$112.04	40	\$4,481	\$4,481
Engineering/CADD	Simmons	\$31.85	\$36.38	\$68.23	80	\$5,458	\$5,458
Quality	TBD	\$52.30	\$59.74	\$112.04	20	\$2,241	\$2,241
			\$0.00	\$0.00		\$0	\$0
			\$0.00	\$0.00		\$0	\$0
LABOR TOTAL					478	\$52,345	\$52,345
LUMP SUM PROFIT					10%		\$5,234
FIRM TOTAL							\$57,579

Estimated Reimbursable Travel Expenses

	Airfare	Hotel (per night)	Mileage (per mile)	QTY			
Airfare Total	\$ 400.00			0	\$0	0	\$0.00
Hotel Total		\$ 169.00		0	\$0	0	\$0.00
Mileage Total			\$ 0.55	320	\$0	320	\$0.00
Meals Total (Budget, out of town travelers)					\$ 65.00	0	\$0.00
Airport Parking (per day)					\$ 24.00	0	\$0.00
Rental Car					\$ 75.00	0	\$0.00
Estimated Reimbursable Printing Costs							
Small Format Printing	\$0.10			100	\$1,200	100	\$1,200.00
Large Format Printing (B&W)	\$12.00			20	\$800	20	\$800.00
Large Format Printing (color)	\$40.00			0	\$0	0	\$0.00
Estimated Expenses Total:					\$2,000		\$2,000
Jacobs							\$59,579

Reaveley Engineers 166.9%								
Principal	M.Buehner	\$51.00	\$85.11	\$136.11	240	\$32,666	240	\$32,666
Senior Engineer	Staff	\$40.29	\$67.24	\$107.53	600	\$64,516	600	\$64,516
Senior BIM	M. Keith	\$43.63	\$72.81	\$116.44	440	\$51,233	440	\$51,233
			\$0.00	\$0.00		\$0	0	\$0
			\$0.00	\$0.00		\$0	0	\$0
LABOR TOTAL					1280	\$148,415	1,280	\$148,415
LUMP SUM PROFIT					10%			\$14,842
FIRM TOTAL							1,280	\$163,257
Estimated Reimbursable Travel Expenses								
	Airfare	Hotel (per night)	Mileage (per mile)		QTY			
Airfare Total	\$ 400.00				0	\$0	0	\$0.00
Hotel Total		\$ 169.00			0	\$0	0	\$0.00
Mileage Total			\$ 0.55		0	\$0	0	\$0.00
Meals Total (Budget, out of town travelers)				\$ 65.00	0	\$0	0	\$0.00
Airport Parking (per day)				\$ 24.00	0	\$0	0	\$0.00
Rental Car				\$ 75.00	0	\$0	0	\$0.00
Estimated Reimbursable Printing Costs								
Small Format Printing	\$0.10				0	\$0	0	\$0.00
Large Format Printing (B&W)	\$12.00				0	\$0	0	\$0.00
Large Format Printing (color)	\$40.00				0	\$0	0	\$0.00
Estimated Expenses Total:						\$0		\$0
Reaveley Engineers								\$163,257

Spectrum Engineers 100.0%								
Principal - Project Manager	DEW	\$115.38	\$115.38	\$230.76	20	\$4,615	20	\$4,615
Principal - Technology Designer	GFN	\$115.38	\$115.38	\$230.76	20	\$4,615	20	\$4,615
Principal - Lighting Designer	EXY	\$46.15	\$46.15	\$92.30	40	\$3,692	40	\$3,692
Electrical Project Manager	JPM	\$73.65	\$73.65	\$147.30	150	\$22,095	150	\$22,095
AV Project Designer	AWA	\$88.67	\$88.67	\$177.34	40	\$7,094	40	\$7,094
Lighting Project Designer	DJA	\$26.90	\$26.90	\$53.80	80	\$4,304	80	\$4,304
Security Project Designer	JDB	\$69.23	\$69.23	\$138.46	30	\$4,154	30	\$4,154
Fire Alarm Project Designer	JDD	\$64.29	\$64.29	\$128.58	20	\$2,572	20	\$2,572
IT Project Designer	JDA	\$50.02	\$50.02	\$100.04	40	\$4,002	40	\$4,002
Acoustical Project Designer	SXR	\$52.40	\$52.40	\$104.80	40	\$4,192	40	\$4,192
BIM Manager	DBS	\$33.00	\$33.00	\$66.00	80	\$5,280	80	\$5,280
BIM Modeler	DXM	\$27.25	\$27.25	\$54.50	160	\$8,720	160	\$8,720
BIM/Draftsman	NOR	\$21.50	\$21.50	\$43.00	200	\$8,600	200	\$8,600
Clerical	DDB	\$13.50	\$13.50	\$27.00	25	\$675	25	\$675
LABOR TOTAL					945	\$84,609	945	\$84,609
LUMP SUM PROFIT					10%			\$8,460.90
FIRM TOTAL							945	\$93,070
Estimated Reimbursable Travel Expenses								
	Airfare	Hotel (per night)	Mileage (per mile)		QTY			
Airfare Total	\$ 400.00				0	\$0	0	\$0.00
Hotel Total		\$ 169.00			0	\$0	0	\$0.00
Mileage Total			\$ 0.55		0	\$0	0	\$0.00
Meals Total (Budget, out of town travelers)				\$ 65.00	0	\$0	0	\$0.00
Airport Parking (per day)				\$ 24.00	0	\$0	0	\$0.00
Rental Car				\$ 75.00	0	\$0	0	\$0.00
Estimated Reimbursable Printing Costs								
Small Format Printing	\$0.10				3000	\$0	3,000	\$0.00
Large Format Printing (B&W)	\$12.00				400	\$4,800	400	\$4,800.00
Large Format Printing (color)	\$40.00				100	\$4,000	100	\$4,000.00
Estimated Expenses Total:						\$8,800		\$8,800
Spectrum Engineers								\$101,870

LABOR TOTAL:	9429	\$1,074,993
EXPENSE TOTAL:		\$69,360
STANTEC TEAM TOTAL:		\$1,144,353

UTA Contract # 18-02931
Professional Services Agreement
Depot District Clean Fuels Technology Center
Engineering Services

Full text for this original contract can be found by following the link below (see agenda item 10.b)

https://www.rideuta.com/-/media/Files/Board-of-Trustees/Board-Agenda-PDFs/2018/November/2018_1128_ePacket_Board_Meeting_FINAL.ashx?la=en

This contract was passed by the UTA Board of Trustees on November 28, 2018.

The Change Order being considered at the August 7, 2019 UTA Board of Trustees Meeting modifies the above-referenced contract.



CONTRACT ROUTING FORM

Department * Supply Chain

Existing Contract? Yes

Existing Contract Number * 18-2705TP

Contract Section

Procurement

Board Review Date * 08/07/2019

Document Type * Change Order

Requisition #	Original	Change Order
	5133	5133

Please upload the contract or requisition here	18-2705TP Kiewit Signed Phase 1 Contract.pdf	403.04KB
	18-2705TP Airport Station Relocation CMGC Phase	1.17MB
	2 Contract Amendment 7-1....pdf	

Contract Title * Airport Station Relocation Construction Manager and General Contractor Phase 2

Contractor Name * Kiewit Infrastructure West

Description / Purpose * This is a contract amendment / change order between UTA and Kiewit Infrastructure West Co. for the construction of the Airport Station Relocation Project for the Salt Lake City International Terminal Redevelopment Program (TRP). This will extend the TRAX Green line from the existing airport end of line station, which will be removed, to the new station next to the new terminal. The original Phase 1 pre-construction contract was issued on 8/1/2018 for \$198,500. This Phase 2 Construction amendment / change order is for the construction cost of the project which = \$14,507,521, bringing the total contract amount to \$14,705,521. The amendment amount includes a provisional sum of \$725,474 for expected airport delays due to demolition of the existing airport roads, terminals and parking garages that are beyond the control of UTA. (UTA will be working with the Airport Authority over the next several months to limit the impact and cost of the 3 month delay to the contractor. The payment of the provisional sum is conditioned upon evaluation and approval of payment by UTA.)

The 2019 project budget is \$2,650,000 of which approximately \$245,000 has been expended to date for pre-construction services, design and project management. With this amendment, the contractor expects to procure approximately \$2,000,000 in long lead time materials in 2019. The construction is scheduled to begin in early 2020 and be completed and operational in the summer of 2021. The 5-year budget includes \$13,000,000 in 2020 and \$5,550,000 in 2021 to cover the construction contract as well as other project costs such as UTA project management, design services during construction, systems integration, startup and testing, activation, quality assurance, warranty period inspections, shuttle bus service, legal services and unallocated contingency for unforeseen conditions.

Contract Administrator * Pickett, Teresa

Project Manager * Turner, Grey L

Base Contract Effective Dates * Beginning 8/1/2018

* Ending 7/13/2021

Contract Type * CONSTRUCTION

Procurement Method * RFP

Number of Responding Firms

\$ Value of Next Lowest Bidder

Base Contract Term (Months) * 35

Contract Options (Months) * 0

Option to Renew? * Yes No

Extension Start Date

End Date

Financial Section

Procurement

Existing Contract Value	Amendment Amount	New/total Contract Value *
\$ 198,500.00	\$ 14,507,521.00	\$ 14,706,021.00
Qty	Unit Price \$	Annual/One-Time Value
		\$ 2,650,000.00

Attachment Is the amount an estimate? * Yes No

Is the amount a one-time purchase or annual recurring purchase? * One-time Recurring

Account Code * 40-
3124.6891
2

Capital Project Code MSP124

Budgeted? * Yes

Funding Source * Local No

Budget amount * \$ 2,650,000.00

Will this contract require support from another department? * Yes No

Is the other department(s) aware of this contract and the required support? * Yes No N/A

Has the Qualified Health Insurance Certificate been verified? * Yes No N/A

Approval Section

1)Legal/Compliance Review * Bell, Mike

2)Accounting Approval Needed? * Yes No 2)Accounting Review * Steele, Bryan

3)Risk Approval Needed? * Yes No

4)IT Approval Needed? * Yes No

5)Add Additional Approval? * Yes No

6)Manager/Program Manager * Thorpe, E Gregory

7)Dir, Sr. Mgr, or RGM * Turner, Grey L

8)Chief * DeLoretto, Mary Louise

9)Executive Director * Meyer, William Steven

Board Approval Required Board Approval Date

Print this page

**CONSTRUCTION SERVICES AMENDMENT
AIRPORT STATION RELOCATION PROJECT (CM/GC)
PHASE 2 CONTRACT**

This Construction Manager / General Contractor Agreement – Phase 2 Construction Services Amendment (“**Amendment**”) is between UTA Transit Authority, a public transit district organized under the laws of the State of Utah (“**UTA**”), and Kiewit Infrastructure West Co., a Utah Corporation, (“**Contractor**”).

RECITALS

A. UTA is developing a project to relocate the existing Airport TRAX light rail station (the “**Project**”).

B) Pursuant to Request for Proposals No. 18-2705TP, UTA and Contractor entered into the Construction Manager/General Contractor Agreement – Phase 1 Pre-Construction Services, dated August 1, 2018 (the “**Phase 1 Agreement**”).

C) Pursuant to the Phase 1 Agreement, UTA and Contractor have negotiated and agreed on the lump sum price, schedule, and scope of work for the construction services for the Project, and desire to amend the Phase 1 Agreement in order to include that scope, schedule, and price. Hereafter, the term “**Agreement**” refers collectively to the Phase 1 Agreement and this Amendment.

AGREEMENT

Therefore, the parties agree as follows:

1. Scope of Work. Contractor shall perform the Work. In the Contract Documents, “**Work**” means all construction and other services required by the Contract Documents, including procuring and furnishing all material, equipment, services and labor reasonably inferable from the Contract Documents as necessary to complete the Project

2. Schedule. (a) The Baseline Schedule is hereby attached as Exhibit D. Contractor shall commence the Work (which, for purposes of this Section, shall not include the Phase 1 Work) within seven (7) days of Contractor’s receipt of a Notice to Proceed (“**NTP**”) from UTA. UTA is not required to issue an NTP until all insurance, bonding, and other required documentation is submitted and deemed acceptable by UTA.

(b) UTA may issue a limited Notice to Proceed on a portion of the Work, and may issue a series of limited NTPs to provide for progression of the Work in phases. Issuance of a limited NTP will not be deemed to require UTA to issue any subsequent NTPs, and will not be deemed to obligate UTA to complete the Project or to pay Contractor for any portion of the Work not encompassed by an NTP issued by UTA.

(c) The Contractor shall achieve Substantial Completion of the entire Work no later than June 3, 2021 (the “**Substantial Completion Date**”). In the Contract Documents, “**Substantial Completion**” means that the Work is sufficiently complete in accordance with the Contract Documents so that UTA can occupy and use the Project for system integration testing, training, and pre-revenue operations.

(d) The Contractor shall achieve Revenue Readiness of the Work no later than July 1, 2021 (the “**Revenue Operations Date**”). In the Contract Documents, “Revenue Readiness” means that the

Work is sufficiently complete in accordance with the Contract Documents so that the Project is ready for public use.

(e) The Contractor shall achieve Final Completion of the Work as expeditiously as reasonably practicable, but in no event later than July 13, 2021 (the “**Final Completion Date**”). In this Agreement, “**Final Completion**” means that the Work is complete in accordance with the Contract Documents, including but not limited to, final completion of all punch list items and delivery of all documents in accordance with the General Conditions.

(f) Time is of the essence with respect to the dates set forth in this section.

(g) Contractor acknowledges that if Substantial Completion is not attained by the Guaranteed Substantial Completion Date, UTA will suffer damages that are difficult to measure and determine with precision. If Substantial Completion is not attained by the Guaranteed Substantial Completion Date, Contractor shall pay UTA \$1,000 as liquidated damages for each day that Substantial Completion extends beyond the Substantial Completion Date.

3. Price and Payment. (a) As full compensation for completing the Work in accordance with the Contract Documents, UTA shall pay to the Contractor the lump sum price of Thirteen million seven hundred eighty-one thousand five hundred forty-seven dollars (\$13,781,547) plus a not-to-exceed provisional amount of Seven hundred twenty-five thousand four hundred seventy-four dollars (\$725,474) which is conditioned upon evaluation and approval of payment by UTA, for a total not to exceed amount of \$14,507,021 (the “**Contract Price**”), as more particularly set forth on the Price Summary and Basis of Estimate, attached as Exhibit C. For purposes of this Addendum, the Contract Price does not include the Phase 1 Contract Price, which is defined by, and paid under, the Phase 1 Agreement. The procedures for invoicing and payment are set forth in Article 4 of the General Conditions.

(b) For purposes of calculating changes in the Contract Price pursuant to Section 7.6 of the General Conditions, Contractor will be entitled to a markup of 20.015% for allowable and allocable home office overhead and profit. Subcontractors will be entitled to a markup of 7% for overhead and profit, but the cumulative markup may not exceed 17%.

4. Contract Documents. (a) The Contract Documents consist of the following:

- (1) All written amendments and Change Orders to this Amendment executed in accordance with Article 7 of the General Conditions;
- (2) This Amendment, including its exhibits, and specifically including the Exhibit A General Conditions;
- (3) All written amendments and Change Orders to the Phase 1 Agreement, executed in accordance with the Phase 1 Agreement;
- (4) The Phase 1 Agreement, including its exhibits;
- (5) The Contractor’s Proposal in response to the RFP;
- (6) The RFP.

(b) The parties intend that the Contract Documents include and provide for all aspects of the Work that are necessary for the proper initiation, performance, and Final Completion of the Work by the Contractor, by the Final Completion Date, and for the Contract Price. The parties intend that

the Contract Documents be interpreted in harmony so as to avoid conflict, with words and phrases interpreted in a manner consistent with construction industry standards.

(c) If any terms of the Contract Documents contradict any other terms, the terms contained in the more recent Contract Document will govern.

(d) Contractor acknowledges that, prior to the execution of this Agreement, it has carefully reviewed the Contract Documents for errors, omissions, conflicts or ambiguities (each, a “**Discrepancy**”), and is not aware of any Discrepancies as of the execution of this Agreement. If the Contractor becomes aware of a Discrepancy, the Contractor shall immediately notify UTA’s Project Manager of that Discrepancy in writing. UTA’s Project Manager shall promptly resolve the Discrepancy in writing. Contractor’s failure to promptly notify UTA of an apparent discrepancy will be deemed a waiver of Contractor’s right to seek an adjustment of the Contract Price or Contract Times due to the discrepancy.

(e) The Contract Documents form the entire contract between UTA and the Contractor and by incorporation in this Agreement are as fully binding on the parties as if repeated in this Agreement. No oral representations or other agreements have been made by the parties except as specifically stated in the Contract Documents.

5. Representatives of the Parties. (a) UTA designates E. Gregory Thorpe as its Project Manager, and Grey Turner as its Senior Representative. UTA’s Contract Administrator for this Agreement is Teresa Pickett. Questions or correspondence regarding the contractual aspects of this Agreement should be directed to Ms. Pickett, at the address set forth in section 9.

(b) Contractor designates Jim Holmes as its Project Manager, and Joe Cook as its Senior Representative.

6. Key Personnel. (a) Contractor shall ensure that the following Key Personnel remain assigned to the Project until Final Completion:

- (1) Track superintendent: Mike Delance
- (2) Structure superintendent: Lonnie Olsen
- (3) Project Engineer : Tom Brittain
- (4) Quality Control Manager: Lonnie Palmer
- (5) OCS Supt : Ed Thompsen

(b) This Agreement was awarded based on Contractor’s representation that such key personnel would be engaged in their respective capacities, at the commitment levels indicated, for the full duration of the Project. Contractor shall not make changes in the Key Personnel staffing without the written approval of UTA, such approval not to be withheld unreasonably. Any replacements of key personnel must have the same substantive and qualitative experience as the individuals identified in Contractor’s Proposal.

7. Bonds and Insurance. (a) Contractor shall obtain and maintain the insurance coverages set forth in Exhibit B, and comply with the obligations set forth in Exhibit B.

(b) The Contractor shall provide to UTA a performance bond and a payment bond (the “Bonds”) issued by a surety doing business in Salt Lake County, Utah, and listed in the then current US Department of the Treasury’s Circular 570. The Bonds must each be in an amount equal to 100%

of the Contract Price, and in a form acceptable to UTA. Contractor shall provide the Bonds to UTA prior to commencing any Work.

(c) Upon Final Completion of the Work, UTA may, in its sole discretion, allow Contractor to replace the performance bond with a warranty bond in an amount and in a form acceptable to UTA.

8. Value Engineering. Savings resulting from an approved Value Engineering Change Proposal (VECP) (as defined in Article 10 of the General Conditions) subsequent to the execution of this Amendment, will be allocated 70% to UTA, and 30% to Contractor. This provision governs over conflicting language in the General Conditions. However, the Contractor is ineligible to share in any VECP which was known to the Contractor prior to submission of its Phase II proposal.

9. Notices. (a) To be deemed valid, all notices, requests, claims, demands and other communications between the parties (“Notices”) must be in writing and addressed as follows:

If to UTA Transit Authority:
Utah Transit Authority
ATTN: Teressa Pickett
669 West 200 South
Salt Lake City, UT 84101

With a required copy to:
Utah Transit Authority
ATTN: Legal Counsel
669 West 200 South
Salt Lake City, UT 84101.

If to the Contractor:
Stan Driver
Kiewit Infrastructure West Co.
3888 East Broadway Rd.
Phoenix, AZ 85040

With a required copy to:
Joe Cook
Kiewit Infrastructure West Co.
9815 South Monroe St.
Sandy, Utah 84070

(b) To be deemed valid, Notices must be given by one of the following methods: (i) by delivery in person (ii) by a nationally recognized next day courier service, (iii) by first class, registered or certified mail, postage prepaid.

(c) Either party may change the address at which that party desires to receive written notice by delivery of Notice of such change to the party as set forth above. Notices will be deemed effective on delivery to the notice address then applicable for the party to which the Notice is directed, provided, however, that refusal to accept delivery of a Notice or the inability to deliver a Notice because of an address change that was not properly communicated shall not defeat or delay the effectiveness of a Notice.

10. Counterparts. The parties may execute this Amendment in any number of counterparts, each of which when executed and delivered will constitute a duplicate original, but all counterparts together will constitute a single agreement.

11. Effectiveness; Date. The Amendment will become effective when all parties have fully signed it. The date of this Amendment will be the date it is signed by the last individual to sign it (as indicated by the date associated with that individual’s signature).

Each individual is signing this Amendment on the date stated opposite that individual’s signature.

UTAH TRANSIT AUTHORITY

By: _____
Name: W. Steve Meyer
Title: Interim Executive Director

Date: _____

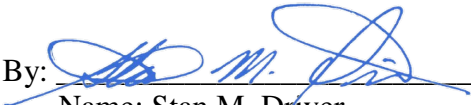
By: _____
Name: Mary DeLoretto
Title: Director of Capital Projects

Date: _____

Approved as to Legal Content:

By: _____
Utah Transit Authority
Legal Counsel

INSERT NAME OF CONTRACTOR

By: 
Name: Stan M. Driver
Title: Senior Vice President

Date: _____

Contractor's Federal ID Number:
47-0647803

**Exhibit A to Phase 2 Construction Services Amendment
Design and Construction General Conditions**

**ARTICLE 1
General**

1.1 **Cooperation.** UTA and Contractor commit at all times to cooperate fully with each other, and proceed on the basis of trust and good faith, so as to permit each party to realize the benefits afforded under the Contract Documents.

1.2 **Professional Standards.** Contractor shall perform the Work in a good and workmanlike manner, and shall use reasonable skill, care, and diligence. If the Work includes professional services, Contractor shall perform those services in a professional manner, using at least that standard of care, skill and judgment that can reasonably be expected from similarly situated professionals.

1.3 **Definitions.** Terms that are defined in the Agreement have the same definition in all the Contract Documents, including in these General Conditions. Unless expressly modified by the Agreement, the following definitions shall also apply to all Contract Documents:

“Agreement” means the document signed by Contractor and UTA to which these General Conditions are attached as an exhibit or into which these General Conditions are incorporated by reference.

“Application for Payment” shall mean an invoice for a progress or final payment made in accordance with the requirements of Article 4.

“Basis of Design Documents” means those preliminary drawings, concept design drawings, technical requirements, performance requirements, project criteria, or other documents that are (i) included in the Contract Documents, and (ii) serve as the basis or starting point for design services to be performed by Contractor, if any.

“Claim” has the meaning indicated in Section 8.1 of these General Conditions.

“Construction Documents” means the final drawings and specifications that set forth in detail the requirements for construction of the Project.

“Contract Documents” means those documents designated as Contract Documents in the Agreement.

“Contract Times” means the guaranteed dates for Substantial Completion, Final Completion (if applicable), and any other deadlines for completion of the Work, or a part thereof, all as set forth in the Agreement.

“Contractor” means the entity that has entered into a contract with UTA to perform construction and other services as detailed in the Contract Documents. The Contractor may be a CM/GCer, general contractor, Construction Manager/General Contractor, or other type of entity.

“Day” means a calendar day unless otherwise specifically noted in the Contract Documents.

“Differing Site Condition” has the meaning indicated in Section 3.2 of these General Conditions.

“Final Completion” has the meaning indicated in Section 4.7 of these General Conditions.

“Force Majeure Event” means a delay caused by any national or general strikes, fires, riots, acts of God, acts of the public enemy, floods, acts of terrorism, unavoidable transportation accidents or embargoes, or other events: (i) which are not reasonably foreseeable as of the date the Agreement was executed; (ii) which are attributable to a cause beyond the control and without the fault or negligence of the party incurring such delay; and (iii) the effects of which cannot be avoided or mitigated by the party claiming such Force Majeure Event through the use of commercially reasonable efforts. The term Force Majeure Event does not include a delay caused by seasonal weather conditions, inadequate construction forces, general economic conditions, changes in the costs of goods, or Contractor’s failure to place orders for equipment, materials, construction equipment or other items sufficiently in advance to ensure that the Work is completed in accordance with the Contract Documents.

“General Conditions” means this document.

“Legal Requirements” means all applicable federal, state, and local laws, codes, ordinances, rules, regulations, orders and decrees of any government or quasi-government entity having jurisdiction over the Project or Site, the practices involved in the Project or Site, or any Work including, without limitation, those related to safety and environmental protection. The terms Legal Requirements shall also include any requirements or conditions included in a permit required for, or issued in conjunction with, the Project.

“Potential Change Notice” has the meaning indicated in Section 7.3 of these General Conditions.

“Project” means the construction project described in the Agreement.

“Punchlist” means shall mean a schedule of Work items (developed in accordance with the procedures described in Article 4) which remain to be completed prior to Final Completion, but which do not adversely affect the performance, operability, capacity, efficiency, reliability, cost effectiveness, safety or use of the Project after Substantial Completion.

“Schedule of Values” means the detailed statement furnished by Contractor and approved by UTA in accordance with Section 4.1, which statement outlines the various components of the Contract Price and allocates values for all such components in a manner that can be used for preparing and reviewing invoices.

“Site” means the land or premises on which the Project is located, as more particularly defined and described in the Contract Documents.

“Subcontractor” means any person or entity (including subcontractors at any tier, design engineers, laborers and materials suppliers) retained by Contractor or any other Subcontractor to perform a portion of Contractor’s obligations under the Contract Documents.

“Substantial Completion” or “Substantially Complete” has the meaning indicated in Section 4.6 of these General Conditions.

“Work” means all obligations, duties, requirements, and responsibilities for the successful completion of the Project by Contractor, including furnishing of all services and/or equipment (including obtaining all applicable licenses and permits to be acquired by Contractor) in accordance with the Contract Documents.

ARTICLE 2 **Contractor’s Services**

2.1 General Services.

2.1.1 Contractor’s Project Manager shall be reasonably available to UTA and shall have the necessary expertise and experience required to supervise the Work. Contractor’s Project Manager shall communicate regularly with UTA and shall be vested with the authority to act on behalf of Contractor.

2.1.2 Contractor shall provide UTA with a monthly status report detailing the progress of the Work, including: (i) whether the Work is proceeding according to schedule; (ii) whether discrepancies, conflicts, or ambiguities exist in the Contract Documents that require resolution; (iii) whether unusual health and safety issues exist in connection with the Work; and (iv) other items that require resolution so as not to jeopardize Contractor’s ability to complete the Work for the Contract Price and within the Contract Time(s).

2.1.3 Unless a schedule for the execution of the Work has been attached to the Agreement as an exhibit at the time the Agreement is executed, Contractor shall prepare and submit, within seven (7) Days of the execution of the Agreement, a schedule for the execution of the Work for UTA’s review and response. The schedule must indicate the dates for the start and completion of the various stages of Work, including the required dates when UTA obligations must be completed to enable Contractor to achieve the Contract Time(s). Such UTA obligation dates may include (where contemplated in the Contract Documents): (i) Site availability requirements; and/or (ii) dates when UTA information or approvals are required. The schedule shall be revised as required by conditions and progress of the Work, but such revisions shall not relieve Contractor of its obligations to complete the Work within the Contract Time(s), as such dates may be adjusted in accordance with the Contract Documents. UTA’s review of, and response to, the schedule shall not be construed as relieving Contractor of its complete and exclusive control over the means, methods, sequences and techniques for executing the Work.

2.2 Design Services. If the Work includes any design services, provisions 2.2.1 through 2.2.8 apply.

2.2.1 Contractor shall provide the necessary design services, including architectural, engineering and other design professional services, for the preparation of the required drawings, specifications and other design submittals to permit Contractor to complete the Work consistent with the Contract Documents. Contractor shall ensure that design services are performed by qualified,

licensed design professionals employed by Contractor, or by qualified, independent licensed design consultants procured by Contractor.

2.2.2 Contractor and UTA shall, consistent with any applicable provision of the Contract Documents, agree upon any interim design submissions that UTA may wish to review, which interim design submissions may include design criteria, drawings, diagrams, and specifications setting forth the Project requirements. Interim design submissions must be consistent with the Basis of Design Documents, as the Basis of Design Documents may have been changed through the design process set forth in this Section 2.2.2. On or about the time of the scheduled submissions, Contractor and UTA shall meet and confer about the submissions, with Contractor identifying during such meetings, among other things, the evolution of the design and any changes to the Basis of Design Documents, or, if applicable, previously submitted design submissions. Changes to the Basis of Design Documents shall be processed in accordance with Article 7. Minutes of the meetings, including a full listing of all changes, will be maintained by Contractor and provided to all attendees for review. Following the design review meeting, UTA will be entitled to at least ten (10) Days to review and approve the interim design submissions and meeting minutes.

2.2.3 To the extent not prohibited by the Contract Documents or Legal Requirements, and with the approval of UTA, Contractor may prepare interim design submissions and Construction Documents for a portion of the Work to permit construction to proceed on that portion of the Work prior to completion of the Construction Documents for the entire Work.

2.2.4 Contractor shall submit proposed Construction Documents to UTA, which must be consistent with the latest set of interim design submissions, as such submissions may have been modified in a design review meeting and recorded in the meeting minutes. The parties shall have a design review meeting to discuss, and UTA shall review and approve, the Construction Documents in accordance with the procedures set forth in Section 2.2.2 above. Contractor shall submit one set of approved Construction Documents to UTA prior to commencement of construction.

2.2.5 UTA's review and approval of interim design submissions, meeting minutes, and Construction Documents is for the purpose of mutually establishing a conformed set of Contract Documents compatible with the requirements of the Work. Neither UTA's review nor approval of any interim design submissions, meeting minutes, and Construction Documents shall be deemed to: (i) relieve Contractor from its obligations to comply with the Contract Documents; (ii) relieve Contractor from its obligations with respect to the accuracy of the design submittals; or (iii) transfer any design liability from Contractor to UTA.

2.2.6 Upon completion of the Work, and as a condition to receiving final payment pursuant to Section 4.7, Contractor shall prepare and provide to UTA a final set of as-built drawings, depicting the Project as completed, including all changes to the Project made subsequent to the approval of the Construction Documents.

2.2.7 All drawings, specifications, interim design submissions, Construction Documents, and other documents furnished by Contractor to UTA pursuant to the Contract Documents (those documents, the "Work Product") are deemed to be instruments of service and Contractor shall retain the ownership and intellectual property rights therein.

2.2.8 Once UTA has made a corresponding payment for the Work required for Contractor to prepare any Work Product, Contractor will be deemed to have granted to UTA a license to use that Work Product in connection with the construction, occupancy, and maintenance of the Project, or any other UTA project or facility.

2.3 Government Approvals, Permits, and Legal Requirements.

2.3.1 Except where the Contract Documents expressly state that UTA will be responsible for a specific entitlement, Contractor shall obtain and pay for all necessary permits, approvals, licenses, government charges and inspection fees required for the prosecution of the Work by any government or quasi-government entity having jurisdiction over the Project or Site. Contractor shall provide reasonable assistance to UTA in obtaining any permits, approvals, and licenses that the Contract Documents expressly specify to be a UTA responsibility.

2.3.2 Contractor shall perform the Work in accordance with all Legal Requirements and shall provide all notices applicable to the Work as required by the Legal Requirements.

2.3.3 Contractor shall file a notice of commencement, a notice of completion, and other notices required by Utah Code Title 38 (Liens). Contractor shall file such notices in the manner and within the time periods required by law.

2.3.4 The Contract Price and/or Contract Time(s) will be adjusted to compensate Contractor for the effects of any changes in the Legal Requirements provided that such changes: (i) materially increase Contractor's cost of, or time required for, the performance of the Work; and (ii) are enacted after the effective date of the Agreement.

2.4 Construction Services.

2.4.1 Contractor shall proceed with construction in accordance with the approved Construction Documents.

2.4.2 Except to the extent that the Contract Documents expressly identify UTA obligations related to the Work, Contractor shall provide through itself or Subcontractors the necessary supervision, labor, inspection, testing, start-up, material, equipment, machinery, temporary utilities and other temporary facilities (whether or not expressly stated or depicted in the Contract Documents or Construction Drawings) to permit Contractor to complete construction of the Project consistent with the Contract Documents.

2.4.3 Contractor is responsible for securing the Site until UTA issues a Certificate of Substantial Completion.

2.4.4 Contractor shall perform all construction activities efficiently and with the requisite expertise, skill and competence to satisfy the requirements of the Contract Documents. Contractor shall at all times exercise complete and exclusive control over the means, methods, sequences, techniques and procedures of construction.

2.4.5 Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take necessary precautions for the safety of, and shall provide necessary protection to prevent damage, injury or loss to the following: (i) all Contractor, Subcontractor, UTA employees, the public and other persons who may be affected thereby; (ii) all Work and all equipment and materials to be incorporated into the Work; and (iii) other property at the Site or adjacent thereto. Contractor shall comply with the minimum standards imposed by UTA's Construction Safety and Security Program Manual, as updated from time to time (UTA's Construction Safety and Security Program Manual is incorporated into the Contract Documents by reference). However, Contractor shall be responsible for all additional as necessary to comply protect persons and property and comply with applicable Legal Requirements related to safety.

2.4.6 Contractor shall employ only Subcontractors who are duly licensed and qualified to perform the Work consistent with the Contract Documents. UTA may require Contractor to remove from the Project a Subcontractor or anyone employed directly or indirectly by any Subcontractor, if UTA reasonably concludes that the Subcontractor is creating safety risks at the Site or quality risks to the Project.

2.4.7 Contractor is responsible for the proper performance of the Work by Subcontractors and for any acts and omissions in connection with such performance. Nothing in the Contract Documents is intended or deemed to create any legal or contractual relationship between UTA and any Subcontractor, including but not limited to any third-party beneficiary rights.

2.4.8 Contractor shall coordinate the activities of all of its Subcontractors. If UTA performs other work on the Project or at the Site with separate contractors under UTA's control, Contractor agrees to reasonably cooperate and coordinate its activities with those of such separate contractors so that the Project can be completed in an orderly and coordinated manner without unreasonable disruption.

2.4.9 Contractor shall keep the Site reasonably free from debris, trash and construction wastes to permit Contractor to perform its construction services efficiently, safely and without interfering with the use of adjacent land areas. Upon Substantial Completion of the Work, or a portion of the Work, Contractor shall remove all debris, trash, construction wastes, materials, equipment, machinery and tools arising from the Work or applicable portions thereof to permit UTA to occupy the Project or a portion of the Project for its intended use.

2.5 Quality Control, Quality Assurance, Inspection, Rejection and Correction of Work.

2.5.1 Contractor shall develop a Project-specific construction quality control plan as contemplated in UTA's Quality Management Plan and Construction Quality Plan. The Contractor's plan shall satisfy the minimum requirement imposed by UTA's Construction Quality Plan and shall be sufficient to ensure that Work is performed in compliance with the Contract Documents. If the Work includes any design services, Contractor shall also develop and thereafter comply with a design quality plan that meets the minimum requirements set forth in UTA Design Quality Plan. UTA Quality Management Plan, Construction Quality Plan and Design Quality Plan are

incorporated into the Contract Documents by reference. The Contractor's plans shall be subject to UTA's review and approval.

2.5.2 Contractor shall comply with the approved quality control plan(s). Responsibilities shall include inspection and testing and related activities including administration, management, supervision, reports, record keeping and use of independent testing agencies and laboratories. Contractor shall provide evidence of compliance with the Contract Documents.

2.5.3 UTA will have the right to audit and spot check the Contractor's quality control procedures and documentation. This will include the Company's right to inspect and test all Work at reasonable times. Contractor shall cooperate with any inspection and testing performed by UTA. All contractor-furnished materials and supplies shall be subject to inspection at the point of manufacture.

2.5.2 Any inspection and testing performed by UTA shall be for the sole and exclusive benefit of UTA. Neither inspection and testing of Work, nor the lack of same nor acceptance of the Work by UTA, nor payment therefore shall relieve Contractor from any of its obligations under the Contract Documents.

2.5.3 At any time prior to Substantial Completion, UTA may reject Work which fails to conform to the Contract Documents. Contractor shall, at its sole expense, promptly re-perform or correct any Work so as to conform to the requirements of the Contract. Contractor shall not be entitled to an adjustment to the Contract Price and/or Contract Times with respect to any corrective action necessary to rectify non-conforming Work.

2.5.4 If Contractor fails to promptly remedy rejected Work, UTA may, without limiting or waiving any other rights or remedies it may have, self-perform (through its own forces or through other contractors) the necessary corrective action(s) and deduct all amounts so incurred from any amount then or thereafter due Contractor.

2.6 Contractor's Warranty.

2.6.1 Contractor warrants to UTA that all Work, including all materials and equipment furnished as part of the Work, shall be: (i) of good quality conforming to generally recognized industry standards; (ii) in conformance with the Contract Documents; (iii) free of defects in materials and workmanship; and (iv) consistent with applicable Legal Requirements. Without limiting the generality of the forgoing, Contractor also specifically warrants that any design, engineering or other professional services provided by Contractor shall be shall satisfy applicable professional standards of care and that all materials and that any equipment furnished as part of the construction shall be new (unless otherwise specified in the Contract Documents). This provision is not intended to limit any manufacturer's warranty that provides UTA with greater warranty rights than set forth in this Section 2.6. Contractor shall provide UTA with all manufacturers' warranties upon Substantial Completion. Similarly, nothing in this Article is intended to limit any other express warranties set forth in the Contract Documents or to limit any other warranties implied by law, custom or usage of trade.

2.6.2 If Contractor becomes aware of any defect in the Work, or non-conformance with the Contract Documents, Contractor shall give prompt written notice of that defect or non-conformance to UTA.

2.6.3 Except as otherwise stated in the Agreement, Contractor shall correct any Work that does not comply with the warranties provided above for a period of two years following the date of Substantial Completion.

2.6.4 Contractor shall, within seven (7) Days of receipt of written notice from UTA that the Work does not comply with the warranties provided above, take meaningful steps to commence corrective action, including the correction, removal, replacement or re-performance of the nonconforming Work and the repair of any damage to other property caused the warranty failure. If Contractor fails to commence the necessary corrective action within such seven (7) Day period (or thereafter fails to continuously and diligently pursue such corrective action to completion), UTA may (in addition to any other remedies provided under the Contract Documents) provide Contractor with written notice that UTA will self-perform (through its own forces or through other contractors) correction of the warranty failure at Contractor's expense. If UTA performs (or causes to be performed) such corrective action, UTA may collect from Contractor all amounts so incurred and Contractor acknowledges its liability to reimburse UTA for all such reasonable expenses. If the nonconforming Work creates an emergency requiring an immediate response, the seven (7) Day period identified above shall be deemed inapplicable.

2.6.5 The two-year period referenced in Section 2.6.3 above only applies to Contractor's obligation to correct nonconforming Work and is not intended to constitute a period of limitations for any other rights or remedies UTA may have regarding Contractor's other obligations under the Contract Documents.

ARTICLE 3 **Site Conditions**

3.1 Hazardous Materials.

3.1.1 Unless otherwise expressly provided in the Contract Documents to be part of the Contractor's Work, Contractor is not responsible for any Hazardous Materials encountered at the Site. "Hazardous Materials" means any substance that: (i) is deemed a hazardous waste or substance under any environmental law; or (ii) might endanger the health of people exposed to it.

3.1.2 If Contractor discovers at the Site any substance the Contractor reasonably believes to be a Hazardous Material, Contractor shall immediately stop Work in the area of the discovery and immediately report the discovery to UTA Project Manager. UTA shall determine how to deal with the Hazardous Material, and Contractor shall resume Work in the area when directed to do so by UTA Project Manager.

3.1.3 Contractor will be entitled to an adjustment to the Contract Price and/or Contract Time(s) to the extent Contractor's cost and/or time of performance have been adversely impacted by the presence of Hazardous Materials.

3.1.4 The risk allocation and change provisions of Sections 3.1.1 through 3.1.3 do not apply to any Hazardous Materials introduced to the Site by Contractor, its Subcontractors, or anyone for whose acts Contractor is responsible. Those provisions also exclude Hazardous Materials that were properly stored and/or contained at the Site but thereafter released as a result of the Contractor's negligent performance of the Work. To the extent that Hazardous Materials are introduced and/or released at the Site by Contractor as described above in this Section 3.1.4, then: (i) to the fullest extent permitted by law, Contractor shall defend and indemnify UTA from and against all claims, losses, damages, liabilities and expenses, including attorneys' fees and expenses, arising out of or resulting from such Hazardous Materials; and (ii) Contractor shall not be entitled to an extension of Contract Price and/or Contract Time(s).

3.2 Differing Site Conditions.

3.2.1 If Contractor encounters a Differing Site Condition, Contractor will be entitled to an adjustment to the Contract Price and/or Contract Time(s) to the extent Contractor's cost and/or time of performance have been adversely impacted by the Differing Site Condition. "Differing Site Condition" means concealed or latent physical conditions at the Site that: (i) materially differ from the conditions indicated in the Contract Documents; and (ii) are of an unusual nature, differing materially from the conditions ordinarily encountered and generally recognized as inherent in the Work.

3.2.2 Upon encountering a Differing Site Condition, Contractor shall provide prompt written notice to UTA of such condition, which notice shall not be later than five (5) Days after such condition has been encountered. Contractor shall, to the extent reasonably possible, provide such notice before the Differing Site Condition has been substantially disturbed or altered.

ARTICLE 4 **Payment**

4.1 Schedule of Values.

4.1.1 Unless required by UTA upon execution of this Agreement, within ten (10) Days of execution of the Agreement, Contractor shall submit for UTA's review and approval a Schedule of Values for all of the Work. The Schedule of Values will: (i) subdivide the Work into its respective parts; (ii) include values for all items comprising the Work; and (iii) serve as the basis for monthly progress payments made to Contractor throughout the Work.

4.1.2 UTA will timely review and approve the Schedule of Values so as not to delay the submission of the Contractor's first application for payment. UTA and Contractor shall timely resolve any differences so as not to delay the Contractor's submission of its first application for payment.

4.2 Application for Payment.

4.2.1 To receive payment, Contractor shall submit to UTA an Application for Payment requesting payment for all Work performed as of the date of the Application for Payment. Contractor shall not submit Applications for Payment more often than once per month. The Application for Payment must be accompanied by supporting documentation sufficient to establish, to UTA's reasonable satisfaction, Contractor's entitlement to receive payment.

4.2.2 The Application for Payment may request payment for equipment and materials not yet incorporated into the Project, provided that: (i) UTA is satisfied that the equipment and materials are suitably stored at either the Site or another acceptable location; (ii) the equipment and materials are protected by suitable insurance; and (iii) immediately upon payment, UTA will receive ownership of the equipment and materials free and clear of all liens and encumbrances.

4.2.3 The Application for Payment will constitute Contractor's representation that the Work described therein has been performed consistent with the Contract Documents, has progressed to the point indicated in the Application for Payment, and that title to all materials and equipment will pass to UTA free and clear of all claims, liens, encumbrances, and security interests upon the incorporation of the materials and equipment into the Project, or upon Contractor's receipt of payment, whichever occurs earlier.

4.3 Sales Tax Exemption

4.3.1 Purchases of certain materials are exempt from Utah sales tax. UTA will provide a sales tax exemption certificate to Contractor upon request. UTA will not pay Contractor for sales taxes for exempt purchases, and such taxes should not be included in Contractor's Application for Payment.

4.4 UTA's Payment Obligations.

4.4.1 UTA shall pay Contractor all amounts properly requested and documented within thirty (30) Days of receipt of an adequately supported Application for Payment.

4.4.2 Notwithstanding Section 4.4.1, UTA may withhold up to 5% of each payment as retention in accordance with Utah Code Ann. § 13-8-5.

4.4.3 Notwithstanding Section 4.4.1, UTA may offset from such Application for Payment amounts any owed to UTA by Contractor pursuant to the Contract Documents.

4.4.4 If UTA determines that Contractor is not entitled to all or part of an Application for Payment as a result of Contractor's failure to meet its obligations under the Contract Documents, UTA will notify Contractor of the specific amounts UTA has withheld (or intends to withhold), the reasons and contractual basis for the withholding, and the specific actions Contractor must take to qualify for payment under the Contract Documents. If the Contractor disputes UTA's bases for withholding, Contractor may pursue its rights under the Contract Documents, including those under Article 8.

4.5 Contractor's Payment Obligations.

4.5.1 Contractor shall pay Subcontractors, in accordance with its contractual obligations to such parties, all the amounts Contractor has received from UTA on account of their work. Contractor shall indemnify and defend UTA against any claims for payment and mechanic's liens as set forth in Section 5.2 hereof.

4.5.2 If the Contract Documents include Federal Clauses, the terms of those Federal Clauses pertaining to payment of Subcontractors supersede any conflicting terms of this Article 4.

4.6 Substantial Completion.

4.6.1 Contractor shall notify UTA when it believes the entire Work is Substantially Complete. As used in the Contract Documents, "Substantially Complete" or "Substantial Completion" refers to the Contractor's satisfactory completion of all Work in accordance with the Contract Documents (excluding Punchlist items) to point such that UTA may safely start-up, occupy or otherwise fully use the Project for its intended purposes in compliance with applicable Legal Requirements. The terms "Substantially Complete" or "Substantial Completion" also require the completion of any items of Work specifically set forth as conditions precedent to Substantial Completion in the Agreement. Within five (5) Days of UTA's receipt of Contractor's notice, UTA and Contractor will jointly inspect such Work to verify that it is Substantially Complete in accordance with the requirements of the Contract Documents. If such Work is Substantially Complete, UTA shall prepare and issue a Certificate of Substantial Completion that will set forth: (i) the date of Substantial Completion of the Work or portion thereof; (ii) the remaining Punchlist items that have to be completed before Final Completion and final payment; and (iii) provisions (to the extent not already provided in the Contract Documents) establishing UTA's and Contractor's responsibility for the Project's security, maintenance, utilities and insurance pending Final Completion and final payment.

4.6.2 Promptly after issuing the Certificate of Substantial Completion, UTA shall release to Contractor all retained amounts, less an amount equal to two times the reasonable value of all remaining Punchlist items noted in the Certificate of Substantial Completion.

4.6.3 Upon Contractor's request or upon UTA's own initiative, UTA may, in its sole discretion, deem a discrete segment of the Project to be Substantially Complete. The provisions of Sections 4.6.1 and 4.6.2 will apply to that discrete segment of the Project. In addition, before UTA may take possession of a discrete segment of the Project, UTA and Contractor shall obtain the consent of their sureties, insurers, and any government authorities having jurisdiction over the Project.

4.6.4 Following Substantial Completion, UTA may restrict Contractor's access to the Site. UTA shall allow Contractor reasonable access to the Site in order for the Contractor to achieve Final Completion.

4.7 Final Payment.

4.7.1 When Contractor has achieved Final Completion of the Work, Contractor shall submit a Final Application for Payment. As used in the Contract Documents, “Final Completion” refers to the Contractor’s satisfactory completion of all Work in accordance with the Contract Documents including completion of Punchlist items, demobilization from the Site and the transmittal of all deliverables required by the Contract Documents. The Final Application for Payment shall include (at a minimum) the items set forth below.

4.7.1.1 An affidavit that there are no claims, obligations or liens outstanding or unsatisfied for labor, services, materials, equipment, taxes or other items performed, furnished or incurred for or in connection with the Work which will in any way affect UTA’s interests;

4.7.1.2 A general release executed by Contractor waiving, upon receipt of final payment, all claims, except those claims previously made in writing to UTA and remaining unsettled at the time of final payment;

4.7.1.3 All as-built drawings, redlined drawings, operating manuals, warranty assignments and other deliverables required by the Contract Documents; and

4.7.1.4 Certificates of insurance confirming that required coverages will remain in effect consistent with the requirements of the Contract Documents.

4.7.2 Deficiencies in the Work discovered after Substantial Completion, whether or not such deficiencies would have been included on the Punchlist if discovered earlier, will be deemed warranty Work. Contractor shall correct such deficiencies pursuant to Section 2.6, and UTA may withhold from the final payment the reasonable value of completion of the deficient work until that work is completed.

ARTICLE 5 **Indemnification and Loss**

5.1 **Patent and Copyright Infringement.** If the Work includes any design services, provisions 5.1.1 through 5.1.3 apply.

5.1.1 Contractor shall defend any action or proceeding brought against UTA based on any claim that the Work, or any part thereof, or the operation or use of the Work or any part thereof, constitutes infringement of any United States patent or copyright, now or hereafter issued. UTA shall give prompt written notice to Contractor of any such action or proceeding and will reasonably provide authority, information and assistance in the defense of same. Contractor shall indemnify UTA from and against all damages and costs, including but not limited to attorneys’ fees and expenses awarded against UTA or Contractor in any such action or proceeding. Contractor shall keep UTA informed of all developments in the defense of such actions.

5.1.2 If UTA is enjoined from the operation or use of the Work, or any part thereof, as the result of any patent or copyright suit, claim, or proceeding, Contractor shall at its sole expense take

reasonable steps to procure the right to operate or use the Work. If Contractor cannot so procure such right within a reasonable time, Contractor shall promptly, at Contractor's expense, either: (i) modify the Work so as to avoid infringement of any such patent or copyright; or (ii) replace said Work with Work that does not infringe or violate any such patent or copyright.

5.1.3 Sections 5.1.1 and 5.1.2 above shall not be applicable to any suit, claim or proceeding based on infringement or violation of a patent or copyright: (i) relating solely to a particular process or product of a particular manufacturer specified by UTA and not offered or recommended by Contractor to UTA; or (ii) arising from modifications to the Work by UTA or its agents after acceptance of the Work

5.2 **Payment Claim Indemnification.** Provided that UTA is not in breach of its contractual obligation to make payments to Contractor for the Work, Contractor shall indemnify, defend and hold harmless UTA from any claims or mechanic's liens brought against UTA or against the Project as a result of the failure of Contractor, its Subcontractors, or others for whose acts Contractor is responsible, to pay for any services, materials, labor, equipment, taxes or other items or obligations furnished or incurred for or in connection with the Work. Within three (3) Days of receiving written notice from UTA that such a claim or mechanic's lien has been filed, Contractor shall commence to take the steps necessary to discharge said claim or lien. If Contractor fails to do so, UTA will have the right to discharge the claim or lien and hold Contractor liable for costs and expenses incurred, including attorneys' fees.

5.3 **Contractor's General Indemnification.**

5.3.1 Contractor, to the fullest extent permitted by law, shall indemnify, hold harmless and defend UTA, its officers, trustees, and employees from and against claims, losses, damages, liabilities, including attorneys' fees and expenses, for bodily injury, sickness or death, and property damage or destruction resulting from or arising out of the negligent acts or omissions of Contractor, Subcontractors, anyone employed directly or indirectly by any of them or anyone for whose acts any of them may be liable.

5.3.2 If an employee of Contractor, a Subcontractor, anyone employed directly or indirectly by any of them or anyone for whose acts any of them may be liable has a claim against UTA, its officers, directors, employees, or agents, Contractor's indemnity obligation set forth in Section 5.3.1 above will not be limited by any limitation on the amount of damages, compensation or benefits payable by or for Contractor, Subcontractors, or other entity under any employee benefit acts, including workers' compensation or disability acts.

5.4 **Risk of Loss.** Contractor bears all risk of loss to the Project, including materials and equipment not yet incorporated into the Project, until final payment is made by UTA.

ARTICLE 6

Time

6.1 **Obligation to Achieve the Contract Times.** Contractor shall commence performance of the Work and achieve the Contract Time(s) in accordance with the Contract

Documents. The Contract Documents specify critical completion milestones with which Contractor must comply. All time and schedule requirements included within the Contract Documents are of the essence. By executing the Agreement, Contractor confirms that the completion milestones in the Contract Documents are reasonable for the performance of the Work. Unless otherwise excused by the terms of the Contract Documents, Contractor's failure to timely perform the Work in accordance with the completion milestones shall result in the assessment of liquidated damages (if, and to the extent, set forth in the Agreement) and (where no liquidated damages are provided under the Agreement or where the maximum liquidated damages available under the Agreement have been incurred) an event of default.

6.2 Excusable Delays. The Contract Time(s) for performance shall be equitably adjusted by Change Order to the extent that Contractor is actually and demonstrably delayed in the performance of the Work because of: (i) Differing Site Conditions (as provided in Section 3.2); (ii) Hazardous Materials (as provided in Section 3.1); (iii) Force Majeure Events (as defined in Section 1.3); (iv) changes in the Work directed by UTA (as provided in Section 7.2); (v) constructive changes (as provided in Section 7.3); (vi) changes in Legal Requirements (as provided in Section 2.3.3); (viii) a suspension without cause (as provided in Section 9.1); or (viii) UTA's unexcused delay in performing any UTA obligation specified in the Contract Documents in accordance with the completion milestones indicated in the approved schedule.

6.3 Excusable and Compensable Delays. In addition to Contractor's right to a time extension for those events set forth in Section 6.2 above, Contractor will also be entitled to an appropriate adjustment of the Contract Price provided, however, that the Contract Price will not be adjusted for delays caused by Force Majeure Events.

ARTICLE 7 **Changes**

7.1 Change Orders.

7.1.1 Contractor shall not undertake any activity that materially changes the Work, or materially deviates from the requirements of the Contract Documents, except as authorized in this Article 7. Any costs incurred by Contractor without authorization as provided in this Article 7 will be considered non-compensable.

7.1.2 A Change Order is a written instrument, signed by UTA and Contractor, issued after execution of the Agreement, stating their agreement on a change in: (i) the scope of the Work; (ii) the Contract Price; and/or (iii) the Contract Time(s).

7.1.3 All changes in the Work authorized by applicable Change Order shall be performed under the applicable conditions of the Contract Documents. UTA and Contractor shall negotiate in good faith and as expeditiously as possible the appropriate adjustments for such changes.

7.2 UTA-Directed Changes. UTA may direct changes in the Work. Upon receipt of such direction, Contractor shall prepare an estimate of the cost and schedule impact of the change (if any). Upon agreement between UTA and Contractor on the scope of the change to the Work, and

the adjustment, if any, to the Contract Price and/or Contract Times, UTA and Contractor shall execute a written Change Order.

7.3 Constructive Changes.

7.3.1 To the extent that Contractor: (i) receives a written or verbal direction or proceeding from UTA that Contractor believes to constitute a material change to the nature, character or schedule of the Work and is within the general scope of the contract; and/or (ii) becomes aware of any circumstance or condition that expressly provides Contractor a right to a Change Order under the terms of the Contract Documents, then (in either case) Contractor shall deliver to UTA's Project Manager written notice (hereinafter a "Potential Constructive Change Notice") within ten (10) Days after Contractor becomes aware of (or should have reasonably become aware) the facts and circumstances which Contractor believes to give rise to a Change Order.

7.3.2 Contractor's failure to deliver a Potential Constructive Change Notice in a timely manner shall constitute a waiver of all of Contractor's rights to a Change Order.

7.3.3 In conjunction with the Potential Constructive Change Notice (or within 10 days thereafter), Contractor shall submit to UTA all supporting information and documentation necessary for UTA to evaluate the contractual basis for the Potential Constructive Change Notice and to also evaluate the equitable relief claimed by Contractor. Contractor shall promptly respond to all UTA inquiries about the Potential Constructive Change Notice and the supporting information and documentation.

7.3.4 To the extent UTA concludes that the Potential Constructive Change Notice demonstrates Contractor's entitlement to a Contract equitable adjustment, and provided that the parties are able to negotiate mutually agreeable equitable adjustments to the Contract Documents, then UTA and Contractor shall execute a written Change Order implementing the equitable adjustment

7.3.5 Notwithstanding any language in Contract Documents to the contrary, Contractor is not authorized to expend effort on any constructive work until expressly authorized by the Contracts Administrator.

7.3.6 Any Change Order implementing an equitable adjustment negotiated pursuant to this Article shall contain all direct, indirect, general, administrative or other costs to which Contractor shall be entitled and shall operate as a final accord and satisfaction of all Contractor claims related to the grounds for the equitable adjustment and Change Order.

7.4 Direction or Authorization to Proceed.

7.4.1 Prior to final agreement with respect to a Change Order, UTA may issue a Direction or Authorization to Proceed ("DAP"). A DAP is a written order unilaterally prepared and signed by UTA directing the Contractor to proceed with specified Work while Change Order negotiations or Claim resolution discussions continue. UTA may issue a DAP at any time, and Contractor shall undertake the Work as set forth in the DAP, and in accordance with the Contract Documents.

7.4.2 After issuance of a DAP, UTA and Contractor shall continue to negotiate in good faith to resolve outstanding issues expeditiously.

7.5 **Requests for Information.** UTA shall have the right, from time to time, to issue clarifications to the Work of a non-material nature at any time. Contractor shall have the corresponding right to seek clarification with respect to ambiguous or conflicting provisions of the Contract Documents. Such clarifications or conflicts shall be confirmed, implemented and documented through a Request for Information (“RFI”) process to be developed for the Project. The RFI process may also be used to document minor changes in the Work do not involve an adjustment in the Contract Price and/or Contract Time(s) and do not materially and adversely affect the Work, including the design, quality, performance and workmanship required by the Contract Documents.

7.6 **Contract Price Adjustments.**

7.6.1 The increase or decrease in Contract Price resulting from a change in the Work will be subject to a detailed Cost Analysis which examines one or more of the following methods and factors

7.6.1.1 Composition and derivation of Unit prices set forth in the Agreement or as subsequently agreed to between the parties;

7.6.1.2 A mutually accepted lump sum, properly itemized and supported by sufficient cost or pricing data to permit thorough evaluation by UTA;

7.6.1.3 Costs, fees, labor and indirect rates and any other markup rates set forth in the Agreement; or

7.6.1.4 If an increase or decrease cannot be agreed to as set forth in items 7.6.1.1 through 7.6.1.3 above and UTA issues a DAP, the cost of the change of the Work shall be unilaterally determined by UTA using cost or price analysis which considers the reasonable expense and savings in the performance of the Work resulting from the change, including a reasonable overhead and profit rate, as may be set forth in the Agreement.

7.6.2 If unit prices are set forth in the Contract Documents or are subsequently agreed to by the parties, but application of such unit prices will cause substantial inequity to UTA or Contractor because of differences in the character or quantity of such unit items as originally contemplated, such unit prices shall be equitably adjusted.

7.6.3 Negotiations over changes in the Contract Price will be conducted using an open-book cost-estimating process. UTA defines “open-book” to include all elements of Contractor’s costs, including labor hours and rates, units and estimated quantities, unit prices, equipment estimates, material costs, and subcontractor costs. As a precondition to receipt of any Change Order or Equitable Adjustment, Contractor shall openly share all elements of cost listed above and its detailed cost estimate, material and subcontractor quotations and any other information used to compile its cost estimate.

7.7 **Disputes Regarding Change Orders.** If the parties are not able to agree as to whether a Change Order is warranted under the Contract Documents, or cannot agree upon the extent of relief to be granted under a Change Order after good faith negotiations, either party may refer the dispute to the Claim resolution provisions of Article 8. Pending resolution of such Claim, Contractor shall proceed with the Work as directed by UTA under a reservation of rights. UTA shall continue to pay any undisputed payments related to such Claim.

7.8 **Emergencies.** In any emergency affecting the safety of persons and/or property, Contractor shall act, at its discretion, to prevent threatened damage, injury or loss. Any change in the Contract Price and/or Contract Time(s) on account of emergency work shall be determined as provided in this Article 7.

ARTICLE 8 **Claims and Claim Resolution**

8.1 Claims.

8.1.1 “Claim” means any disputes between UTA and the Contractor arising out of or relating to the Contract Documents including any disputed claims for Contract adjustments that cannot be resolved in accordance with the Change Order negotiation process set forth in Article 8. Claims must be made by written notice. The responsibility to substantiate claims rests with the party making the claim.

8.1.2 Unless otherwise directed by UTA in writing, Contractor shall proceed diligently with performance of the Work pending final resolution of a Claim, including litigation. UTA shall continue to pay any undisputed payments related to such Claim.

8.2 Claim Resolution.

8.2.1 The parties shall attempt in good faith to resolve promptly through negotiation any Claim arising out of or relating to the Contract Documents. If a Claim should arise, UTA’s Project Manager and Contractor’s Project Manager will meet at least once to attempt to resolve the Claim. For such purpose, either may request the other to meet within seven (7) Days of the date the Claim is made, at a mutually agreed upon time and place.

8.2.2 If UTA’s Project Manager and Contractor’s Project Manager are not able to resolve the Claim within fourteen (14) Days after their first meeting (or such longer period of time as may be mutually agreed upon), either party may request that UTA’s Senior Representative and the Contractor’s management representative (“Contractor’s Management Representative”) meet at least once to attempt to resolve the Claim.

8.2.3 If the Claim has not been resolved within sixty (60) Days of the date the Claim is made, either party may refer the Claim to non-binding mediation by sending a written mediation request to the other party. In the event that such a request is made, the Parties agree to participate in the mediation process. Non-binding mediation of claims or controversies under the Contract Documents shall be conducted by a professional mediator that is mutually acceptable to and agreed

upon by both parties (the “Mediator”). The parties and the Mediator may join in the mediation any other party necessary for a mutually acceptable resolution of the Claim. The mediation procedure shall be determined by the Mediator in consultation with the parties. The fees and expenses of the Mediator shall be borne equally by the parties.

8.2.4 If the Claim is not resolved within thirty (30) days after the commencement of mediation, or if no mediation has been commenced within one hundred and twenty (120) days of the date the Claim is made, either party may commence litigation to resolve the Claim. The exclusive forum for any such litigation is the Third District Court in and for Salt Lake County, Utah.

ARTICLE 9 **Suspension and Termination**

9.1 UTA’s Right to Stop Work.

9.1.1 UTA may, without cause and for its convenience, order Contractor in writing to stop and suspend the Work. Such suspension shall not exceed one hundred and twenty (120) consecutive Days or aggregate more than two hundred and forty (240) Days during the duration of the Project. In the event a suspension continues longer than the above-referenced periods, Contractor shall have the right to terminate the Agreement. Any such termination shall be considered to be a termination for convenience by UTA.

9.1.2 If a suspension is directed by UTA without cause, Contractor shall be entitled to seek an adjustment of the Contract Price and/or Contract Time(s) if its cost or time to perform the Work has been adversely impacted by any suspension or stoppage of the Work by UTA.

9.1.3 In addition to its rights under Section 9.3, UTA shall have the right to order a suspension for cause if the Work at any time ceases to comply with the workmanship, safety, quality or other requirements of the Contract Documents or any Legal Requirements. Contractor shall not be entitled to seek an adjustment the Contract Price and/or Contract Time(s) with regard to any such suspension.

9.2 **UTA’s Right to Terminate for Convenience.** Upon written notice to Contractor, UTA may, for its convenience and without cause, elect to terminate this Agreement. In such event, UTA shall pay Contractor for the following:

9.2.1 All Work satisfactorily completed or commenced and in process as of the effective date of termination;

9.2.2 The reasonable and demonstrable costs and expenses attributable to such termination, including demobilization costs and amounts due in settlement of terminated contracts with Subcontractors; and

9.2.3 The fair and reasonable sums for overhead and profit on the sum of items 9.2.1.1 and 9.2.1.2 above. UTA shall not be liable for anticipated profits, costs or overhead based upon Work not yet performed as of the date of termination.

9.3 UTA's Right to Terminate for Cause; Other Remedies for Default.

9.3.1 Subject to the cure provision of Section 9.3.2 below and other limitations set forth in these General Conditions, Contractor shall be in default of its obligations under the Contract Documents if Contractor: (i) fails to provide a sufficient number of skilled workers; (ii) fails to supply the materials required by the Contract Documents; (iii) fails to comply with applicable Legal Requirements; (iv) fails to timely pay its Subcontractors without proper cause; (v) makes a materially false or misleading representation or certification in conjunction with the Contract Documents; (vi) fails to prosecute the Work with promptness and diligence to ensure that the Work is completed by the Contract Time(s), as such times may be adjusted; (vii) fails to satisfy any guaranteed interim or completion milestone set forth in the Contract Documents; or (viii) fails to perform any other material obligations under the Contract Documents. In any such event, UTA (in addition to any other rights and remedies provided in the Contract Documents or by law) shall have the rights set forth in Sections 9.3.2 through 9.3.5 below.

9.3.2 Upon the occurrence of an event of default set forth in Section 9.3.1 above, UTA may provide written notice to Contractor that it intends to terminate the Agreement (in whole or in part) or pursue other available remedies unless the grounds for default are cured within ten (10) Days of Contractor's receipt of such notice. If Contractor fails to cure the grounds for default within such period, then UTA may declare the Agreement, or portions of the Agreement, terminated for default by providing written notice to Contractor of such declaration; provided, however, that to the extent that an item included is the notice of default and demand for cure is capable of cure, but not within the ten-Day cure period, then the Agreement shall not be terminated so long as Contractor commences actions to reasonably cure such breach within the 10-Day cure period and thereafter continuously and diligently proceeds with such curative actions until completion (such additional period not to exceed 45 Days). UTA may terminate the Agreement without opportunity to cure if the breach involves the Contractor's material failure to comply with any Legal Requirements pertaining to safety or environmental compliance.

9.3.3 Upon the continuance of a breach described in Section 9.3.1 for more than ten (10) Days following delivery of written notice to Contractor (and regardless of whether the Agreement, or any portion hereof, has been terminated as provided above), UTA shall be entitled to self-perform (through its own forces or through other contractors) the corrective action necessary to cure Contractor's event of default and deduct all costs so incurred from any amount then or thereafter due to Contractor.

9.3.4 Upon the continuance of a breach described in Section 9.3.1 for more than ten (10) Days following delivery of written notice to Contractor (and regardless of whether the Agreement, or any portion hereof, has been terminated as provided above), UTA shall be entitled to seek performance by any guarantor of Contractor's obligations hereunder or draw upon any surety or security provided for in the Contract Documents.

9.3.5 Upon declaring the Agreement terminated pursuant to Section 9.3.2 above, UTA may enter upon the premises and take possession, for the purpose of completing the Work, of all materials, equipment, scaffolds, tools, appliances and other items thereon, which have been

purchased or provided for the performance of the Work, all of which Contractor hereby transfers, assigns and sets over to UTA for such purpose, and to employ any person or persons to complete the Work and provide all of the required labor, services, materials, equipment and other items. In the event of such termination, Contractor shall not be entitled to receive any further payments under the Contract Documents until the Work shall be finally completed in accordance with the Contract Documents. At such time, if the unpaid balance of the Contract Price exceeds the cost and expense incurred by UTA in completing the Work, such excess shall be paid by UTA to Contractor. If UTA's cost and expense of completing the Work exceeds the unpaid balance of the Contract Price, then Contractor shall pay the difference to UTA. Such costs and expenses include not only the cost of completing the Work, but also losses, damages, costs and expenses, including attorneys' fees and expenses, incurred by UTA in connection with the procurement and defense of claims arising from Contractor's default.

9.3.6 All rights and remedies set forth in the Contract Documents are cumulative, and unless otherwise specifically provided in the Contract Documents are not exclusive of any other rights or remedies that may be available, whether provided by law, equity, statute, in any other agreement between the Parties or otherwise. Upon the occurrence of any such default, following the applicable process described in this Article, UTA shall be entitled to pursue any and all other rights and remedies, including without limitation damages, that UTA may have against Contractor under the Contract Documents or at law or in equity.

9.3.7 If UTA improperly terminates the Agreement for cause, the termination for cause will be converted to a termination for convenience in accordance with the provisions of Section 9.2 above.

9.4 Bankruptcy of Contractor.

9.4.1 If Contractor institutes or has instituted against it a case under the United States Bankruptcy Code, such event may impair or frustrate the Contractor's ability to perform its obligations under the Contract Documents. Accordingly, should such event occur:

9.4.1.2 Contractor, its trustee or other successor, shall furnish, upon request of UTA, adequate assurance of the ability of the Contractor to perform all future material obligations under the Contract Documents, which assurances shall be provided within ten (10) Days after receiving notice of the request; and

9.4.1.2 Contractor shall file an appropriate action within the bankruptcy court to seek assumption or rejection of the Agreement within sixty (60) Days of the institution of the bankruptcy filing and shall diligently prosecute such action. If Contractor fails to comply with its foregoing obligations, UTA shall be entitled to request the bankruptcy court to reject the Agreement, declare the Agreement terminated and pursue any other recourse available to UTA under this Article 9.

9.4.2 The rights and remedies under Section 9.4.1 above shall not be deemed to limit the ability of UTA to seek any other rights and remedies provided by the Contract Documents or by law, including its ability to seek relief from any automatic stays under the United States Bankruptcy Code.

ARTICLE 10

Value Engineering

10.1 Value Engineering Change Proposals.

10.1.1 A Value Engineering Change Proposal (“VECP”) is a proposal developed, prepared, and submitted to UTA by the Contractor, which reduces the cost of the Work without impairing essential functions or characteristics of the Project, as determined by UTA in its sole discretion. UTA encourages Contractor to submit VECPs whenever it identifies potential savings or improvements. UTA may also request the Contractor to develop and submit a specific VECP.

10.1.2 In determining whether a VECP will impair essential functions or characteristics of the Project, UTA may consider: (i) relative service life; (ii) maintenance effort and frequency; (iii) environmental and aesthetic impacts; (iv) system service; (v) effect of other system components; and (vi) other issues as UTA deems relevant. A VECP must not be based solely on a change in quantities.

10.1.3 Contractor must include the following information in any VECP:

10.1.3.1 A narrative description of the proposed change,

10.1.3.2 A discussion of differences between existing requirements and the proposed change, together with advantages and disadvantages of each changed item;

10.1.3.3 A complete cost analysis, including the cost estimate of any additional rights-of-way or easements required for implementation of the VECP;

10.1.3.4 Justification for changes in function or characteristics of each item and effect of the change on the performance on the end item;

10.1.3.5 A description of any previous use or testing of the proposed approach and the conditions and results. If the VECP was previously submitted on another UTA project, the Contractor shall indicate the date, contract number, and the action taken by UTA;

10.1.3.6 Costs of development and implementation; and

10.1.3.7 Any additional information requested by UTA, which must be provided in a timely manner.

10.2 Review and Approval of VECPs

10.2.1 Upon receipt of a VECP, UTA shall process it expeditiously, but will not be liable for any delay in acting upon any VECP. Contractor may withdraw all or part of any VECP at any time prior to approval by UTA, but shall, in any case, be liable for costs incurred by UTA in reviewing the withdrawn VECP, or part thereof. In all other situations, each party will bear its own costs in connection with preparation and review of VECPs.

10.2.2 UTA may approve in whole or in part any VECP submitted. The decision of UTA regarding rejection or approval of any VECP will be at the sole discretion of UTA and will be final

and not subject to appeal. Contractor will have no claim for any additional costs or delays resulting from the rejection of a VECP, including development costs, loss of anticipated profits, or increased material or labor costs

10.3 **Cost Savings.** UTA will be the sole beneficiary of any cost savings realized from a VECP submitted during the design scope of the Agreement. Any savings resulting from an approved VECP submitted after the design has been released for construction will accrue to the benefit of UTA and Contractor on a 50/50 cost sharing basis.

10.4 **Ownership of VECPs.** All approved or disapproved VECPs will become the property of UTA and must contain no restrictions imposed by Contractor on their use or disclosure. UTA retains the right to use, duplicate, and disclose, in whole or in part, any data necessary for the utilization of the VECP on any other projects without any obligation to Contractor. This provision is not intended to deny rights provided by law with respect to patented materials or processes.

ARTICLE 11

Health Insurance

11.1 Insurance Coverage for Employees.

11.1.1 If the Contract Price is \$2,000,000 or more, Contractor shall, prior to the effective date of the Agreement, demonstrate to UTA that Contractor has and will maintain an offer of qualified health insurance coverage (as defined by Utah Code Ann. § 17B-2a-818.5) for the Contractor's employees and the employee's dependents during the duration of the Contract.

11.2.1 If the Contractor enters into any subcontracts under the Contract Documents in an amount of \$1,000,000 or more, then Contractor shall also demonstrate to UTA that such subcontractor(s) have and will maintain an offer of qualified health insurance coverage for the subcontractor's employees and the employee's dependents during the duration of the subcontract

ARTICLE 12

Miscellaneous

12.1 **Confidential Information.** "Confidential Information" means information that is determined by the transmitting party to be of a confidential or proprietary nature and: (i) the transmitting party identifies in writing as either confidential or proprietary; (ii) the transmitting party takes steps to maintain the confidential or proprietary nature of the information; and (iii) the document is not otherwise available in or considered to be in the public domain. To the extent permitted by law (including specifically UCA Title 63G Chapter 2), the receiving party shall maintain the confidentiality of the Confidential Information and shall use the Confidential Information solely in connection with the Project. The parties agree that the Agreement itself (including all incorporated Contract Documents) does not constitute Confidential Information.

12.2 **Prohibited Interest.** No member, officer, agent, or employee of UTA during his or her tenure or for one year thereafter shall have any interest, direct or indirect, including prospective employment by, Contractor or the proceeds under the Contract Documents without specific written authorization by UTA.

12.3 **Assignment.** Contractor acknowledges that the Work to be performed by Contractor is considered personal by UTA. Contractor shall not assign or transfer its interest in the Contract Documents without prior written approval by UTA.

12.4 **Successors.** Contractor and UTA intend that the provisions of the Contract Documents are binding upon the parties, their employees, agents, heirs, successors and permitted assigns.

12.5 **Governing Law.** The Agreement and all Contract Documents are governed by the laws of the State of Utah, without giving effect to its conflict of law principles. Actions to enforce the terms of this Agreement may only be brought in the Third District Court for Salt Lake County, Utah.

12.6 **Severability.** If any provision or any part of a provision of the Contract Documents is finally determined to be superseded, invalid, illegal, or otherwise unenforceable pursuant to any applicable Legal Requirements, such determination shall not impair or otherwise affect the validity, legality, or enforceability of the remaining provision or parts of the provision of the Contract Documents, which shall remain in full force and effect as if the unenforceable provision or part were deleted.

12.7 **No Waiver.** The failure of either Contractor or UTA to insist, in any one or more instances, on the performance of any of the obligations required by the other under the Contract Documents shall not be construed as a waiver or relinquishment of such obligation or right with respect to future performance.

12.8 **Headings.** The headings used in these General Conditions, or any other Contract Document, are for ease of reference only and shall not in any way be construed to limit or alter the meaning of any provision.

12.9 **Amendments.** The Contract Documents may not be changed, altered, or amended in any way except in writing signed by a duly authorized representative of each party.

**Exhibit B to Construction Services Amendment
Utah Transit Authority
Project Minimum Insurance Requirements**

Contractor shall procure and maintain for the duration of the contract, and for 6 years thereafter, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the contractor, his agents, representatives, employees, or subcontractors.

MINIMUM SCOPE AND LIMIT OF INSURANCE

Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL):** Commercial general liability (“CGL”) insurance for all operations in a form providing coverage not less than that of standard commercial general liability insurance. The CGL insurance shall be on an occurrence form and cover all operations of the contractor and its subcontractors, including independent contractors. The CGL insurance shall, at a minimum, provide coverage for bodily injury, products and completed operations coverage, contractual liability and personal injury liability with limits not less than:
 - a. \$10 million per occurrence for bodily injury and property damage.
 - b. \$10 million per occurrence for products/completed operation coverage.
 - c. \$2 million per occurrence for personal and advertising injury and contractual liability.The CGL insurance shall not have any coverages that delete or deny coverage including, but not limited to, ISO Form 2294. The contractor shall obtain approval of the CGL policy from UTA prior to executing the contract.
2. **Automobile Liability:** Automobile liability insurance covering bodily injury and property liability exposures relating to all owned, hired or non-owned autos used in conjunction with the contract work. Such insurance shall have a combined single limit of not less than \$5 Million.
3. **Workers’ Compensation:** Worker’s compensation insurance as required by the State of Utah, with statutory limits, and employers’ liability insurance with a limit of no less than \$500,000 each accident, \$500,000 disease-policy limit and \$500,000 disease-each employee.
4. **Builder’s Risk:** Builder’s risk (course of construction) insurance, covering the risk of loss for any damage or loss to the building or structure by any means or occurrence until the final completion of the contract work. Coverage shall utilize an “All Risk” (Special Perils) coverage form, with limits equal to the completed value of the project and no coinsurance penalty provisions. The coverage shall include mechanical breakdown, property in transit, property at temporary storage locations, earthquake damage and flood damage insuring the interests of UTA, SLCD and their respective subcontractors of any tier providing equipment, materials or services for the project.
5. **Professional Liability:** Professional liability insurance with limits no less than \$5 million per occurrence or claim, and \$1,000,000.
6. **Pollution Legal Liability:** Contractor’s pollution legal liability and/or asbestos legal liability and/or errors and omissions (if project involves environmental hazards) with limits no less than \$2,000,000 per occurrence or claim, and \$4,000,000 policy aggregate.
7. **Railroad Protective Liability:** Railroad protective liability insurance naming the affected railroad(s) as insured(s) with minimum limits for bodily injury and property damage of

\$2,000,000 per occurrence, \$6,000,000 aggregate and property damage of 2,000,000 per occurrence, \$6,000,000 aggregate, or such other limits as required by the affected railroad.

If the contractor maintains higher limits than the minimums shown above, UTA requires and shall be entitled to coverage for the higher limits maintained by the contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to UTA.

Other Insurance Provisions

The insurance policies are to contain, or be endorsed to contain, the following provisions:

1. Excepting the worker's compensation and professional liability policies, UTA, SLCDA, and their respective officers, officials, employees, and volunteers are to be covered as additional insureds with respect to liability arising out of with respect to liability arising out of work or operations performed by or on behalf of the contractor including materials, parts, or equipment furnished in connection with such work or operations and automobiles owned, leased, hired, or borrowed by or on behalf of the contractor. General liability coverage can be provided in the form of an endorsement to the contractor's insurance (at least as broad as ISO Form CG 20 10, CG 11 85 or both CG 20 10 and CG 20 37 forms if later revisions used).
2. For any claims related to this project, the contractor's insurance coverage shall be primary insurance as respects UTA, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by UTA, its officers, officials, employees, or volunteers shall be excess of the contractor's insurance and shall not contribute with it.
3. Each insurance policy required by this clause shall provide that coverage shall not be canceled, except with notice to UTA.

Builder's Risk (Course of Construction) Insurance

Contractor may submit evidence of Builder's Risk insurance in the form of Course of Construction coverage. Such coverage shall name UTA as a loss payee as their interest may appear.

If the project does not involve new or major reconstruction, at the option of UTA, an Installation Floater may be acceptable. For such projects, a Property Installation Floater shall be obtained that provides for the improvement, remodel, modification, alteration, conversion or adjustment to existing buildings, structures, processes, machinery and equipment. The Property Installation Floater shall provide property damage coverage for any building, structure, machinery or equipment damaged, impaired, broken, or destroyed during the performance of the Work, including during transit, installation, and testing at UTA's site.

Claims Made Policies

If any coverage must be written on a claims-made coverage form:

1. The retroactive date must be shown, and this date must be before the execution date of the contract or the beginning of contract work.
2. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of contract work.
3. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective, or start of work date, the contractor must

purchase extended reporting period coverage for a minimum of five (5) years after completion of contract work.

4. A copy of the claims reporting requirements must be submitted to UTA for review.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best rating of no less than A: VII, unless otherwise acceptable to UTA.

Waiver of Subrogation

Contractor hereby agrees to waive rights of subrogation which any insurer of contractor may acquire from contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of UTA for all work performed by the contractor, its employees, agents and subcontractors.

Verification of Coverage

Contractor shall furnish UTA with original certificates and amendatory endorsements, or copies of the applicable insurance language, effecting coverage required by this contract. All certificates and endorsements are to be received and approved by UTA before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the contractor's obligation to provide them. UTA reserves the right to require complete, certified copies of all required insurance policies, including endorsements, required by these specifications, at any time.

Subcontractors

Contractor's certificate(s) shall include all subcontractors as additional insureds under its policies or subcontractors shall maintain separate insurance as determined by the Contractor, however, subcontractor's limits of liability shall not be less than \$1,000,000 per occurrence / \$2,000,000 aggregate.

Special Risks or Circumstances

UTA reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other circumstances.

**Exhibit C to Construction Services Amendment
Utah Transit Authority
Schedule of Values and Basis of Estimate**

CBS POSITION CODE	DESCRIPTION	QTY	UOM	TOTAL COST	Group Totals
2.1.1	Demolition	1	PLS	\$157,371	
2.1.2	Utilities	74	LF	\$11,250	
2.1.3	Grading	8,466	CY	\$857,200	
2.1.4	Storm Drain	2,290	LF	\$266,710	
2.1.5	Aggregates	1,368	Ton	\$96,846	
2.1.6	Flatwork (Install Concrete Flatwork, Curb, etc.)	2,732	LF	\$409,574	
2.1.7	SWPPP	1	PLS	\$232,928	
2.1.8	MOT	1	PLS	\$226,690	
2.2.1	Embedded Track & Concrete (inc. Track Drains, Boot & Grout)	1,098	TF	\$767,258	
2.2.2	Ballast Track	1,645	TF	\$829,900	
2.2.3	Temporary Station Platform	1	Ea	\$32,455	
2.2.4	OCS Pole Foundations	20	Ea	\$146,795	
2.3.1	Temporary Station	4,464	SF	\$217,409	
2.3.2	New Station	335	CY	\$1,851,415	
2.4.2	OCS	1	PLS	\$1,416,250	
2.4.3	Communications	1	PLS	\$1,514,100	
2.4.4	Station Electric	1	PLS	\$1,361,669	
2.4.5	Systems Integration Support	1	Lb	\$22,660	
2.5.1	Material Handling - Boom Truck & Operator	57	Wk	\$353,553	
2.5.2	Employee Moves & Subsistence	1	PLS	\$99,550	
2.6.1	Maintenance Equipment	1	PLS	\$308,590	
2.6.2	Quality / Grade Check	1	PLS	\$303,015	
2	Direct Subtotal			\$11,483,187	
	Fee & Indirect	20.015%	%	\$2,298,360	
2	Group Total				\$13,781,547

3.1	Phase 4 Delay (9/15 - 12/15) Provisional Sum	1	PLS	\$461,535	
3.2	Winter Heating - Guideway Provisional Sum	9	Wk	\$127,952	
3.3	Temporary storm Drain- Provisional Sum	500	LF	\$15,000	
3	90 Day Delay- Provisional Sum	1	PLS	\$604,486	
	Fee & Indirect- Provisional Sum	20.015%	%	\$120,988	
3	Delay Total- Provisional Sum				\$725,474

	Project Total with Provisional Sum	1	PLS		\$14,507,021
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“Basis of Estimate 100% IFC Design”

General

- Our Schedule is based upon the property sequence release dates listed:
 - Phase 1 1 March 2020
 - Phase 2 1 May 2020
 - Phase 3 Immediately after activation of temporary platform.
 - Phase 4 15 December 2020
- Contract to be executed and procurement to begin August of 2019.
- Utility conflicts in phase 4 work zone will be cleared by HD no later than 15 December 2020.
- Item 3 is a budget for the phase 4 access delay period of September 15 to December 15, 2020. Item 3.1 is the complete project staff budget for the 3 Month period. Item 3.2 is the winter heating and inefficiency caused by delaying the civil work into the winter of 2021. Our pricing is based upon these amounts being subject to contract markups of 5% & 15.015%. We understand that UTA wishes to use item 3 as a provisional sum.
- Our proposal is based upon the 100% IFC design package developed by HNTB and approved by UTA.
- Signal design is based upon the Airport Station Relocation Systems Scope Description & UTA’s 100% IFC signal design package.
- UTA standard specifications have been referenced to determine building requirements.
- Communication scope is based upon UTA’s 100% IFC communication design package.
- Employees will use a central parking lot and transfer to company vehicles to reach their worksite.
- Our proposal is based upon the client providing office space for 5 people at the Airport property. This will require approximately 1500 SF. Kiewit has included the cost of utilities and internet service.
- Direct wages and rental rates are based upon the year of anticipated construction.
- It is Kiewit’s expectation that the “Basis of Estimate” will be appended to, and become a part of our contract.

Civil

- Grading limits for the LRT contract are ballast curb to ballast curb.
- Roadways crossing the rail alignment will be removed by others within 1 week of the phase transition.
- All existing utility conflicts with the LRT contract have been removed/relocated by others. No utility relocation budget is contained in this estimate.
- Storm drain connections for the guideway that are outside of the ballast curb limit will be terminated in a temporary condition if the tie in point does not exist. No asphalt paving repair is included to return and make connection after 3700 West is completed.
- The demolition limit for the existing station is limited to area inside of the existing ballast curb.
- Roadway flaggers are included for all phases. (2 flaggers for phase 1-3, 1 flagger for phase 4).
- It has been determined that the cost of salvaging rail at the existing station is too expensive & it will be discarded with the removal items.
- Dump fees for soil removed from the site are budgeted at \$15.00/CY
- All demolition concrete has been hauled off site to an approved landfill.
- Existing utility valves will be capped & abandoned as part of the phase 3 work zone removals.
- The estimate is based upon the excavation limit shown. Removals below this point for stabilization of embankment are not considered.

- Removal of contaminated soils are not considered in baseline pricing.

Platform

- Snowmelt system is a hydraulic system, similar to the Provo Orem BRT.
- Kiewit's scope of work at the mixing area is to install canopy complete with foundation work, electric lighting & communication lines. The platform slab will be extended to the west edge of snowmelt system.
- Job boxes on the temporary platform will be furnished by UTA and will be used as a communication junction boxes.
- Kiewit has budgeted for one EIC for the duration of the temporary station construction. (Approximately 10 weeks at 5 days a week and 10 hours per day).
- Cameras, TVM's & VMS will be installed by UTA. Kiewit will furnish foundation, anchors & cable to the units.
- All service utilities for the new platform will be brought to within 15 feet of the ballast curb for the light rail contractor.

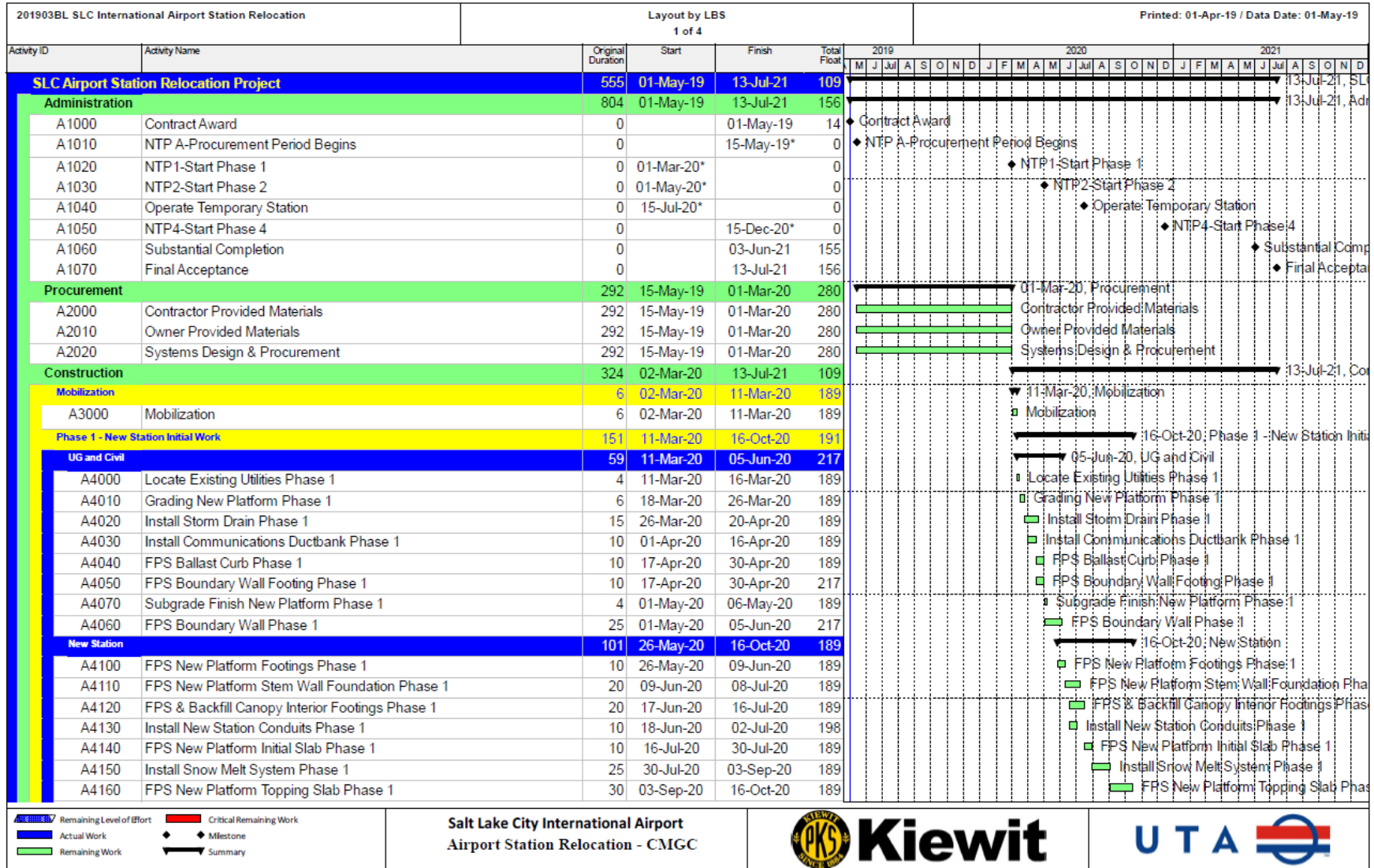
Track

- Transition ties will be used between ballasted and embedded track and again at the 3700 West grade crossing.

Systems

- Estimate is based upon UTA performing signal design and taking the lead in all live functionality tests of LRT systems. Kiewit will be responsible for all field side testing to assure systems are compliant with the specifications.
- UTA will lead the systems integration activity. Kiewit will support this effort from the field side.
- The replacement quantity for broken OCS insulators is 5 each.
- Our proposal does not include spare parts for systems & electric scope.
- New OCS poles will be powder coated to match the existing color scheme.
- The temporary platform will operate under active signals.
- The TPSS has no scope of work included in this contract.
- The scope of this contract does not include modifications at the UTA central control facility.

Exhibit D to Construction Services Amendment- Utah Transit Authority Baseline Schedule



201903BL SLC International Airport Station Relocation			Layout by LBS 2 of 4				Printed: 01-Apr-19 / Data Date: 01-May-19																														
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2019					2020					2021																					
						M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Track						91	06-May-20	15-Sep-20	214																												
A4200	Drill and FPS OCS Foundations Phase 1	13	06-May-20	26-May-20	189																																
A4210	Skeletonize Track Phase 1	25	30-Jul-20	03-Sep-20	214																																
A4220	FPS Track Slab Phase 1	10	18-Aug-20	31-Aug-20	214																																
A4230	FPS Devil Strip Phase 1	10	01-Sep-20	15-Sep-20	214																																
Phase 2 - Temporary Station						51	01-May-20	15-Jul-20	0																												
Temporary Station						35	01-May-20	19-Jun-20	0																												
A5000	FPS Temporary Platform Footings Phase 2	15	01-May-20	21-May-20	0																																
A5010	Build Temporary Platform Phase 2	20	22-May-20	19-Jun-20	0																																
Track						5	22-May-20	29-May-20	31																												
A5100	Install Temporary Bumping Post Phase 2	5	22-May-20	29-May-20	31																																
Systems						51	01-May-20	15-Jul-20	0																												
A5200	Install OCS Poles Phase 2	5	01-May-20	07-May-20	36																																
A5210	Install Temporary Termination for OCS Phase 2	10	08-May-20	21-May-20	36																																
A5220	Install Temporary Station Systems, Comm's, Electrical Phase 2	20	02-Jun-20	30-Jun-20	9																																
A5230	Conduct Wire Cutover for Temporary Station Phase 2	1	14-Jul-20	15-Jul-20	0																																
A5240	Conduct Communications Cutover for Temporary Station Phase 2	1	14-Jul-20	15-Jul-20	0																																
Testing & Commissioning						16	22-Jun-20	15-Jul-20	0																												
A5300	Complete Temporary Station CIL Phase 2	3	22-Jun-20	24-Jun-20	0																																
A5310	Conduct Temporary Station Clearance Checks Phase 2	2	25-Jun-20	26-Jun-20	0																																
A5320	Conduct Temporary Station Signal Aspects Visual Checks Phase 2	5	29-Jun-20	06-Jul-20	0																																
A5330	Conduct Temporary Station Route Checks Phase 2	5	07-Jul-20	13-Jul-20	0																																
A5340	Temporary Station Ready for Service Operations Phase 2	0		15-Jul-20	0																																
Phase 3 - Demolition of Existing Station						161	15-Jul-20	26-Mar-21	145																												
Demolition of Existing Station						40	15-Jul-20	10-Sep-20	172																												
A6000	Locate and Cap Existing Utilities Phase 3	5	15-Jul-20	22-Jul-20	172																																
A6010	Remove Existing Type B Canopies Phase 3	20	15-Jul-20	12-Aug-20	172																																
A6020	Remove and Store Existing Type A Canopies Phase 3	10	15-Jul-20	29-Jul-20	172																																
A6030	Remove and Store Salvaged Items Phase 3	20	15-Jul-20	12-Aug-20	172																																
A6040	Remove, Salvage and Store Metal Fence Phase 3	10	16-Jul-20	30-Jul-20	180																																
A6050	Remove Concrete Platform and Guideway Phase 3	20	12-Aug-20	10-Sep-20	172																																
New Platform						95	16-Oct-20	26-Mar-21	145																												
A6100	Install Salvaged Type B Canopies Phase 3	40	16-Oct-20	22-Dec-20	189																																
A6120	Install Platform Components Phase 3	10	22-Dec-20	14-Jan-21	189																																
A6110	Construct New Breakroom Phase 3	15	04-Mar-21	26-Mar-21	145																																

Salt Lake City International Airport
Airport Station Relocation - CMGC



201903BL SLC International Airport Station Relocation				Layout by LBS 3 of 4				Printed: 01-Apr-19 / Data Date: 01-May-19																				
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2019					2020					2021												
						M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D			
Phase 4 - New Station Completion Work						124	17-Dec-20	01-Jul-21	109																			
UG and Civil						34	17-Dec-20	17-Feb-21	109																			
A7000	Clear & Grub Phase 4	2	17-Dec-20	18-Dec-20	109																							
A7010	Grade Guideway Phase 4	7	21-Dec-20	04-Jan-21	109																							
A7020	Drill and FPS OCS Foundations Phase 4	10	05-Jan-21	22-Jan-21	109																							
A7030	ELB Electrical Ductbank Phase 4	5	05-Jan-21	14-Jan-21	125																							
A7040	Place Guideway Aggregate Phase 4	4	15-Jan-21	21-Jan-21	125																							
A7050	ELB Deep Drainage Phase 4	5	25-Jan-21	01-Feb-21	109																							
A7060	FPS Ballast Curb Phase 4	10	02-Feb-21	17-Feb-21	109																							
New Station						68	17-Dec-20	13-Apr-21	145																			
A7100	Grade Mixing Area Phase 4	3	17-Dec-20	21-Dec-20	145																							
A7110	FPS Footings Type A Canopies	10	22-Dec-20	11-Jan-21	145																							
A7130	Install Boiler Phase 4	3	22-Dec-20	30-Dec-20	196																							
A7120	Install Type A Canopies Phase 4	30	14-Jan-21	03-Mar-21	145																							
A7140	Install Rain Water Leaders Phase 4	8	04-Mar-21	16-Mar-21	152																							
A7150	Perform Punchlist Walk and Complete Punchlist Phase 4	10	29-Mar-21	13-Apr-21	145																							
Track						37	19-Feb-21	16-Apr-21	109																			
A7200	Install Underdrain System Phase 4	7	19-Feb-21	01-Mar-21	109																							
A7210	Place Ballast Phase 4	5	02-Mar-21	08-Mar-21	109																							
A7220	Construct Embedded Track Phase 4	15	02-Mar-21	23-Mar-21	114																							
A7230	Skeletonize Track Phase 4	10	10-Mar-21	23-Mar-21	109																							
A7240	Place Final Ballast Phase 4	5	25-Mar-21	31-Mar-21	109																							
A7250	Surface and Line Track Phase 4	5	01-Apr-21	09-Apr-21	109																							
A7260	Destress Ballasted Track Phase 4	5	12-Apr-21	16-Apr-21	109																							
Systems						90	15-Jan-21	03-Jun-21	109																			
A7300	Install Platform Systems, Comm's, Electrical Phase 4	20	15-Jan-21	17-Feb-21	169																							
A7310	Install Mixing Area Systems, Comm's, Electrical Phase 4	5	04-Mar-21	11-Mar-21	155																							
A7320	Install OCS Poles Phase 4	3	19-Apr-21	21-Apr-21	109																							
A7330	Install Cantilever Arms & Regulate Phase 4	20	22-Apr-21	19-May-21	109																							
A7340	Final Systems and Comm's Check Phase 4	5	20-May-21	26-May-21	109																							
A7350	Initial System Punchlist Phase 4	5	27-May-21	03-Jun-21	109																							
Testing & Commissioning						20	04-Jun-21	01-Jul-21	109																			
A7400	Complete New Station CIL Phase 4	6	04-Jun-21	11-Jun-21	109																							
A7410	Conduct New Station Clearance Checks Phase 4	3	14-Jun-21	16-Jun-21	109																							
A7420	Conduct New Station Signal Aspects Visual Checks Phase 4	3	17-Jun-21	21-Jun-21	109																							

Remaining Level of Effort

 Actual Work

 Remaining Work

 Critical Remaining Work

 Milestone

 Summary

Salt Lake City International Airport
 Airport Station Relocation - CMGC



CONSTRUCTION SERVICES AGREEMENT
AIRPORT STATION RELOCATION PROJECT (CM/GC)
PHASE 1 CONTRACT

This Construction Services Agreement (“**Agreement**”) is hereby entered into by and between Utah Transit Authority, a public transit district organized under the laws of the State of Utah (“**UTA**”), and Kiewit Infrastructure West Co., a Utah Corporation (“**Contractor**”).

RECITALS

A. UTA is developing a project to relocate the existing Airport TRAX light rail station (the “**Project**”).

B. On April 20, 2018, UTA issued Request for Proposals No. 18-2705TP (“**RFP**”), seeking interested parties to submit proposals to perform the work required by the Project.

C. UTA evaluated the responses and determined the Contractor’s response to be the most advantageous to UTA.

D. UTA and Contractor desire to enter into this Agreement to define their respective roles and responsibilities with respect to the Project.

E. Any capitalized terms not otherwise defined herein shall have the meanings set forth in the design and construction general conditions appended as an exhibit to this Agreement.

AGREEMENT

Therefore, the parties agree as follows:

1. Scope of Work; Standard of Care. (a) Contractor shall perform the Phase 1 Work. In the Contract Documents, “Phase 1 Work” means all the pre-construction services necessary to assist the Parties in reaching agreement on lump sum construction prices and scope of work for each of the Projects concerning the Phase 2 elements of the Program (construction).

(b) Contractor shall perform the Work in accordance with the Contract Documents (including any attached or incorporated construction drawings, plans, specifications and standards or other descriptions of the Work) and applicable industry standards, and in full compliance with all applicable laws, regulations and permits.

2. Schedule. (a) Contractor shall commence the Phase 1 Work within seven (7) days of Contractor’s receipt of a Notice to Proceed (“**NTP**”) from UTA. UTA is not required to issue a NTP until all insurance and other required documentation is submitted and deemed acceptable by UTA. UTA may issue a limited Notice to Proceed (“**NTP**”) on a portion of the Work, and may issue a series of limited NTPs to provide for progression of the Work in phases. Issuance of a limited NTP will not be deemed to require UTA to issue any subsequent NTPs, and will not be deemed to obligate UTA to complete the Project or to pay Contractor for any portion of the Work not encompassed by an NTP issued by UTA.

(b) This Agreement will expire on June 30, 2019 (that date, the “**Phase 1 Completion Date**”). unless (i) UTA and Contractor mutually agree to extend the term of the Agreement through a written Change Order in accordance with Section 9, or (ii) UTA and Contractor execute the Phase 2 Construction Services Amendment, as set forth in Section 9 below. Contractor shall diligently prosecute the Phase 1 Work, and complete the Phase 1 Work prior to the Phase 1 Completion Date.

(c) Time is of the essence with respect to the dates set forth in this section.

3. Price and Payment. (a) As full compensation for completing the Work in accordance with the Contract Documents, UTA shall pay Contractor the amounts set forth in Exhibit A (the “**Contract Price**”). The procedures for invoicing and payment are set forth in Section 8 below.

4. Contract Documents. (a) The Contract Documents consist of the following:

(1) All written amendments and Change Orders to this Agreement executed in accordance with Section 9 below;

(2) This Agreement, including its exhibits;

(3) Contractor’s Proposal in response to the RFP; and

(4) The RFP including, without limitation, all attached or incorporated terms, conditions, drawings, plans, specifications and standards or other descriptions of the Work.

(b) The parties intend that the Contract Documents include and provide for all aspects of the Work that are necessary for the proper initiation, performance, and completion of the Project. The parties intend that the Contract Documents be interpreted in harmony so as to avoid conflict, with words and phrases interpreted in a manner consistent with construction and design industry standards.

(c) If any terms of the Contract Documents contradict any other terms, the terms contained in the more recent Contract Document will govern.

(d) Contractor acknowledges that, prior to the execution of this Agreement, it has carefully reviewed the Contract Documents for errors, omissions, conflicts or ambiguities (each, a “**Discrepancy**”), and is not aware of any Discrepancies as of the execution of this Agreement. If the Contractor becomes aware of a Discrepancy, the Contractor shall immediately notify UTA’s Project Manager of that Discrepancy in writing. UTA’s Project Manager shall promptly resolve the Discrepancy in writing. Contractor’s failure to promptly notify UTA of an apparent discrepancy will be deemed a waiver of Contractor’s right to seek an equitable adjustment to the Agreement.

(e) The Contract Documents form the entire contract between UTA and the Contractor and by incorporation in this Agreement are as fully binding on the parties as if repeated in this Agreement. No oral representations or other agreements have been made by the parties except as specifically stated in the Contract Documents.

5. Representatives of the Parties. (a) UTA designates E. Gregory Thorpe as its Project Manager, and Grey Turner as its Senior Representative. UTA’s Contract Administrator for this Agreement is Teresa Pickett. Questions or correspondence regarding the contractual aspects of this Agreement should be directed to Teresa Pickett, at the address set forth in Section 12 below. UTA’s Project Manager, Senior Representative, and Contract Administrator are referred to collectively as the “**UTA Representatives**.”

(b) Contractor designates Jim Holmes as its Project Manager and Joe Cook as its Management Representative (collectively, the “**Contractor Representatives**”).

6. Key Personnel. Contractor’s Proposal specified certain individuals as key personnel with respect to the Work to be performed under this Agreement. This Agreement was awarded based on Contractor’s representation that such key personnel would be engaged in their respective

capacities, at the commitment levels indicated, for the full duration of the Project. Contractor shall not make changes in the Key Personnel staffing without the written approval of UTA, such approval not to be withheld unreasonably. Any replacements of key personnel must have the same substantive and qualitative experience as the individuals identified in Contractor's Proposal.

7. Phase 2 Construction Services Amendment. If UTA and Contractor agree on a scope of construction services and a lump sum price for those services, UTA and Contractor will execute an amendment to this Agreement (the "Phase 2 Construction Services Amendment"). The Phase 2 Construction Services Amendment will detail the scope, schedule, and price of the Phase 2 construction work, and will include other terms and conditions applicable to construction work. Execution of this Agreement in no way obligates UTA to execute the Phase 2 Construction Services Amendment. The process for negotiating a Phase 2 Construction Services Amendment is described in the RFP.

8. Invoicing and Payment. (a) To receive payment, Contractor shall submit to UTA an Application for Payment requesting payment for all Phase 1 Work performed as of the date of the Application for Payment. Contractor shall not submit Applications for Payment more often than once per month. The Application for Payment must be accompanied by supporting documentation sufficient to establish, to UTA's reasonable satisfaction, Contractor's entitlement to receive payment.

(b) The Application for Payment will constitute Contractor's representation that the Phase 1 Work described therein has been performed consistent with the Contract Documents, and has progressed to the point indicated in the Application for Payment.

(c) UTA shall pay Contractor all amounts properly requested and documented within thirty (30) days of receipt of an Application for Payment. Notwithstanding the preceding sentence, if UTA determines that Contractor is not entitled to all or part of an Application for Payment as a result of Contractor's failure to meet its obligations hereunder, UTA will notify Contractor in writing at least five (5) days prior to the date payment is due. The notice must indicate the specific amounts UTA intends to withhold, the reasons and contractual basis for the withholding, and the specific measures Contractor must take to rectify UTA's concerns. Contractor and UTA will attempt to resolve UTA's concerns prior to the date payment is due. If the parties cannot resolve such concerns, Contractor may pursue its rights under the Contract Documents. Contractor shall continue to perform the Phase 1 Work pending the resolution of any such dispute.

9. Change Orders. Contractor shall not undertake any activity that materially changes the Phase 1 Work, or materially deviates from the requirements of the Contract Documents, except as authorized by a written Change Order signed by Contractor and UTA.

10. Indemnity. Contractor, to the fullest extent permitted by law, shall indemnify, hold harmless and defend UTA, its officers, directors, and employees from and against claims, losses, damages, liabilities, including attorneys' fees and expenses, for bodily injury, sickness or death, and property damage or destruction to the extent resulting from the negligence or willful misconduct of Contractor, Contractor's consultants and subcontractors, anyone employed directly or indirectly by any of them or anyone for whose acts any of them may be liable.

11. Insurance. Contractor shall obtain and maintain the insurance coverages set forth in Exhibit B, and comply with the obligations set forth in Exhibit B.

12. Notices. (a) To be deemed valid, all notices, requests, claims, demands and other communications between the parties (“Notices”) must be in writing and addressed as follows:

If to Utah Transit Authority:
Utah Transit Authority
Attn: Teressa Pickett
669 West 200 South
Salt Lake City, UT 84101

With a required copy to:
Utah Transit Authority
Attn: General Counsel
669 West 200 South
Salt Lake City, UT 84101.

If to the Contractor:
Kiewit Infrastructure West Co.
Attn: Joe Cook
25 East Scenic Pointe, Suite 150
Draper, UT 84020

(b) To be deemed valid, Notices must be given by one of the following methods: (i) by delivery in person (ii) by a nationally recognized next day courier service, (iii) by first class, registered or certified mail, postage prepaid.

(c) Either party may change the address at which that party desires to receive written notice by delivery of Notice of such change to the party as set forth above. Notices will be deemed effective on delivery to the notice address then applicable for the party to which the Notice is directed, provided, however, that refusal to accept delivery of a Notice or the inability to deliver a Notice because of an address change that was not properly communicated shall not defeat or delay the effectiveness of a Notice.

13. Audit Rights. Contractor shall retain all books, papers, documents, accounting records and other evidence to support any cost-based billings allowable under Exhibit A (or any other provision of the Agreement). Such records shall include, without limitation, time sheets and other cost documentation related to the performance of labor services, as well as subcontracts, purchase orders, other contract documents, invoices, receipts or other documentation supporting non-labor costs. Contractor shall also retain other books and records related to the performance, quality or management of this Agreement and/or Contractor’s compliance with this Agreement. Records shall be retained by Contractor for a period of at least six (6) years, or until any audit initiated within that six-year period has been completed (whichever is later). During this six-year period, such records shall be made available at all reasonable times for audit and inspection by UTA and other authorized auditing parties. Copies of requested records shall be furnished to UTA or designated audit parties upon request. Contractor agrees that it shall flow-down (as a matter of written contract) these records requirements to all subcontractors utilized in the performance of this Agreement at any tier.

14. Termination. (a) Upon ten (10) days’ written notice to Contractor, UTA may, for its convenience and without cause, elect to terminate this Agreement. If UTA terminates the Agreement for its convenience, UTA shall pay Contractor for Phase I Work performed up to the date of the notice of termination, plus Contractor’s reasonable costs attributable to the termination.

(b) If Contractor materially fails to perform any of its obligations under this Agreement, and such failure is not cured within ten (10) days’ of written notice from UTA identifying the breach, then UTA may terminate the Agreement for default. If UTA terminates the Agreement for default,

UTA shall pay Contractor for Phase 1 Work satisfactorily performed up to the date of the notice of termination, less costs and expenses incurred by UTA as a result of the default.

15. Counterparts. The parties may execute this Agreement in any number of counterparts, each of which when executed and delivered will constitute a duplicate original, but all counterparts together will constitute a single agreement.

16. Work Product. (a) All drawings, specifications, reports, calculations, and other documents furnished by Contractor to UTA pursuant to this Agreement (those documents, the "Work Product") are deemed to be instruments of service and Contractor shall retain the ownership and intellectual property rights therein.

(b) Upon UTA's payment in full for the Phase 1 Work required for Contractor to prepare any Work Product, Contractor will be deemed to have granted to UTA a license to use that Work Product in connection with the design, construction, occupancy, and maintenance of the Project, or any other UTA project or facility.

17. Prohibited Interest. No member, officer, agent, or employee of UTA during his or her tenure or for one year thereafter shall have any interest in, direct or indirect, including prospective employment by, Contractor or the proceeds under this Agreement without specific written authorization by UTA.

18. Assignment. Contractor acknowledges that the Work to be performed by Contractor is considered personal by UTA. Contractor shall not assign or transfer its interest in this Agreement without prior written approval by UTA.

19. Successorship. Contractor and UTA intend that the provisions of the Contract Documents are binding upon the parties, their employees, agents, heirs, successors and permitted assigns.

20. Governing Law. The Agreement is governed by the laws of the State of Utah, without giving effect to its conflict of law principles. Actions to enforce the terms of this Agreement may only be brought in the Third District Court for Salt Lake County, Utah.

21. Severability. If any provision or any part of a provision of the Contract Documents is finally determined to be superseded, invalid, illegal, or otherwise unenforceable, such determination shall not impair or otherwise affect the validity, legality, or enforceability of the remaining provision or parts of the provision of the Contract Documents, which will remain in full force and effect as if the unenforceable provision or part were deleted.


22. No Waiver. The failure of either Contractor or UTA to insist, in any one or more instances, on the performance of any of the obligations required by the other under the Contract Documents shall not be construed as a waiver or relinquishment of such obligation or right with respect to future performance.

23. Headings. The headings used in this Agreement, or any other Contract Document, are for ease of reference only and shall not in any way be construed to limit or alter the meaning of any provision.


24. Amendments. The Contract Documents may not be changed, altered, or amended in any way except in writing signed by a duly authorized representative of each party.

25. Effectiveness; Date. This Agreement will become effective when all parties have fully signed it. The date of this Agreement will be the date it is signed by the last individual to sign it (as indicated by the date associated with that individual's signature).


UTAH TRANSIT AUTHORITY

By: 
Name: W. STEVE MEYER
Title: INTERIM EXECUTIVE DIRECTOR

Date: 8/1/18

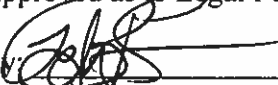
By: 
Name: Mary DeLoretto
Title: Director of Capital Projects

Date: 7/30/18


By: 
Name: E. Gregory Thorpe
Title: Project Manager

Date: 7/30/18

Approved as to Legal Form:

By: 
Utah Transit Authority
Legal Counsel

KIEWIT INFRASTRUCTURE WEST CO.

By: 
Name: Stan M. Driver
Title: Senior Vice President

Date: July 23, 2018

Contractor's Federal ID Number:

47-0647803

Exhibit A – Contract Price**PHASE 1 - PRE-CONSTRUCTION SERVICES CONTRACT PRICE PROPOSAL**

Task #	Description	Unit (in person hours)	Anticipated Quantity	Unit Price	Total Price
1	Project management	mhs	200	\$120.00	\$24,000
1A	Consultation on planning, final design, and construction	mhs	200	\$140.00	\$28,000
1B	Partnering	mhs	70	\$80.00	\$5,600
1C	Goal setting session	Lump	1		\$3,500
2	Constructability and material availability reviews and on-going Value Engineering	Lump	1		\$6,100
2A	Review of design development drawings, contract document drawings and release for construction design drawings	Lump	1		\$11,200
2B	Identification of Project elements requiring less than 100% design	Lump	1		\$4,600
3	Conduct of construction plan	mhs	200	\$86.50	\$17,300
3A	Recyclable materials report	Lump	1		\$1,500
3B	Identification of long lead items	Lump	1		\$1,900
4	Permit documentation preparation and assistance	mhs	60	\$70.00	\$4,200
5	On-going risk analysis participation	Lump	1		\$9,400
6	Contracting plan	mhs	57	\$100.00	\$5,700
7	On-going cost estimating	Lump	1		\$37,400
7A	Critical Path Method schedule	Lump	1		\$13,300
8	Salt Lake City Department of Airports and other Project stakeholder coordination	mhs	60	\$115.00	\$6,900
9	(No unit pricing for this task. See subtasks below)				
9A	Development of an Airport Safety plan	Lump	1		\$3,400
9B	Development and implementation of a Quality Plan	Lump	1		\$3,000
9C	Storm water runoff plan	Lump	1		\$1,200
9D	Safety certification plan	Lump	1		\$8,300
9E	Utah Department of Environmental Quality compliance plan	Lump	1		\$2,000
Not to Exceed Total Price					\$198,500

**Exhibit B to Construction Services Amendment
Utah Transit Authority
Project Minimum Insurance Requirements**

Contractor shall procure and maintain for the duration of the contract, and for 6 years thereafter, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the contractor, his agents, representatives, employees, or subcontractors.

MINIMUM SCOPE AND LIMIT OF INSURANCE

Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL):** Commercial general liability (“CGL”) insurance for all operations in a form providing coverage not less than that of standard commercial general liability insurance. The CGL insurance shall be on an occurrence form and cover all operations of the contractor and its subcontractors, including independent contractors. The CGL insurance shall, at a minimum, provide coverage for bodily injury, products and completed operations coverage, contractual liability and personal injury liability with limits not less than:
 - a. \$10 million per occurrence for bodily injury and property damage.
 - b. \$10 million per occurrence for products/completed operation coverage.
 - c. \$2 million per occurrence for personal and advertising injury and contractual liability.The CGL insurance shall not have any coverages that delete or deny coverage including, but not limited to, ISO Form 2294. The contractor shall obtain approval of the CGL policy from UTA prior to executing the contract.
2. **Automobile Liability:** Automobile liability insurance covering bodily injury and property liability exposures relating to all owned, hired or non-owned autos used in conjunction with the contract work. Such insurance shall have a combined single limit of not less than \$5 Million.
3. **Workers’ Compensation:** Worker’s compensation insurance as required by the State of Utah, with statutory limits, and employers’ liability insurance with a limit of no less than \$500,000 each accident, \$500,000 disease-policy limit and \$500,000 disease-each employee.
4. **Builder’s Risk:** Builder’s risk (course of construction) insurance, covering the risk of loss for any damage or loss to the building or structure by any means or occurrence until the final completion of the contract work. Coverage shall utilize an “All Risk” (Special Perils) coverage form, with limits equal to the completed value of the project and no coinsurance penalty provisions. The coverage shall include mechanical breakdown, property in transit, property at temporary storage locations, earthquake damage and flood damage insuring the interests of UTA, SLCD and their respective subcontractors of any tier providing equipment, materials or services for the project. Contractor’s obligation to maintain builder’s risk insurance shall not commence until Contractor commences Phase 2 construction services.
5. **Professional Liability:** Professional liability insurance with limits no less than \$5 million per occurrence or claim, and \$1,000,000.
6. **Pollution Legal Liability:** Contractor’s pollution legal liability and/or asbestos legal liability and/or errors and omissions (if project involves environmental hazards) with limits no less than \$2,000,000 per occurrence or claim, and \$4,000,000 policy aggregate.

7. **Railroad Protective Liability:** Railroad protective liability insurance naming the affected railroad(s) as insured(s) with minimum limits for bodily injury and property damage of \$2,000,000 per occurrence, \$6,000,000 aggregate and property damage of 2,000,000 per occurrence, \$6,000,000 aggregate, or such other limits as required by the affected railroad.

If the contractor maintains higher limits than the minimums shown above, UTA requires and shall be entitled to coverage for the higher limits maintained by the contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to UTA.

Other Insurance Provisions

The insurance policies are to contain, or be endorsed to contain, the following provisions:

1. Excepting the worker's compensation and professional liability policies, UTA, SLCDA, and their respective officers, officials, employees, and volunteers are to be covered as additional insureds with respect to liability arising out of work or operations performed by or on behalf of the contractor including materials, parts, or equipment furnished in connection with such work or operations and automobiles owned, leased, hired, or borrowed by or on behalf of the contractor. General liability coverage can be provided in the form of an endorsement to the contractor's insurance (at least as broad as ISO Form CG 20 10, CG 11 85 or both CG 20 10 and CG 20 37 forms if later revisions used).
2. For any claims related to this project, the contractor's insurance coverage shall be primary insurance as respects UTA, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by UTA, its officers, officials, employees, or volunteers shall be excess of the contractor's insurance and shall not contribute with it.
3. Each insurance policy required by this clause shall provide that coverage shall not be canceled, except with notice to UTA.

Builder's Risk (Course of Construction) Insurance

Contractor may submit evidence of Builder's Risk insurance in the form of Course of Construction coverage. Such coverage shall name UTA as a loss payee as their interest may appear.

If the project does not involve new or major reconstruction, at the option of UTA, an Installation Floater may be acceptable. For such projects, a Property Installation Floater shall be obtained that provides for the improvement, remodel, modification, alteration, conversion or adjustment to existing buildings, structures, processes, machinery and equipment. The Property Installation Floater shall provide property damage coverage for any building, structure, machinery or equipment damaged, impaired, broken, or destroyed during the performance of the Work, including during transit, installation, and testing at UTA's site.

Claims Made Policies

If any coverage must be written on a claims-made coverage form:

1. The retroactive date must be shown, and this date must be before the execution date of the contract or the beginning of contract work.

2. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of contract work.
3. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective, or start of work date, the contractor must purchase extended reporting period coverage for a minimum of five (5) years after completion of contract work.
4. A copy of the claims reporting requirements must be submitted to UTA for review.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best rating of no less than A: VII, unless otherwise acceptable to UTA.

Waiver of Subrogation

Contractor hereby agrees to waive rights of subrogation which any insurer of contractor may acquire from contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of UTA for all work performed by the contractor, its employees, agents and subcontractors.

Verification of Coverage

Contractor shall furnish UTA with original certificates and amendatory endorsements, or copies of the applicable insurance language, effecting coverage required by this contract. All certificates and endorsements are to be received and approved by UTA before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the contractor's obligation to provide them. UTA reserves the right to require complete, certified copies of all required insurance policies, including endorsements, required by these specifications, at any time.

Subcontractors

Contractor's certificate(s) shall include all subcontractors as additional insureds under its policies or subcontractors shall maintain separate insurance as determined by the Contractor, however, subcontractor's limits of liability shall not be less than \$1,000,000 per occurrence / \$2,000,000 aggregate.

Special Risks or Circumstances

UTA reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other circumstances.



CONTRACT ROUTING FORM

Department * Supply Chain

Existing Contract? Yes

Existing Contract Number * 14-17TH

Contract Section

Procurement

Board Review Date * 08/07/2019

Document Type * Change Order

Requisition #	Original	Change Order
	3571	3571

Please upload the contract or requisition here	RMSS Contract UT14-017TH Change Order #15.pdf	2.8MB
	2020 RMSS PTC Contract Extension ICE FINAL-R2 20190718.pdf	1.03MB
	RMSS PTC Phase 1 Contract Signed.pdf	3.41MB

Contract Title * FrontRunner Positive Train Control Construction Management/General Contractor Project

Contractor Name * Rocky Mountain Systems Services

Description / Purpose * This is a change order to the current contract between UTA and Rocky Mountain Systems Services regarding implementation of Positive Train Control (PTC) on UTA's FrontRunner service. This change order for \$992,432 brings the total value of the contract to \$31,077,637 and will begin at the execution of this amendment and continue through 12/31/2020.

The scope for this change order includes adding remote access changes to FrontRunner North (FRN), various changes to the FrontRunner South (FRS) wiring and network issues, legacy software fixes, FRS location plans, additional time related overhead costs, provisional sums for Dummy Equation revisions and support for Federal Railroad Administration (FRA) comments, and schedule changes extending the contract through 12/31/2020 or the full certification of UTA's PTC Safety Plan.

This project consists of designing, procuring necessary equipment, constructing and installing a Positive Train Control system that meets all requirements of the Federal Railroad Administration (FRA) and performs in a manner consistent with the FRA-approved UTA Positive Train Control Implementation Plan (PTCIP), and the Enhanced Automatic Train Control (E -ATC) Type Approval (FRA Approval No. FRA-TA-2013-01.) The UTA PTC Implementation Plan calls for the enhancement of the existing UTA Automatic Train Control (UT AA TC) System.

Contract Administrator * Postell, Patricia

Project Manager * Hofer, Daniel Charles

Base Contract Effective Dates * Beginning 10/6/2014

* Ending 9/30/2019

Contract Type * Services

Procurement Method * RFP

Number of Responding Firms

\$ Value of Next Lowest Bidder

Base Contract Term (Months) * 60

Contract Options (Months) * 0

Option to Renew? * Yes No

Extension Start Date 8/30/2019

End Date 12/31/2020

Financial Section

Procurement

Existing Contract Value

\$ 30,085,295.00

Amendment Amount

\$ 992,342.00

New/total Contract Value*

\$ 31,077,637.00

Qty

Unit Price \$

Annual/One-Time Value

\$ 5,181,099.00

Attachment

Is the amount an estimate?* Yes No

Is the amount a one-time purchase or annual recurring purchase?*

One-time Recurring

Account Code*

40-
3122.6891
2

Capital Project Code

MSP122

Funding Source*

Federal/
Local

Budgeted?*

Yes
 No

Budget amount*

\$ 36,734,360.00

Will this contract require support from another department?*

Yes No

Is the other department(s) aware of this contract and the required support?*

Yes No N/A

Has the Qualified Health Insurance Certificate been verified?*

Yes No N/A

Approval Section

1)Legal/Compliance Review* Bell, Mike

2)Accounting Approval Needed?* Yes No

2)Accounting Review* Steele, Bryan

3)Risk Approval Needed?* Yes No

4)IT Approval Needed?* Yes No

5)Add Additional Approval?* Yes No

6)Manager/Program Manager* Hofer, Daniel Charles

7)Dir, Sr. Mgr, or RGM* Hancock, David W

8)Chief* Cumins, Donald E

9)Executive Director* Meyer, William Steven

Board Approval Required Board Approval Date

Print this page



TITLE: Additional Scope for Positive Train Control on FrontRunner North and South DATE: 7/19/2019
 PROJECT/CODE: MSP122 - Positive Train Control (PTC) This is a change order to CONTRACT No: UT14-017TH
 TO: Rocky Mountain Systems Services
 ATTN: Dan Meservey

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

Scope for change order includes:

1. SP Junction Genrakode Upgrade to ElectroCode Cost: \$8,159 2. FRN Remote VHLC Access Cost: \$160,210 3. iVPI Manufacturer Recommended Wiring Changes Cost: \$132,739 4. FRS Location Plans: Crossing Equipment Settings Tables Cost: \$42,788 5. TDx and UTA Subsystem HFA Cost: \$101,698 6. Legacy Software Fixes Cost: \$248,786 7. 2019 Provisional Sum- iVPI Dummy Equation Revised Amount Cost: \$111,700 8. RMSS Support FRS Network Issues Cost: \$9,451 9. Time Related Overhead: 10/1/19 thru 12/31/2020 (PTCSP Support) Cost (Total): \$471,498 Cost (2019 Amount): \$94,299.60 Cost (2020 Amount): \$377,198.40 10. Change Order #3: Phase 2 Credit Cost: (\$311,987) 11. Provisional Sum: (MCS Support for FRA HFA Comments (40 Hours) Cost: \$17,300 Total Cost Including Provisional Sums = \$992,342 Also includes Schedule changes to extend the contract through 12/31/2020 or the full certification of UTA's PTC Safety Plan (SP), whichever comes first. Revenue Operations for completion of PTC testing in the FRS segment extends to 10/01/2019 and substantial completion to 12/31/2018. UTA will release \$750,000 of approx. \$1,500,000 of retention upon completion of PTC testing on FRS, release all but \$100,000 of remaining retention upon conditional certification of UTA's SP and release remaining retention upon completion of UTA's SP. Please see attached for more detail.

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:	\$992,342	Original Contract Sum:	\$24,864,670	Final Completion Date Prior to This Change:	9/30/2019
Unit Cost:	-	Net Change by Previously Authorized Changes:	\$5,220,625	Contract Time Change This Change Order (Calendar Days):	457
Cost Plus:	-	Previous Project Total:	\$30,085,295	Final Completion Date as of This Change Order:	12/31/2020
Total:	\$992,342	Net Change This Change Order:	\$992,342	By:	
		Current Project Total:	\$31,077,637	Date:	
				Dan Meservey Rocky Mountain Systems Services	

ACCEPTED:

By: _____
 Date: _____
 Daniel Hofer
 Project Manager <\$10,000

By: _____
 Date: _____
 David Hancock
 Director of Assets <\$50,000

By: _____
 Date: _____
 D. Eddy Cumins
 Chief Operating Officer <\$100,000

By: _____
 Date: _____
 Pat Postell
 Procurement

By: _____
 Date: _____
 Michael Bell
 Legal Review

By: _____
 Date: _____
 W. Steve Meyer
 Interim Executive Director >\$100,000



July 8, 2019

RMSS-UTA-PTC-018

Mr. Dan Hofer
Manager – State of Good Repair
Utah Transit Authority
669 West 200 South
Salt Lake City, UT 84101

Reference: FrontRunner Positive Train Control (PTC) Project
RFP No. UT14-17TH

Subject: Change Order Proposal – Scope Changes and Contract Time Extension - 2020

Dan,

Rocky Mountain Systems Services (RMSS) is pleased to provide a revised proposal for the following:

1. SP Junction: GenraKode to ElectroCode Upgrade
2. FrontRunner North Remote VHLC Access
3. iVPI Manufacturer Recommended Wiring Changes
4. FRS Location Plans: Crossing Equipment Setting Tables
5. TDX and UTA Subsystem HFA
6. Legacy Software Fixes
7. Final pricing: 2018 Provisional Sum - iVPI Dummy Equations
8. RMSS Support: FRS Network Issues
9. Time Related Overhead: 10/1/19 - 12/31/2020 to support PTCSP activities
10. Change Order #3: Phase 2 Credit
 - a. Unused provisional sums: Hazardous Materials and Permits
 - b. Correction for actual quantities

This proposal is consistent with UTA's current plan to place the FrontRunner South segment into extended Revenue Service Demonstration (RSD) of PTC functions and to submit the PTC Safety Plan to the FRA in 2019 and achieve PTC certification by December 31, 2020.

Pricing

The total price for this proposal, including lump sums, credits, and provisional sums, is \$3,655,623.00, and is summarized below.

#	Description	Value
1	SP Junction: GenraKode to ElectroCode Upgrade	\$8,159.00
2	FrontRunner North Remote VHLC Access	\$160,210.00
3	iVPI Manufacturer Recommended Wiring Changes	\$132,739.00
4	FRS Location Plans: Crossing Equipment Setting Tables	\$42,788.00



#	Description	Value
5	TDX and UTA Subsystem HFA	\$101,698.00
6	Legacy Software Fixes	\$248,786.00
7	2019 Provisional Sum Amount – iVPI Dummy Equations Revised estimate amount - iVPI Dummy Equations Amount requested per this change order proposal:	\$300,000.00 <u>\$411,700.00</u> \$111,700.00
8	RMSS Support: FRS Network Issues	\$9,451.00
9	Time Related Overhead: 10/1/19 - 12/31/2020 (PTCSP Support)	\$471,498.00
10	Change Order #3: Phase 2 Credit	-\$311,987.00)
	Total:	\$975,042.00
11	Provisional Sum: MCS Support for FRA HFA Comments (40 Hours)	\$17,300.00
	Grand Total:	\$992,342.00

This proposal includes attachments which define the scope of the above items, as well as detailed estimates to support our pricing. We are available to discuss these details at UTA's convenience.

Contract Milestones

Considering the necessity of altering the FrontRunner South PTC testing activities required for achieving PTC compliance, including FRA review times and iVPI issue related delays, RMSS proposes to redefine the contract milestones to encompass current project expectations.

Revised Milestone	Revised Date
Substantial Completion	December 31, 2018
Revenue Operations: Complete PTC Testing in FRS Segment	October 1, 2019
Final Completion	December 31, 2020

We believe it would be beneficial for UTA and RMSS to meet to discuss and agree on the milestones and are available at UTA's convenience.

Time Related Overhead Costs

With the proposed time extension, RMSS will incur additional time-related overhead costs which are not captured within the direct cost estimates for the scope-driven changes.

Overhead costs are currently being incurred at a reduced amount (60%) for the project. We acknowledge that project indirect staffing and related costs should continue to taper off towards the end of the project, per past discussions with UTA. Our cost proposal considers this, and we



have included fifteen (15) months at 22% of the typical level established for the project. Please see the attached cost estimate for details.

Major Exclusions and Risks

Positive Train Control Safety Plan

We acknowledge that RMSS must do its part by developing an adequate PTC Safety Plan. RMSS and our subcontractors will make every effort to proactively address the FRA comments and concerns that were outlined in their response to the PNWR/TriMet safety plan submittal and are applicable to the UTA E-ATC PTCSP submission to the FRA. However, UTA's system is unique with several key differences from the PNWR/TriMet implementation of E-ATC. There is ample reason to believe that the timeline for review, resolution, and final approval/certification by FRA will extend well into 2020 as expressed in the request for an extension of the Final Completion milestone in this proposal. UTA's Alternative Schedule proposed to the FRA indicated December 2020 as the date for PTC certification.

A final date cannot be predicted at this time, and we do not wish to inflate the value of this proposal unnecessarily based on speculation about factors beyond our control. However, RMSS has included a proposal to keep the project open at a reduced rate of \$27,300 per month until December 31st, 2020 or final approval of the UTA PTCSP, whichever comes first. Unknown direct costs that are out of the scope of the existing contract with UTA for PTC implementation, and that are required as a result of FRA comments to the PTCSP, will be addressed at that time and handled under a separate proposal.

iVPI Product Issues

Progress of the FrontRunner South portion of the project has been affected by previously unknown issues with the existing iVPI signal controller product. Alstom has been consulted and has advised UTA and RMSS on resolutions for specific problems which were affecting the stability of the FrontRunner South portion of the system. Over the last two years, RMSS and UTA have worked collaboratively to implement resolutions. These efforts have proven very successful, yielding a significant increase in overall system stability. However, there still remains some current scope to re-compile and re-install software at each iVPI location that was affected by the iVPI Digisafe cycle timing conflict issue. While RMSS has included the re-compilation and re-installation of software at affected locations in this proposal, there is no way of knowing if the new version of CAAPE will introduce into the system any additional currently unknown issues. As such, extensive troubleshooting and testing associated with potential issues stemming from the new CAAPE compiler is not included in this proposal.

Other exclusions are contained with the Assumptions and Clarifications attachment, as well as the various scope attachments.



RMSS and UTA have a long history of cooperation to help UTA achieve its goals. Please be assured that RMSS remains committed to working with UTA to overcome the many challenges associated with achieving its PTC objectives.

Please note that our pricing is in U.S. Dollars, F.O.B. Salt Lake City UT, and excludes all allowances, taxes, tariffs, licenses, and permits. All assumptions and clarifications from our base Phase 2 proposal dated September 16, 2015 will apply, unless stated otherwise in this proposal. This proposal is valid for 30 days, unless extended in writing by RMSS.

If you need any additional information, please don't hesitate to contact us.

Sincerely,

A handwritten signature in blue ink, appearing to read "Anthony Ortolani", is positioned below the word "Sincerely,".

Anthony Ortolani
Project Manager
Rocky Mountain Systems Services

Attachments:

0. UTA-PTC 2020 CO Worksheet Binder Summary
1. Clarifications and Assumptions
2. Credit Estimate Worksheet
3. SP Junction GenraKode Scope Document
4. SP Junction GenraKode Upgrade Estimate Worksheet
5. FrontRunner North Remote VHLC Access Scope Document
6. FrontRunner North Remote VHLC Access Estimate Worksheet
7. iVPI Wiring Changes Scope Document
8. iVPI Wiring Changes Estimate Worksheet
9. FRS Location Plan Updates Scope Document
10. FRS Location Plans Updates Estimate Worksheet
11. TDX and UTA Subsystem HFA Scope Document
12. TDX and UTA Subsystem HFA Estimate Worksheet
13. Legacy Software Fixes Scope Document
14. Legacy Software Fixes Estimate Worksheet
15. Final pricing: 2018 Provisional Sum - iVPI Dummy Equations Scope Document
16. Final pricing: 2018 Provisional Sum - iVPI Dummy Equations Estimate Worksheet
17. RMSS Support: FRS Network Issues Estimate Worksheet
18. Time Related Overhead: 10/1/19 - 12/31/2020 Estimate Worksheet

Copy: Al Wilson – RMSS
Marshall Wilson - RMSS
Ryan Snow – RMSS
Paul Rieger - RMSS
Dan Meservey - RMSS

UTA-PTC 2020 Change Order

7/8/2019

Rev 13

Description	Segment	RMSS Direct Cost						RMSS Indirect	Subtotal Cost	RMSS Contingency	Total Cost + Contingency	Fee	Subtotal Cost & Fee	Bond	Total Price
		RMSS	RioTech	MCS	RSC	Alstom	Subtotal								
New Work		222,955	34,000	57,987	0	0	314,942		314,942	16,659	387,001	54,181	441,182	4,412	445,594
SP Junction ElectroCode Upgrade	FRN	6,749					6,749		6,749	337	7,086	992	8,078	81	8,159
FRN VHLC Remote Access	FRN	103,250		29,268			132,518		132,518	6,626	139,144	19,480	158,624	1,586	160,210
iVPI Wiring Changes	FRS	109,795					109,795		109,795	5,490	115,285	16,140	131,425	1,314	132,739
FRS Location Design - GCP4000 and SSCIII Parameters	FRS	3,161	34,000				37,161		37,161	0	37,161	5,203	42,364	424	42,788
TDX Human Factors Analysis	Office	0	0	28,719	0	0	28,719		28,719	4,206	88,325	12,366	100,691	1,007	101,698
Legacy Software Fixes		75,552	130,232	0	0	0	205,784	0	205,784	10,289	216,073	30,250	246,323	2,463	248,786
Legacy Software Fixes - Approach Locking, Drill Signals, FRS X-ings	FRS	75,552	130,232				205,784		205,784	10,289	216,073	30,250	246,323	2,463	248,786
2018 Provisional Sum Corrections	DELTA	90,148	0	0	0	0	90,148	0	90,148	4,507	94,655	13,252	107,907	1,079	111,700
iVPI Dummy Equations - Final estimate	FRS	260,538	80,000				340,538		340,538	17,027	357,565	50,059	407,624	4,076	411,700
2018 Prov Sum - iVPI Dummy Equations	FRS	170,390	80,000				250,390		250,390	12,520	262,910	36,807	299,717	2,997	300,000
RMSS Support		8,208	0	0	0	0	8,208	0	8,208	0	8,208	1,149	9,357	94	9,451
FRS Fiber Optic Network Issues	FRS	8,208					8,208		8,208	0	8,208	1,149	9,357	94	9,451
Time Related Overhead								409,500	409,500	0	409,500	57,330	466,830	4,668	471,498
TRO thru 12/31/2020								409,500	409,500	0	409,500	57,330	466,830	4,668	471,498
Subtotal: Scope Changes and Contract Extension		396,863	164,232	57,987	0	0	619,082	409,500	1,028,582	31,455	1,115,437	156,162	1,271,599	12,716	1,287,029
Credit CO's															
Provisional Sum - Permits		-50,000					-50,000		-50,000		-50,000		-50,000		-50,000
Provisional Sum - Hazardous Materials		-50,000					-50,000		-50,000		-50,000		-50,000		-50,000
Correction for Actual Quantities		-173,673					-173,673		-173,673		-173,673		-173,673		-173,673
Subtotal: Credits		-273,673	0	0	0	0	-273,673	0	-273,673	0	-273,673	-38,314	-311,987	0	-311,987
Grand Total:		123,190	164,232	57,987	0	0	345,409	409,500	754,909	31,455	841,764	117,848	959,612	12,716	\$ 975,042.00
Provisional Sums															
MCS Support for FRA HFA Comments (40 Hours)				15,000			15,000	0	15,000	0	15,000	2,100	17,100	200	17,300
Provisional Sum Total:		0	0	15,000	0	0	15,000	0	15,000	0	15,000	2,100	17,100	200	17,300
Grand Total (including provisional sums):		123,190	164,232	72,987	0	0	360,409	409,500	769,909	31,455	856,764	119,948	976,712	12,916	\$ 992,342.00

Assumptions and Clarifications

Commercial

1. This proposal is based on the assumption that UTA will release \$750,000.00 of the currently held retainage upon completion of the revenue readiness contract milestone
2. Time related overhead will be billed in 2020 at the agreed upon rate (\$27,300) of this proposal until the PTC Safety Plan is approved.
3. RMSS assumes that upon conditional acceptance of the PTC Safety Plan by the FRA that UTA will release all remaining retention associated with the Positive Train Control project with the exception of \$100,000.00 which will be released upon final acceptance of the PTCSP

New Scope Items

SP Junction ElectroCode Upgrade

1. This scope is only to upgrade from the GenraKode box at SP Junction. All other related scope associated with upgrading iVPI to ElectroLogIXS at locations north of Ogden is covered under a previous change order
2. RMSS assumes that this work will be done at the same time as the iVPI upgrade to ElectroLogIXS
3. RMSS will remove the existing GenraKode box and implement the ElectroCode track circuit within the ElectroLogIXS chassis
4. RMSS will remove existing wiring associated with the GenraKode
5. RMSS will provide and install additional wiring for the ElectroLogIXS
6. RMSS will turn over the existing GenraKode to UTA when complete
7. Changes to SP Junction associated with this scope of work are included in the design for the iVPI upgrades and will be included in the final location plans turned over to UTA

VHLC Remote Access

1. RMSS will procure and install fully configured terminal servers at 46 existing locations equipped with VHLC
2. RMSS will procure and install RS-232 modules for VHLC's at 46 existing locations
3. RMSS assumes that port A of each VHLC is available for use in this scope of work
4. RMSS will update RS900 RuggedComm switch configurations at 46 existing locations equipped with VHLC
5. RMSS will provide cabling from the VHLC to the terminal server, and from the terminal server to the RS900
6. RMSS will provide four (4) spare MOXA N-Port 5150A-T terminal servers as part of this scope of Work
7. RMSS will provide four (4) spare VHLC RS-232 communication modules
8. RMSS will provide four (4) spare DB25/RJ45 serial cables
9. All spares will be used as commissioning spares. RMSS will turn over any remaining units to UTA upon completion of work
10. RMSS will red-line circuit plans in the field. Re-drafting and submitting of circuit plans is excluded from this scope of work. RMSS assumes that UTA will be responsible for CAD updates for drawings previously turned over to UTA
11. RMSS will red-line communication site-books. Re-drafting and submitting of communications site-books is excluded from this scope of work. RMSS assumes that UTA will be responsible for CAD updates for drawings previously turned over to UTA

Assumptions and Clarifications

12. RMSS anticipates completing this work before December 31st, 2019. However, completion of PTC testing activities is considered a priority. As such this work will be completed after the completion of all PTC testing
13. RMSS assumes that access to VHLC locations will be available during revenue service for the installation of low risk wiring and equipment
14. Work associated with integration, configuring RS900's, installing RS-232 modules on the VHLC, and changing settings in the VHLC may need to be done during non-revenue service. RMSS and our subcontractor will evaluate each of these activities and plan accordingly
15. Testing of remote access functionality will be done during revenue service hours

iVPI Wiring Changes

1. Per discussions and recommendations from Alstom and at the request of UTA, RMSS is providing a proposal for these recommended wiring modifications
2. UTA to provide P1 and P3 communication interface modules for all interlocking locations
3. RMSS will modify power supply wiring per the scope document at all locations equipped with iVPI
4. RMSS will upgrade CAT 5e vital (orange) and non-vital (green) communication cables at all locations equipped with iVPI with CAT 6a orange (vital) and green (non-vital) communication cable
 - a. CAT 6a is an ethernet cable that has a shielded connector on each end
 - b. CAT 6a cable incorporates a longitudinal separator (or spline) in the cable that separates each pair of conductors in the cable. As such it is more rigid than CAT 5e
 - c. CAT 6a is typically meant for systems with high throughput and data transfer speeds up to and including Gigabit ethernet. However, the construction of CAT 6a also provides less crosstalk between conductor pairs, and also typically has a higher signal to noise ratio than CAT 5e
5. RMSS will procure two additional cables of each color and length for use as commissioning spares and will turn over any remaining cables when complete
6. Due to the nature of all wiring changes, the iVPI box at each location must be shut down temporarily. As such this work must be complete during non-revenue service,
7. RMSS assumes only one trip to each location for wiring changes. Work will not begin until UTA has received the P1 and P3 modules and made them available for installation
8. RMSS will red-line prints prior to the as-in service drawings being drafted up so the impending wiring modifications are captured
9. Any re-testing is excluded from this scope of work. RMSS will provide one test engineer to troubleshoot locations that are reported to be problematic due to this scope of work. Testing beyond these verifications is not included
10. Test documentation is not included in this scope of work
11. Furnish of any iVPI modules is excluded from this scope of work
12. RMSS is not responsible for damage to any iVPI hardware (including GTP modules) that may occur as a result of shutting down the box and powering it back up
13. Programming of iVPI application software is not included in this scope of work

FRS Location Plans

1. Digital files containing the latest settings from both the GCP4000's and the SSCIII's from each location will be provided by UTA to RMSS no later than August 26th, 2019 so that they can be included in the final as-in-service submittals

Assumptions and Clarifications

2. Digital files that UTA provides will be named to reflect the stationing of the associated location
3. RMSS is not responsible to update settings for the GCP4000 or SSCCIII on prints once they have been submitted and approved by UTA
4. Settings will be added to a new page at the end of the circuit plan set for each equipped location, in order to avoid re-numbering of existing pages

TDX Human Factors Analysis

1. There are two separate pieces of scope associated with this proposal
 - a. Base scope of the TDX human factors analysis
 - b. Optional scope of UTA subsystem human factors analysis which includes the operational comparison of setting and releasing PTC functions when in automatic vs. remote operation
2. RMSS assumes that UTA will assign a representative that is knowledgeable of the back-office PTC systems and required reporting systems to work with the on-site personnel performing the analysis during an on-site four-day period
3. RMSS assumes that the HFA analysis will be performed during revenue service hours
4. Training of UTA personnel on back-office systems is not included in this scope of work

RMSS Support – FRS Network Issues

1. RMSS provided emergency support to troubleshoot FRS network issues between December 24th and December 30th of 2018. During the troubleshooting process it was determined that the root cause of the issues was due to damaged fiber optic cables and terminations with dirty connectors that were pre-existing. RMSS believes that this support is outside of the scope of work of the PTC project and eligible for reimbursement
2. Additionally, RMSS provided UTA with a list of recommendations and value engineering service items for the FRS network for consideration. Compiling these recommendations was the direct result of information about the FRS network that was gathered during the support UTA received between December 24th – 30th, 2018 as well as several follow up meetings held by RMSS to discuss the issues with the goal of providing UTA with the best recommendations possible

Resolution of Legacy Issues

1. RMSS scope includes design, furnish, install, and test of certain elements of work as required to resolve various legacy issues with existing in-service products and/or designs, including:
 - a. FRS Approach Locking
 - b. FRN Drill Signals
 - c. FRS Nearside Station Warning Times
 - d. Buffalo North Follow Stick
2. A description of each issue and overall scope for this work is per “Legacy Issues - Scope Document” dated July 7, 2019. This document is included as a separate attachment to this proposal

UTA PTC - Contract No. UT-14-17TH
Credit Change Order Items
RMSS Change Order Estimate Worksheet



Scope: Credits for unused provisional sums and corrections for actual quantities.

7/7/2019

<u>Credit Items</u>	<u>Quantity</u>	<u>UOM</u>	<u>Unit Cost</u>	<u>Extended</u>
<u>Unused Provisional Sum Items</u>				
Provisional Sum - Permits	-1	LS	\$ 50,000.00	\$ (50,000.00)
Provisional Sum - Hazardous Materials	-1	LS	\$ 50,000.00	\$ (50,000.00)
<u>Correction for Actual Quantities</u>				
Design Update FRN Location Plans	-1	EA	\$ 9,012.60	\$ (9,012.60)
Design Update FRN Location Software	-3	EA	\$ 9,012.60	\$ (27,037.80)
Design FRN Local Control Panels	-2	EA	\$ 5,407.56	\$ (10,815.12)
Design Update FRS Location Plans	-2	EA	\$ 9,012.60	\$ (18,025.20)
Design Update FRS Location Software	-2	EA	\$ 9,012.60	\$ (18,025.20)
Design FRS Local Control Panels	-2	EA	\$ 5,407.56	\$ (10,815.12)
Procure FRN Local Control Panels	-3	EA	\$ 5,073.00	\$ (15,219.00)
Install FRN LCP Mounting	-3	EA	\$ 1,595.00	\$ (4,785.00)
Install FRN LCP Wiring	-3	EA	\$ 1,596.55	\$ (4,789.65)
Install FRN AFTAC's	-1	LS	\$ 39,015.55	\$ (39,015.55)
Procure FRS Local Control Panels	-2	EA	\$ 4,856.00	\$ (9,712.00)
Install FRS LCP Mounting	-2	EA	\$ 1,605.00	\$ (3,210.00)
Install FRS LCP Wiring	-2	EA	\$ 1,605.28	\$ (3,210.56)
Total Credits:				\$ (273,672.80)

TOTALS

Subtotal Credits		\$ (273,672.80)
Contingency		\$ -
Subtotal Cost with Contingency		\$ (273,672.80)
Fee	14.0%	\$ (38,314.00)
Subtotal Costs with Fee		\$ (311,986.80)
Bond Premium		\$ -
Tax	0.0%	\$ -
TOTAL PRICE - RMSS		\$ (311,987.00)



Rocky Mountain Systems Services

UTA Positive Train Control
SP Junction GenraKode Upgrade to
ElectroCode

Scope Document

7-7-2019

General

UTA has expressed interest in upgrading the following locations on the FrontRunner North (FRN) commuter rail system from iVPI to ElectroLogIXS:

- 17th Street
- SP Junction
- 2700 North

This scope of work is an addendum to the proposal provided to UTA on July 24, 2018 for the upgrade to the SP Junction location.

Scope of Work

At the SP Junction location there is an obsolete version of GenraKode currently in service. It is RMSS's understanding that this is the only location where this version of GenraKode is deployed anywhere in UTA's system. At the direction of UTA, RMSS intends to remove the GenraKode and replace it with ElectroCode.

This scope of work includes the following:

- Design
 - Updating of location plans to include the removal of the existing GenraKode chassis, modules, and wiring
 - Updating of location plans to include installation of the ElectroCode modules and wiring
 - Configuration and programming of new equipment
- Procurement
 - Procurement of the following:
 - One (1) - VTI-2S Vital Track Interface, 2 Tracks
 - One (1) - VTI-2S Personality Module
 - One (1) - TIP-2 Track Inductor Panel
 - One (1) - Track Inductor Panel Cable, 8 ft
 - Misc. Installation Materials
- Removal of existing GenraKode and associated wiring
- Installation of the new equipment and associated wiring
- Commissioning and Testing of the new equipment upgrades

Schedule

Due to the importance of implementing E-ATC on FRN locations between SLC Intermodal and Ogden North in 2018, and on FRS locations from Provo to SLC Intermodal in the first half of 2019, as well as extended lead times, field work is expected to take place no earlier than the third quarter in 2019.

A mutually agreed upon schedule will be determined between UTA and RMSS at a later date.

UTA PTC - Contract No. UT-14-17TH
ElectroLogIXS Upgrades - ElectroCode upgrade
RMSS Change Order Estimate Worksheet



Scope: Remove old GenraKode box from SP Junction and install Electrocode modules in ElectroLogIXS.

7/7/2019

<u>SUBCONTRACTORS</u>	Quantity	UOM	Unit Cost	Extended
RioTech	1	LS	\$	-
MCS	1	LS	\$	-
RSC	1	LS	\$	-
Alstom	1	LS	\$	-
Subtotal Subcontractors:				\$ -

<u>MATERIALS</u>	Quantity	UOM	Unit Cost	Extended
VTI-2S Vital Track Interface, 2 Tracks	1	EA	\$ 2,113.00	\$ 2,113.00
VTI-2S Personality Module	1	EA	\$ 447.00	\$ 447.00
TIP-2 Track Inductor Panel	1	EA	\$ 967.00	\$ 967.00
Track Inductor Panel Cable, 8 feet	1	EA	\$ 84.00	\$ 84.00
Misc Installation Materials	1	LS	\$ 500.00	\$ 500.00
Subtotal Materials:				\$ 4,111.00

<u>LABOR</u>				
<u>Indirect Labor</u>				
Project Manager		Hr	\$ 142.00	\$ -
Project Engineer		Hr	\$ 102.27	\$ -
Field Engineer		Hr	\$ 79.03	\$ -
Systems Engineer		Hr	\$ 121.00	\$ -
<u>Direct Labor</u>				
Test Engineer	2	Hr	\$ 116.21	\$ 232.00
Test Support	2	Hr	\$ 105.00	\$ 210.00
Construction Manager	8	Hr	\$ 105.00	\$ 840.00
Construction Labor	8	Hr	\$ 105.00	\$ 840.00
Subtotal Labor:				\$ 2,122.00

<u>EQUIPMENT</u>					
Test Engineer	Pickup Truck	2	Hr	\$ 18.00	\$ 36.00
Test Support	Pickup Truck	2	Hr	\$ 18.00	\$ 36.00
Construction	Pickup Truck	8	Hr	\$ 18.00	\$ 144.00
Subtotal Equipment:				\$ 216.00	

<u>TRAVEL & PERDIEM</u>					
PM T&E			Days	\$ 300.00	\$ -
Test Engineer - T&E		1.0	Days	\$ 300.00	\$ 300.00
Subtotal T&E:				\$ 300.00	

<u>OTHER</u>					
Small Tools and Supplies		1	LS	\$	-
Subtotal Other:				\$ -	

UTA PTC - Contract No. UT-14-17TH
ElectroLogIXS Upgrades - ElectroCode upgrade
RMSS Change Order Estimate Worksheet



Scope: Remove old GenraKode box from SP Junction and install Electrocode modules in ElectroLogIXS.

7/7/2019

TOTALS

Subtotal Direct Costs			\$	6,749.00
Contingency	5.0%	\$	6,749.00	\$ 337.00
Subtotal Cost with Contingency			\$	7,086.00
Fee	14.0%	\$	7,086.00	\$ 992.00
Subtotal Costs with Fee			\$	8,078.00
Bond Premium	1.0%	\$	8,078.00	\$ 81.00
Tax	0.0%	\$	6,749.00	\$ -
TOTAL PRICE - RMSS			\$	8,159.00



Rocky Mountain Systems Services

UTA Positive Train Control
Remote VHLC Logfile Access

Scope Document

7-7-2019

General

As a result of the implementation of positive train control (PTC) on the FrontRunner commuter rail system, the Utah Transit Authority (UTA) is required by FRA to troubleshoot and document system anomalies at a significantly greater level than has been previously required.

The troubleshooting and reporting process often includes the gathering of runtime logfiles from the field equipment in order to evaluate the operational status of the system at the time that an anomalous event occurred. This has resulted in a significant increase in overall effort required by UTA's MoW department in order to support the required reporting.

As part of the PTC upgrade project, the cut section locations on FrontRunner North (FRN) were equipped with the ElectroLogIXS platform which provides the ability for remote access to logfile data from anywhere on the FRN non-vital network. Similarly, UTA's TRAX system provides remote access functionality to many locations equipped with VHLC hardware. UTA has requested that RMSS upgrade the FRN system to include remote access to the VHLC locations for the purpose of gathering logfile data as well.

Scope of Work

General

In order to provide remote access, the VHLC equipped locations on FRN will be required to be outfitted with a serial communications module on Port A on the back of the VHLC chassis. This module will provide an RS-232 communications link to the provided MOXA terminal server which will convert the RS-232 serial link protocol into a conventional TCP/IP Ethernet protocol. The TCP/IP data will be forwarded to a re-configured port on the RuggedComm RS900 switch.

When plugged into a port that is configured on the same VLAN as these VHLC communication modules, MoW personnel can access any other location on the same VLAN using the IP Address for that location and a terminal services client to connect to the VHLC and download a logfile.

The scope of work to upgrade VHLC equipped locations on FRN to have remote access to logfile data is as follows:

Procurement

RMSS will procure the following items for this scope of work:

- Fifty (50) RS-232 Modules for the VHLC (46 plus 4 spare)
- Fifty (50) MOXA N-Port 5150-T Terminal Servers (46 plus 4 spare)
- Fifty (50) DB-25 to RJ45 RS-232 Serial Cables (46 plus 4 spare)
- Fifty (50) CAT 5e Cables (46 plus 4 spare)

Design

The design scope is as follows:

- RMSS will redline the as-built location plan sets that are in the field to include the equipment and wiring that is to be installed in order to provide remote access
 - CAD drafting of the location plan red-lines is ***not*** included in this scope of work

- RMSS will redline the as-built communication site books that are in the field to include the equipment, IP address information, and RS900 port configuration modifications that are to be installed in order to provide remote access
 - CAD drafting of the communication site-book redlines is ***not*** included in this scope of work
- RMSS will provide configurations for forty-six (46) MOXA N-Port 5150-T terminal servers
- RMSS will provide configuration modifications for forty-six (46) existing RuggedComm RS-900's

Construction and Testing

The scope of work for construction and testing is as follows:

- RMSS will install terminal servers, RS-232 modules, and cabling at forty-six (46) VHLC equipped locations on FRN
- RMSS will ensure that logging is enabled at forty-six (46) VHLC equipped locations on FRN
- RMSS and its subcontractor will provide one week of on-site support to deploy RS-900 configurations to forty-six (46) VHLC equipped locations on FRN
- RMSS and its subcontractor will test remote access to each location and save a logfile for each to establish a baseline availability of the functionality

Training

RMSS assumes that UTA has a baseline understanding of this functionality due to the ability for remote VHLC logfile access currently existing at certain locations on the TRAX system.

RMSS will provide a high-level hands-on training for two (2) of UTA's MoW supervisors during verification to ensure that they understand how to complete remote access and download logfiles on the FrontRunner System. Additionally, RMSS will provide a step-by-step guide on how to perform a remote download. Included in this guide will be the IP addresses required for remote access to each VHLC location on FRN. It will be up to UTA to distribute and train on this internally as needed.

Schedule

RMSS will begin to procure materials immediately upon receipt of an NTP for this scope of work from UTA. Once received, RMSS' subcontractor will configure and label the MOXA terminal servers and ship them to RMSS for installation. RMSS will install the equipment upon receipt. It is assumed that this equipment can be installed during revenue operations without interruption to service. Once installed, RMSS will coordinate deployment of the RS900 configurations with UTA. This will most likely take place after dynamic testing efforts are complete on FrontRunner South.

UTA PTC - Contract No. UT-14-17TH

FRN VHLC Remote Access

RMSS Change Order Estimate Worksheet



Scope: Add remote access to VHLC's on FRN. High-level training for two (2) MoW supervisors of remote access functionality as well as provision for a step-by-step guide on how to use the new functionality. It is assumed UTA personnel know how to access VHLC logs. Drafting of changes is not included. RMSS will red-line changes into the field prints.

7/7/2019

<u>SUBCONTRACTORS</u>	Quantity	UOM	Unit Cost	Extended
RioTech	1	LS	\$	-
MCS	1	LS	\$ 29,268.00	\$ 29,268.00
RSC	1	LS	\$	-
Alstom	1	LS	\$	-
Subtotal Subcontractors:				\$ 29,268.00

<u>MATERIALS</u>	Quantity	UOM	Unit Cost	Extended
Misc. all locations	46	EA	\$ 25.00	\$ 1,150.00
RS-232 Modules	50	EA	\$ 401.00	\$ 20,050.00
DB25 to RJ45 Cable	50	EA	\$ 32.00	\$ 1,600.00
Cat 5e Cable	50	EA	\$ 15.00	\$ 750.00
Subtotal Materials:				\$ 23,550.00

<u>LABOR</u>	Quantity	UOM	Unit Cost	Extended
<u>Indirect Labor</u>				
Project Manager		Hr	\$ 142.00	\$ -
Project Engineer	32	Hr	\$ 102.27	\$ 3,273.00
Field Engineer		Hr	\$ 79.03	\$ -
Systems Engineer	16	Hr	\$ 121.00	\$ 1,936.00
<u>Direct Labor</u>				
Test Engineer	160	Hr	\$ 116.21	\$ 18,594.00
Test Support		Hr	\$ 105.00	\$ -
Construction Manager	94	Hr	\$ 105.00	\$ 9,870.00
Construction Labor	188	Hr	\$ 105.00	\$ 19,740.00
Labor Premium	\$ 32,883.00	%	30%	\$ 9,864.90
Subtotal Labor:				\$ 63,277.90

<u>EQUIPMENT</u>	Quantity	UOM	Unit Cost	Extended
Test Engineer	Pickup Truck	160	Hr \$ 18.00	\$ 2,880.00
Test Support	Pickup Truck		Hr \$ 18.00	\$ -
Construction	Pickup Truck	282	Hr \$ 18.00	\$ 5,076.00
Subtotal Equipment:				\$ 7,956.00

<u>TRAVEL & PERDIEM</u>	Quantity	UOM	Unit Cost	Extended
PM T&E		Days	\$ 300.00	\$ -
Test Engineer - T&E	15	Days	\$ 300.00	\$ 4,500.00
Subtotal T&E:				\$ 4,500.00

<u>OTHER</u>	Quantity	UOM	Unit Cost	Extended
Specialty Tools	282	HR	\$ 13.00	\$ 3,666.00
Shipping & Handling	1	LS	\$ 300.00	\$ 300.00
Subtotal Other:				\$ 3,966.00

UTA PTC - Contract No. UT-14-17TH

FRN VHLC Remote Access

RMSS Change Order Estimate Worksheet



Scope: Add remote access to VHLC's on FRN. High-level training for two (2) MoW supervisors of remote access functionality as well as provision for a step-by-step guide on how to use the new functionality. It is assumed UTA personnel know how to access VHLC logs. Drafting of changes is not included. RMSS will red-line changes into the field prints.

7/7/2019

TOTALS

Subtotal Direct Costs				\$	132,518.00
Contingency	5.0%	\$	132,518.00	\$	6,626.00
Subtotal Cost with Contingency				\$	139,144.00
Fee	14.0%	\$	139,144.00	\$	19,480.00
Subtotal Costs with Fee				\$	158,624.00
Bond Premium	1.0%	\$	158,624.00	\$	1,586.00
Tax	0.0%	\$	132,518.00	\$	-

TOTAL PRICE - RMSS \$ 160,210.00



Rocky Mountain Systems Services

UTA Positive Train Control
iVPI Wiring Changes

Scope Document

7-7-2019

General

During the implementation of positive train control (PTC) on the FrontRunner commuter rail system, extensive troubleshooting efforts were required for many locations equipped with the iVPI platform on FrontRunner South (FRS). Due to the nature of many of the issues that were experienced it was necessary to engage Alstom, the manufacturer of the hardware, in order to effectively troubleshoot and identify the root causes of several issues.

As part of their root cause analysis Alstom evaluated the installation and wiring of the iVPI equipment in the field and provided two recommended wiring modifications that they believe could improve the overall health and stability of the system.

The two wiring modifications that Alstom recommends are:

1. Installation of P1 and P3 ethernet communication interface modules at interlocking locations equipped with iVPI and upgrading the cabling to CAT 6a shielded ethernet cable
2. Re-locating the termination of supply wires to the iVPI power supplies from terminals 6/7 to terminals 4/5. This wiring modification requires that the iVPI box be shut down momentarily.

Scope of Work

The scope of work for iVPI wiring modifications is as follows:

Design

The design scope is as follows:

- RMSS will mark up the field location plan sets with redlines for wiring changes
- Redlines for wiring modifications will be drafted in the final as-in-service plan set for FRS following the completion of dynamic testing

Procurement

RMSS will procure the following for this scope of work:

- Sixty-six (66) 15ft CAT 6a green ethernet cables for non-interlocking locations
- Sixty-six (66) 15ft CAT 6a orange ethernet cables for non-interlocking
- Twenty-one (21) 20ft CAT 6a green ethernet cables for interlocking locations
- Twenty-one (21) 20ft CAT 6a orange ethernet cables for interlocking locations
- Misc. material (wire, tags, cable ties, etc.)
- Procurement of P1 and P3 communication interface modules is ***not*** included. These modules are to be procured by UTA.

Procurement quantities include two spares for each type and color of CAT 6a cables.

Construction

The construction scope for iVPI wiring modifications is as follows.

Communication Wiring

RMSS will perform the following tasks associated with iVPI communication wiring:

Please note that these wiring modifications require that the iVPI be shut down and will momentarily interrupt vital and non-vital communications. As such, these wiring changes must be complete during non-revenue operations.

- Interlocking locations
 - RMSS will remove the existing ethernet cabling and termination and install the P1 and P3 communication modules supplied by UTA
 - RMSS will install the 20ft orange shielded CAT 6a cable between the VSP P3 module and Port 2 of the RS900
 - RMSS will install the 20ft green shielded CAT 6a cable between the NVSP P1 module and Port 1 of the RS900
 - RMSS will tag and secure all cables
- Non-Interlocking locations
 - RMSS will replace the green and orange CAT 5e cabling with upgraded shielded CAT 6a cables
 - RMSS will tag and secure all cables

Power Supply Wiring

RMSS will perform the following wiring modifications at all locations that are equipped with an iVPI chassis on FrontRunner South:

Please note this wiring change requires that the iVPI box be momentarily shut down. As such this wiring change must be completed during non-revenue operations.

- Move voltage supply wires terminated on the iVPI power supply from terminals 6/7 to terminals 4/5
- Re-tag and secure wires
- Redline field location plans

Testing

RMSS will provide one tester to troubleshoot problematic locations with issues related to this scope of work. This would include problems powering up with vital and non-vital communications coming back up as wiring is completed at each location. RMSS assumes that test documentation except for routine progress tracking by location is not required.

Schedule

The schedule for these wiring changes is dependent on UTA receiving the P1 and P3 interface modules from Alstom. RMSS will begin to procure the CAT 6a cables immediately upon receipt of an NTP from UTA for this scope of work. Installation activities will take place during non-revenue operations at times convenient to both UTA and RMSS. It is anticipated that this work will be complete shortly after the completion of dynamic testing on FRS.

UTA PTC - Contract No. UT-14-17TH

FRS iVPI Wiring Changes

RMSS Change Order Estimate Worksheet



Scope: Re-wiring and re-tagging of communications at FRS Interlocking locations, and re-wiring of power isolation units at all FRS locations. Redlines will be as-built into plan set with PTC as-builts.

7/7/2019

SUBCONTRACTORS

Quantity UOM Unit Cost Extended

Subtotal Subcontractors: \$ -

MATERIALS

Quantity UOM Unit Cost Extended

Misc. all locations	83	EA	\$	30.00	\$	2,490.00
Misc. Interlocking locations	19	EA	\$	50.00	\$	950.00
CAT 6a cables 15ft (green)	66	EA	\$	15.00	\$	990.00
CAT 6a cables 15ft (orange)	66	EA	\$	15.00	\$	990.00
CAT 6a cables 20 ft (green)	21	EA	\$	18.00	\$	378.00
CAT 6a cables 20 ft (orange)	21	EA	\$	18.00	\$	378.00

Subtotal Materials: \$ 6,176.00

LABOR

Quantity UOM Unit Cost Extended

Indirect Labor

Project Manager		Hr	\$	142.00	\$	-
Project Engineer	60	Hr	\$	102.27	\$	6,136.00
Field Engineer		Hr	\$	79.03	\$	-
Systems Engineer		Hr	\$	121.00	\$	-

Direct Labor

Test Engineer	60	Hr	\$	116.21	\$	6,973.00
Test Support		Hr	\$	105.00	\$	-
Construction Manager	172	Hr	\$	105.00	\$	18,060.00
Construction Labor	344	Hr	\$	105.00	\$	36,120.00
Labor Premium (Overtime)	\$ 60,316.00	%		30%	\$	16,254.00

Subtotal Labor: \$ 83,543.00

EQUIPMENT

Quantity UOM Unit Cost Extended

Test Engineer	Pickup Truck	60	Hr	\$	18.00	\$	1,080.00
Test Support	Pickup Truck		Hr	\$	18.00	\$	-
Construction	Pickup Truck	516	Hr	\$	18.00	\$	9,288.00

Subtotal Equipment: \$ 10,368.00

TRAVEL & PERDIEM

Quantity UOM Unit Cost Extended

PM T&E		Days	\$	300.00	\$	-
Test Engineer - T&E	10	Days	\$	300.00	\$	3,000.00

Subtotal T&E: \$ 3,000.00

OTHER

Quantity UOM Unit Cost Extended

Specialty Tools	516	HR	\$	13.00	\$	6,708.00
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Subtotal Other: \$ 6,708.00

UTA PTC - Contract No. UT-14-17TH

FRS iVPI Wiring Changes

RMSS Change Order Estimate Worksheet



Scope: Re-wiring and re-tagging of communications at FRS Interlocking locations, and re-wiring of power isolation units at all FRS locations. Redlines will be as-built into plan set with PTC as-builts.

7/7/2019

TOTALS

Subtotal Direct Costs				\$	109,795.00
Contingency	5.0%	\$	109,795.00	\$	5,490.00
Subtotal Cost with Contingency				\$	115,285.00
Fee	14.0%	\$	115,285.00	\$	16,140.00
Subtotal Costs with Fee				\$	131,425.00
Bond Premium	1.0%	\$	131,425.00	\$	1,314.00
Tax	0.0%	\$	109,795.00	\$	-

TOTAL PRICE - RMSS \$ 132,739.00



Rocky Mountain Systems Services

UTA Positive Train Control
FRS Location Plans – GCP4000 and
SSCCIII Settings

Scope Document

7-7-2019

General

As part of the design effort associated with the upgrade for Positive Train Control (PTC) on the FrontRunner commuter rail system, each location affected by hardware and software upgrades will have changes made to the circuit plan set. On FrontRunner North (FRN), the circuit plans have a page that contains the settings for the HXP-3 crossing hardware. The plan set for FrontRunner South (FRS) does not contain these settings for the GCP4000 and SSCCIII equipment. UTA has requested that this information be added to the FRS circuit plan set during the drafting process for as-builts.

Scope of Work

Field Data

In order to add configuration settings of the GCP400 and SSCCIII to the circuit plan sets, the information must first be gathered from each location equipped with the referenced hardware.

RMSS is excluding the gathering of GCP and SSCC setting data from the field and assumes that UTA will provide RMSS digital downloads with the most current configuration data.

Design

The design subcontractor will extrapolate data from the digital files that are provided by UTA and place the data into a settings table. The settings table will be placed on a new page at the back of the circuit plan set, and that page will be added to the index.

Schedule

UTA has already begun to provide RMSS with configuration data from the FRS field locations equipped with GCP4000's. UTA and RMSS will jointly coordinate a mutually agreed upon timeline for UTA to provide SSCCIII data as well as any updated GCP4000 data that may have changed.

RMSS anticipates beginning drafting of FRS as-builts no later than August 26th, 2019. All data shall be provided to RMSS by then.

UTA PTC - Contract No. UT-14-17TH
FRS Location Plan Updates
RMSS Change Order Estimate Worksheet



Scope: Include GCP4000 Parameters and SSCIII Parameters on FRS Blueprints

7/7/2019

<u>SUBCONTRACTORS</u>	Quantity	UOM	Unit Cost	Extended
RioTech	1	LS	\$ 34,000.00	\$ 34,000.00
Subtotal Subcontractors:				\$ 34,000.00

<u>MATERIALS</u>	Quantity	UOM	Unit Cost	Extended
Subtotal Materials:				\$ -

<u>LABOR</u>	Quantity	UOM	Unit Cost	Extended
<u>Indirect Labor</u>				
Project Manager		Hr	\$ 142.00	\$ -
Project Engineer		Hr	\$ 102.27	\$ -
Field Engineer	40.0	Hr	\$ 79.03	\$ 3,161.00
Systems Engineer		Hr	\$ 121.00	\$ -
Subtotal Labor:				\$ 3,161.00

<u>EQUIPMENT</u>	Quantity	UOM	Unit Cost	Extended
Subtotal Equipment:				\$ -

<u>TRAVEL & PERDIEM</u>	Quantity	UOM	Unit Cost	Extended
Subtotal T&E:				\$ -

<u>OTHER</u>	Quantity	UOM	Unit Cost	Extended
Subtotal Other:				\$ -

<u>TOTALS</u>				
Subtotal Direct Costs			\$	37,161.00
Contingency			0.0%	\$ 37,161.00
Subtotal Cost with Contingency			\$	37,161.00
Fee			14.0%	\$ 37,161.00
Subtotal Costs with Fee			\$	42,364.00
Bond Premium			1.0%	\$ 42,364.00
Tax			0.0%	\$ 37,161.00
TOTAL PRICE - RMSS			\$	42,788.00



Rocky Mountain Systems Services

UTA Positive Train Control
Human Factors Analysis

Scope Document

7-7-2019

General

Currently, Utah Transit Authority (UTA) has various procedures and processes in place for its FrontRunner commuter rail dispatch and control. Part of the dispatch functionality involves various E-ATC functionality, which has recently been implemented in their control center. The FRA mandates that UTA provide a Human Factors Analysis of the E-ATC functionality.

The E-ATC process at UTA involves the SCADA/TDX control system to perform the physical aspects of the E-ATC. However, UTA also employs other subsystems for recording and managing the reporting when an E-ATC event occurs. This event includes the long-term logs and reports required for record keeping. UTA must analyze via an HFA report how TDX implements the physical E-ATC aspects of E-ATC, the record keeping of all E-ATC events, and how UTA informs trains and work crews of all active E-ATC elements.

Scope of Work

TDX HFA

RMSS can provide an HFA that is solely focused on how TDX affects the job functions of the dispatcher / controller. This portion of the HFA would analyze how a controller uses TDX to perform several discrete aspects of E-ATC. This includes how a controller:

- Issues a Temporary Speed Restriction (TSR) on a section of track or across a region that involves multiple sections of track.
- Issues a Mandatory Directive for a crossing
- Disables cab control on the entrance to the alignment at Provo and Ogden.
- Issues a No Code Proceed (NCP) to a cab.

This HFA would not contain details or analysis of reporting, notification, or archiving of an E-ATC event.

UTA Dispatching Subsystem Analysis

The back-office subcontractor will audit, review, and research UTA's processes to create a comprehensive and integrated HFA that is sufficient for UTA's responsibility to the FRA. The result will be a seamless HFA that integrates the TDX functions with the rest of the UTA process.

The back-office subcontractor will analyze each E-ATC event with respect to its susceptibility to errors. Included in the analysis is the effect and severity if an error is made in the process.

Travel and expenses to UTA's facility for the audit is included in this scope of work.

E-ATC Events

1.1.1 TSR Documentation

The back-office subcontractor will document all forms and reports required when a TSR is executed. The flow of this process will be followed from report creation, distribution, approval, and archival. The method these reports are stored will be documented. The process to retrieve the information in the case of an internal or external audit will be recorded. The time related burden on dispatcher personnel following the process properly will be included.

1.1.2 MD Documentation

The back-office subcontractor will document all forms and reports required when a MD is executed. The flow of this process from report creation, distribution, approval, and archival will be followed. The method these reports are stored will be documented. The process to retrieve the information in the case of an internal or external audit will be recorded. The analysis will cover the time related burden on dispatcher personnel following the process properly.

1.1.3 Disable Cab Speed Control

The back-office subcontractor will document all forms and reports required when dispatch personnel sends a disable the cab speed control at either Ogden or Provo. The flow of this process from report creation, distribution, approval, and archival will be followed. The method these reports are stored will be documented. The process to retrieve the information in the case of an internal or external audit will be recorded. The analysis will cover the time related burden on dispatcher personnel following the process properly.

1.1.4 No Code Proceed

The back-office subcontractor will document all forms and report required when dispatch personnel sends an NCP acceptance for a request. The flow of this process from report creation, distribution, approval, and archival will be followed. The method these reports are stored will be documented. The process to retrieve the information in the case of an internal or external audit will be recorded. The analysis will cover the time related burden on dispatcher personnel following the process properly.

1.1.5 Automatic vs. Remote (Office Control)

The back-office subcontractor will document the difference applying TSR/MD's when the field is in automatic mode vs. remote mode. This analysis will include defining task and time required to complete all task to apply the TSR/MD, whether in automatic or remote mode.

Field Notification

In each analysis described, the back-office subcontractor will include the process of notification of each E-ATC event to all trains, vehicles, or work crews that will be affected by the event. The process UTA uses to track that all trains were properly notified will be described. The analysis will cover the time related burden in complying with the official UTA process.

Internal Audits & Reports

In the normal process of dispatch and control, an audit should be conducted periodically. This audit should include a report for the accuracy of operations following the proper process. The analysis will include recommendations on conducting audits and grading compliance on following all necessary processes and procedures required for documenting all E-ATC events.

External Reports & Reviews

When an external entity, like the FRA, conducts a review of UTA's compliance, they may request a report of all E-ATC events during a specified date range. The analysis will cover the time related burden this normal review process puts on operations.

Archiving and Long-Term Storage

After a certain time, all data, reports, and forms should be archived using a method that is efficient for long term record keeping but may not be readily available upon request. The analysis will cover the time related burden this puts on UTA operations.

Schedule

RMSS and the back-office subcontractor will begin drafting the TDX portion of the HFA document and will schedule the on-site analysis of UTA's subsystems immediately upon receipt of a notice to proceed.

UTA PTC - Contract No. UT-14-17TH
TDX Human Factors Analysis
RMSS Change Order Estimate Worksheet



Scope: As a requirement of the PTCSP a Human Factors Analysis must be completed of the TDX Dispatch system.

7/7/2019

<u>SUBCONTRACTORS</u>	Quantity	UOM	Unit Cost	Extended
RioTech	1	LS	\$	-
MCS - TDX HFA	1	LS	\$ 28,719.00	\$ 28,719.00
MCS - UTA Subsystem Analysis	1	LS	\$ 55,400.00	\$ 55,400.00
Subtotal Subcontractors:				\$ 84,119.00

<u>MATERIALS</u>	Quantity	UOM	Unit Cost	Extended
Subtotal Materials:				\$ -

<u>LABOR</u>	Quantity	UOM	Unit Cost	Extended
Subtotal Labor:				\$ -

<u>EQUIPMENT</u>	Quantity	UOM	Unit Cost	Extended
Subtotal Equipment:				\$ -

<u>TRAVEL & PERDIEM</u>	Quantity	UOM	Unit Cost	Extended
Subtotal T&E:				\$ -

<u>OTHER</u>	Quantity	UOM	Unit Cost	Extended
Subtotal Other:				\$ -

<u>TOTALS</u>				
Subtotal Direct Costs			\$	84,119.00
Contingency	5.0%	\$	84,119.00	\$ 4,206.00
Subtotal Cost with Contingency			\$	88,325.00
Fee	14.0%	\$	88,325.00	\$ 12,366.00
Subtotal Costs with Fee			\$	100,691.00
Bond Premium	1.0%	\$	100,691.00	\$ 1,007.00
Tax	0.0%	\$	84,119.00	\$ -
TOTAL PRICE - RMSS			\$	101,698.00



Rocky Mountain Systems Services

UTA Positive Train Control
Resolution of Legacy Product/Design
Issues

Scope Document

7-7-2019

General

The implementation of Positive Train Control (PTC) on the FrontRunner commuter rail system for the Utah Transit Authority (UTA) requires specific modifications to the existing signaling and control office systems, in order to achieve compliance with federal regulations for PTC. From a functional perspective, these modifications are primarily to enforce:

- Temporary Speed Restrictions (TSRs)
- Mandatory Directives (MDs)
- Permanent Speed Restrictions (Civil Speed Limits)

The existing signal system had been in successful revenue service for several years - seven (7) years for FRN and three (3) years for FRS, as of late 2015 when the Construction Services phase began. Therefore, in defining the scope of work for the project, Rocky Mountain Systems Services (RMSS) made certain assumptions about the existing signal system, including:

- The existing (pre-PTC) signal system functions are implemented as required by UTA and would not be modified during the PTC project, except as necessary to implement PTC features
- The existing signal system equipment was capable of supporting PTC upgrades, and there were no product defects or shortcomings that would impact the planned implementation of upgrades

The only major exceptions to the above is that the scope included:

- Replacement of existing FRN cut section equipment with ElectroLogIXS equipment
- Replacement of existing FRS cut section equipment with owner-furnished iVPI equipment

However, in the course of implementing the planned scope of the project, a number of issues with the existing signaling products and existing designs have been revealed. These issues have and are continuing to affect project completion.

Description of Legacy Issues

FRS Approach Locking

Approach locking in the original software for FRS did not include the OS track of the interlocking in approach to the signal to be approach locked. This is a systemic issue and affects every interlocking on FRS. This scope of work includes amending the software, configuration management, and retesting in Vital-Sim and field testing of approach locking functionality.

Nearside Crossings at Vine Street and 200 South in American Fork

Legacy software for FRS did not account for the fact that trains overrunning the platforms at Murray Station (northbound) and American Fork (southbound) could enter nearside crossings before they were safely closed. This scope of work includes changes to software, control lines, route and aspects charts, and changes to the location plans. This scope of work also includes both Vital-Sim and field testing of these crossing locations. Additionally, this scope of work includes extensive coordination and planning efforts required to establish a viable solution for these locations.

At this time this scope of work does ***not*** include interlocking the FrontRunner Vine Street crossing with the TRAX crossing system for Vine Street.

Buffalo North Follow Stick

Legacy software did not accommodate a follow stick for closely following trains northbound from Buffalo North. This scope of work includes changes to the software, testing, and maintenance of the configuration management for the course of the project.

FRN Drill Signals

An issue in the legacy wayside application software and TDX software for the control of the Y6 -Y9 drill signal out of Warm Springs North was discovered during operation after PTC software was placed into service. It was determined that this issue was the result of a sequence of operations that needed to be re-ordered in the wayside application software as well as how the request and cancel bits were handled in the TDX control office software. This scope of work includes troubleshooting, changes to the wayside application software, re-testing of the affected locations, and software configuration management associated with this change for the life of the project.

Scope of Work

Signal Design

The signal design subcontractor will provide the following services and assistance in resolving the issues described herein:

- Revisions to wayside application software for affected locations
- Updates to software configuration management tracking matrices
- Revisions of affected system level plans
- Remote support for the deployment of revised wayside software

Testing & Commissioning

RMSS will provide the following services and assistance in resolving the issues described herein:

- Install and test revised application software for all affected locations
- Complete required test documentation
- Coordination, monitoring, and reporting of design and field progress

Schedule

FrontRunner North legacy software fixes are to be implemented at the earliest available opportunity. These legacy software fixes will likely be placed into service once FRS software cutovers are complete and prior to dynamic testing activities of FRS. FrontRunner South application software revisions are to be implemented and tested systematically prior to the start of FRS PTC dynamic testing during cutover activities during the first and second quarters of 2019.

UTA PTC - Contract No. UT-14-17TH

Legacy Software Fixes - 2019

RMSS Change Order Estimate Worksheet



Scope: Pre-existing software issues requiring additional design and testing

7/7/2019

<u>SUBCONTRACTORS</u>	Quantity	UOM	Unit Cost	Extended
RioTech - FRS Approach Locking	1	LS	\$ 20,160.00	\$ 20,160.00
RioTech - FRN Drill Signals	1	LS	\$ 27,512.00	\$ 27,512.00
RioTech - Nearside Station Crossing Warning Times	1	LS	\$ 62,400.00	\$ 62,400.00
RioTech - Buffalo North Follow Stick	1	LS	\$ 20,160.00	\$ 20,160.00
Subtotal Subcontractors:				\$ 130,232.00

<u>MATERIALS</u>	Quantity	UOM	Unit Cost	Extended
Subtotal Materials:				\$ -

<u>LABOR</u>	Quantity	UOM	Unit Cost	Extended
Direct Labor				
Test Engineer	440	Hr	\$ 116.21	\$ 51,132.00
Test Support		Hr	\$ 105.00	\$ -
Construction Manager		Hr	\$ 105.00	\$ -
Construction Labor		Hr	\$ 105.00	\$ -
Subtotal Labor:				\$ 51,132.00

<u>EQUIPMENT</u>	Quantity	UOM	Unit Cost	Extended
Test Engineer	440	Pickup Truck	\$ 18.00	\$ 7,920.00
Test Support		Pickup Truck	\$ 18.00	\$ -
Construction		Pickup Truck	\$ 18.00	\$ -
Subtotal Equipment:				\$ 7,920.00

<u>TRAVEL & PERDIEM</u>	Quantity	UOM	Unit Cost	Extended
PM T&E		Days	\$ 300.00	\$ -
Test Engineer - T&E	55	Days	\$ 300.00	\$ 16,500.00
Subtotal T&E:				\$ 16,500.00

<u>OTHER</u>	Quantity	UOM	Unit Cost	Extended
Small Tools and Supplies	1	LS	\$	\$ -
Subtotal Other:				\$ -

UTA PTC - Contract No. UT-14-17TH
Legacy Software Fixes - 2019
RMSS Change Order Estimate Worksheet



Scope: Pre-existing software issues requiring additional design and testing

7/7/2019

TOTALS

Subtotal Direct Costs				\$ 205,784.00
Contingency	5.0%	\$	205,784.00	\$ 10,289.00
Subtotal Cost with Contingency				\$ 216,073.00
Fee	14.0%	\$	216,073.00	\$ 30,250.00
Subtotal Costs with Fee				\$ 246,323.00
Bond Premium	1.0%	\$	246,323.00	\$ 2,463.00
Tax	0.0%	\$	205,784.00	\$ -
TOTAL PRICE - RMSS				\$ 248,786.00



Rocky Mountain Systems Services

UTA Positive Train Control
Revised Provisional Sum – iVPI Dummy
Equations

Scope Document

7-7-2019

General

The implementation of Positive Train Control (PTC) on the FrontRunner commuter rail system for the Utah Transit Authority (UTA) requires specific modifications to the existing signaling and control office systems, in order to achieve compliance with federal regulations for PTC. From a functional perspective, these modifications are primarily to enforce:

- Temporary Speed Restrictions (TSRs)
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- Permanent Speed Restrictions (Civil Speed Limits)

The existing signal system had been in successful revenue service for several years - seven (7) years for FRN and three (3) years for FRS, as of late 2015 when the Construction Services phase began. Therefore, in defining the scope of work for the project, Rocky Mountain Systems Services (RMSS) made certain assumptions about the existing signal system, including:

- The existing (pre-PTC) signal system functions are implemented as required by UTA and would not be modified during the PTC project, except as necessary to implement PTC features
- The existing signal system equipment was capable of supporting PTC upgrades, and there were no product defects or shortcomings that would impact the planned implementation of upgrades

The only major exceptions to the above is that the scope included:

- Replacement of existing FRN cut section equipment with ElectroLogIXS equipment
- Replacement of existing FRS cut section equipment with owner-furnished iVPI equipment

However, in the course of implementing the planned scope of the project, a number of issues with the existing signaling products and existing designs have been revealed. These issues have and are continuing to affect project completion.

Scope of Work

[iVPI issue - Processor Resets – Addition and Eventual Removal of Dummy Equations](#)
Revised estimate from 2018 provisional sum

Background

During and immediately following cutovers of FRS locations to new equipment and software, some locations experienced iVPI processor resets. Depending on the exact circumstances and operating scenario when a reset occurs, train operations can be affected with loss or downgrade of cab signals and loss of favorable wayside signals. The RMSS team investigated extensively but was unable to explain or eliminate the resets. Alstom was brought in to assist in the investigation and determined that an internal execution problem allows a CRG-related function and a Digisafe function to execute simultaneously, resulting in data corruption. Ultimately, this data corruption can lead to a processor reset. Alstom informed UTA and RMSS that a defect in their latest compiler has allowed the conflict. The project team queried Alstom about the feasibility of reverting to an earlier (original FRS era) compiler to resolve the problem, but Alstom advised against this, as certain other issues have been addressed since the original FRS implementation.

The best permanent solution is for Alstom to update CAAPE, and this update is anticipated to be available from Alstom no sooner than July 2019. As a workaround, Alstom advised that dummy equations can be inserted into application software to modify internal execution timing and prevent the conflict.

The original proposal provided a provisional sum for the addition of dummy equations to locations affected by the data corruption issue. The provisional sum also assumes that RMSS will remove the dummy equations after the CAAPE compiler is released.

Revised Scope and Estimate

The purpose of providing a provisional sum in 2018 was to establish a preliminary budget in order to continue progress on the PTC upgrade project, even though it was largely unknown how many locations were affected by the Digisafe timing conflict.

The process for evaluating the cycle times for each location was as follows:

- RioTech (signal designer) provides location software to RMSS
- RMSS loads software onto modules in the test rack
- RMSS runs cycle timing check and notates 5-10 cycle times
 - Cycle times ending in 05 or 10 are unacceptable and require dummy equations
 - Cycle times ending in 06 or 09 are marginal and require dummy equations
 - Cycle times ending in 07 or 08 are acceptable. Ideally times flipping between 07 and 08 will be notated.
- RMSS reports cycle times back to RioTech
- RioTech inserts dummy equations into application software
 - Approximately 500 dummy equations will move the cycle time by a value of 01
 - Almost all software required between 1000 and 1500 dummy equations
- RioTech re-compiles software and sends it back to RMSS
- RMSS loads the software onto modules in the test rack
- RMSS runs cycle timing check and notates 5-10 cycle times

This process is repeated for each location until the cycle times were found to be acceptable. Upon evaluating each location, it was noted that nearly all the FRS locations (70 of 83 or 84%) required dummy equations. The total level of effort per location exceeded the assumptions that the provisional sum was based on.

This proposal includes removal of the dummy equations from the software once Alstom issues the revised CAAPE compiler. Additionally this proposal also includes recompiling the software once the equations are removed and reinstallation of the software in the field. RMSS assumes that minimal testing will be required as no vital equations will be affected by the removal of the dummy equations. Difference reports will be utilized to verify that no other equations were affected.

UTA PTC - Contract No. UT-14-17TH
Revised Estimate - iVPI Dummy Equations
RMSS Change Order Estimate Worksheet



Scope: Reconfigure software w/ Dummy Equations, Lab Test, Install, Field Test, Remove Dummy Equations, Re-install, Re-test

7/7/2019

SUBCONTRACTORS

	Quantity	UOM	Unit Cost	Extended
RioTech	1	LS	\$ 80,000.00	\$ 80,000.00
Subtotal Subcontractors:				\$ 80,000.00

MATERIALS

				\$ -
				\$ -
Subtotal Materials:				\$ -

LABOR

Administration - Included in Extended TRO

Project Manager		Hr	\$ 130.00	\$ -
Project Engineer		Hr	\$ 77.00	\$ -
Safety Quality		Hr	\$ 105.00	\$ -

Lab Testing - Dummy Equations

Field Engineer	40	Hr	\$ 77.00	\$ 3,080.00
Systems Engineer	40	Hr	\$ 130.00	\$ 5,200.00
Test Engineer	166	Hr	\$ 102.00	\$ 16,932.00
Test Support	50	Hr	\$ 77.00	\$ 3,850.00

Field Testing - Dummy Equations Install

Field Engineer	36	Hr	\$ 77.00	\$ 2,772.00
Senior Test Manager	18	Hr	\$ 130.00	\$ 2,340.00
Test Engineer	720	Hr	\$ 102.00	\$ 73,440.00

Field Testing - Dummy Equations Remove (Includes Labor Rate Escalation)

Field Engineer	16	Hr	\$ 79.03	\$ 1,264.00
Senior Test Manager	8	Hr	\$ 130.00	\$ 1,040.00
Test Engineer	400	Hr	\$ 116.21	\$ 46,484.00

Subtotal Direct Labor: \$ 156,402.00

EQUIPMENT

Field Engineer	Pickup Truck	92	Hr	\$ 18.00	\$ 1,656.00
Test Engineer	Pickup Truck	1,286	Hr	\$ 18.00	\$ 23,148.00
Test Support	Pickup Truck	50	Hr	\$ 18.00	\$ 900.00
Subtotal Equipment:					\$ 25,704.00

UTA PTC - Contract No. UT-14-17TH
Revised Estimate - iVPI Dummy Equations
RMSS Change Order Estimate Worksheet



Scope: Reconfigure software w/ Dummy Equations, Lab Test, Install, Field Test, Remove Dummy Equations, Re-install, Re-test

7/7/2019

TRAVEL & PERDIEM

PM T&E		Days	\$	300.00	\$	-
Test Engineer - T&E	155	Days	\$	300.00	\$	46,500.00
					Subtotal T&E:	\$ 46,500.00

OTHER

Small Tools and Supplies	1	LS	\$	31,932.00	\$	31,932.00
					Subtotal Other:	\$ 31,932.00

TOTALS

Subtotal Direct Costs					\$	340,538.00
Contingency	5.0%		\$	340,538.00	\$	17,027.00
Subtotal Cost with Contingency					\$	357,565.00
Fee	14.0%		\$	357,565.00	\$	50,059.00
Subtotal Costs with Fee					\$	407,624.00
Bond Premium	1.0%		\$	407,624.00	\$	4,076.00
Tax	0.0%		\$	340,538.00	\$	-
TOTAL PRICE - RMSS					\$	411,700.00
PROVISIONAL SUM AMOUNT					\$	300,000.00
DELTA					\$	111,700.00

UTA PTC - Contract No. UT-14-17TH

RMSS Support - FRS Fiber Optic Issues

RMSS Change Order Estimate Worksheet



Scope: During the holiday season of 2018 the FrontRunner South fiber optic network experienced numerous issues. RMSS was called out to investigate. After several days of troubleshooting and replacing fiber jumpers the network was restored.

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<u>SUBCONTRACTORS</u>	Quantity	UOM	Unit Cost	Extended
RioTech	1	LS	\$	-
MCS	1	LS	\$	-
RSC	1	LS	\$	-
Alstom	1	LS	\$	-
Subtotal Subcontractors:				\$ -

<u>MATERIALS</u>	Quantity	UOM	Unit Cost	Extended
		EA	\$	-
		EA	\$	-
		EA	\$	-
Subtotal Materials:				\$ -

<u>LABOR</u>	Quantity	UOM	Unit Cost	Extended
<u>Indirect Labor</u>				
Project Manager	20	Hr	\$ 142.00	\$ 2,840.00
Project Engineer		Hr	\$ 102.27	\$ -
Field Engineer		Hr	\$ 79.03	\$ -
Systems Engineer		Hr	\$ 121.00	\$ -
<u>Direct Labor</u>				
Test Engineer	40	Hr	\$ 116.21	\$ 4,648.00
Test Support		Hr	\$ 105.00	\$ -
Construction Manager		Hr	\$ 105.00	\$ -
Construction Labor		Hr	\$ 105.00	\$ -
Subtotal Labor:				\$ 7,488.00

<u>EQUIPMENT</u>	Quantity	UOM	Unit Cost	Extended
Test Engineer	40	Pickup Truck	\$ 18.00	\$ 720.00
Test Support		Pickup Truck	\$ 18.00	\$ -
Construction		Pickup Truck	\$ 18.00	\$ -
Subtotal Equipment:				\$ 720.00

<u>TRAVEL & PERDIEM</u>	Quantity	UOM	Unit Cost	Extended
PM T&E		Days	\$ 300.00	\$ -
Test Engineer - T&E		Days	\$ 300.00	\$ -
Subtotal T&E:				\$ -

<u>OTHER</u>	Quantity	UOM	Unit Cost	Extended
Small Tools and Supplies	1	LS	\$	-
Subtotal Other:				\$ -

UTA PTC - Contract No. UT-14-17TH
RMSS Support - FRS Fiber Optic Issues
RMSS Change Order Estimate Worksheet



Scope: During the holiday season of 2018 the FrontRunner South fiber optic network experienced numerous issues. RMSS was called out to investigate. After several days of troubleshooting and replacing fiber jumpers the network was restored.

7/7/2019

TOTALS

Subtotal Direct Costs			\$	8,208.00
Contingency		\$ 8,208.00	\$	-
Subtotal Cost with Contingency			\$	8,208.00
Fee	14.0%	\$ 8,208.00	\$	1,149.00
Subtotal Costs with Fee			\$	9,357.00
Bond Premium	1.0%	\$ 9,357.00	\$	94.00
Tax	0.0%	\$ 8,208.00	\$	-
TOTAL PRICE - RMSS			\$	9,451.00

UTA PTC - Contract No. UT-14-17TH
Time Related Overhead
RMSS Change Order Estimate Worksheet



Scope: Indirect costs through 12/31/2020 (or PTCSP approval whichever comes first).

7/7/2019

LABOR	Quantity	UOM	Unit Cost	Extended
<u>From Phase 2 proposal dated 9/16/2015</u>				
800300 Project Management for Design and Construction	1	LS	\$ 2,218,490.00	\$ 2,218,490.00
800400 Construction Administration and Management	1	LS	\$ 1,129,275.00	\$ 1,129,275.00
Subtotal Overhead Costs				\$ 3,347,765.00
Number of Months	27	MO		
Monthly Overhead Costs			100% TRO Amount	\$ 123,991.00

<u>From CO14 - Dated 8/22/2018</u>	<u># of Months</u>	<u>% of TRO</u>	<u>UOM</u>	<u>Unit Cost</u>	<u>Extended</u>
Extension Costs - 10/1/2018 to 3/31/2019					
Monthly Overhead Costs - 10/1/2018 to 3/31/2019	6	80%	MO	\$ 99,192.80	\$ 595,156.80
Extension Costs - 4/1/2019 to 9/30/2019					
Monthly Overhead Costs - 4/1/2019 to 9/30/2019	6	60%	MO	\$ 74,394.60	\$ 446,367.60

<u>10/1/2019 thru 12/31/2020 Indirect Labor @ 22%</u>					
Monthly Overhead Costs - 10/1/2019 to 12/31/2020	15	22%	MO	\$ 27,300.00	\$ 409,500.00

Subtotal Direct Labor: \$ -

<u>EQUIPMENT</u>	Quantity	UOM	Unit Cost	Extended
Subtotal Equipment: \$ -				

<u>TRAVEL & PERDIEM</u>	Quantity	UOM	Unit Cost	Extended
Subtotal T&E: \$ -				

<u>OTHER</u>	Quantity	UOM	Unit Cost	Extended
Subtotal Other: \$ -				

UTA PTC - Contract No. UT-14-17TH
Time Related Overhead
RMSS Change Order Estimate Worksheet



Scope: Indirect costs through 12/31/2020 (or PTCSP approval whichever comes first).

7/7/2019

TOTALS

Subtotal Indirect Costs				\$ 409,500.00
Contingency	0.0%	\$	409,500.00	\$ -
Subtotal Cost with Contingency				\$ 409,500.00
Fee	14.0%	\$	409,500.00	\$ 57,330.00
Subtotal Costs with Fee				\$ 466,830.00
Bond Premium	1.0%	\$	466,830.00	\$ 4,668.00
Tax	0.0%	\$	409,500.00	\$ -
TOTAL PRICE - RMSS				\$ 471,498.00

RFP No. UT14-17TH

**FRONTRUNNER POSITIVE TRAIN
CONTROL CM/GC PROJECT**

**PHASE 1 -
PRE-CONSTRUCTION SERVICES
CONTRACT**



**UTAH TRANSIT AUTHORITY
669 WEST 200 SOUTH
SALT LAKE CITY, UT 84101**

Utah Transit Authority

**PHASE 1 – PRE-CONSTRUCTION SERVICES CONTRACT
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**FRONTRUNNER POSITIVE TRAIN CONTROL
CONSTRUCTION MANAGER/GENERAL CONTRACTOR PROJECT
PHASE 1 – PRE-CONSTRUCTION SERVICES CONTRACT**

This Phase 1 – Pre-Construction Services Contract for Construction Manager/General Contractor ("CM/GC") Services is entered into this 6th day of October, 2014, by and between the Utah Transit Authority ("Utah Transit Authority" or "UTA"), a public transit district organized under the laws of the State of Utah, and Rocky Mountain Systems Services, ("Contractor").

WITNESSETH:

WHEREAS, UTA desires to hire a Contractor for pre-construction services and, if successful negotiations result in a scope of construction services and a lump sum price to which both UTA and the Contractor agree, the construction and start-up of a Positive Train Control system on UTA's FrontRunner commuter rail system (the "Project").

WHEREAS, on May 5, 2014, UTA did publicly issue a Request For Proposal ("RFP") Package Number UT14-17TH seeking interested parties to submit proposals to perform the work described in the RFP; and

WHEREAS, upon UTA's evaluation of the Proposals, in response to the RFP by responsive, responsible Proposers, UTA did select the Contractor; and

WHEREAS, the Contractor is qualified and willing to perform the work set forth in Exhibit A – Phase 1 (Pre-Construction Services) Scope of Work;

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth and for other good and valuable consideration, the parties agree as follows:

1.0 DEFINITIONS

As used throughout this Contract, the following terms shall have the meaning set forth:

- A) "Change Order" means a written modification to the CM/GC Contract, the form of which will be prescribed by UTA, by which the parties must mutually agree to and evidence any addition, deletion, or variation in the work covered by the CM/GC Contract as described in the Phase 1 – Pre-Construction Services Contract or, after successful negotiation, the Phase 2 – Construction Services Amendment, including, but not limited to, any increase or decrease in the monies to be paid under this CM/GC Contract, any change in the deliverables, or any change in the work.
- B) "Construction Manager/General Contractor Contract" means the executed Phase 1 – Pre-Construction Services Contract and, if negotiations are successfully completed, the Phase 2 – Construction Services Amendment, including all exhibits, addenda, and attachments, and all provisions required by law to be inserted in the CM/GC Contract whether actually inserted or not. Whenever separate publications are referenced in the CM/GC Contract, it is understood to mean the publications,

Utah Transit Authority

as amended, which are current on the Proposal due date, unless otherwise noted.

- C) "Contracting Plan" means the plan, developed and submitted by the Contractor, and approved by UTA, during this Phase 1 – Pre-Construction Services Contract. This Contracting Plan must set forth the program which the Contractor will follow in determining the bid/proposal packages for the construction of the Project if successful negotiations between UTA and the Contractor result in a scope of construction services and lump sum price agreed to by both parties as documented in a Phase 2 – Construction Services Amendment.
- D) "Contractor's Principal-in-Charge" or "Contractor's PIC" means Gerry McKenna or his/her successor as appointed or designated in writing by the Contractor. The Contractor's PIC will serve as a counterpart to UTA's PIC and will serve as UTA's liaison to the highest levels of management of the Contractor. The responsibilities identified for the Contractor's PIC **must not** be devolved to other key personnel or proposed staff. Roles and responsibilities and reporting and communications relationships of the Contractor's PIC may not be altered unless requested in writing and approved by UTA.
- E) "Contractor's Project Manager" or "Contractor's PM" means Dan Meservey or his/her successor as appointed or designated in writing by the Contractor. The responsibilities identified for the Contractor's PM **must not** be devolved to other key personnel or proposed staff. Roles and responsibilities and reporting and communications relationships of the Contractor's PM may not be altered unless requested in writing and approved by UTA.
- F) "Phase 2 – Construction Services Amendment" means the amendment to this Phase 1 – Pre-Construction Services Contract, after successful negotiations between UTA and the Contractor of the scope of construction services and a lump sum price.
- G) The "Utah Transit Authority's Principal-in-Charge" or "UTA's PIC" means Michael Allegra, or his successor or designee as appointed or designated in writing by UTA.
- H) The "Utah Transit Authority's Project Manager" or "UTA's PM" means Travis Baxter or his successor or designee as appointed or designated in writing by UTA.

2.0 DESCRIPTION OF SERVICES

The Contractor shall perform pre-construction services as required by UTA and as more particularly described in the Phase 1 (Pre-Construction Services) Scope of Work, which is hereby attached as Exhibit A and incorporated into this Phase 1 – Pre-Construction Services Contract. If successful negotiations occur between UTA and the Contractor for a scope of construction services, schedule, and lump sum price, and a Phase 2 – Construction Services Amendment is executed, the Contractor will provide construction services for the Project. However, this Phase 1 - Pre-Construction Services Contract in no way indicates that a Phase 2 – Construction Services Amendment will be executed either with the Contractor or any third party or that UTA is in any way obligated to do so. Any such reliance by the Contractor on this Phase 1 - Pre-Construction Services Contract as indicative that a Phase 2 – Construction Services Amendment will be

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executed is done at the Contractor's own risk. The Utah Transit Authority will not be liable for such reliance or any costs associated therewith.

3.0 ORDER OF PRECEDENCE

Every provision of the documents listed below is incorporated into this Phase 1 – Pre-Construction Services Contract by reference. The contract documents referenced below are in descending order of precedence.

- A) The Phase 1 - Pre-Construction Services Contract, including Exhibits A and B hereto;
- B) Contractor's Proposal in response to RFP No. UT14-007GL;
- C) RFP No. UT14-007GL.

In case of any ambiguity in the contract documents, the matter must be immediately submitted to UTA's PM, who will adjust the same, in his sole discretion, and his decision in relation thereto will be final and conclusive upon the parties.

4.0 PERIOD OF SERVICE

The effective date for this Phase 1 - Pre-Construction Services Contract is the same as the execution date of this Agreement. The expiration date of this Phase 1 – Pre-Construction Services Contract is December 15, 2014. The Phase 1 – Pre-Construction Services Contract may be extended under two circumstances. First, the Contractor and UTA may mutually agree to extend the Phase 1 - Pre-Construction Services Contract through a written Change Order. Such a written Change Order may be used to increase the period of service and/or consideration for the Phase 1 - Pre-Construction Services Contract, or to add required work to Exhibit A - Phase 1 (Pre-Construction Services) Scope of Work. However, a Change Order will not be used to execute the Phase 2 –Construction Services Amendment or any portions thereof or work that could be interpreted as pertaining thereto.

The second method for extending this Phase 1 – Pre-Construction Services Contract may be through execution of the Phase 2 – Construction Services Amendment. In the event that UTA and the Contractor successfully negotiate a scope of construction services and lump sum price, UTA and the Contractor may agree to execute a Phase 2 – Construction Services Amendment. The terms and conditions of this Phase 1 - Pre-Construction Services Contract shall survive the execution of the Phase 2 – Construction Services Amendment.

5.0 CONSIDERATION

- A) Phase 1 - Pre-Construction Services Contract
As full compensation for the work and all other obligations to be performed by the Contractor under this Phase 1 - Pre-Construction Services Contract, as described in Exhibit A - Scope of the Phase 1 - Pre-Construction Services Contract, UTA will pay to the Contractor a not-to-exceed Phase 1 – Pre-Construction Services Contract amount of \$474,700.

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B) Phase 2 – Construction Services Amendment

If a scope of construction services, schedule, and lump sum price are agreed upon and negotiated between UTA and the Contractor as full compensation for work and all other related obligations to be performed by the Contractor with respect to the Project, UTA and the Contractor may execute a Phase 2 – Construction Services Amendment. Such Phase 2 – Construction Services Amendment, and any commitments made by the parties thereunder, will not be binding upon the parties until the Phase 2 – Construction Services Amendment is executed in accordance with the laws and policies of the State of Utah and UTA.

C) Sales Tax

The Contractor should be aware that Utah Code Ann. 59-12-104(2)(a)(ii), (b) and 59-12-104(68) et. seq., exempts the following transactions from sales and use tax:

- 1) Personal property purchased by UTA or on behalf of UTA by a UTA contractor; and
- 2) Construction materials to be converted to real property owned by UTA and purchased by UTA or a UTA contractor.

The Utah State Tax Commission has issued a new Exemption Certificate, a copy of which is available upon request.

6.0 CONTRACT CHANGES

6.1 Change Orders

The Contractor shall not engage in any activity that may materially alter this Phase 1 - Pre-Construction Services Contract (other than the Phase 2 – Construction Services Amendment) ~~without obtaining a written Change Order issued by UTA. Any costs incurred by the Contractor~~ without proper contractual authorization through a written Change Order will be considered non-reimbursable.

The Utah Transit Authority's PM may, at any time, by written order designated to be a Change Order, make changes in the work within the general scope of this Phase 1 - Pre-Construction Services Contract, including, but not necessarily limited to, the following changes:

- A) In Exhibit A - Phase 1 (Pre-Construction Services) Scope of Work;
- B) In the method or manner of performance of the work;
- C) In Utah Transit Authority-furnished facilities, equipment, materials, services, or site; or
- D) In directing acceleration or deceleration in the performance of the work.

Any other written or verbal order from UTA's PM that causes a change in the work will be treated as a Change Order under this article provided that the Contractor gives UTA's PM or designee written notice stating the following:

Utah Transit Authority

- 1) The date, circumstances, and source of the Change Order; and
- 2) That the Contractor regards the change in the work as a Change Order.

The Contractor must assert its right to an adjustment within 30 calendar days after receipt of the written or verbal order that causes a change in the work.

If any Change Order under this Article 6.1 causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this Phase 1 - Pre-Construction Services Contract, UTA's PM may make an equitable adjustment, in the sole determination of UTA, and modify the Phase 1 - Pre-Construction Services Contract in writing.

6.2 Amendment

If UTA and the Contractor successfully negotiate a scope of construction services, schedule and lump sum price, and UTA and the Contractor agree to formalize such terms, then this Phase 1 - Pre-Construction Services Contract may be modified by a Phase 2 - Construction Services Amendment. The Phase 2 - Construction Services Amendment, along with its Exhibit B - General Conditions, will define general terms applicable to all construction services performed under Phase 2, as well as the scope of work, schedule, and lump sum price. The Phase 2 - Construction Services Amendment is the only method by which the scope of construction services or the lump sum price, or any work pertaining to any portion thereof, for the Project may be added to this Phase 1 - Pre-Construction Services Contract. The Phase 2 - Construction Services Amendment will be executed in the same manner as this Phase 1 - Pre-Construction Services Contract.

7.0 INVOICING PROCEDURES AND RECORDS

The Contractor shall submit monthly invoices to UTA for payment in the form specified by UTA. The Utah Transit Authority will pay invoices within 60 calendar days after submission of the invoice by the Contractor and approval of the invoice by UTA. The Utah Transit Authority will have the right to withhold payment on specific elements of each invoice. The Utah Transit Authority will provide, in writing, the reason for withholding the payment to the Contractor within ten calendar days of invoice submittal. Payment by UTA will not be unreasonably withheld. Payment for all invoice amounts not specifically identified for withholding in writing within ten calendar days after receipt will be provided to the Contractor within 60 calendar days of invoice submittal by the Contractor and approval of the invoice by UTA.

The Contractor shall maintain a time sheet showing payroll rates and other cost documentation related to the performance of labor services under this Phase 1 - Pre-Construction Services Contract. Upon the request of UTA, written or electronic data supporting the labor services and written estimates and actual costs and information in support thereof must be made available within a reasonable time during the Phase 1 - Pre-Construction Services Contract period and for a period of three years thereafter. The Contractor shall require (as a matter of written contract) that similar records be maintained by all subcontractors at any tier utilized in the performance of this CM/GC Contract.

Retention will be withheld from payments due the Contractor in an amount equal to five percent of the invoiced payment. Retention withheld by UTA may be drawn upon by UTA to complete any term or requirement of the CM/GC Contract that, in UTA's sole determination, has not been

Utah Transit Authority

satisfied or to fulfill any payments which the Contractor has failed to remit to any subcontractors at any tier for work satisfactorily performed under the CM/GC Contract. Retention proceeds will be placed in an interest-bearing account, which will accrue for the benefit of the Contractor and any of its subcontractors. The retention will be paid to the Contractor after the CM/GC Contract is completed and work under CM/GC Contract is accepted by UTA.

If UTA and the Contractor successfully negotiate a scope of construction services and lump sum price and execute a Phase 2 – Construction Services Amendment, the Contractor shall provide to UTA a performance bond and a payment bond issued by a surety doing business in Salt Lake County, Utah, each in an amount equal to 100% of the lump sum price which may be drawn upon by UTA.

8.0 OWNERSHIP OF MATERIALS

All data, including, but not limited to, maps, drawings, sketches, renderings, software, hardware, and specifications, including the original thereof, hereinafter referred to as data and materials, developed by the Contractor as a part of its work under this Phase 1 - Pre-Construction Services Contract are the property of UTA and upon completion of this Phase 1 – Pre-Construction Services Contract, or upon the termination or cancellation of this Phase 1 – Pre-Construction Services Contract, must be delivered to UTA prior to final payment. All other materials provided to the Contractor by UTA to perform this Phase 1 – Pre-Construction Services Contract will be returned to UTA at completion, termination, or cancellation of this Phase 1 – Pre-Construction Services Contract.

9.0 KEY PERSONNEL

For UTA's needs, the Contractor will assign key personnel to the Project. The key personnel must take direction for work assignments under the direction of UTA's PM. The key personnel must remain on the Project until such time that UTA agrees it does not need their expertise and/or services or until completion of the work under this CM/GC Contract.

The Contractor shall secure the services of the following key personnel to perform the work under this CM/GC Contract and agrees there must not be any change in the assignment of the key personnel without the prior written approval by UTA:

THE CONTRACTOR'S KEY PERSONNEL

NAME	POSITION
<u>Gerry McKenna</u>	Contractor's Principal in Charge
<u>Dan Meservey</u>	Contractor's Project Manager
<u>Bob Anderson</u>	Contractor's Design Manager
Walt Moskaly	Contractor's Field Engineer

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The Contractor shall assign such further professional and technical personnel as required to perform the work under this CM/GC Contract, including subcontractors' personnel.

Any removal of key personnel identified under this Article 9.0 will potentially result in UTA incurring significant losses, including, without limitation, loss of reputation, delay costs, and losses out of other contracts held by UTA related to the Project. The Utah Transit Authority and the Contractor acknowledge that these potential losses, while actual, may not be easy to prove in a court of law. Accordingly, UTA and the Contractor have agreed to the Liquidated Damages ("LDs") set forth below.

If the Contractor makes the decision to remove or reassign any of the Contractor's key personnel prior to the completion of the work under this CM/GC Contract, it will pay to UTA LDs in the amount of \$100,000.00 for each key personnel that is removed. If UTA's PM and the Contractor's PIC agree to the removal of the Contractor's key personnel and their replacement, no LDs will be assessed to the Contractor. If, in UTA's sole opinion, UTA makes a significant change in its management or the structure of the work that affects the Contractor's key personnel, LDs will not apply to the Contractor. The parties agree and acknowledge that actual damages for changes in key personnel will be difficult to calculate and that the LDs set forth herein have been agreed to by the parties.

All of the Contractor's key personnel and employees must have the skill, experience, and any necessary licenses required under Utah law to perform the work assigned to them. If UTA determines in its sole discretion that any person employed by the Contractor or by any subcontractor is not performing the work in a proper and skillful manner, then at the written request of UTA, the Contractor or such subcontractor must remove such person and such person must not be re-employed on the Project without the prior written consent of UTA. If the Contractor or the subcontractor fails to remove such person or fails to furnish skilled and experienced personnel for the proper performance of the work, then UTA may suspend the affected portion of the work by delivery of written notice of such suspension to the Contractor. Such suspension will in no way relieve the Contractor of any obligation contained in the CM/GC Contract or entitle the Contractor to a Change Order. Once compliance is achieved, the Contractor will be entitled to, and must promptly, resume the work.

10.0 SUSPENSION OF WORK

The Utah Transit Authority may, at any time, by written order to the Contractor, require the Contractor to suspend, delay, or interrupt all or any part of the work called for by this CM/GC Contract. Any such order will be specifically identified as a "Suspension of Work Order". Upon receipt of a "Suspension of Work Order," the Contractor shall forthwith comply with its terms and take all reasonable steps to minimize and mitigate the incurrence of further costs allocable to the work covered by the order during the period of work stoppage.

If a Suspension of Work Order is canceled, the Contractor shall resume work as mutually agreed to in writing by the parties hereto, however the Contractor shall not unreasonably delay its ability to resume work.

If a Suspension of Work Order is not canceled and the work covered by such order is terminated

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for the convenience of UTA, reasonable costs incurred as a result of the Suspension of Work Order may be considered in negotiating the termination settlement in accordance with Article 11.0.

11.0 TERMINATION

11.1 Termination for Convenience

The Utah Transit Authority may terminate this CM/GC Contract, in whole or in part, at any time by written notice to the Contractor when it is in UTA's best interest. The Contractor will be paid its costs, including, CM/GC Contract close-out costs, and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to UTA to be paid the Contractor. If the Contractor has any property in its possession belonging to UTA, the Contractor shall account for the same and dispose of it in the manner UTA directs.

11.2 Termination for Default

If the Contractor does not deliver supplies in accordance with the CM/GC Contract delivery schedule, if the Contractor fails to perform in the manner called for in the CM/GC Contract, or if the Contractor fails to comply with any other provisions of the CM/GC Contract, UTA may terminate this CM/GC Contract for default. Termination will be effected by serving a notice of termination on the Contractor setting forth the manner in which the Contractor is in default. The Contractor will only be paid the price for supplies delivered and accepted or services performed in accordance with the CM/GC Contract.

If it is later determined by UTA that the Contractor had an excusable reason for not performing, UTA, after setting up a new delivery of performance schedule, may allow the Contractor to continue work, or treat the termination as a termination for convenience.

11.3 Opportunity to Cure

The Utah Transit Authority, in its sole discretion, may, in the case of a termination for breach or default, allow the Contractor 15 calendar days in which to cure the defect. In such case, the notice of termination will state the time period in which cure is permitted and other appropriate conditions

If the Contractor fails to remedy to UTA's satisfaction the breach or default of any of the terms, covenants, or conditions of this CM/GC Contract within 15 calendar days after receipt by the Contractor of written notice from UTA setting forth the nature of said breach or default, UTA will have the right to terminate the CM/GC Contract without any further obligation to the Contractor. Any such termination for default will not in any way operate to preclude UTA from also pursuing all available remedies against the Contractor and its sureties for said breach or default.

11.4 Waiver of Remedies for any Breach

In the event that UTA elects to waive its remedies for any breach by the Contractor of any covenant, term, or condition of this CM/GC Contract, such waiver by UTA will not limit UTA's remedies for any succeeding breach of that or of any other term, covenant, or condition of this CM/GC Contract.

11.5 Availability

If UTA terminates this CM/GC Contract with the Contractor for any reason, the Contractor shall remain available to UTA to respond to any questions or concerns that UTA may have regarding the work completed by the Contractor prior to termination. This Article 11.0 survives the termination of this CM/GC Contract.

12.0 INFORMATION, RECORDS, AND REPORTS

The Contractor shall provide all information and reports and shall permit access to its books, records, accounts, other sources of information and facilities as may be determined by UTA. This Article 12.0 survives the termination of this CM/GC Contract.

13.0 FINDINGS CONFIDENTIAL

Any documents, reports, information, or other data and materials available to or prepared or assembled by the Contractor or a subcontractors under this CM/GC Contract will not be made available to any person, organization, or entity by the Contractor without consent in writing from UTA. The Contractor shall require (as a matter of written contract) that any documents, reports, information, or other data and materials available to or prepared or assembled by any subcontractor be maintained as confidential and not disclosed without written consent in writing from UTA.

14.0 INSURANCE LIABILITY TO THIRD PERSONS

The Contractor shall provide, and shall ensure that its subcontractors provide, certain insurance coverages for this Project, as described below.

The Contractor and its subcontractors shall be solely responsible for damage to their own equipment. Any policy or policies of insurance which the Contractor elects to carry as insurance against loss or damage to its construction equipment or tools shall contain a provision waiving the insurer's right of subrogation against UTA. The Contractor waives its right of recovery against UTA for loss or damage to Contractor's construction equipment or tools.

14.1 Insurance Coverages

The Contractor shall procure at its own expense insurance acceptable to UTA as described herein and shall maintain such insurance in full force and effect as specified herein. Insurance shall be procured from insurance or indemnity companies with an A.M. Best and Company rating level of A- or better, Class VIII or better, or as otherwise approved by UTA and authorized to do business in the State of Utah.

Certificates of insurance shall be delivered to UTA prior to UTA's issuing any NTP associated with this Phase 1 - Pre-Construction Services Contract.

14.1.1 Workers' Compensation Insurance

The Contractor shall, and shall cause its subcontractors of all tiers to, provide at its own expense workers' compensation insurance to cover full liability under the workers' compensation laws of

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the State of Utah and at the statutory limits required by laws of the State of Utah.

14.1.2 Employer's Liability Insurance

The Contractor shall, and shall cause its subcontractors of all tiers to, provide at its own expense employer's liability insurance with the following minimum limits of liability:

- A) \$100,000.00 Each Accident.
- B) \$500,000.00 Disease-Policy Limit.
- C) \$100,000.00 Disease-Each Employee.

14.1.3 Commercial General Liability Insurance

The Contractor shall, and shall cause its subcontractors of all tiers to, provide at its own expense Commercial General Liability (CGL) insurance on an "occurrence basis," including, insurance for operations, independent contractors, products/completed operations, and contractual liability specifically designating the indemnity provisions of this CM/GC Contract as an insured contract on the certificate of insurance. Such CGL insurance must be endorsed with a broad form property damage endorsement (including completed operations) and afford coverage for explosion, collapse, and underground hazards.

The Commercial General Liability insurance must be in limits not less than the following:

- 1) \$5,000,000.00 General Aggregate.
- 2) \$2,000,000.00 Products-Completed Operations Aggregate.
- 3) \$2,000,000.00 Personal and Advertising Injury.
- 4) \$5,000,000.00 Each Occurrence.
- 5) \$50,000.00 Fire Damage (any one fire).
- 6) \$5,000.00 Medical Expense (any one person).

The aggregate loss limit must be on a per project basis. The policy must include products and completed operations extended coverage for a minimum of five years following final acceptance. If the Contractor's CGL insurance or other form with a general aggregate limit and products and completed operations aggregate limit is used, then the annual aggregate limits must apply separately to the Project, or the Contractor may obtain separate insurance to provide the required limit which must not be subject to depletion because of claims arising out of any other project or activity of the Contractor. Any such excess insurance must be at least as broad as the Contractor's primary insurance.

The CGL insurance certificate must state that the policy has been endorsed to name UTA and Union Pacific Railroad Company as additional insureds. From time to time, additional insureds may be required to be added to the CGL insurance.

Note that standard CGL policies contain an exclusion pertaining to construction and demolition within 50 feet of a railroad. Contractor shall obtain an endorsement removing such exclusion if and when UTA and the Contractor execute the Phase 2 – Construction Services Amendment.

14.1.4 Automobile Liability Insurance

The Contractor shall, and shall cause its subcontractors of all tiers to, provide at their own expense automobile liability insurance for claims arising from the ownership, maintenance, or use of a motor vehicles at, upon, or away from the Project site. The automobile liability insurance must cover all owned, non-owned, and hired automobiles used in connection with the work, with the following minimum limits of liability:

\$1,000,000.00 Combined Single Limit Bodily Injury and Property Damage Per Occurrence.

The automobile liability insurance certificate must state that the policy has been endorsed to name UTA as additional insureds. From time to time, additional insureds may be required to be added to the automobile liability insurance.

14.2 General Insurance Requirements

14.2.1 Cooperation

The Contractor shall cooperate fully with and provide any information or record requested by UTA or its insurance representative(s) regarding all aspects of the Contractor's insurance program, including enrollment, claims, audit, and safety procedures, as required by UTA. If the Contractor fails or delays in any material respect in reporting such required information to UTA or its insurance representative, UTA may suspend payment until the Contractor complies.

14.2.2 Verification of Coverage

A) Certificates of Insurance

Prior to NTP, the Contractor will deliver to UTA a certificate of insurance with respect to each policy required to be provided under this Phase 1 - Pre-Construction Services Contract.

B) Renewal Policies

The Contractor shall promptly deliver to UTA a certificate of insurance with respect to each renewal policy, bearing a notation evidencing payment of the premium therefor, or accompanied by other proof of payment satisfactory to UTA.

C) Disclaimer

The Utah Transit Authority will not be responsible to provide any insurance coverage pertaining to the Project or for Contractor's benefit. The Contractor and all subcontractors shall ensure that their insurance coverages fit the particular needs of this Project, and it is their responsibility to arrange for and secure any insurance coverage which they deem advisable, whether or not specified above.

D) Endorsements and Waivers

All general and automobile liability insurance policies required to be provided by the

Utah Transit Authority

Contractor or any subcontractor hereunder shall contain or be endorsed to contain the following provisions (1) through (5); and all workers' compensation and employer's liability policies are to contain or be endorsed to contain the following provision (4) and (5):

- 1) For any claims related to the Project, insurance coverage will be primary insurance with respect to the additional insureds (and their respective members, directors, officers, employees, agents, and consultants), and shall specify that coverage continues after departure from the site. Any insurance or self-insurance maintained by an additional insured (or its members, directors, officers, employees, agents, and consultants) will be excess of such insurance and will not contribute with it;
- 2) Any failure on the part of the principal insured to comply with reporting provisions or other conditions of the policies, any breach of warranty, any action or inaction of the principal insured or others, any foreclosure relating to the Project or any change in ownership of all or any portion of the Project will not affect coverage provided to the additional insureds (and their respective members, directors, officers, employees, agents and consultants);
- 3) The insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability;
- 4) Insurance policies (including the CGL, workers' compensation, and employer's liability policies) will include a waiver of any right of subrogation against the additional insureds (and their respective members, directors, officers, employees, and agents); and
- 5) Each policy shall be endorsed to state that coverage will not be suspended, voided, canceled or reduced in coverage or in limits except after 30 calendar days prior written notice by certified mail, return receipt requested, has been given to UTA. Such endorsement will not include any limitation of liability of the insurer for failure to provide such notice.

E) Waivers of Subrogation

The Utah Transit Authority and the Contractor waive all rights against each other; against each of their agents and employees; and against subcontractors and their respective members, directors, officers, employees, agents, and consultants for any claims to the extent covered by insurance obtained pursuant to this *Article 14.0*, except such rights as they may have to the proceeds of such insurance. The Contractor shall require all subcontractors to provide similar waivers in writing, each in favor of all other parties enumerated above. Each policy obtained by the Contractor must include a waiver of any right of subrogation against the additional insureds (and their respective members, directors, officers, employees, agents, and consultants).

F) Changes in Requirements

The Utah Transit Authority will notify the Contractor in writing of any changes in the requirements applicable to insurance to be provided by the Contractor. Pursuant to a

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change order, any additional cost from such change shall be paid by UTA, and any reduction in cost shall reduce the amount due from UTA under the CM/GC Contract, as appropriate.

G) No Recourse

There shall be no recourse against UTA for payment of premiums or other amounts with respect to the insurance to be provided by Contractor hereunder.

H) Support of Indemnification Obligations

The insurance coverage provided hereunder by the Contractor must support, but is not intended to limit, the Contractor's and UTA's indemnification obligations under this Phase 1 - Pre-Construction Services Contract.

I) Commercial Unavailability of Required Coverages

If, through no fault of the Contractor, any of the coverages required in this *Article 14.0* (or any of the required terms of such coverages, including policy limits) become unavailable or are available only with commercially unreasonable premiums, UTA will work with the Contractor to find commercially reasonable alternatives to the required coverages that are acceptable to UTA. The Contractor shall not be entitled to any increase in the amount due under the CM/GC Contract for increased costs resulting from the unavailability of coverage and the requirement to provide acceptable alternatives. The Utah Transit Authority will be entitled to a reduction in the amount otherwise due under the CM/GC Contract if it agrees to accept alternative policies providing less than equivalent coverage. The Utah Transit Authority's right to a reduction in the amount due under the CM/GC Contract as set forth in the preceding sentence will be without regard to the insurance costs expended by the Contractor for the less than equivalent coverage or on other insurance required under this *Article 14.0*.

J) Prosecution of Claims

Unless otherwise directed by UTA in writing, the Contractor shall be responsible for reporting and processing all potential claims by UTA or the Contractor against the insurance required to be provided under this *Article 14.0*. The Contractor agrees to report timely to the insurer(s) any and all matters which may give rise to an insurance claim and to promptly and diligently pursue any and all insurance claims on behalf of UTA, whether for defense or indemnity or both. The Utah Transit Authority agrees to promptly notify the Contractor of UTA's incidents, potential claims, and matters which may give rise to an insurance claim by UTA, to tender its defense or the claim to the Contractor, and to cooperate with the Contractor as necessary for the Contractor to fulfill its duties hereunder. The Contractor shall report all claims against any of the policies identified in this *Article 14.0* immediately to UTA Claims and Insurance Department.

14.3 Commencement of Work

The Contractor shall not commence work under this Phase 1 - Pre-Construction Services Contract until it has obtained the insurance required under this *Article 14.0* and such insurance has been approved by UTA, nor shall the Contractor allow any subcontractor to commence work under its subcontract until the insurance required of the subcontractor has been obtained and approved by

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the Contractor. If the insurance provided by the Contractor fails to comply with the requirements listed herein, or if Contractor fails to maintain such insurance, then UTA maintains the right to suspend the Contractor's right to proceed until proper evidence is provided.

14.4 The Utah Transit Authority's Right to Remedy Breach by the Contractor

If the Contractor fails to provide insurance as required herein, UTA or its assignees have the right, but not the obligation, to purchase such insurance. In such event, the amount due under the CM/GC Contract will be reduced by the amount paid for such insurance.

15.0 PROHIBITED INTEREST

No member, officer, agent, or employee of UTA during his or her tenure or for one year thereafter will have any interest, direct or indirect, including prospective employment by, the Contractor or the proceeds under this CM/GC Contract without specific written authorization by UTA.

16.0 INDEMNIFICATION

The Contractor shall protect, defend, release, indemnify, and hold harmless UTA from and against any and all claims, liability, demands, costs and expenses, and liens of subcontractors and/or materialmen of whatsoever nature resulting from the Contractor's acts or omissions in performance of the work under this CM/GC Contract.

With respect to any loss, damage, or expense which is not of the type covered by the insurance required to be provided hereunder, the Contractor's indemnity obligation under this Article 16.0 will not extend to any loss, damage, or expense to the extent that such loss, damage, or expense was caused by the negligence or willful misconduct of UTA or its agents, servants, or independent contractors who are directly responsible to UTA (in other words, a comparative negligence standard shall apply).

17.0 SUCCESSORS AND ASSIGNEES

The Contractor shall not assign, sublet, sell, transfer, or otherwise dispose of any interest in this CM/GC Contract without prior written approval of UTA.

This CM/GC Contract will be binding upon and inure to the benefit of the parties hereto and their successors and permitted assignees.

18.0 NONWAIVER

No failure, waiver, or successive failures on the part of either party hereto or their successors or permitted assignees in the enforcement of any condition, covenant, or article of this CM/GC Contract will operate as a discharge of any such condition, covenant, or article nor render the same invalid, nor impair the right of either party hereto or their successors or permitted assignees to enforce the same in the event of any subsequent breaches by the other party hereto or its successors or permitted assignees.

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19.0 NOTICES OR DEMANDS

Any notice or demand to be given by one party to the other will be given in writing by personal service, FedEx, DHL, United Parcel Services (UPS), the United States Postal Service (USPS), or any other similar form of courier or delivery service addressed to such party as follows:

If to the Utah Transit Authority:

Utah Transit Authority
ATTN: Grants & Contracts Administrator
669 West 200 South
Salt Lake City, UT 84101

With a required copy to:

Utah Transit Authority
ATTN: Bruce Jones
669 West 200 South
Salt Lake City, UT 84101.

If to the Contractor:

Rocky Mountain Systems Services
ATTN: Gerry McKenna
8201 Southpark Lane, Suite 200
Littleton, CO 80120

Either party may change the address at which such party desires to receive written notice by delivery of written notice of such change to the party as set forth herein. Any notice given under this Article 19.0 will be deemed to have been given, and will be effective, on delivery to the notice address then applicable for the party to which the notice is directed, provided, however, that refusal to accept delivery of a notice or the inability to deliver a notice because of an address change which was not properly communicated will not defeat or delay the giving of a notice.

20.0 CONTRACT ADMINISTRATOR

The Utah Transit Authority's Contract Administrator for this Contract is Mr. Troy Hamilton or his designee. All questions and correspondence relating to the contractual aspects of this CM/GC Contract should be directed to Mr. Hamilton or his designee, at the address indicated in Article 19.0, with a copy to UTA's PM.

21.0 SEVERABILITY

If any provision or provisions of this CM/GC Contract is held to be invalid, illegal, unenforceable, or in conflict with the law of any jurisdiction, the validity, legality and enforceability of the remaining provisions will not in any way be affected or impaired thereby.

22.0 NO THIRD PARTY BENEFICIARIES

This CM/GC Contract is the entire agreement between the parties concerning its subject matter; supersedes all prior agreements and understandings, whether or not written; and is not intended to confer upon any person other than the parties any rights or remedies hereunder.

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23.0 ASSIGNABILITY

This CM/GC Contract may not be assigned by the Contractor, or its rights, title, or interest therein assigned, transferred, conveyed, sublet, or disposed of without the previous consent, in writing, of UTA. Any attempts to assign this CM/GC Contract without UTA's written consent are null and void.

24.0 SURVIVAL

The provisions of Articles 11.0, 12.0, 13.0, 15.0, 16.0, and 22.0 shall survive the termination of this CM/GC Contract.

25.0 DISPUTES

The time schedule for escalation of unresolved issues during the Phase 1 – Pre-Construction Services Contract to the next higher level of authority will be the following:

Level of Contract/Project Authority/Responsibility	Time Limit (Calendar Days)
UTA's Project Manager/Contractor's Project Manager	Three Calendar Days
UTA's Principal-in-Charge/Contractor's Principal-in-Charge	Three Calendar Days

If UTA and the Contractor are unable to resolve issue within the time limits set forth above, the issue must be submitted to UTA's General Manager for resolution. The Utah Transit Authority's General Manager will have sole discretion in resolving issues brought before him; the determination of UTA's General Manager will be final and not subject to appeal.

26.0 HEALTH REFORM - HEALTH INSURANCE IN STATE CONTRACTS

~~Utah Code Ann. §17B-2a-818.5 requires all contractors that hold contracts with public transit districts that are of \$1.5 million or more to provide evidence that the contractor has and will maintain an offer of qualified health insurance coverage for the contractor's employees and the employee's dependents during the duration of the contract. This requirement also applies to all subcontractors that hold contracts with the contractor of \$750,000.00 or more. The Contractor under this CM/GC Contract shall comply with the requirements of Utah Code Ann. §17B-2a-818.5 and any rules or policies pertaining to reporting the status of health insurance coverage, as well as requests from UTA for evidence of coverage.~~

27.0 FEDERAL CLAUSES

This CM/GC Contract includes the federally-required contract clauses attached hereto as Exhibit B, which are hereby incorporated herewith.

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28.0 GENERAL PROVISIONS

The work performed by the Contractor under this CM/GC Contract must conform to generally acceptable professional standards.

No drawings, plans, or specifications, as instruments of service developed by the Contractor as part of its work under this CM/GC Contract, will be the subject of an application for copyright or trademark by or on behalf of the Contractor.

The laws of the State of Utah and applicable federal, state, and local laws, regulations, and guidelines will govern hereunder.

The headings of the articles, clauses, and sections of this CM/GC Contract are inserted for reference purposes only and are not restrictive as to content.

Nothing contained herein will be deemed to create any contractual relationships between UTA and any of the other contractors, subcontractors, or material suppliers on the work, nor will anything contained herein be deemed to give any third party any claim or right of action against UTA or the Contractor which does not otherwise exist without regard to this CM/GC Contract.

If UTA or the Contractor becomes aware of any fault or defect in the work or non-conformance with the CM/GC Contract, that party will give prompt written notice thereof to the other party to this CM/GC Contract.

IN WITNESS WHEREOF, the parties have made and executed this Phase 1 - Pre-Construction Services Contract as of the day and year first above written.

UTAH TRANSIT AUTHORITY:

ROCKY MOUNTAIN SYSTEMS SERVICES

By: Michael A. Allegra ACTING CEO
General Manager 10/13/14

By: Gerald McKenna
Name & Title Managing Member

By: W. Steve Meyer 10/14/14
for Chief Capital Development Officer

By: _____
Name & Title

By: TRANS BAXER
Project Manager

Contractor's Federal ID Number:
61-169-0839

Approved as to Legal Form:

By: Utah Transit Authority
Legal Counsel

EXHIBIT A PHASE 1 (PRE-CONSTRUCTION SERVICES) SCOPE OF WORK

- 1.1 Pre-Construction Services (Phase I Services) shall be provided under the terms of a CM/GC Contract to be executed by the parties, a sample of which is attached in Appendix III for informational purposes only.
- 1.2 UTA reserves the right to negotiate with the Contractor prior to issuing the Notice to Proceed for Phase 1. Alternatively, UTA reserves the right to require the Contractor to execute the Phase 1 – Pre-construction Services Contract without further negotiation, incorporating the terms of the Proposal. The prices submitted for each task shall be inclusive of all costs and markups, including profit. However, UTA may determine, at its sole discretion that scope modifications are needed for Pre-Construction Services prior to execution of the Agreement included in Appendix III.
- 1.3 The anticipated scope of Pre-Construction Services under this Contract, identified by task number, is summarized below; see Appendix II for more detailed information on these tasks.

Pre-Construction Task No.	Summary Description
1	<p>Project Management: Provide full-time Project Management services beginning with the issuance of the Notice to Proceed (NTP) for the entire duration of the Pre-Construction Services Agreement. Task scope shall include, among other items, Systems Engineering and Design Management, Cost and Schedule Control, and General Administration and Coordination activities. This task also includes preparation of a Project Management Plan (PMP), a Pre-Construction Services Quality Control Plan and a Baseline Schedule of Activities – each consistent with the UTA PTC Project Specifications and the Pricing Form - for UTA’s review and approval. The PMP, Quality Control Plan and Baseline Schedule of Activities for the Pre-Construction Phase shall be submitted to UTA within 2 weeks of NTP.</p>
2	<p>Preliminary Design Work Package: Prepare and submit a Preliminary Design Work Package to UTA including recommendations on FRA-compliant solutions for the following PTC components: (a) Communications, (b) Back Office, (c) Wayside, (d) Onboard, and (e) Locomotive Interoperability, plus (f), a related Civil Speed Restrictions Evaluation. Recommendations shall also encompass items such as: constructability, implementation staging, phasing, access, and temporary facilities. Identify proposed relevant subcontractors or indicate self-</p>

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	<p>performance of the work for each component. This Deliverable may be in the form of a Design Report and shall be submitted to UTA within 2 months of NTP. Specific activities to support this deliverable may include preparing a consolidated System Description Document that documents the existing configuration of the FrontRunner signaling system, developing recommendations to upgrade wayside signaling equipment for both northern and southern segments, developing recommendations for permanent speed restrictions for each curve on the alignment, and outlining a plan to define interoperability requirements with UPRR's PTC system.</p>
3	<p><u>Preliminary Construction Schedule:</u> Concurrent with submission of the Preliminary Design Work Package, prepare a Preliminary Critical Path Method (CPM) Construction Schedule for UTA review and comment. The Preliminary Construction Schedule shall be broken-out to address the PTC components identified above in Task 2.</p>
4	<p><u>Preliminary Construction Cost Estimate:</u> Also concurrent with submission of the Preliminary Design Work Package, prepare a Preliminary Construction Cost Estimate for UTA review and comment. The Preliminary Construction Cost Estimate shall also be broken-out by the PTC components identified above in Task 2.</p>
5	<p><u>Typical Element Design Package:</u> Upon UTA's approval of the Preliminary Design Work Package, prepare and submit a Typical Element Design Package to UTA addressing the agreed-to FRA-compliant solutions for the following PTC elements; (a) Communications, (b) Back Office, (c) Wayside, (d) Onboard, and (e) Locomotive Interoperability, plus (f), the Civil Speed Restrictions Evaluation. This Work Package shall also include a set of typical drawings relevant to each PTC component, for both northern and southern FrontRunner segments – see Section 2.1 of Appendix II for more information. The Typical Element Design Package shall also incorporate items such as: constructability, implementation staging, phasing, access, and temporary facilities. This Deliverable shall be submitted and approved by the end of Phase 1. Specific activities to support this deliverable may also include updating the System Description Document to describe the agreed Phase 2 work for each of the PTC components, finalizing plans to upgrade wayside signaling equipment for both northern and southern segments, finalizing actions required with respect to permanent speed restrictions for each curve on the alignment, conducting surveys of UTA vehicles to define onboard equipment additions, and coordinating with UTA and UPRR to finalize the scope of work with respect to system interoperability.</p>

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6	<u>Final Construction Schedule:</u> Concurrent with submission of the Typical Element Design Package, prepare a Final Baseline Construction Schedule in CPM format for UTA review and approval. The Final Construction Schedule shall be broken out by the final PTC components identified in Task 5, above, and contain activities and durations consistent Information provided in the Typical Element Design Package.
7	<u>Final Construction Cost Estimate:</u> Concurrent with submission of the Typical Element Design Package, prepare a Final Construction Cost Estimate for UTA review and approval. The Final Construction Cost Estimate shall be broken out by the PTC elements identified in Task 5 above.
8	<u>Construction Contracting Plan:</u> Work with UTA to develop and finalize a Construction Contracting Plan for accomplishment of all PTC-related work. As part of this Contracting Plan, recommend packaging of the work to facilitate competitive bidding and award of trade contracts. Recommend which work, if any, should be procured through best value selection, in lieu of lowest bid. Confirm the work which the CM/GC Contractor proposes to self-perform, and how the Contractor will ensure that relevant industry pricing will be used for that work. Also ensure that the Construction Contracting Plan includes provisions for the collection and documentation of lien waivers from all subcontractors and material suppliers.

EXHIBIT B FEDERAL CLAUSES

1. FEDERAL CHANGES

The Work to be performed and Equipment to be provided under this Contract may be financed, in part, by grants provided under programs of the Federal Transit Act, as amended, and as such is subject to the Terms and Conditions set forth in the grant agreements. CONTRACTOR understands that Federal laws, regulations, policies, and related administrative practices applicable to the Contract may be modified from time to time. CONTRACTOR acknowledges that the most recent of such Federal requirements will govern the Contract at any particular time, unless the Federal Government determines otherwise. Likewise, new Federal laws, regulations, policies, and administrative practices may be established after the Contract is executed and may apply to the Contract. The laws and regulations detailed in this Contract include, but are not limited to, those that will be applicable to the Contract. To the extent applicable, CONTRACTOR shall comply with the Federal, State, and UTA imposed requirements contained in this Contract.

2. FLY AMERICA

The CONTRACTOR agrees to comply with 49 U.S.C. 40118 (the "Fly America" Act) in accordance with the General Services Administration's regulations at 41 CFR Part 301-10, which provide that recipients and subrecipients of Federal funds and their contractors are required to use U.S. Flag air carriers for U.S. Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. The CONTRACTOR shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. The CONTRACTOR agrees to include the requirements of this section in all subcontracts that may involve international air transportation.

3. BUY AMERICA

The contractor agrees to comply with 49 U.S.C. 5323(j) and 49 C.F.R. Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 C.F.R. 661.7, and include final assembly in the United States for 15 passenger vans and 15 passenger wagons produced by Chrysler Corporation, and microcomputer equipment and software. Separate requirements for rolling stock are set out at 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11. Rolling stock must be assembled in the United States and have a 60 percent domestic content.

4. CARGO PREFERENCE – USE OF U.S.-FLAG VESSELS

If any of the Equipment or materials to be supplied under this Contract may be shipped on ocean vessels, the contractor agrees: a. to use privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to the underlying contract to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels; b. to furnish within 20 working days following the date of loading for shipments originating within the United States or within 30 working days following the date of leading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in the preceding paragraph to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to the FTA recipient (through the contractor in the case of a subcontractor's bill-of-lading.) c. to include these requirements in all subcontracts issued pursuant to this contract when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.

5. SEISMIC SAFETY REQUIREMENTS

The contractor agrees that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in Department of Transportation Seismic Safety Regulations 49 CFR Part 41 and will certify to compliance to the extent required by the regulation. The contractor also agrees to ensure that all work performed under this contract including work performed by a subcontractor is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance issued on the project.

6. ENERGY CONSERVATION REQUIREMENTS

The contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

7. CLEAN WATER REQUIREMENTS

The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. The Contractor agrees to report each violation to UTA and understands and agrees that UTA will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

8. LOBBYING

Contractors who apply or bid for an award of \$100,000 or more shall file the certification required by 49 CFR part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures should be forwarded from tier to tier up to UTA.

9. ACCESS TO RECORDS AND REPORTS

CONTRACTOR agrees to provide UTA, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions. Contractor also agrees, pursuant to 49 C.F.R. 633.17 to provide the FTA Administrator or his authorized representatives including any PMO Contractor access to Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311.

The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed. The Contractor agrees to maintain all books, records, accounts and reports required under this contract for a period of not less than three years after the date of termination or expiration of this contract, except in the event of litigation or settlement of claims arising from the performance of this contract, in which case Contractor agrees to maintain same until UTA, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. Reference 49 CFR 18.39(i)(11).

CONTRACTOR need not include the provisions of this Article in subcontracts.

10. CLEAN AIR

CONTRACTOR agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq. The Contractor agrees to report each violation to UTA and understands and agrees that UTA will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

The CONTRACTOR also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

11. RECYCLED PRODUCTS

The contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

12. DAVIS-BACON AND COPELAND ANTI-KICKBACK ACTS

(1) Minimum wages – (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) Except with respect to helpers as defined as 29 CFR 5.2(n)(4), the work to be performed by the classification requested is not performed by a classification in the wage determination; and

- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and
- (4) With respect to helpers as defined in 29 CFR 5.2(n)(4), such a classification prevails in the area in which the work is performed.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30- day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(v)(A) The contracting officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination with 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(v) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(2) Withholding - UTA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the UTA may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records - (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter

for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the UTA for transmission to the Federal Transit Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under section 5.5(a)(3)(i) of Regulations, 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under section 5.5(a)(3)(i) of Regulations, 29 CFR part 5 and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees - (i) Apprentices - Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division of the U.S. Department of Labor determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees - Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination.

Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity - The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements - The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts - The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal Transit Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment - A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements - All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards - Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility - (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

13. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

(1) Overtime requirements - No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages - In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

(3) Withholding for unpaid wages and liquidated damages - UTA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards

Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

(4) Subcontracts - The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

14. NO GOVERNMENT OBLIGATION TO THIRD PARTIES

(1) UTA and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to the UTA, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

(2) The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

15. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS

(1) The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.

(2) The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate.

(3) The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

16. DEBARMENT AND SUSPENSION

This contract is a covered transaction for purposes of 49 CFR Part 29. As such, the contractor is required to verify that none of the contractor, its principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.

The contractor is required to comply with 49 CFR 29, Subpart C and must include the requirement to comply with 49 CFR 29, Subpart C in any lower tier covered transaction it enters into.

By signing and submitting its bid or proposal, the bidder or proposer certifies as follows:

The certification in this clause is a material representation of fact relied upon by UTA. If it is later determined that the bidder or proposer knowingly rendered an erroneous certification, in addition to remedies available to UTA, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The bidder or proposer agrees to comply with the requirements of 49 CFR 29, Subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

17. CIVIL RIGHTS REQUIREMENTS

(1) Nondiscrimination - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

(2) Equal Employment Opportunity - The following equal employment opportunity requirements apply to the underlying contract:

(a) Race, Color, Creed, National Origin, Sex - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. The Contractor agrees to take affirmative action to ensure that applicants are employed.

and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor

agrees to comply with any implementing requirements FTA may issue.

(b) Age - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. §§ 623 and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

(c) Disabilities - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the Contractor agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

(3) The Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

18. DISADVANTAGED BUSINESS ENTERPRISES

a. This contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs. The national goal for participation of Disadvantaged Business Enterprises (DBE) is 10%. The agency's overall goal for DBE participation is 10.8 %. A separate contract goal has not been established for this procurement.

b. The contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this DOT-assisted contract. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as UTA deems appropriate. Each subcontract the contractor signs with a subcontractor must include the assurance in this paragraph (see 49 CFR 26.13(b)).

c. The successful bidder/offeror will be required to report its DBE participation obtained through race-neutral means throughout the period of performance.

d. Prompt Payment and Return of Retainage. The contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 30 days after the contractor's receipt of payment for that work from the UTA. In addition, Contractor is required to return any retainage payments to those subcontractors within 30 days after the subcontractor's work related to this contract is satisfactorily completed..

e. The contractor must promptly notify UTA, whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work, and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of UTA.

19. ADA ACCESS

The Contractor agrees to comply with 49 U.S.C. § 5301(d), which states the Federal policy that elderly individuals and individuals with disabilities have the same right as other individuals to use public transportation services and facilities, and that special efforts shall be made in planning and designing those services and facilities to implement transportation accessibility rights for elderly individuals and individuals with disabilities. The Recipient also agrees to comply with all applicable provisions of section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, which prohibits discrimination on the basis of disability in the administration of programs or activities receiving Federal financial assistance; with the Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. §§ 12101 et seq., which requires that accessible facilities and services be made available to individuals with disabilities; with the Architectural Barriers Act of 1968, as amended, 42 U.S.C. §§ 4151 et seq., which requires that buildings and public accommodations be accessible to individuals with disabilities; and with other laws and amendments thereto pertaining to access for individuals with disabilities that may be applicable. In addition, the Recipient agrees to comply with applicable implementing Federal regulations, and any later amendments thereto, and agrees to follow applicable Federal implementing directives, except to the extent FTA approves otherwise in writing. Among those regulations and directives are: (1) U.S. DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. Part 37; (2) U.S. DOT regulations, "Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance," 49 C.F.R. Part 27; (3) Joint U.S. Architectural and Transportation Barriers Compliance Board (U.S. ATBCB)/U.S. DOT regulations, "Americans With Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 36 C.F.R. Part 1192 and 49 C.F.R. Part 38; (4) U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability in State and Local Government Services," 28 C.F.R. Part 35; (5) U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities," 28 C.F.R. Part 36; (6) U.S. General Services Administration (U.S. GSA) regulations, "Accommodations for the Physically Handicapped," 41 C.F.R. Subpart 101-19; (7) U.S. EEOC, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630; (8) U.S. Federal Communications Commission regulations, "Telecommunications Relay Services and Related Customer Premises Equipment for the Hearing and Speech Disabled," 47 C.F.R. Part 64, Subpart F; (9) U.S. ATBCB regulations, "Electronic and Information Technology Accessibility Standards," 36 C.F.R. Part 1194; (10) FTA regulations, "Transportation for Elderly and Handicapped Persons," 49 C.F.R. Part 609; and (11) Federal civil rights and nondiscrimination directives implementing the foregoing Federal laws and regulations, except to the extent the Federal Government determines otherwise in writing.

20. SEAT BELT USE

In accordance with Executive Order No. 13043, "Increasing Seat Belt Use in the United States," April 16, 1997, 23 U.S.C. § 402, UTA and CONTRACTOR are encouraged to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company-owned, rented, or personally operated vehicles, and to include this provision in any third party contracts, third party subcontracts, or subagreements involving the Project.

21. DISTRACTED DRIVING

In accordance with Executive Order No. 13513, "Federal Leadership on Reducing Text Messaging While Driving," October 1, 2009, 23 U.S.C. § 402, UTA and CONTRACTOR are encouraged to adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messages while using an employer supplied electronic device and driving a vehicle you own or rent, a company owned, rented or leased vehicle, a privately owned vehicle when performing any company work on behalf of the project or any vehicle on or off duty. This provision is to be included in any third party contracts, third party subcontracts or subagreements at each tier financed with federal funds.

22. INCORPORATION OF FTA TERMS

The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any UTA requests which would cause UTA to be in violation of the FTA terms and conditions.

APPENDIX II:

**Positive Train Control
Project Specifications**

Revision 1.0

May, 2014

REVISION HISTORY

Date	Revision	Description	Author
May 5 th , 2014	1.0	Document origination	TLB

1. INTRODUCTION

The Utah Transit Authority (UTA) is using this project specification as a means to define the scope of work (Work) for a firm (herein referred to as the Contractor) to design Positive Train Control (PTC) systems that meet all requirements of the Federal Railroad Administration (FRA) and perform in a manner consistent with the FRA- approved UTA Positive Train Control Implementation Plan (PTCIP), and the E-ATC Type Approval (FRA Approval No. FRA-TA-2013-01.) The UTA PTC Implementation Plan calls for the enhancement of the existing Automatic Train Control (UTAATC) System.

These project specifications are intended to provide the Contractor project requirements for:

1. Design a PTC system (with preparation of biddable documentation including a cost estimate and schedule – refer to Section 3 for more detail),
2. Contract Management,
3. Contract Deliverables.

1.1 UTA FRONTRUNNER HISTORY AND OVERVIEW

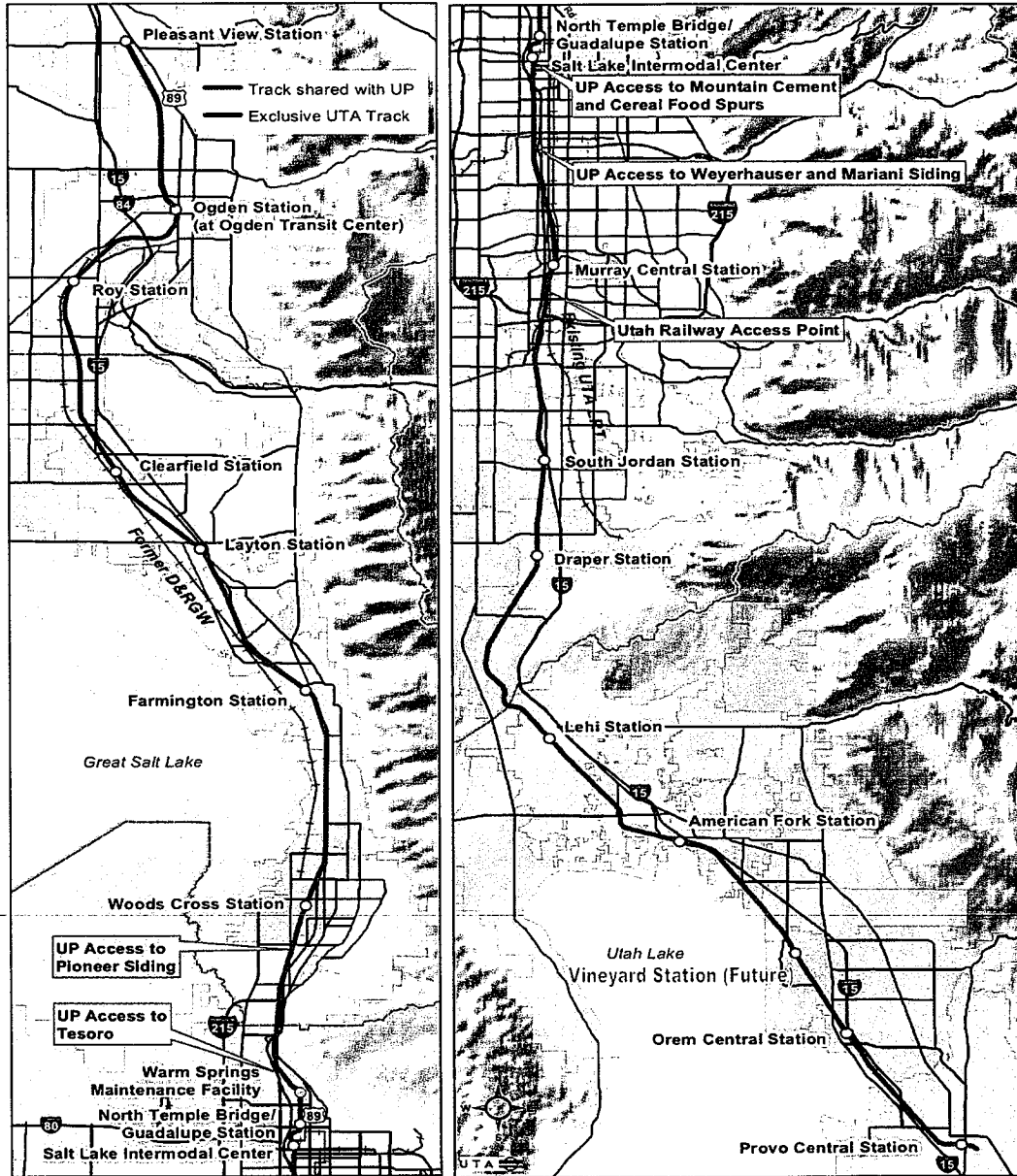
The UTA FrontRunner commuter rail system consists of two mainline track segments – Provo to Ogden and Ogden to Pleasant View – as are further briefly described below.

The FrontRunner Provo to Ogden mainline track segment begins just south of UTA's Provo Center Station (UTA MP S44.56) and extends north on track paralleling the existing Union Pacific Railroad (UPRR) line through UTA's Salt Lake City Intermodal Center Station (UTA MP 0.0), and then continues north, again on track paralleling the existing UPRR, until just past UTA's Ogden Station (UTA MP N38.61) at the UPRR control point known as Southern Pacific (SP) Junction.

The northernmost FrontRunner mainline track segment begins just north of Ogden at UPRR's SP-Junction, where commuter rail trains enter UPRR's Ogden Subdivision (UPRR MP 1.52) and then operate on shared track to the northern limit of the FrontRunner system's operations at UTA's Pleasant View Station (UPRR MP 6.17).

The FrontRunner commuter rail system mainline track segments are depicted on the map in Figure 1-1; Provo to Ogden in blue, Ogden to Pleasant View in red.

Figure 1-1 – FrontRunner Service



1.2 EXISTING SYSTEM OVERVIEW

UTA currently has an automatic train control system (UTAATC) in operation on the mainline track segments of the railroad. This system consists of the existing Centralized Traffic Control System (CTC) and Cab Signaling System (CSS) with Automatic Train Control (ATC), supplemented by additional wayside and OCC/RTC equipment and software. The continuous CSS/ATC system provides train separation and signal speed enforcement functions, including stop signal enforcement. The system provides the foundation for safe movement of trains throughout the FrontRunner Corridor. Refer to the PTCIP Rev. 7.2 for a more detailed system overview.

End of Section

2. PROJECT RESPONSIBILITIES

To maximize productivity and as an aid to managing the process of implementing UTA's PTC System, UTA plans to develop with the Contractor a project environment that encourages the open exchange of information and problem resolution at the source level.

2.1 RESPONSIBILITIES OF THE CONTRACTOR

The Contractor shall be responsible for all activities required for the design of the PTC System. Working with UTA, the Contractor shall be responsible for the functionality of the system segments, the interrelation amongst the system segments and the integration of the complete PTC system. Note that the grouping of tasks is for readability purposes, and is not intended to limit the context of Contractor responsibilities.

A. General Scope

1. Design a PTC System that is compliant with 49 CFR 236 and consistent with the FRA-approved UTA PTCIP and PNWR PTCDP, and E-ATC Type Approval as shown in Appendix's VIII and IX.

- a. Communications Segment

North of Salt Lake City Intermodal Center Station, the fiber optic system does not break into any of the 20 cut sections (to be confirmed by contractor during preliminary design.) The fiber system must be broken into every signal house to facilitate back office communication with all field locations. Additionally the North portion of the overall fiber communications system is currently arranged in a serial manner. Add all required associated equipment to convert the entire system to Ethernet, including any new locations.

Overall the full fiber system must be modified as necessary to provide for complete and full communications ability for all functions of PTC, including speed control, Back Office functions, Temporary Speed Restrictions (TSR), Mandatory Directive (MD) and interconnection to the UPRR Back Office System.

- b. Back Office Segment

Provide for a complete PTC Capable Back Office Server that will be capable of interfacing with the current UTA control office center and will have the provision to place, monitor and indicate all FRA required PTC related TSR and MD restrictions on all sections of the FrontRunner operations. Additionally the Back Office Server will be equipped to provide all required MD's to the UPRR Back Office Systems to fully comply with their I-ETMS system at the indicated locations both north and south of Salt Lake City Intermodal Center. This interconnection with the UPRR will also be capable of providing any TSR or MD needed to be placed in effect on a

UTA train by the UPRR for protection at the joint operated locations from Ogden to Pleasant View.

c. Wayside Segment

Provide for the replacement at all 20 cut sections (to be confirmed by contractor during preliminary design) as noted in Appendix XI on the FrontRunner north segment with new vital processor equipment capable of PTC operation in connection with the ability to function with the current track and wayside signal equipment in service on all adjacent elements. This new equipment should be outlined in the Contractor's proposal. Provide for the communications modifications at all locations as noted in 'a' above. Insure all location vital and non-vital programs are compatible, and if not provide for the design, programming and installation of new software components to ensure function ability. Provide for the testing and in service safety assurance for the full system at all locations on Frontrunner. If additional signal equipment is called for after the civil speed assessment noted in 'f' below, provide and install that equipment complete. Provide for all required communications line and components for a fully functional PTC system.

d. Onboard Segment

Provide for any necessary processor logic changes for all UTA onboard equipment, both GE and Alstom, to provide for necessary PTC compliance for speed control and Human Machine Interface (HMI) indications. Provide for FRA required test train operations to achieve the final regulatory approvals necessary for service.

e. Locomotive Interoperability

- a. In addition to section 'd' above, provide for two (2) cab car and two (2) locomotive sets of I-ETMS compliant cab equipment that will meet all requirements of the UPRR for operations on the north segment. Provide for testing and certifications from the UPRR for service on the section of line controlled by the UPRR.

f. Civil Speed Restrictions

Civil Speed Restrictions or Permanent Speed Restrictions on Frontrunner are not currently tied directly to signal device spacing. In order to protect these locations, without movement of those devices, the signal design would be forced to apply the minimum safe speed to the closest devices that would cover the civil speed restriction in its entirety.

In order to minimize the duration and distance of any reduction of speed to the minimum safe distance necessary, with the installation of PTC, engineering overview will be required to determine the best fit solution. This overview should compare the best fit solution, including comparing relocation or addition of signal components at the end points of each restriction, removing the restriction by civil reconstruction such as

increasing the super elevation on curves or a best fit combination of both types of mitigations. Attached in Appendix XII is a list of potential locations and possible best fit solutions and benefits if civil/signaling improvements were implemented. This list is a sample list only and is not intended to be an all inclusive list.

2. Provide deliverables :
 - Refer to Table 3-1 in Section 3.

2.3 KEY PERSONNEL

Contractor shall identify key personnel who will be assigned to the project for the duration. Key personnel may not be reassigned without the approval of UTA. Key personnel shall include the following:

- A. Principal in Charge
- B. Project Manager
- C. Design Manager
- D. Field Engineer

2.4 RIGHT-OF-WAY ACCESS

Contractor shall coordinate with UTA and UPRR (where noted) to obtain Right of Entry, track access, access to facilities (including communication towers, signal houses, dispatch rooms, communication rooms, etc.), vehicles, usage of maintenance tracks and areas to perform all vehicle-based testing activities including all main line inspections. The costs of all such access and other required support such as train crews and flaggers shall be borne by the Contractor.

2.5 RESPONSIBILITIES OF UTA

It will be the responsibility of UTA to perform the following tasks:

- A. Obtain Interoperability Agreements with other railroads.
- B. Provide an area where the Contractor can perform required onboard vehicle inspections.
- C. Provide new or revised Operating Rules as required.
- D. Perform Owner's project management, project control, and maintenance and operations contractor coordination.
- E. Review and, as applicable, approve Contractor submittals.
- F. Provide Contractor with in-service level PDF drawings of the UTA signal, communication and vehicle systems as they are available.

End of Section

3. PROJECT ADMINISTRATION

3.1 PROJECT MANAGEMENT

The Contractor shall have an organization established to properly manage the Contract and ensure on-time performance of the work. The Contractor shall manage the Contract to ensure all required design reviews are addressed and all required deliverables are submitted as specified. The Contractor's project management program and team shall professionally and efficiently manage and execute the requirements of this Contract. The Contractor shall develop and submit to UTA for approval a Project Management Plan. The Project Management Plan shall be submitted no later than two weeks after Notice to Proceed (NTP) [CDRL 03-001]. The Project Management Plan shall be sufficiently comprehensive to enable UTA to ascertain, with a high degree of confidence, that the Contractor will meet the requirements of this Contract, and to allow UTA to effectively monitor the contractual effort.

An organizational chart, including a definition of personnel responsibilities, the organizational structure, functional responsibilities, levels of authority and lines of communication for management, direction, and execution of the work, and including a list of key personnel shall be included in the Project Management Plan [part of CDRL 03-001]. The Contractor core team shall include experienced personnel qualified to perform tasks required to complete the project work. Throughout the course of the project, the Contractor shall maintain an adequately staffed team that shall supply and deliver the specified products and services in the manner required to satisfy the quantity, quality, and description of work required by the Contract. The organization shall be highly responsive to the needs of UTA as required in this Contract.

The Contractor shall integrate the Contract specified requirements for availability, reliability, maintainability, safety, quality, testing, and human factors into the total engineering effort. The technical and performance requirements of the Contract shall be integrated into the Contractor's review process to ensure physical and functional interfaces are optimized throughout the design phase. The Contractor shall establish an organization to properly manage all requirements for the Contract.

The contractor shall develop and finalize a Construction Contracting Plan [CDRL 03-002] that describes how the contractor will accomplish all PTC-related work. As part of this contracting plan recommend which work, if any, should be procured through best value selection. Confirm the work the Contractor proposed to self-perform, and how the Contractor will ensure that relevant industry standard pricing will be used for that work.

The Contractor's procedures and processes shall be compatible with the UTA Quality Management Plan. The Contractor shall submit a Pre-Construction Services Quality Control Plan [CDRL 03-003]. This Quality Control plan is to outline the contractor's methods and philosophy for Quality Control during Phase 1: Pre-Construction Services as well as all design related tasks throughout the duration of the contract. The Project Management Plan shall show all work elements required by the Contract and shall include, but shall not be limited to:

- A. An organization chart including names and a definition of the responsibilities and qualifications of all personnel therein for the Contractor and major suppliers. As appropriate, staff of the Contractor and the project site locations shall be identified.
- B. The internal methods, communications, correspondence coding system, and correspondence control to be used to monitor, oversee, and manage the Schedule, technical performance, changes, and subcontracts.
- C. A Draft Master Project Schedule in Critical Path Method (CPM) format showing key milestones, events, and activities. The schedule, identifying all elements of the project requiring approval or otherwise deliverable by the Contract; shall be provided detailing when such items will be submitted.

The key personnel shall be subject to UTA approval. The Contractor must seek and receive approval from UTA before removing any Key Personnel from the project. Key personnel removed from the project anytime during the Contract period shall be replaced by equally qualified personnel. UTA reserves the right to require the Contractor to replace any of the Contractor's key personnel that it finds unacceptable for any reason. Qualifications of key personnel shall be submitted for approval by UTA. The Contractor's key personnel, as appropriate, shall attend all applicable Progress Review Meetings at UTA project offices and participate as required to support the Contract activities.

3.2 PROJECT COST ESTIMATES

The Contractor shall submit a Preliminary Construction Cost Estimate [CDRL 03-004] concurrent with the Preliminary Design Work Packages [CDRL 03-009.x], which are described below in Section 3.5.A. The Contractor shall also submit a Final Construction Cost Estimate [CDRL 03-005] concurrent with the Typical Element Design Packages [CDRL 03-010.x], which are described below in Section 3.5.B

The Preliminary and Final Construction Cost Estimates shall be submitted in a spreadsheet format furnished by or otherwise acceptable to UTA. The spreadsheet format will address/include unit and/or lump sum prices as agreed-to by UTA and the Contractor. The Construction Cost Estimates shall list, incorporate and account for all PTC element installation and testing/certification costs, including the cost of materials, field and management labor, overhead, profit and any subcontractor or supplier mark-up costs.

3.3 MASTER PROJECT SCHEDULE

A critical path method (CPM) project schedule shall include all project submittals and payment milestones needed to monitor the progress of the project. The Contractor shall include a detailed schedule for the work necessary to design the Positive Train Control systems, including sequencing and interdependence of all activities. The Contractor shall submit a Baseline Schedule of Activities for the Pre-Construction Phase within 2 weeks of NTP [CDRL 03-006].

The Preliminary Construction Schedule [CDRL 03-007] shall be submitted for review within two months of NTP. The Final Construction Schedule [CDRL 03-008] shall be

submitted for review within four months of NTP.

The CPM schedule shall show:

- A. Clearly identified critical path activities,
- B. Contract milestones,
- C. A practical plan to complete the work within the contract time with minimal disruption to UTA's operation,
- D. The Contractor's intent for managing the work,
- E. Project characteristics, salient features and interfaces with UTA/UPRR Operations and outside entities that could affect time of completion,
- F. Work performed by the Contractor, Contractor subcontractor(s), and/or suppliers,
- G. Submittal development, delivery, and review/approval activities, including those from the Contractor, Contractor subcontractor(s), and/or suppliers,
- H. Representation of the PTC Pre-Construction Work Plan,
- I. Sufficient number of activities to assure adequate planning of the project, permit monitoring and evaluation of progress, and analysis of time impacts,

The schedule shall be submitted to UTA electronically in searchable PDF format as well as in the native schedule development form from an industry standard scheduling software suite.

The CPM project schedule shall be updated on a monthly basis, relative to the approved baseline schedule, and shall include progress through the end of the month. The updated CPM project schedule shall be submitted by the fifth work day of the following month. All updates shall include a brief narrative report, including:

- General project status to date.
- Schedule slippage, if any, including a comparison to the previous month's status.
- If the project falls behind schedule, the measures the Contractor will take to get the project back on schedule. These measures shall be approved by UTA.

3.4 PROGRESS REVIEW MEETINGS

During design and systems development, a formal technical design review process shall be conducted by the Contractor to allow UTA to periodically assess the Contractor's development for compliance with the Specification requirements and the overall systems design objectives.

Each review shall consist of documentation submittals as specified, and a formal presentation, demonstration, and tests for review and approval by UTA. The reviews shall be conducted by the Contractor and shall be scheduled after UTA has had time to review the corresponding review documentation submittals. Review agendas and material shall be made available to UTA for review at least ten (10) working days prior to the review.

Progress meetings shall be scheduled and attended by the Contractor's authorized

representative(s) on a weekly basis, or more frequently if required by the Master Project Schedule to review progress of the project. Progress Meeting Agendas shall address the topics and include distributions as designated in the above Management Plan sections and shall be distributed by the Contractor a minimum of two (2) working days in advance of any regularly scheduled Progress Meeting.

The Contractor's authorized technical representative(s) shall also attend progress review meetings and technical meetings as required to discuss technical aspects of the project and to review comments on documents.

Meeting Locations and Meeting Minutes

All Design Review meetings between the Contractor and UTA representatives shall be held at UTA offices unless otherwise agreed. The Contractor shall record minutes of each meeting, distribute for UTA review, and integrate review comments for final distribution. UTA may record the minutes of each meeting and forward a copy to the Contractor for review and integration in the final review minutes within three (3) days of the meeting date. Progress meetings may use video or teleconferencing in lieu of face-to-face meetings. The Contractor shall be responsible for establishing video or teleconferencing.

Meetings between technical representatives for the purposes of issue resolution shall take place at the location(s) most appropriate for efficient problem resolution and maintenance of Schedule. In cases where a mutually accepted location or time cannot be readily negotiated, the meeting shall be held at the location and time as directed by UTA representatives.

3.5 DESIGN REVIEW REQUIREMENTS

Formal design reviews shall be conducted at milestones during the development process. The Contractor's personnel responsible for the implementation of the PTC system shall participate in the development reviews. The development review process shall include a Specification Review and a Design Concept Review. After review and approval of the Contractor's design concepts, the Contractor shall submit its various design packages to UTA for preliminary, final and critical reviews as specified. Each review shall consist of documentation submittals as specified and a formal presentation, demonstration, and tests. The reviews shall be conducted by the Contractor and shall be scheduled after UTA has had adequate time to review the corresponding review documentation submittals.

Deliverables for each PTC System defined in this Contract shall include, but are not limited to:

- A. Preliminary Design Work Packages [CDRL 03-009.1 Integrated PTC System, 03-009.2 Communications Segment, 03-009.3 Office Segment, 03-009.4 Wayside Segment, 03-009.5 On-Board Segment, 03-009.6 Locomotive Interoperability, 03-009.7 Civil Speed Restriction Evaluation];
- B. Typical Element Design Packages [CDRL 03-010.1 Integrated PTC System, 03-010.2 Communications Segment, 03-010.3 Office Segment, 03-010.4 Wayside

Segment, 03-010.5 On-Board Segment, 03-010.6 Locomotive Interoperability, 03-010.7 Civil Speed Restriction Evaluation];

- C. Final Design Work Packages [CDRL 03-011.1 Integrated PTC System, 03-011.2 Communications Segment, 03-011.3 Office Segment, 03-011.4 Wayside Segment, 03-011.5 On-Board Segment, 03-011.6 Locomotive Interoperability, 03-011.7 Civil Speed Restriction Evaluation];

Design Review Meetings General

The design development and review involves an iterative process that requires the exchange of information among UTA, the Contractor and its suppliers and Contractor subcontractors. The Contractor shall present the identified and agreed to Design Packages for the identified levels of review. To support this process, a series of design review meetings as scheduled in the approved Master Project Schedule shall be held in which the Contractor conducts a presentation in accordance with an approved agenda. In its presentation, the Contractor shall address design approaches, concepts, and design details for the system and subsystems and all associated test equipment. During these design review meetings, action items shall be identified, with each action item assigned to an individual for disposition by a pre-determined response date. A design review action item log shall be maintained by the Contractor.

At least five (5) calendar days prior to a design review meeting, the Contractor shall submit the agenda and a data package covering information to be addressed in the meeting for review and approval by UTA. All Design Review meetings between the Contractor and UTA representatives shall be held at UTA offices unless otherwise agreed, and may include sites of the Contractor, or any of its subcontractors or suppliers.

The first design review meeting in each phase shall cover the overall system design as described in the System Functional Description.

Attendance at design review meetings shall include the appropriate representatives of the Contractor, appropriate subcontractors and suppliers, and UTA representatives.

Preliminary Design Work Package Review

The Contractor shall submit Preliminary Design Work package for the PTC equipment and its installation [CDRL 03-009.x]. This package shall include sufficient detail to define the proposed design and to allow UTA to determine that the intended design complies with the requirements of the Contract. The preliminary design review package shall include, as applicable for the particular system element under review, the following information:

- A. Preliminary Design Work Package including recommendations on FRA-compliant solutions for the following PTC components: wayside, communications, Back Office, Onboard, and Locomotive Interoperability. A preliminary evaluation related to Civil Speed Restriction as described in 2.1.A.1.f of this document shall be provided.
- B. Preliminary Design Cost Estimate

All open issues, action items and clarifications resulting from previous correspondence.

working sessions and the Preliminary Design Work Package Review meeting shall be satisfactorily addressed and approved by UTA prior to commencing the further design review activities.

Typical Element Design Package Review

The Typical Element Design Review shall take place when the definition of design and interfaces are complete and approved by UTA [CDRL 03-010.x]. This package shall equate to a 100% design level typical drawings and documentation for each PTC element as described in Section 2.1.A. The Typical Element Design Review is to provide the opportunity to review, revise, and agree on the details of the final PTC element design prior to progressing all site-specific and final system-wide designs. Any open engineering items and related program management issues shall be discussed and resolved during this review. The Typical Element Design Review package shall emphasize typical design details and shall include details of the equipment, its installation, performance, manufacturing processes, operating logic and interfaces. The Typical Element Design Review package shall include, as applicable for the particular system element under review, the following information:

- A. Typical Element Design Package that includes typical drawings corresponding to each element of the PTC system and shall include typical drawings that would be needed at each location type (i.e. Cut-Section typical drawings, Interlocking typical drawings, etc.)
- B. Final Design Cost Estimate

Final Design Work Package Review

The Final Design Work Package Review shall take place after the Typical Element Design Review is complete and approved by UTA [CDRL 03-011.x] Provide final design suitable for Issue for Construction (IFC) drawings for the PTC equipment and its installation at each location and for each PTC element as described in Task 3 of Exhibit 2, including final Technical Specifications. Each design package shall include, as applicable: System Design Implementation (System Description Documents, System level documents, Block Diagrams, Communications link analysis, system assembly drawings, component data sheets, system installation, maintenance access, and special tool drawings. Grounding and shielding wiring plans), Software Documentation (software requirements documentation, software requirements traceability matrix, software design description, software verification and validation plan and report), Reliability, Accessibility, Maintainability and System Safety (reliability prediction analysis with support information, maintainability analysis, reliability summary, safety analysis and traceability matrix, lowest removable unit list), Design Requirements and Traceability Report.

3.6 CONSTRUCTION SERVICES DOCUMENTATION

Construction Quality Control Plan

The Contractor shall prepare and submit a Construction Quality Control Plan [CDRL 03-012], consistent with UTA’s Quality Assurance Program Manual for use during the Project Construction Phase. Include the outline of an Inspection and Construction Materials Testing Plan as an Appendix to the Quality Control Plan submittal. The Quality Control Plan shall be submitted for UTA review and approval within 2 weeks of the issuance of NTP for Phase II Services. Once approved, the Contractor will strictly adhere to the provisions of the Quality Control Plan throughout the Project Construction Phase.

Project Safety Plan

Contractor shall adhere to UTA’s Roadway Worker Protection (RWP) and other applicable safety programs. The Contractor shall provide their Project Safety Plan [CDRL 03-013] and approach to incident-free management of safety risks for this Project.

PTC Safety Plan

The Contractor shall prepare and submit a PTC Safety Plan (PTCSP) [CDR 03-014] to UTA for ultimate submission to the FRA, in conjunction with the approved UTA PTCIP and E-ATC Type Approval. Develop the PTCSP and any FRA-required plan re-submittals (i.e. PTCIP, PTCDP, etc.) in collaboration with UTA. As part of the PTCSP, prepare and submit a detailed PTC equipment and component Test Plan in accordance with Quality Control Plan outline. The Test Plan shall also describe how the Contractor will support UTA’s integration testing activities.

Record Drawings and Specifications (“As-Builts”)

The Contractor shall submit Final As-Built record information to UTA. Final As-built information shall be submitted as hard copy and electronic versions per UTA requirements. Identify any revisions by UTA assigned change order numbers and in accordance with the approved Quality Control Plan and UTA change procedures. [CDRL 03-015]

Project Close-out Documentation

The contractor shall prepare and submit all final Contract Close-out documentation [CDRL 03-016.x], records, spare parts, warranty certifications, operation and maintenance manuals, and training manuals and records. Submit any other information and/or materials that are also required by the UTA Technical Specifications or CM/GC Contract provisions.

3.7 CONTRACT DOCUMENTS REQUIREMENTS LIST

Table 3-1

CDRL No.	Title Reference	Paragraph
03-001	Project Management Plan	3.1
03-002	Construction Contracting Plan	3.1

CDRL No.	Title Reference	Paragraph
03-003	Pre-Construction Services Quality Control Plan	3.1
03-004	Preliminary Construction Cost Estimate	3.2
03-005	Final Construction Cost Estimate	3.2
03-006	Pre-Construction Services Baseline Schedule	3.3
03-007	Preliminary Construction Schedule	3.3
03-008	Final Construction Schedule	3.3
03-009.x	Preliminary Design Work Packages	3.5.A
03-010.x	Typical Element Design Packages	3.5.B
03-011.x	Final Design Work Packages	3.5.C
03-012	Construction Quality Control Plan	3.6.1
03-013	Project Safety Plan	3.6.2
03-014	PTC Safety Plan (PTCSP)	3.6.3
03-015.x	Record Drawings and Specifications	3.6.4
03-016.x	Project Close-out Documentation	3.6.5

End of Section

4. PTC DESIGN REQUIREMENTS

4.1 INTRODUCTION

Contractor shall design Positive Train Control (PTC) systems that meet all requirements of the Federal Railroad Administration (FRA) and perform in a manner consistent with the FRA-approved UTA Positive Train Control Implementation Plan (PTCIP) and PNWR Positive Train Control Development Plan (PTCDP). The UTA PTCIP calls for the enhancement of the existing Automatic Train Control (ATC) Speed Code System.

Existing Speed Code Assignments

Table 4-1 – Existing Speed Codes

Nominal Cab Rate	Cab Rate Speed	Instruction/Notes
—	0 MPH	STOP. Contact OCC. No valid cab codes are being received. Provided the service brake and zero speed are detected, the train operator can select “No Code Proceed”, which shall be “latched” (i.e., remains in effect in the absence of cab signals or constant carrier) until a valid cab code is recognized.
50	15MPH	Proceed at 15 mph.
75	30MPH	Proceed at 30 mph.
120	45MPH	Proceed at 45 mph.
180	60MPH	Proceed at 60 mph.
270	79MPH	Proceed at 79 mph.
420	Yard	Proceed with caution at no more than 10 mph prepared to stop. Once recognized this code shall be “latched”. The “Yard” mode shall be unlatched upon recognition of a cab signal or constant carrier. Typically used to signal entry to the yard.

4.2 COMMUNICATIONS SEGMENT

Wayside locations shall interface over a network with the Dispatch Center, Centralized Train Control (CTC) Machine workstations, and all wayside signals, cut sections and crossing signal locations. The Contractor’s design shall detail how the existing communication network, any new communication network, or a combination of the two shall function. Communication technologies will be fiber optic. Each wayside network design shall describe:

-
- Network Technology,
 - Network Architecture,
 - Network Topology,
 - Material and Equipment selection and installation cost,
 - Network Implementation staging and Schedule,
 - Network Installation, Testing, Certification, and Turn-Up,
 - Training and Documentation.

4.3 BACK OFFICE SEGMENT

The proposed Contractor network designs shall emphasize high availability, reliability, resiliency, and a cost effective Back Office Segment.

The contractor shall provide all necessary modifications to the Track Driver eXtra (TDX) Traffic Control System to fulfill the requirements of the PTCIP. These modifications include, but are not limited to:

- A. Interface to wayside locations for health reporting and Temporary Speed Restrictions (TSRs),
 - B. Interface to highway-rail-crossing warning locations for TSRs,
 - C. Human-Machine-Interface (HMI) modifications for fulfilling TSR establishment and fulfillment requirements,
 - D. HMI modifications for enforcing mandatory directives.
-
- E. Interface with UPRR I-ETMS Back Office System

4.4 WAYSIDE SEGMENT

The Contractor shall provide all necessary modifications to the wayside and crossing signaling systems to fulfill the requirements of the PTCIP.

Permanent Speed Restrictions

Wayside signal system shall be modified to enforce Permanent Speed Restrictions (PSRs). Limits of PSRs will be restricted to existing or relocated signal system control points or cut sections.

Temporary Speed Restrictions

Wayside signal system shall be modified to enforce Temporary Speed Restrictions (TSRs). Limits of TSRs will be restricted to existing or new signal system control points or cut sections.

Using existing speed code assignments, all applicable locations will require additional speed codes

to enforce speeds established by a TSR. This will include enforcement of a TSR established for a highway-grade crossing malfunction or failure.

Grade Crossing Stop Enforcement

Wayside signal system shall be modified to provide stop enforcement at or near grade crossings. For each crossing, the system will be programmed to set the requested speed code at the appropriate track circuits such that the mandatory directive is enforced in both directions.

4.5 ONBOARD SEGMENT

The Contractor shall provide all necessary modifications to the onboard systems to fulfill the requirements of the PTCIP, including modifying No Code Proceed from the current 79 MPH to 15 MPH.

4.6 ADDITIONAL LOCOMOTIVE INTEROPERABILITY RETROFIT

In addition, Contractor shall retrofit two existing UTA locomotives and two existing UTA Cab Cars with Interoperable Electronics Train Management System (I-ETMS) equipment to allow seamless operation on the UPRR.

4.7 MATERIALS

Materials selected shall be consistent with the quality, workmanship, performance, and serviceability presently in-service on UTA. All materials shall be submitted to UTA for approval prior to procurement. Material submittal shall indicate manufacturer, model, configuration options, installation location, and application of the material item. Any materials procured prior to UTA approval are at the Contractors risk.

Application and installation of materials shall be consistent with manufacturer's recommendation, within published environmental constraints, and suitable for the environmental conditions found in the proximity of the construction area.

End of Section



CONTRACT ROUTING FORM

Department * Supply Chain

Existing Contract? Yes

Existing Contract Number * 19-03077

Contract Section

Procurement

Board Review Date * 08/07/2019

Document Type * Pre-Procurement

Requisition # Original
6679

Please upload the contract or requisition here 6679 (002).pdf 200.5KB

Contract Title * Auto-Body and Collision repair

Contractor Name * Yet to be determined

Description / Purpose * This Contract will be a multiple vendor contract on an as-needed basis to provide collision and auto body repair to rideshare/vanpool vehicles, UTA owned white fleet vehicles and third party claimant vehicles via UTA's self-insurance program. This contract will help ensure best price repairs for vehicles that have been in accidents or are in need of autobody repairs. Ben Adams will manage the Vanpool/Rideshare vehicles and Fleet vehicles portion of the contract, Dave Pitcher and team will manage the third party claimants portion. The requisition reflects an estimated amount based on the past 5 years of autobody repairs and third party claims.

Contract Administrator * Burton, Amanda

Project Manager * Adams, Benjamin C

Base Contract Effective Dates * Beginning
8/1/2019

* Ending
8/31/2024

Contract Type * Services

Procurement Method * RFP (Best-value)

Number of Responding Firms

\$ Value of Next Lowest Bidder

Base Contract Term (Months) * 60

Contract Options (Months) * 0

Option to Renew? * Yes
 No

Extension Start Date

End Date

Financial Section

Procurement

Existing Contract Value

Amendment Amount

New/total Contract Value *

\$

\$

\$ 520,000.00

Qty

Unit Price \$

Annual/One-Time Value

\$ 104,000.00

Attachment

Is the amount an estimate? * Yes No

How was the estimate calculated? * based on past 5 years of data

Is the amount a one-time purchase or annual recurring purchase? *

One-time

Recurring

Account Code * 50359.90

Capital Project Code

Budgeted? * Yes

Funding Source * Local

No

Budget amount * \$ 520,000.00

Will this contract require support from another department?*

Yes No

Is the other department(s) aware of this contract and the required support?*

Yes No N/A

Has the Qualified Health Insurance Certificate been verified?*

Yes No N/A

Approval Section

1)Legal/Compliance Review* Burton, Amanda

2)Accounting Approval Needed?* Yes No

3)Risk Approval Needed?* Yes No

4)IT Approval Needed?* Yes No

5)Add Additional Approval?* Yes No

6)Manager/Program Manager* Adams, Benjamin C

7)Dir, Sr. Mgr, or RGM* Beveridge, Cherryl A

8)Chief* Cumins, Donald E

9)Executive Director* Meyer, William Steven

Board Approval Required Board Approval Date

Print this page

REQUISITION FOR PURCHASE-RSS

Requisition Number 6679 OU Department 7900 VANPOOLS

Requested By 3767 Merkley,Roberta L
Request Date

Date 4/18/20

Title Autobody repair for VanPool

Justification We have spent approximately \$520,000.00 in the past 5 years and anticipate a similar amount in the next 5 years.

Currently Vanpool doesn't have a contract in place, they need to have a contract so we can get best pricing.

Attached is the Data of Autobody work for the last 5 years and the ICE for Autobody repair.

Line	Description	Qty	UoM	Unit Price	Extended	Line Status	Account Number	Subledger-Type	Percent
1.000	Autobody Contract		EA	.0000	520,000.00	Completed	7900.50353.91		100.0000

Approval History

Process ID	Line No.	Approver Number and Name	Approver Action Taken	Date and Time Updated
503	Order Level	1347583 Goldman, Michael William	Approved	5/6/2019 140734
503	Order Level	1724 Beveridge, CherylA	Approved	5/6/2019 152918
503	Order Level	1440978 Cumins, Donald E	Approved	5/6/2019 232254
503	Order Level	4835 Meyer, William Steven	Approved	5/7/2019 1447

Coblentz
Patch Duffy
& Bass LLP

Prepared for:

Utah Transit Authority

Initial Report of the
Federal Monitor

Rees F. Morgan

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July 2019

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EXECUTIVE SUMMARY

This is the initial report of the independent monitor (the "Monitor") of the Utah Transit Authority ("UTA"), pursuant to a 2017 Non-Prosecution Agreement ("NPA") between UTA and the United States Attorney's Office for the District of Utah (the "USAO"). It is the first of six total reports contemplated under the terms of the NPA and monitorship, which consist of this initial report, four semi-annual interim reports, and a final report.

This monitorship stems from the USAO's investigation into problematic activities involving UTA's corporate operations and some of its former senior leadership. Under the terms of the NPA, the monitorship is focused on four core issues (the "Four Core Issues") that were central to the USAO's investigation. These Four Core issues are:

- (1) Inadequate Controls Over Federal Funds and Drawdowns from Federal Grants;
- (2) Improper Handling and Disclosure of Property Acquisitions and Disposition;
- (3) Non-Compliance with Ethical Standards Resulting in Benefits to UTA Employees and Board Members; and
- (4) Improper Approval of Executive Bonuses.

The USAO's investigation and the identification of the Four Core Issues stemmed from a series of audits of UTA conducted by Utah's Legislative Auditor from 2010-2014. The shortcomings highlighted by the audits and in the NPA reflect ethics, compliance, and corporate culture failures at UTA. In October 2016, prior to entering the NPA with the USAO, UTA made assurances to the USAO that it took substantial steps toward addressing these failures through a series of reforms that relate to the Four Core Issues. As a first step in the monitorship, this Initial Report is intended to assess UTA's implementation of these reforms.

Our assessment began in earnest in January 2019 when the Monitor's initial Work Plan was approved. We, as the monitorship team, collected documentation from UTA, reviewed publicly available materials concerning the agency, and interviewed current and former employees and stakeholders of the agency. It became clear that UTA had evolved significantly since it first described its 2016 reforms to the USAO.

The senior leadership of the agency has turned over extensively – with some senior positions turning over more than once. In addition, recent legislation has substantially altered the structure of the agency, including (a) replacing its former 16-member, part-time Board of Trustees with a three-member full time Board of Trustees, (b) eliminating UTA's General Counsel's office and making the Utah Attorney General the agency's counsel, and (c) creating a new nine-member, part-time appointed advisory council with oversight authority over the agency that is both brand new and, it seems, not well-understood by key UTA stakeholders. UTA's professional staff has also experienced turnover, and its policies and procedures have continued to develop. With so much recent change at UTA, the Monitor necessarily focused this initial stage of the monitorship on understanding the current state of the agency and its reform efforts. This initial learning process has put the monitorship team in a position to focus on and test specific aspects of UTA's reform efforts and corporate operations during the remaining phases of the monitorship.

In keeping with this history and the goals of the initial phase, we have structured this initial report as follows:

- First, we provide a brief overview of UTA, and the history that led to the commencement of the monitorship.
- Second, we describe the scope and phases of the monitorship.
- Third, we assess several categories of reforms cited by UTA to the USAO in October 2016 as reflecting how UTA had addressed the problematic issues identified during the Legislative Audits and at issue in the USAO investigation. These reforms informed the terms of the NPA and the scope of the monitorship.
- Fourth, with respect to each reform, we describe (a) the state of the reform as cited by UTA in October 2016, (b) the ways in which those reforms have changed or evolved since, and (c) the Monitor's conclusions and initial recommendations with respect to each category of reform.

The Monitor's conclusions and recommendations identify specific areas of UTA's corporate operations and compliance efforts that have a close nexus to the Four Core Issues and will be the subject of additional review and analysis in the remaining phases. We also provide our impressions on aspects of UTA's compliance work and governance.

Overall, our impression is that UTA has qualified senior leadership in place who readily convey their commitment to ethical management of the agency in the public interest. Even where we found that UTA personnel may harbor divergent perspectives on some issues, their priorities appeared aligned with UTA's mission. This is not to say that we have no concerns regarding UTA. It remains to be seen how the agency will be impacted by turnover, significant structural and leadership changes, and a new governance structure. In this report, we describe several initial concerns that we identified during our review for this phase, including particularly:

- The departure of most of the UTA leadership identified in the 2016 reforms;
- The lack of clarity regarding the role of the Local Advisory Council and its similarity to UTA's previous board structure; and
- The elimination of UTA's General Counsel's office and the subsequent loss of experienced and compliance-oriented in-house counsel.

Again, however, we consider it encouraging that UTA's senior leadership has adopted sound priorities. We look forward to working with UTA during the remaining phases of the monitorship.

BACKGROUND AND HISTORY OF UTAH TRANSIT AUTHORITY

UTA is the local transit district responsible for providing public transportation to the Wasatch Front region. UTA provides bus, light rail, commuter train, and streetcar services, in a region spanning 77 municipalities in seven counties and more than 1,400 square miles.¹ UTA has one of the largest coverage areas of any public transportation agency in the country.²

I. UTA's History

UTA traces its roots to 1969, when the Salt Lake City Corporation, Union Street Railway, and Salt Lake County sought, and the Utah State Legislature passed, the Utah Public Transit District Act.³ The act allowed individual communities to address transportation needs by forming local transit districts.⁴ UTA itself was founded on March 3, 1970, following votes by the residents of Salt Lake City and the surrounding communities of Murray, Midvale, Sandy, and Bingham.⁵ Weber and Davis counties joined the UTA transit district in 1973.⁶ Utah County joined in 1984.⁷

II. Growth from 1999 to Today

For nearly its first 30 years, UTA provided solely bus service in the Wasatch Front region.⁸ In 1999, UTA added light rail service, called TRAX.⁹ UTA's first TRAX line went from Sandy to Downtown Salt Lake City.¹⁰ In 2001, UTA opened a second TRAX line between Salt Lake City and the University of Utah.¹¹ UTA extended this line in 2003.¹² In 2011, UTA added the Mid-Jordan and West Valley TRAX lines.¹³ In 2013, UTA opened TRAX extensions to Draper and to

¹ UTA History, https://www.rideuta.com/-/media/Files/About-UTA/Fact-Sheets/2017/History_FactSheet_April2017.ashx?la=en (last visited May 27, 2019).

² *Id.*

³ *Id.*

⁴ *Id.*

⁵ *Id.*

⁶ Van C. Wilkins, *Utah Transit Authority Formed, Motor Coach Age*, Part 4, <http://utahrails.net/articles/motor-coach-age4.php> (last visited May 27, 2019).

⁷ *Id.*

⁸ UTA History, https://www.rideuta.com/-/media/Files/About-UTA/Fact-Sheets/2017/History_FactSheet_April2017.ashx?la=en (last visited May 27, 2019).

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

the Salt Lake City Airport and the S-Line, a modern streetcar line between South Salt Lake and Salt Lake City's Sugar House District.¹⁴

UTA Light Rail Expansion	
Light Rail Line¹⁵	Date of Completion
Sandy/Salt Lake Line	December 1999
University Line	December 2001
Medical Care Extension	September 2003
Intermodal Hub Extension	April 2008
West Valley Line	August 2011
Mid-Jordan Line	August 2011
Airport Line	April 2013
Draper Line	August 2013
S-Line Streetcar	August 2013

In 2005, UTA began construction of a commuter rail system, called FrontRunner. UTA commenced Front Runner service in April 2008.¹⁶ It initially provided high-speed rail service along a 44-mile path between Weber County and downtown Salt Lake City.¹⁷ In 2012, UTA expanded the FrontRunner system to serve Utah County, as well, for a total of 89 miles of commuter rail.¹⁸

UTA Commuter Rail Expansion	
Commuter Rail Line¹⁹	Date of Completion
Salt Lake to Weber County	April 2008
Salt Lake to Provo	December 2012

As this timeline illustrates, UTA's service portfolio and transit infrastructure have grown substantially over the past twenty years. We consider this relevant context for the compliance issues that gave rise to the monitorship. During our Phase I work, several UTA employees expressed to us that the agency grew very quickly in the last two decades, and some expressed that the agency's documentation and processes had not necessarily kept pace with this growth.

¹⁴ *Id.*

¹⁵ UTA, Utah Transit Authority Fast Facts, as of January 1, 2017, https://www.rideuta.com/-/media/Files/About-UTA/Fact-Sheets/UTA_2017_FastFacts_FNL_Separate.ashx?la=en (last visited May 27, 2019).

¹⁶ UTA History, https://www.rideuta.com/-/media/Files/About-UTA/Fact-Sheets/2017/History_FactSheet_April2017.ashx?la=en (last visited May 27, 2019).

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ UTA, Utah Transit Authority Fast Facts, as of January 1, 2017, https://www.rideuta.com/-/media/Files/About-UTA/Fact-Sheets/UTA_2017_FastFacts_FNL_Separate.ashx?la=en (last visited May 27, 2019).

LEGISLATIVE AUDITS

The Utah Legislative Audit Subcommittee ("Legislative Audit Subcommittee") periodically directs the Utah State Legislative Auditor General ("Legislative Auditor") to audit UTA. Legislative Audits of UTA were completed in 2008, 2010, 2012, and 2014.

- In 2008, the Legislative Audit Subcommittee recognized the "tremendous growth" that UTA was experiencing, and asked Legislative Auditors to evaluate UTA's operations, including cost of service, the level of subsidy required, and other issues related to the agency's ability to manage the transit system.²⁰
- In 2010, the Legislative Audit Subcommittee asked the Legislative Auditor to perform a limited review of the materials and the events leading up to the site location for the proposed Draper/Bluffdale FrontRunner stop. In particular, the 2010 audit reviewed certain conflict of interest allegations concerning a UTA Trustee.
- The 2012 audit was a follow-up to the 2008 performance audit. The 2012 audit reviewed UTA's finances and ridership numbers.²¹
- The 2014 audit assessed at UTA's oversight, controls, and processes.

The 2008 and 2012 audits did not significantly touch upon the issues that are the focus of the monitorship, so we will not discuss them in detail.

The Legislative Auditor's audits of UTA in 2010 and 2014 are important here, however, because they factored significantly into the decision by the United States Attorney's Office for the District of Utah to conduct an investigation of certain UTA actions, which ultimately led to this monitorship.

I. 2010 Legislative Audit

The Legislative Auditor's 2010 audit of UTA was memorialized in its Report Number 2010-17, entitled "A Limited Review of Conflict of Interest Allegations at the Utah Transit Authority Board."²² The Legislative Auditor conducted the audit in order to: (1) determine whether a member of the UTA Board of Trustees had a conflict of interest with respect to the site location for the proposed Draper/Bluffdale FrontRunner stop; (2) determine whether the Trustee in question misused official information for personal financial gain through a company seeking to develop property adjacent to the proposed FrontRunner stop; (3) determine whether the trustee

²⁰ Office of the Legislative Auditor General, State of Utah, Report Number 2008-03, January 2008, "A Performance Audit of the Utah Transit Authority." (available at https://le.utah.gov/audit/08_03rpt.pdf)

²¹ Office of the Legislative Auditor General, State of Utah, Report Number 2012-01, January 2012, "A Performance Audit of the Utah Transit Authority." (available at https://le.utah.gov/audit/08_03rpt.pdf)

²² Office of the Legislative Auditor General, State of Utah, Report Number 2010-17, December 2010, "A Limited Review of Conflict of Interest Allegations at the Utah Transit Authority Board." (available at https://le.utah.gov/audit/10_17rpt.pdf)

improperly interfered with the site selection process for a proposed FrontRunner stop; and (4) evaluate UTA's conflict of interest policies and its compliance with Utah Code 17B-2a-814, governing conflict of interest policies.

The Legislative Auditor found that allegations of a conflict existing on the UTA Board involving the Trustee were valid, but that the Trustee disclosed the conflict as required by Utah Code. However, the Legislative Auditor noted that "the same action today would be prohibited under UTA's recently strengthened conflict-of-interest policy." The auditor found no evidence that the Trustee interfered in the site selection of a FrontRunner commuter rail stop in Draper, but concluded that the Trustee "may have violated a specific provision of the Public Transit District Act concerning the misuse of official information" by seeking to develop land adjacent to the proposed FrontRunner stop. The report recommended that the Utah Legislature review sections of the Public Transit District Act to ensure that the statute still meets legislative intent and that the Legislature's Audit Subcommittee consider referring the possible misdemeanor violation to the Utah Attorney General for possible investigation. The report also recommended that the UTA board "enhance transparency of its operations by providing additional policy clarification" concerning transit-related development.

II. 2014 Legislative Audit

The Legislative Auditor's 2014 audit was memorialized in its Report Number 2014-06, entitled "A Performance Audit of the Utah Transit Authority".²³ Among other things, the Legislative Auditor found that UTA's development projects needed additional controls and oversight relating to the Transit Oriented Development ("TOD") process. The report specifically cited the Draper FrontRunner Parking Structure and Jordan Valley TOD projects as problematic because of a questionable prepayment decision, procurement process concerns, and overly favorable contracts to developers.

These findings are described in more detail below.

A. Transit Oriented Development

The Legislative Auditor's 2014 report described a number of problematic issues with respect to UTA's Draper FrontRunner Parking Structure and Jordan Valley TOD projects.

(1) Draper FrontRunner Parking Garage

The 2014 audit criticized UTA's prepayment of \$10 million to a developer for the future construction of a parking garage at the Draper FrontRunner station. At the time of the payment, there were no design specifications or immediate plans for construction, and no legitimate reason to prepay the developer in full. After prepaying the funds, UTA ultimately chose to hire a different developer to construct the garage two-and-a half years later. By this time, the original

²³ Office of the Legislative Auditor General, State of Utah, Report Number 2016-06, August 2014, "A Performance Audit of the Utah Transit Authority." (available at https://le.utah.gov/audit/14_06rpt.pdf)

developer did not have sufficient funds to repay to UTA \$1.7 million of the original \$10 million pre-payment.²⁴

The report further found that the \$10 million prepayment is against UTA's policies and historical practice. Moreover, the auditors raised a host of other concerns: the lack of a cost-benefit analysis for the project; the inadequacy of the legal documentation for development projects; UTA's decision to release valuable collateral – in the form of a deed of trust on the developer's property – for questionable collateral; releasing the deed of trust to aid economic development efforts in attracting a major technology company [eBay] to the site; difficulties relating to UTA's \$1.5 million in site preparation work; and the general lack of documentation and changing explanations the auditors encountered while conducting their audit. The auditors concluded that the lack of sufficient controls and oversight for the Draper Frontrunner project put taxpayer funds at risk.

(2) Jordan Valley Transit Oriented Development

The 2014 audit also criticized the procurement process used to select the developer for UTA's Jordan Valley TOD project. The auditors found that the development agreement was overly-favorable to the developer. An independent law firm, Snell and Wilmer, corroborated the auditor's findings. Snell and Wilmer found that some of the provisions of the development agreement were "far out of market" in a manner that was favorable to the developer.

(3) Legislative Auditor's Recommendations Regarding Transit Oriented Developments

The auditors concluded that the number and severity of concerns identified in the Draper FrontRunner and Jordan Valley TOD projects warranted "increased procedures, better controls, and improved oversight" of development projects at UTA. In particular, the auditors found that UTA's placement of the TOD function under the Office of the General Counsel created a "significant segregation of duty concern," because the General Counsel served as both the operational manager of TOD projects and the attorney conducting the legal review of each project – which significantly compromised the General Counsel's neutrality. The auditors recommended that UTA's internal auditor take on a more visible role with TOD oversight and provide better information to UTA's board about such projects.

In response to the auditor's findings, UTA's board created a new position for TOD oversight separate from the general counsel's office. The board also approved new policies that implemented some of the auditors' recommendations.

B. Executive Compensation

The Legislative Auditor found improprieties in UTA's executive compensation determinations and compensation reporting.

²⁴ UTA essentially loaned the developer a significant sum without receiving any interest. See Office of the Legislative Auditor General, State of Utah, Report Number 2016-06, August 2014, "A Performance Audit of the Utah Transit Authority." (available at https://le.utah.gov/audit/14_06rpt.pdf)

The Legislative Auditors found that UTA paid large bonuses and other unusual special benefits to executives unavailable to other UTA employees, including two different kinds of deferred compensation plans, and a car allowance. Further, the auditors found that the two highest-paid UTA employees also received special life insurance benefits not offered to any other UTA personnel. UTA also gave its General Counsel a special retirement package that doubled his years of service credit for his first ten years of employment. This increased his lifetime benefit by about \$50,000 *per year* above what it otherwise would have been.

The audit team compared UTA's executive compensation to the Utah Department of Transportation and Salt Lake City Airport Authority, and concluded that UTA's total compensation was high compared to these agencies. Some of UTA's positions, such as the General Counsel, received salaries significantly higher than at the other regional transportation entities.

C. Reporting Compensation to Utah's Transparency Website

Utah's transparency website, transparent.utah.gov, was created by the Legislature in 2008 to promote transparency and accountability in public agencies. The auditors found that "UTA did not report portions of employee compensation to this website, thus obstructing accountability to the public and circumventing the intent of the statute." In response to the legislative auditor's findings, the UTA board revised its policy to require UTA management to submit all compensation data to Utah's transparency website.

III. No Legislative Audits Since 2014

The Legislative Auditor audited UTA in 2008, 2010, 2012, and 2014, but has conducted no audits since. During the course of our Phase 1 review, the Monitor was unable to identify a reason for this, nor does UTA's leadership seem to have a sense for when the agency might next be audited. Nor, we understand, has the Utah Legislative Auditor been instructed to conduct any new audits of UTA. As the Monitor describes in more detail below, UTA has undergone significant legislative, organizational, policy, and personnel changes since the last audit in 2014. It is unclear to the Monitor why the Legislative Auditor was ordered to perform audits regularly until 2014, but no audits since.

UNITED STATE ATTORNEY'S OFFICE INVESTIGATION

Following the August 2014 Legislative Audit, the United States Attorney's Office for the District of Utah ("USAO") opened an investigation into UTA's operation of mass public transit services, applications for federal grants and funding, expenditure and use of federal funds, and negotiations for or acquisitions of real property, equipment, and other capital improvements related to UTA's operations. This investigation ultimately led to an agreement by the USAO not to prosecute UTA, conditioned, among other things, on UTA agreeing to the monitorship that is the subject of this report.

Below, we describe how the USAO investigation led to this monitorship. We are not familiar with the full scope of the UTA investigation and do not intend to characterize or summarize it, except to the extent necessary to contextualize the reforms implemented by UTA in response.

I. UTA's October 2016 Letter to USAO Regarding The Agency's Reforms Following the 2014 Legislative Audit

On October 4, 2016, during the course of the USAO's investigation, UTA's counsel wrote a letter to the USAO summarizing institutional controls and organizational and personnel reforms that UTA had adopted since the findings of the 2014 Legislative Audit ("October 2016 Letter").

In the letter, UTA assured the USAO that it had "taken many steps to address its previous organizational weaknesses," and that UTA "is committed to remedying its past shortcomings and earning the public's trust." UTA outlined several "institutional reforms" that it had "implemented since the Legislative Audit was released," which UTA acknowledged still constituted a "work in progress."

The Monitor considers this assessment by UTA of its own reforms to be central to Phase I of the monitorship. The reforms, discussed in more detail below, concerned the following: New Leadership, Organizational Changes, Executive Compensation, Conflicts of Interest, Travel, Transit-Oriented Development, Lobbyists, Accounting, Purchase Cards and Recordkeeping, Grant Oversight, and Transparency. Throughout this report, the Monitor refers to the reforms outlined in UTA's October 2016 Letter as the "2016 Reforms."²⁵

II. Non-Prosecution Agreement

On April 14, 2017, UTA and the USAO entered into a Non-Prosecution Agreement ("NPA"),²⁶ under which UTA acknowledged the need for "improved institutional conformity [at UTA] with financial and ethical requirements." The NPA identified the Four Core issues identified by the USAO during its investigation:

- (1) Inadequate Controls Over Federal Funds and Drawdowns from Federal Grants;
- (2) Improper Handling and Disclosure of Property Acquisitions and Disposition;

²⁵ An in depth analysis of UTA's reforms is provided in the "UTA's Reforms" section.

²⁶ April 4, 2017, Non-Prosecution Agreement.

- (3) Non-Compliance with Ethical Standards Resulting in Benefits to UTA Employees and Board Members; and
- (4) Improper Approval of Executive Bonuses.

Under the NPA, the USAO agreed not to prosecute UTA for any conduct related to the investigation. Additionally, the United States Department of Transportation's Office of Inspector General ("OIG") agreed not to refer UTA to the Federal Transit Administration for civil disbarment or suspension action.

In return, UTA agreed to "put forth efforts to rectify the four core issues," including the 2016 Reforms it outlined in its October 2016 Letter. Further, UTA agreed to retain a monitor to ensure the continued implementation of institutional improvements outlined in UTA's October 2016 Letter.

THE INDEPENDENT MONITORSHIP

I. Overview of Monitorship

The NPA describes two primary responsibilities for the Monitor. UTA was to:

retain a monitor . . . to ensure the continued implementation of institutional improvement outlined in UTA's counsel's October 4, 2016, letter to [the USAO] focusing in particular on those reforms intended to address the four core issues, as well as recommendations by the monitor concerning additional reforms intended to address the four core issues.

Per the NPA, Rees Morgan, partner at the law firm of Coblenz, Patch, Duffy & Bass LLP, was retained as UTA's independent monitor on September 5, 2018. In December 2018, the Monitor submitted to the USAO and UTA the Final Work Plan for the monitorship and held an initial Kickoff Meeting with the USAO and UTA in Salt Lake City, Utah. The USAO and UTA agreed to the Final Work Plan in January 2019.²⁷ The Final Work Plan outlines the course of the monitorship, which is split into three phases:

- (1) Phase I of the Monitorship – the period from approval of the Final Work Plan through submission of the Monitor's Initial Review and Report;
- (2) Phase II of the Monitorship – the period from submission of the Monitor's Initial Review and Report to the Monitor's submission of four contemplated Interim Reports;
- (3) Phase III of the Monitorship – the period from submission of the Monitor's last Interim Report to submission of the Monitor's Final Report.

UTA and the USAO agreed that the monitorship will last for a three-year period, commencing on September 5, 2018 and finishing on September 5, 2021.

II. Phase I: The Monitor's Initial Report

The Monitor's Phase 1 analysis consists of the following:

- (1) Reviewing the 2016 Reforms implemented and any additional reforms instituted by UTA since then, including pursuant to the 2018 Transportation Governance Amendments passed by the Utah legislature;

²⁷ After UTA and the USAO agreed to the monitorship in the NPA, we understand that UTA conducted two separate requests for proposals ("RFP") to identify a monitor. The first RFP process did not identify an acceptable candidate. The second RFP process resulted in retention of the Monitor in September 2018. The Monitor's request for discovery from UTA and review of that initial discovery resulted in a Final Work Plan, presented to UTA and the USAO in late 2018 at the Kick-Off Meeting. Accordingly a significant time gap exists between the NPA and commencement of the monitorship, through no fault of either UTA or the USAO.

- (2) Assessing UTA's compliance with these various reforms and their effectiveness in addressing the Four Core Issues among other issues relevant to the monitorship;
- (3) Providing UTA with preliminary assessments and any recommendations relating to the objectives of the NPA;
- (4) Drafting this Initial Report regarding UTA's processes, procedures and organization – and the significant ways in which these have changed in connection with the 2016 Reforms and thereafter.

This Initial Report constitutes the completion of Phase I of the monitorship.

III. Phase II: The Monitor's Semi-Annual Reports

Following Phase 1, the Monitor will meet with the USAO and UTA regarding the appropriate next steps for monitorship activities in each roughly six-month period of Phase II, which is expected to last approximately twenty-four months. During Phase II, the Monitor will issue semi-annual interim reports.

In general, the Monitor's Phase II work is likely to include:

- (1) Attending regularly scheduled discussions with UTA key personnel regarding implementation of the 2016 Reforms and any other remedial measures, including those implemented in response to this Initial Report or any subsequent semi-annual Report.
- (2) Requesting access to additional relevant documents or UTA personnel as appropriate, as well as follow-up interviews with UTA personnel or others as necessary.
- (3) Approximately midway through each interim period, convening an onsite conference attended by key UTA personnel, the Monitor team, and transportation auditor consultants retained by Monitor, at which UTA will present its assessment of the implementation and effectiveness of the 2016 Reforms and other remedial recommendations.
- (4) Recommending, as necessary and appropriate, implementation of other potential measures to ensure ongoing compliance with the 2016 Reforms and other relevant controls and procedures.
- (5) Drafting Semi-Annual Interim Reports. The Monitor anticipates providing the USAO and UTA with Semi-Annual Interim Reports in December 2019, May 2020, November 2020, and May 2021.

IV. Phase III: The Monitor's Final Report

The Monitor's Final Report will present the Monitor's assessment of UTA's compliance with the terms of the NPA and whether the goals and objectives of the NPA have been met. In general, the Monitor's Phase III work is likely to include:

- (1) Performing a final assessment of UTA's implementation and compliance with the 2016 Reforms and any other remedial measures, including those recommended by the Monitor in any prior report. This will also include a final assessment of UTA's efforts to address the Four Core Issues, as well as any other issues that arise during the monitorship.
- (2) Requesting access to additional relevant documents or UTA personnel as appropriate, as well as follow-up interviews with UTA personnel or others as necessary.
- (3) Convening a conference approximately midway through Phase III to be attended by key UTA personnel, the USAO, and the Monitor team and the Monitor's transportation auditor consultants. During this conference, UTA will preview its final assessments as described above.
- (4) Drafting the Final Report, which the Monitor anticipates providing to UTA and the USAO by September 5, 2021.

METHODOLOGY FOR THIS INITIAL REPORT

The Monitor's Phase I work began in earnest following the agreement by UTA and the USAO to the Final Work Plan in January 2019. The Monitor's Phase I work has focused on the collection and review of relevant documentation and information from UTA; identifying and interviewing witnesses; interviewing individuals who approached the Monitor confidentially to raise concerns regarding UTA; reviewing the findings of NWC Consultants, the Monitor's transportation auditor consultants ("Transportation Auditors"); and drafting this Initial Report.

Much of the Monitor's Phase I work focused on the review of documents and interviews of witnesses in order to gain a baseline understanding of UTA's business, organizational structure, policies, and progress in implementing the 2016 Reforms.

I. Documents Collected

In preparing this report, the Monitor reviewed and relied on the NPA, UTA's October 2016 Letter to the USAO, and the 2010 and 2014 State of Utah Legislative Audits of UTA. Further, at the Monitor's request, UTA provided the following documents, which we have grouped below according to which of the NPA's Four Core Issues we considered each separate document category most relevant:²⁸

(1) Inadequate Controls Over Federal Funds and Drawdowns from Federal Grants

- UTA Budgets and Financial Reports, 2013 – present
- UTA Internal Audit Plans
- UTA Accounting Manuals
- Monthly Summaries of Federal Grant Tracking, 5/2016 – present
- Documents regarding Federal Grant compliance efforts, including agreements with independent contractors.
- Grants Management Internal Audit Reports and Grant Coordination Meeting Minutes, 2013-present
- Transit Award Management System ("TrAMS") data
- 2013 Procurement System Review Report and Response
- 2013 FTA Triennial Audit Report and Response
- 2015 Financial Management Oversight Review Report and Response
- 2016 FTA Triennial Report and Response
- UTA TOD Guidelines
- Documentation related to the creation of the Grant Management Group, including the internal audit that prompted UTA to create that Group.
- Documentation related to UTA's reorganization of the Accounting Department, including the August 2016 policy and procedure manual and its implementation of various controls regarding financial expenditures in particular.

²⁸ In addition to documents provided by UTA, the Monitor received relevant materials from the U.S. Department of Transportation and the Federal Bureau of Investigation.

- Documentation related to new policies adopted and implemented by UTA for Purchase Cards ("P-Cards") and associated recordkeeping, in particular Corporate Policy 1.2.3, the use of the Fiscal Technologies software, and the strengthening of recordkeeping regarding employee purchase records.
- Documentation related to UTA's selection and awarding of contracts for lobbyists, including contracts or other engagement paperwork and disclosure information.
- Documentation related to the Organizational Changes outlined at page 3 of the October 4, 2016 UTA Letter.
- UTA Personnel Travel Expense Reports
- UTA Corporate Documents (articles of incorporation, by-laws, etc.)
- UTA Board of Trustee Meeting Reports, 2013 – present
- UTA Executive Directories, 2013 – present
- Organizational Charts, 2013 – present

(2) *Improper Handling and Disclosure of Property Acquisitions and Disposition*

- UTA policies, both past and current, regarding asset disposal processes, real property acquisition and disposition, spending authority, accounting policy, etc.
- Procurement Audit Reports, 2013 – present
- UTA Property Inventories, 2014 – present
- UTA TOD Guidelines

(3) *Non-Compliance with Ethical Standards Resulting in Benefits to UTA Employees and Board Members*

- Documentation related to UTA's adoption and implementation of new policies designed to prevent conflicts of interest, including Board Process Policy 4.1.10 and Corporate Policy 1.1.11, as well as the Annual Certifications and disclosure documentation required thereunder since at least January 1, 2016.
- Documentation related to UTA's adoption and implementation of new policies regarding travel, including Board Policy 2.3.1 and Corporate Policy 1.1.8. The Monitor also reviewed documentation related to official UTA travel since implementation of these Reforms, including travel reimbursement forms and other substantiation documents required to be submitted under the policies mentioned above related to travel.
- Documentation related to UTA's adoption and implementation of new policies regarding Transit-Oriented Development ("TOD"). The Monitor also reviewed documents relating to Board Policy 2.2.4, as well the written guidelines contemplated by the TOD Department, procedures and processes utilized by Zion Public Finance, Inc., the outside consultant retained by UTA to perform external reviews of TOD proposals and operating agreements.
- To understand the impetus for the Reforms, the Monitor also reviewed documents involved in UTA's investigation and/or due diligence that led to UTA's letters regarding potentially improper activities of former executives and Board members, including the issues outlined in the August 2015 and August 2016

letters described at page 6 of the UTA Letter, as well as UTA's decision to pull back from certain TOD projects, as described on the same page.

(4) *Improper Approval of Executive Bonuses*

- Documentation relating to UTA's policy changes regarding executive compensation, including its methodology for benchmarking and limiting executive salaries, bonuses and any other executive compensation. This will include analyzing at least the following:
 - Employer's Counsel review of UTA's executive compensation
 - Documents related to the adoption and implementation of Board Policy 2.3.1 and Corporate Policy 6.7.5.1, as well as documentation regarding the elimination of employment agreements with top UTA executives.
 - Prior employment agreements of certain executives, including UTA's former President/CEO, General Counsel, Internal Auditor and certain other select executives in key positions.
 - Executive Compensation and Performance Bonus documents, including general policies and actions specific to particular executives
 - Trustee/Executive Financial Disclosure documents

II. Interviews Conducted

The Monitor conducted interviews of individuals from the following groups and organizations in the course of preparing this report, which the Monitor identified and requested as potentially relevant to the Four Core Issues. Specifically, the Monitor interviewed twenty-eight individuals in connection with Phase I. The Monitor concluded that the interviews would be most effective if the identity of those interviewed remained confidential, in order to encourage candid and honest assessments by those interviewed. Accordingly here we only summarize generally the categories of individuals interviewed for Phase I of the Monitor's work, and we make every effort to anonymize the interviewees who provided information that has been included in this report. Our interviewees included the following categories of personnel:

- UTA Internal Audit Personnel
- UTA Accounting and Grant Management Personnel
- UTA Capital Projects Personnel
- UTA Grant Administration Personnel
- UTA Finance Personnel
- UTA General Counsel's Office Personnel
- UTA Property Management Personnel
- UTA Real Estate and TOD Personnel
- UTA Human Resources Personnel
- Current and Past Members of UTA's Board of Trustees
- Members of UTA's Local Advisory Board (now Council)
- Utah Assistant Attorneys General (now serving as in-house counsel for UTA)
- US Attorney's Office Representatives
- US Department of Transportation Representatives

- Federal Bureau of Investigation Agents
- Utah Legislative Auditor's Office Representatives
- Zions Public Finance Representatives
- Employers Council Representatives
- Confidential sources from the Public

III. Transportation Consultants

Consistent with the monitorship proposal, the Monitor retained the Transportation Auditor to assist with the assessment of UTA and in preparing the sections of this report that relate to federal grants management. Grants management requires specialized knowledge of federal funding rules, and the experience and expertise of the Transportation Auditor is critical to the Monitor's work in this area.

To assess baseline conditions in the grants development and management processes, the Transportation Auditor reviewed audits and assessments completed between 2014 and 2018, and identified potential aspects of UTA's grants management functions that warrant additional scrutiny. The Transportation Auditor also reviewed the relevant UTA departments' Standard Operating Procedures to better understand the interplay between the grants process and UTA's operational and management structures. Much of the Transportation Auditor's analysis focused on sufficiency of controls, particularly relating to federal grants compliance issues.

UTA's grants management processes, controls, and management structure have changed considerably since the commencement of the USAO's investigation. These changes have impacted a number of departments. Because of this, the Transportation Auditors reviewed the grants management audits and manuals, as well as the procedures of other departments involved in the grants management process, to see how grant related issues are addressed throughout the life of a grant.

The following audits, reviews, and assessments, and their associated findings, were reviewed by the Transportation Auditor:

- The NPA
- 2014 State of Utah Legislative Audit
- Federal Financial Management Oversight Review (Final Report Aug 27, 2015)
- Grants Management Internal Audit (August 25, 2016)
- Federal Triennial Review (Oct. 6, 2016)
- Internal Audit Preliminary Assessment Of Grants Management (August 28, 2018)
- Federal TrAMs Data.

The Transportation Auditor also participated in the Monitor's Interviews with the following departments and organizations:

- UTA Internal Audit Personnel
- UTA Property Management Personnel
- UTA Accounting and Grant Management Personnel
- UTA Capital Projects Personnel

- UTA Grant Administration Personnel
- UTA Finance Personnel
- Current and Past Members of UTA's Board of Trustees
- Department of Transportation Representatives
- Utah Legislative Auditor's Office Representatives

The Transportation Auditors' findings and recommendations to the Monitor are incorporated in this report.

ASSESSMENT OF UTA'S IMPLEMENTATION OF 2016 REFORMS AND ADDITIONAL REFORMS OR CHANGES IMPLEMENTED SINCE 2016

The following is the Monitor's assessment of UTA's 2016 Reforms, identified by UTA in its October 2016 letter to the USA and incorporated into the NPA between UTA and the USAO. The 2016 Reforms and UTA's 2016 Letter appear to have been substantial factors in the USAO's decision to execute a NPA with UTA. Indeed, one of the primary purposes of the monitorship – if not the primary purpose – agreed upon by the USAO and UTA is the assessment of UTA's success in implementing the 2016 Reforms. It is therefore noteworthy, and to some extent troubling, that many of the 2016 Reforms – particularly the agency's leadership changes – are no longer in place, or have been overtaken by events. Because of the significant turnover in personnel and policies at UTA, the Monitor considered it critical to develop a high-level understanding of the most current organizational, personnel and policy developments at the agency in the areas relevant to the Four Core Issues, and this became the focus of our Phase 1 work. We could not, however, realistically test UTA's compliance with the 2016 Reforms themselves because so many of them had been changed, abandoned or replaced entirely.

Below, we describe the Monitor's initial impressions regarding UTA's reforms – both the 2016 Reforms and, of equal importance given the turnover, those that have superseded them. In Phase 2 of the monitorship, it will be critical for the Monitor to test these reforms – as they stand now – and observe their impact on UTA's operations and culture.

I. 2016 Reforms: New Leadership

A. Leadership Changes Cited By UTA As Part of 2016 Reforms

In its October 2016 Letter, UTA described significant leadership changes at the agency in the approximately two years that had then transpired since the 2014 Legislative Audit. Our review to date has convinced the Monitor that UTA was right to overhaul its leadership. But it is notable, and concerning, that so many of the new leaders identified by UTA in 2016 have already left the agency. UTA cited the hiring of these new leaders as "reforms," representing that their very presence would address the concerns raised by the USAO. Yet nearly all have left, often within just a year or more (or less) of the 2016 UTA letter highlighting their importance to UTA's reforms and ongoing compliance with the NPA.

We note, however, that we have been impressed generally with the UTA personnel with whom we have met thus far. While this is encouraging, in light of our mandate we intend to focus on turnover at the highest levels of UTA during the remaining phases of the monitorship.

(1) Board Composition

According to UTA's 2016 Letter, in September 2014, just after the release of the 2014 Legislative Audit, H. David Burton replaced Greg Hughes as the UTA Board Chair.²⁹ In the

²⁹ H. David Burton, or Bishop Burton, and Mr. Hughes are both prominent public figures in Utah. Bishop Burton served as the Presiding Bishop of The Church of Jesus Christ of Latter-day Saints from 1995 to 2012. Mr. Hughes served as a Member of the Utah House of Representatives from 2003-2018, including a stint as Speaker of the House.

October 2016 Letter, UTA wrote that Chair Burton "ushered in a change in leadership dedicated to making institutional reforms a priority." Following Chair Burton's election, Board members Greg Hughes, Chris Bleak, and Sheldon Kilpatrick resigned from the Board. According to UTA, this "allow[ed] for the appointment of new Board members who were not involved in the type of actions identified in the [2014] Legislative Audit." Jeff Hawker and Sherrie Hall Everett were thereafter appointed as Vice Chairs of the Board.

Chair Burton then left UTA in September 2016.³⁰ As of UTA's October 2016 Letter to the USAO, Robert McKinley had been appointed as Mr. Burton's replacement.

(2) Career Senior Leadership

According to UTA's October 2016 Letter, General Counsel Bruce Jones, who had served as both the chief legal officer and the head of TOD projects – as well as head of Government Relations – retired from UTA in March 2015, and was replaced by Jayme Blakesley, who served solely as the company's chief lawyer without any operational responsibility for TOD projects or otherwise. In its October 2016 Letter, UTA described Mr. Blakesley's considerable, relevant experience:

Mr. Blakesley spent the bulk of his career working for the Federal Transit Administration ("FTA"), most recently as Acting Assistant Chief Counsel for General Law, which included responsibility for compliance issues, particularly those regarding the receipt and use of federal funds by transit agencies. During his time at FTA, Mr. Blakesley led several compliance investigations on behalf of the FTA Administrator[.]

According to UTA's letter, by October 2016 Mr. Blakesley had already "recommended to UTA a number of reforms going forward, including new controls on the grant application and administration functions, annual ethics disclosures by all senior employees, executives and board members, and the development of a new transit-oriented development policy." As discussed below, however, the Utah Legislature eliminated Mr. Blakesley's position – and therefore his employment – in early 2018.³¹

In addition to the reforms outlined for the General Counsel's Office, the agency hired a new Chief Internal Auditor, Isaac Clarke, in August 2015, according to UTA's October 2016 Letter. Mr. Clarke revised the job requirements for UTA's internal audit staff, resulting in the departure of two employees and the hiring of replacements with relevant internal audit experience.³² But he, too, left UTA, this time before the October 2016 Letter.

³⁰ Lee Davidson, *UTA Chairman Burton Steps Down, and Former Lt. Gov. Bell Joins Board*, The Salt Lake Tribune (September 29, 2016), <https://archive.sltrib.com/article.php?id=4409835&ittype=CMSID> (Last accessed May 27, 2019).

³¹ Utah Senate Bill 136, 2018 General Session, <https://le.utah.gov/~2018/bills/static/SB0136.html> (last accessed May 30, 2019).

³² During our Phase I interviews, UTA employees shared that they harbored concerns about the pre-2014 audit staff's basic qualifications. UTA employees also appeared not to understand what the audit department's purpose had been prior to Mr. Clarke's arrival.

UTA also informed the USAO that it had adopted a risk-based Internal Audit Plan for 2016 that called for the completion of thirteen audits for the year, and amended its policies and organizational controls relating to the audit function. Mr. Clarke, however, had resigned from UTA for personal reasons in August 2016, leaving the Chief Internal Auditor position open as of UTA's October 2016 Letter.

Finally, UTA also noted Jerry Benson taking over the President and CEO position from Mike Allegra as a reform. Mr. Allegra retired in August 2015. Jerry Benson had been a long-time employee of UTA, and served as Interim President and CEO until the Board appointed him President and CEO in August 2016.

B. Further Changes To Leadership Since UTA's 2016 Letter

Since UTA's letter to the USAO in 2016, the Authority has continued to experience significant turnover among its senior leadership.

(1) Changes in Board Structure and the New Local Advisory Council

Chair McKinley, who had replaced H. David Burton as of UTA's October 2016 Letter, left after about a year in the position, in December 2017, and was replaced by Greg Bell.

Then, in 2018, the Utah Legislature passed SB 136 (Transportation Governance Amendments), a transportation overhaul bill that restructured UTA, including its Board of Trustees.³³ Under SB 136, UTA's former part-time, 16-member board of trustees was replaced by a full-time, three-member board of trustees. In the months since SB 136's passing, UTA's new, full-time professional Board has been appointed:

- Carlton Christenson, the Board Chair, was appointed on November 1, 2018.³⁴ Prior to joining UTA, he served for five years as the director of regional transportation, housing and economic development for Salt Lake County. Prior to his work for Salt Lake County, he worked as a community development representative for Zions Bank. Trustee Christensen also has an extensive track record of public service, including 16 years spent on the Salt Lake City Council. He has also served as chair of the Salt Lake City Redevelopment Agency and Salt Lake City Council, as president of the Utah League of Cities & Towns, and as president of the associates board for the Museum of Natural History of Utah. He is an ex-officio member of the Salt Lake City Airport Board and was chair of the Wasatch Front Economic Development District.
- Beth Holbrook was appointed on November 1, 2018.³⁵ She began her career in the financial sector, established a real estate firm in 2002, and in 2010 went to work for Zion's Bank as the Director of the Business Resource Center in Salt

³³ Utah Senate Bill 136, 2018 General Session, <https://le.utah.gov/~2018/bills/static/SB0136.html> (last accessed May 30, 2019).

³⁴ Meet the Board, <https://www.rideuta.com/Board-of-Trustees/Meet-the-Board> (last visited June 28, 2019).

³⁵ *Id.*

Lake City. She also worked as the Public Sector Solutions Manager for Waste Management of Utah. Trustee Holbrook was first elected to the Bountiful City Council in 2007 and has served on several boards including the Bountiful Power Commission, Planning Commission and the Utility Facility Review Board. She is the outgoing President of the Utah League of Cities and Towns, having served there since 2011.

- Kent Millington was appointed on January 29, 2019.³⁶ Before his appointment to the Board, he was the Director of Technology Commercialization at Utah Valley University. He has worked in the development and deployment of intellectual property for most of the past 25 years. He is a former president and CEO of AccessData Corp., and was a member of the Board of that company for several years. He was Entrepreneur in Residence at Utah Valley State College in Orem, Utah from 2004-2007. He has over 35 years of experience in management and new ventures. From 1997-2004, Trustee Millington played a key role in the development of Verio, an internet hosting service. He previously worked for defense contractor EG&G as Director of Business Development. He served as a member of the Utah State Transportation Commission from 2005 to 2018 and was Chair of the Commission from 2015 to 2018.

In addition, under the new structure the three-member board of trustees is overseen by a nine-member Local Advisory Council ("LAC"). According to comments by Senator Wayne Harper in committee meetings, one purpose of SB 136 was to create an advisory board that provides recommendations akin to the advisory function a planning board provides to a city council. The legislation itself suggests that the LAC may have approval authority over some critical aspects of UTA's operations, such as TOD acquisitions and dispositions, contracts related to TODs, service plans, project development plans (including new capital development projects), and future TOD plans. In addition, SB 136 gives the LAC the authority to set the compensation of the members of UTA's Board of Trustees, within statutory limits. And it appears to require UTA's Board of Trustees to consult with the LAC on budgets, prioritization of internal audits and assessment of audit reports, capital investments, and general operational and management decisions.

The LAC is fairly new, however, so there is little history to look to in assessing its governance relationship to UTA and its Trustees. As discussed below, many UTA stakeholders exhibit confusion or outright conflicting views regarding the LAC's role and powers, which is cause for concern.

³⁶ "Kent Millington sworn in to represent Utah, Tooele counties on UTA Board of Trustees". Daily Herald (January 29, 2019) https://www.heraldextra.com/news/local/govt-and-politics/kent-millington-sworn-in-to-represent-utah-tooele-counties-on/article_ada74ece-0b6a-5a3e-9ca2-29f5df863e03.html (last accessed June 28, 2019).

(2) Chief Executive

Jerry Benson, who was appointed as President and CEO, left UTA in May 2018³⁷ and was replaced by Interim Executive Director Steve Meyers. Interim Director Meyers will be retiring soon and UTA has recently chosen Carolyn Gonot as his replacement.³⁸ She has worked for the Santa Clara Valley Transportation Authority in San Jose, California since 1996 in a variety of positions. Most recently, she oversaw planning and programming as well as engineering and construction.

(3) General Counsel

In March 2018, UTA's General Counsel Office was eliminated as part of SB 136. This essentially fired Mr. Blakesley from that position. Some of the current and former UTA personnel we interviewed believe that Mr. Blakesley himself was the target of the legislation, because of the nature of Mr. Blakesley's reform efforts. This perception concerns the Monitor, whether or not this was in fact the motivation behind the amendment that shuttered the General Counsel's office. The sponsors of SB 136 have said that the removal of UTA's General Counsel Office was a cost-cutting initiative.³⁹ The timing of this change is concerning, given the fact that the 2014 Legislative Audit, the USAO investigation, the Four Core Issues, and the 2016 Reforms identified by UTA all concern compliance issues. If ever there was a time when UTA needed its full cadre of experienced in-house attorneys, now would seemingly be it. Going forward, consistent with the practice at traditional Utah public agencies – which the Monitor does not necessarily equate to UTA – the Utah Attorney General's Office (the "A.G.") will serve as counsel for UTA.

Mr. Blakesley himself left shortly after SB 136's passage. The remaining team of five lawyers then at UTA – many of whom had lengthy tenures with UTA – were offered the opportunity to transition to the A.G.'s office, which would require accepting substantial reductions in their compensation compared to what UTA paid its lawyers under the old system. None of the five remaining lawyers elected to make this transition. All but one of them took jobs elsewhere. One UTA lawyer transitioned temporarily to a non-lawyer compliance job at the agency, but has also now left for another legal job elsewhere.

In the place of UTA's former six-member legal team, the A.G.'s office has allotted two full-time lawyers from the A.G.'s office who are dedicated to UTA and work onsite at the agency. A third lawyer serves as a supervisor of these two onsite lawyers, as part of this supervisory lawyer's

³⁷ "UTA board votes to terminate CEO Jerry Benson effective May 7". fox13now.com (April 19, 2018) <https://fox13now.com/2018/04/18/uta-board-votes-to-terminate-ceo-jerry-benson-effective-may-7/> (last accessed May 27, 2019).

³⁸ "UTA hires new executive director from Silicon Valley". Deseret News Utah (June 25, 2019) <https://www.deseretnews.com/article/900076913/new-uta-executive-director-hired.html> (last accessed July 1, 2019)

³⁹ One of SB 136's sponsors addressed speculation that the General Counsel position's elimination was intended to target Mr. Blakesley's by saying that he's not worried about this move appearing to be some sort of political payback. "UTA overhaul bill eliminates agency's legal team". UtahPolicy.com (March 7, 2018) <https://utahpolicy.com/index.php/features/today-at-utah-policy/16041-uta-overhaul-bill-eliminates-agency-s-legal-team> (last accessed June 28, 2019)

oversight of a portfolio consisting of various Utah public agencies, including utilities, public safety agencies, and Utah's Department of Transportation (UDOT). Our sense is that the onsite legal team could expand to a third full-time lawyer in the next year or so, but this is not certain.

UTA's legal team is a critical feature of the agency's compliance efforts – particularly in light of the nature of the activities that led to the 2014 Legislative Audit findings and the USAO investigation. We intend to look more directly into the nature of the changes to UTA's legal services resulting from SB 136, and the way in which the agency adapts to what amounts to a significant reduction of its full-time legal staff. One issue of note is that UTA's experienced full-time team has been replaced, necessarily, by attorneys who do not have experience working for UTA. The wholesale transition of the agency's legal function could be disruptive. And while the new legal team brings their own experience to bear, they will necessarily need time to get up to speed with UTA itself.

We were surprised to learn very late in Phase I that this process of getting up to speed had commenced prior to our Phase I review. Our initial report was scheduled to be completed in May 2019. During our Phase I work, we were consistently given the impression that UTA was working with a dwindling skeleton staff of lawyers who had worked in the prior General Counsel's office and who were transitioning to jobs outside the agency. The transition to using the A.G.'s office as counsel appeared not to have occurred yet. On the eve of issuing our Phase I report in May 2019, however, we learned that UTA started working with an embedded lawyer from the A.G.'s office in September 2018, that it had recently brought on a second full time lawyer, and that this legal staff was supervised by a senior attorney in the A.G.'s office. We were surprised by this news, and we delayed the release of our report in order to review and incorporate this new information, including by interviewing the A.G. office attorneys now working with UTA.

(4) Chief Internal Auditor

Riana de Villiers, who originally joined UTA as a Senior Internal Auditor in February 2016, has since taken over the position of Chief Internal Auditor. Prior to joining UTA, she was an audit manager for a global mining company where she managed internal fraud and whistleblower investigations. Prior to the arrival of Mr. Clarke (Ms. de Villiers's predecessor), UTA's Internal Audit team focused on capital projects. Under Ms. de Villiers, and beginning with Mr. Clarke before her, the Internal Audit team also focuses on ethics and risk management.

(5) Summarizing Recent Leadership Changes

The chart below summarizes the changes in UTA's executive leadership immediately before and since UTA's 2016 Letter:

UTA Executive Leadership Changes Since 2016			
Board Chair	Executive Director	Chief Internal Auditor	General Counsel
H. David Burton (Left September 2016)	Jerry Benson (Left May 2018)	Isaac Clarke (Left August 2016)	Jayne Blakesley (Left May 2018)

Robert McKinley (Left December 2017)	Steve Meyers (Current Interim Director; Retiring)	Riana de Villiers (Current Chief Internal Auditor)	Counsel provided by a team from the A.G.'s office.
Greg Bell (Left November 2018)	Carolyn Gonot (Incoming Executive Director)		
Carlton Christensen (Current Board Chair)			

C. Monitor's Phase I Findings And Recommendations Regarding The Effectiveness of UTA's Leadership Reforms

(1) Executive Leadership Turnover

Many of the new leaders identified by UTA in the 2016 Reforms have left the agency. There has been near-constant turnover in UTA's leadership following the 2014 Legislative Audit. Undoubtedly some turnover was necessary, but the lack of stability over such an extended (and critical) period of time is a concern. During the course of the Monitor's Phase 1 review, several interviewees attributed the repeated turnover among UTA's leadership to the legislative restructuring of UTA, and this does appear to have played a part in the departures of several of the people named in UTA's October 2016 Letter. But the agency saw significant changes in leadership from 2016-2018, prior to SB 136, during a time when UTA was attempting to put a reform-oriented executive team in place.

RECOMMENDATION 1: Over the next Phase of the monitorship, the Monitor will focus on stability and retention in UTA's executive leadership, because the continued turnover among UTA's executive leadership since 2014 represents a significant risk for the agency's efforts at effectively improving its compliance efforts in the wake of the USAO investigation. The current senior leadership within UTA itself appears highly qualified and dedicated to the mission of the agency. We look forward to getting to know them better, and working closely with them, during the remaining phases of the monitorship.

(2) Elimination of the General Counsel's Office

We are concerned that SB 136's elimination of UTA's General Counsel Office jeopardizes the agency's access to experienced, independent counsel. UTA's last General Counsel, Mr. Blakesley, received widespread praise for his reform efforts during our interviews with current and former UTA personnel. Mr. Blakesley, as described by UTA in its October 2016 Letter, brought particular expertise relating to the very issues implicated by the Four Core Issues of concern to the USAO, particularly with respect to federal grants management and compliance. And indeed, his time at the agency appears to have been productive, including his discovery of problematic bonuses, totaling nearly \$1 million, for two former UTA officials, which the agency successfully declined to pay during Mr. Blakesley's tenure. According to interviews, Mr. Blakesley also served as a driving force in UTA's internal review of potential conflicts of interest involving UTA's transportation development programs. In addition to a General Counsel, UTA also historically has been served by a team of full-time, experienced in-house lawyers. There

were five such lawyers in place as of Mr. Blakesley's departure in the wake of SB 136. As of today, all have left UTA.

UTA is in the early stages of working with its new legal team from the A.G.'s office. Because we were unaware that UTA had already begun to transition to this new legal team, we did not have the opportunity to ask about this transition during nearly all of our Phase I interviews. Several interviewees, however, expressed concern that the removal of UTA's General Counsel Office will lead to a loss of institutional knowledge and, consistent with this concern, none of UTA's prior counsel team elected to stay on and make the transition to the A.G.'s office. According to one witness who has worked as a lawyer for UTA, there is a steep learning curve regarding transit and transportation legal work, and it can take many years to gain a basic understanding, much less master, the complex applicable rules, regulations, and practices. Current UTA personnel expressed that losing the prior in-house counsel team would make it harder trace the history of the agency's legal decision-maker process and policy changes, and wondered whether the A.G.'s office would ever be able to replace this institutional knowledge, or the unique experience among UTA's former in-house legal team.

We are sympathetic to these concerns. At the same time, we will not prejudge the effectiveness of the transition to using the A.G.'s office as counsel, and we recognize that change causes disruption and complicated organization dynamics even under the best of circumstances. We will note, however, that our own experience with attorneys general offices in other states leaves us concerned that UTA may see greater turnover among the attorneys with whom it consults under the new structure, which can be problematic, given the specialized nature of some of UTA's legal issues. One witness expressed concern that turnover among UTA's counsel would be especially difficult to cope with, given the length of time it has taken many of UTA's projects to proceed from planning to complete – with some projects spanning more than a decade. One witness we spoke to felt that the in-house attorneys that have left UTA would likely be competitive in the private legal market. This raises the question of whether detailing attorneys to UTA from the A.G.'s office will create opportunities for turnover. We do not doubt the dedication and public service-oriented perspectives of the counsel in the Utah A.G.'s office, but we are also concerned that it might not be possible to truly replace the prior legal team with a smaller group of attorneys who are paid substantially less without risking turnover or understaffing.⁴⁰ For now we remain open-minded, and we look forward to working closely with the new team from the A.G.'s office.

Finally, we also note that the new structure appears to have raised questions regarding the independence of the advice UTA can expect in the future. One witness, for example, expressed concerns about maintaining confidentiality when working with the A.G.'s office. We understand that the A.G.'s office has deep experience representing various state agencies, and has an ethics wall system in place to deal with such issues. The clients at UTA, however, may still harbor concerns regarding highly sensitive matters, and it is important in our view that UTA personnel feel comfortable discussing these with their new counsel. It also is equally important that A.G.

⁴⁰ We understand, for instance, that the former members of the General Counsel's Office declined employment with the Utah Attorney General's Office because they received more lucrative offers from the private market. To some extent this suggests a market value for their skills, particularly to an agency like UTA engaged in complex land use and other transactions.

staff understand the seriousness of these ethical walls, which would otherwise result in a conflict of interest given the A.G.'s charge to enforce the law by, among other things, investigating crimes involving public malfeasance.

RECOMMENDATION 2: Over the next Phase of the monitorship, we will focus closely on the ways in which the A.G.'s legal team supplants the prior legal department. Among the questions we will explore are:

- (A) How many attorneys with the A.G.'s office are dedicated to UTA?
- (B) How will the new structure impact the way UTA seeks legal advice, and will it cause UTA personnel to be less likely to consult with a lawyer under some circumstances?
- (C) Will UTA personnel feel adequately counseled – including that they have sufficient access to experienced, knowledgeable counsel – under the new structure?
- (D) Will the attorneys from the A.G.'s office offer the same level or experience and expertise as UTA's in-house team?
- (E) Will the difference in compensation levels between UTA's former in-house team and the A.G.'s office lead to turnover that impacts UTA, or result in recruitment problems for qualified counsel?

II. 2016 Reforms: Organizational Changes

A. Organizational Changes Cited By UTA As Part of 2016 Reforms

In its October 2016 Letter, UTA highlighted a number of organizational changes as relevant to the agency's reform efforts.

(1) Audit Committee

In April 2015, the Board formed an Audit Committee tasked with reporting on external audits and long-term financial matters to the Board. According to UTA's Letter, the Audit Committee is "also authorized to request and direct the Authority's Internal Auditor to perform audits of UTA's business and to evaluate the organization's long-term financial decisions."

(2) TOD Oversight

UTA removed TOD oversight and government relations (i.e., lobbying oversight) from the General Counsel's portfolio, which the agency described as "eliminat[ing] potential conflicts of interest" created by the old structure. TOD oversight was moved to UTA's Capital Development Department. UTA transferred government relations oversight to the office of the President and CEO. UTA also hired Nichol Bourdeaux as the Manager of Local Government Relations and Programs, reporting to the President and CEO. Previously, Ms. Bourdeaux had served as the Deputy Chief of Staff for Salt Lake City.

B. Additional Organizational Changes Since UTA's 2016 Letter

Since UTA's October 2016 Letter, there have been extensive changes to UTA's structure resulting from SB 136. First, SB 136 changed UTA's board from a former part-time, sixteen-member board of trustees to a full time board of three trustees. Second, SB 136 created a nine-person LAC to work in conjunction with the Board of Trustees. Third, as referenced above, SB 136 eliminated UTA's General Counsel Office.⁴¹

C. Monitor's Phase I Findings And Recommendations Regarding Organizational Reforms

(1) Role of the Local Advisory Council

The division of power between the new full time three-member Board of Trustees and the new LAC is not well understood by UTA personnel or really anyone, including many of UTA's highest leadership, both on the Board and the Local Council. During the course of the Monitor's interviews we learned that people within UTA lack a clear and consistent understanding of the LAC's role. Some interviewees saw the LAC's function as almost purely advisory, while others believed the LAC had approval authority with respect to UTA's most critical operations and planning. The one thing all appeared to agree on is that the LAC sets Trustee compensation, although, as discussed below, we are concerned by the power dynamic created by this authority, because potentially it undermines the Board of Trustees' independence with respect to every aspect of the agency's operations.

Many witnesses expressed confusion about the powers and duties of the LAC and how it relates to the Board. These witnesses were not sure what the LAC's authority is, particularly the extent of its approval authority over any particular aspect of the agency's operations.

Other witnesses appeared to believe they understood the LAC's role, but provided conflicting descriptions of it. Some witnesses believed that the Board is not bound by the LAC's recommendations, except with respect to the station area plan for TOD projects. Another witness believed that the LAC has review and recommending approval for all TOD projects and major capital projects. Another described the LAC as entirely advisory. Some seemed to think that the LAC served as a backstop of the Board of Trustees akin to a governing board and a planning commission.

RECOMMENDATION 3: Over the next Phase of the monitorship, the Monitor will focus on how the LAC's role develops. While it is understandable that UTA personnel would still be on the learning curve in terms of understanding the LAC's role, it is critical that UTA and the LAC have a common understanding of the dynamics between the two entities. Ultimately, UTA will need internal policy guidance for all personnel regarding adherence to the LAC's oversight or

⁴¹ During our Phase I review, UTA was also in the process of a vertical reorganization, which creates an additional department. We will review this change more closely in the next Phase of the monitorship.

advisory requirements. Confusion in this area will inevitably lead to some form of dysfunction.⁴²

(2) Characteristics of the Local Advisory Council

We are also concerned that the LAC shares similar characteristics with UTA's former part-time, 16-member board of trustees, depending on the degree of authority ultimately exercised by it. The change from the old 16-member, part-time Board to the current three-person, full-time professional Board of Trustees is warranted in our view, and a step in the right direction for UTA's governance. The LAC, however, brings back an entity with many part-time appointees, whose selections are, at least in part, made through Utah's political system. Several current and former UTA employees reported concerns about the structure of the new LAC – concerns that are exacerbated, in our view, by the confusion over its role. Some witnesses also expressed concerns that the political appointment process creates the possibility that UTA's decision-making may be unduly influenced by particular interests. It is noteworthy that some members of the new LAC once served on the old 16-member board, which led to discomfort by some current UTA employees. Some witnesses we spoke to wondered whether strong personalities on the LAC could have a negative effect on the operations of the agency. One witness raised the concern that the new nine-member structure could make the LAC susceptible to being dominated by a single powerful member.

We recognize that this is a difficult issue. UTA's mission is to serve efficiently and effectively both the region and the localities in which it operates. It therefore must recognize and balance the needs of both its broader regional audience as well as those of its local constituencies. In this Initial Report, we do not mean to suggest that the LAC is a bad idea. Its purpose is to represent the interests of the localities that invest in and benefit from UTA, which is appropriate. Our concern is that the organization of the LAC is largely identical to the prior Board of Trustees, a structure that led to significant problems implicating the Four Core Issues and that another section of SB 136 – which created the full-time, three-person Board of Trustees – was intended to address.

These concerns are heightened because the legislature has given the LAC the clear authority to set Trustee compensation within statutory limits. This appears to be the one LAC power that everyone agreed exists. It undermines Trustee independence, in our view. Several UTA witnesses expressed that the LAC recently set the Board of Trustees' compensation too low, at \$129,000 (the statutory maximum is \$150,000). One witness suggested this was a lever to exercise control over the new Board of Trustees; others felt that the \$129,000 figure was the result of the particular dynamics of the decision, and not because of any desire to send a message to the Trustees.

⁴² It is also noteworthy that UTA's new counsel team from the A.G.'s office intends to assign one member each of the two full time attorneys to primary responsibility for advising the Board and the LAC, respectively, in part to prepare for the possibility that conflicts could develop between the two entities. This suggests a recognition that each entity has unique interests and a degree of legal separation. Yet the two entities would be served by counsel from essentially the same legal team, both of whom are supposed to be UTA's counsel. If the LAC is considered a part of UTA, it is hard to see why two separate counsels are needed, since there should be no conflicts. If they are separate entities, it is hard to see how they can effectively be served by the same team of UTA lawyers. As this issue arose on the eve of the issuance of this report, we could not fully review legal issues concerning the LAC.

At a minimum, giving the LAC control over Trustee compensation creates uncertainty for the Trustees. The current three Trustees were all appointed before they found out what compensation level the LAC would set. Future Trustees would be justified in wondering if they are subject to being given a salary lower than what was in place when they accept a position. One witness we spoke to suggested that more people may have applied to sit on the Board of Trustees if the LAC were not responsible for setting compensation. While we cannot say whether this is so, it makes sense that, going forward, this dynamic could impact recruitment and retention.

RECOMMENDATION 4: Over the next Phase of the monitorship, the Monitor will assess whether features of the LAC's structure have a negative impact on UTA's governance.

(3) UTA's Internal Audit Function and the Audit Committee

UTA seemingly has improved its Internal Audit function since the 2014 Legislative Audit. In 2016, the prior Chief of Internal Audit, Mr. Clarke, apparently essentially had to start from scratch in developing an audit plan, regular internal audit activities, and a qualified audit staff. There was limited documentation at UTA to indicate that there had been any recent internal audit activity prior to his arrival. Basic functions, like the tracking of capital assets, had not been properly scrutinized in years.

Ms. de Villiers appears to have continued building out the Internal Audit foundation, continuing where Mr. Clarke left off, and UTA's audit documentation shows it. From 2016-2018, the Internal Audit group completed 31 audit reports reviewing 26 separate functions at UTA, resulting in reports detailing 284 findings, and a commensurate number of recommendations for improvements.

UTA Internal Audit Reports Since 2016⁴³		
Number	Report	Date
R-16-1	FMLA Management Internal Audit Report	March 28, 2016
R-16-2	Business Continuity/Disaster Recovery Internal Audit Report	May 13, 2016
R-16-3	Data Centers Assessment Internal Audit Report	May 13, 2016
R-16-4	Sales Tax Collections and Reporting Internal Audit Report	May 25, 2016
R-16-5	Davis-Bacon Compliance Internal Audit Report	July 8, 2016
R-16-6	Grants Management Internal Audit Report	August 25, 2016
R-16-7	Procurement Internal Audit Report	November 3, 2016
R-16-8	Transit Oriented Development Internal Audit Report	November 17, 2016
R-16-9	Information Technology General Controls Internal Audit Report	December 20, 2016
R-16-10	Passenger Fares and Collection Internal Audit Report	March 27, 2017
R-16-11	Purchase Card Compliance Internal Audit Report	February 15, 2017

⁴³ UTA Reports & Documents (available at <http://www.rideuta.com/About-UTA/UTA-Reports-and-Documents>)

R-17-1	Davis-Bacon Compliance Follow-Up Internal Audit Report	February 15, 2017
R-17-2	FMLA Management Follow-Up Internal Audit Report	March 21, 2017
R-17-3	Grants Management Follow-Up Internal Audit Report	March 21, 2017
R-17-5	Business Continuity/Disaster Recovery Follow-Up Internal Audit Report	June 1, 2017
R-17-6	Data Centers Assessment Follow-Up Internal Audit Report	June 12, 2017
R-17-7	Vanpool Operations Internal Audit Report	September 19, 2017
R-17-8	Treasury Internal Audit Report	September 27, 2017
R-17-9	Operating and Ridership Reporting Internal Audit Report	October 11, 2017
R-17-10	Information Technology General Controls Internal Audit Report	October 9, 2017
R-17-11	Procurement Management Internal Audit Report	October 9, 2017
R-17-12	Purchase Card Compliance Internal Audit Report	October 12, 2017
R-17-13	Preliminary Assessment of Inventory Management Internal Audit	March 15, 2018
R-17-14	Transit Oriented Development Management Internal Audit Report	November 22, 2017
R-18-01	Preliminary Assessment of Payroll Management Internal Audit	May 30, 2018
R-18-03	Preliminary Assessment of the Cash Office Operations	August 27, 2018
R-18-04	Operating and Ridership Reporting Internal Audit Report	September 10, 2018
R-18-05	Treasury Management Internal Audit Report	September 11, 2018
R-18-07	Inventory Management Internal Audit Report	December 13, 2018
R-18-09	National Transit Database Internal Audit Report	December 19, 2018
R-18-08	Vanpool Operations Internal Audit Report	January 8, 2019

A robust internal audit function is critical, even for high-functioning organizations. It is impossible even for successful organizations to self-monitor without such an independent function. UTA's Internal Audit group provides critical oversight and analysis that will help UTA catch problems before they develop, properly document departmental procedures and policies, keep up with changing standards and technologies, and address systemic and personnel problems before they become widespread or deeply ingrained. We view the Internal Audit group as important partners during the monitorship.

One area of concern we identified is the way in which risk management is folded into UTA's Internal Audit function. Certainly, risk management is an important part of any audit group. UTA may want to consider a stand-alone risk management function, however, in order to create another layer of checks and balances, and to allow risk management to be done on a proactive,

multi-year plan basis, as opposed to annually as part of the yearly audit plan, as currently appears to be the case. Moreover, a stand-alone risk management leader or group would allow for more robust analysis and greater visibility into agency-wide priorities and resource balancing. It is hard for an internal auditor to both assess individual programs on an audit-by-audit basis and track the organization's long term operational priorities and plans. That may be too much to ask of the Internal Audit group.⁴⁴

During this Phase, we also gathered information about UTA's hotline system, which we consider a potentially promising feature to bolster its compliance efforts. We learned during our interviews that UTA's attempt to create an internal hotline has met with mixed results. In particular, we understand that the hotline and its corresponding reporting mechanism on UTA's intranet were not truly anonymous as to certain internal stakeholders. To resolve these concerns, UTA is now using an externally hosted hotline.

Lastly, we spoke with several witnesses about the creation of UTA's new Audit Committee during this Phase. We were unable to assess the committee, however, because UTA was still in the process of appointing a new Audit Chair and Committee during our most recent site visit. The function of the new Audit Committee will be an area of interest for us in the next Phase.

RECOMMENDATION 5: UTA's Internal Audit function is of particular interest to the Monitor because it is the best way of developing detailed reviews of various aspects of UTA's operations. We expect to continue our dialogue with the Internal Audit group during the next Phase of the monitorship, and would like to embed in at least one internal audit, to observe the audit process from commencement to report.

RECOMMENDATION 6: During the next Phase, the Monitor intends to assess UTA's risk management processes, including whether the agency would benefit from a stand-alone, proactive, multi-year cycle, risk management function.

RECOMMENDATION 7: We are interested in learning more about UTA's hotline system, and whether it warrants additional resources, or a new approach, to be optimized as an effective compliance tool.

RECOMMENDATION 8: As the new Audit Committee comes online and matures during the next Phase, the Monitor intends to assess its processes and procedures, and conduct interviews with its members.

III. 2016 Reforms: Executive Compensation

A. Executive Compensation Changes Cited By UTA As Part of 2016 Reforms

In its October 2016 Letter, UTA described the significant changes it had already put in place to address executive compensation abuses. UTA altered its methods for benchmarking salaries

⁴⁴ We refer here only to risk management as it pertains to non-safety-related operational compliance issues that are of the kind that led to the USAO's investigation. We understand that UTA has a proactive risk assessment program in place for safety issues, which is not within the scope of this monitorship.

across the organization, including executive pay.⁴⁵ According to UTA's Letter, while "[p]revious salary comparisons relied on surveys from both the public and private sectors," UTA by 2016 "began limiting its salary comparisons to other governmental agencies, transit agencies, and nonprofit organizations to ensure its salary structure was in line with these comparable organizations."

UTA also retained Employer's Council, "a Salt Lake City-based based nonprofit employers' association, to review UTA's total compensation and benefits program for its administrative employees."⁴⁶ The Employer's Council's initial review "began in August 2014 and took eight months to complete," according to UTA's Letter, and "compared UTA's base pay, bonus pay, and employee benefit programs to the labor market" in "four separate employee groups," which included "executives, general counsel, and the president and CEO." After this review was completed, UTA's Board adopted new policies regarding compensation and benefits.⁴⁷ According to UTA's Letter, these policies set salaries for new executives "at 10% below the market median, with a permissible 15% variation above and below that standard." UTA's compensation policy also now requires Board approval for bonuses over \$8,000, and limits performance awards to the lower of \$7,500 or 4% of an employee's annual salary.⁴⁸ And UTA closed its "Asset Management Plan," a 401(a) plan for executives, to any newly hired executives.

Finally, UTA stopped entering into employment agreements with employees appointed by the Board, and it voided employment agreements with the former President/CEO, Mike Allegra, and with the former General Counsel, Mr. Jones.

B. Additional Changes To Executive Compensation Since UTA's 2016 Letter

Based on our interviews, it appears that UTA has since 2016 been returning to routine in its compensation structures. Several witnesses we spoke with emphasized that executive compensation packages in place as of the 2014 Legislative Audit were highly unusual. In reviewing that audit report, UTA's 2016 Letter, and speaking with current and former UTA personnel, we were left with the impression that, prior to the audit, a small group of senior officials at UTA who were theoretically supposed to act as checks on one another instead allowed each other to secure lucrative compensation packages with the agency that were not tied to any objective measure of merit, fairness, or public interest.

The agency no longer permits such arrangements, as discussed above, and has spent the last several years establishing compensation packages based on objective metrics and a systematic

⁴⁵ These are described in Utah Transit Authority Executive Limitations Policy No. 2.3.1, revised June 25, 2014.

⁴⁶ This is described in Compensation Report for Utah Transit Authority, Employer's Council, October 2015; Compensation Report for Utah Transit Authority, Employer's Council, October 2016; Compensation Report for Utah Transit Authority, October 2017.

⁴⁷ Utah Transit Authority Executive Limitations Policy No. 2.3.1, revised June 25, 2014; Utah Transit Authority, Corporate Policy 6.7.5.1, Compensation.

⁴⁸ We understand that no executive bonuses have been paid since 2015.

process of review, with the assistance of the Employer's Council. UTA's executive compensation is now benchmarked to the public sector.⁴⁹

C. Monitor's Phase I Findings And Recommendations Regarding Executive Compensation Reforms

(1) Executive Compensation

UTA appears to have moved in the right direction on executive compensation. As with any new system, adjustment can be difficult, and we will be interested to see whether UTA's compensation structure requires further fine-tuning as it adapts. One concern we heard articulated is that the new system may not give UTA's professional human resources staff sufficient flexibility to calibrate salaries, particularly in the recruitment context. For example, looking to a national pool of public sector agencies might not necessarily reflect the appropriate compensation levels to be competitive in Salt Lake City – it could be too high or too low. UTA's compensation policy does permit some flexibility, where reliable public sector and non-profit data are unavailable, but only time will tell whether UTA's new formula is the right one.

From our perspective, it makes sense to allow UTA's professional staff some flexibility in reaching the right policy, provided that policy is properly vetted, benchmarked meaningfully, and documented in a transparent manner. It is noteworthy that the trouble with UTA's former executive compensation structure was less the executive salary range, and more the significantly above-market bonus options and retirement programs, which, according to UTA witnesses, were initially created to incentivize employees to stay at UTA through and after the 2002 Olympics. Preventing these less visible compensation methods should go a long way toward ensuring ethical compensation structures going forward.

RECOMMENDATION 9: During the next Phase of the monitorship, we intend to assess whether UTA's current benchmarking policies are delivering fair compensation for employees, and allowing UTA to recruit and retain talented and dedicated employees, consistent with the public interest. We intend to gather additional information from UTA's human resources teams to determine whether additional flexibility in the compensation policy is warranted, and, if so, how it can be implemented in a way that mitigates the risk that outsized compensation packages may be awarded and escape public scrutiny.

IV. 2016 Reforms: Conflict of Interest

A. Conflict of Interest Reforms Cited By UTA As Part of 2016 Reforms

According to UTA's October 2016 Letter, the agency took steps to "strengthen its ability to identify potential conflicts of interest for members of its Board of Trustees as well as employees in upper management positions." In response to these conflict of interest concerns raised by the Legislative Audits, UTA adopted, in November 2015, Board Process Policy No. 4.1.10, which requires Board Members to certify that they have read and understand: (1) "Federal Transit Administration requirements for dealing with real or apparent conflicts of interest"; (2) "Utah's

⁴⁹ Utah Transit Authority, Corporate Policy 6.7.5.1, Compensation.

Public Transit District Act's prohibition on Board members having any interests in UTA transactions, including [TOD]"; (3) Utah's Public Officers and Employees Ethics Act; and (4) "UTA's Board Process Policy that identifies Board members' fiduciary duties and legal responsibilities."⁵⁰ "Board Members must agree on an annual basis that they will abide by and conduct themselves in accordance with these standards," according to UTA's letter.

UTA's conflict of interest policy requires Board members to complete a Financial Disclosure Report "that includes the disclosure of assets, income, liabilities, outside positions, continuing or future agreements or arrangements, and gift and travel reimbursements for the Board member, spouse, and any dependent children," according to UTA's letter. These disclosures are then reviewed by UTA's Internal Audit staff and were intended to be reviewed by UTA's General Counsel, which no longer exists, as discussed above.⁵¹

UTA also revised its Ethics Policy applicable to employees in "upper management positions" through its Corporate Policy 1.1.11.⁵² According to UTA, the new policy "requires upper level administrative employees to disclose conflicts of interests and complete financial disclosures similar to the disclosures required of Board members." These financial disclosures were likewise intended to be reviewed by the Internal Audit team and the General Counsel's Office.

B. Additional Changes Concerning Conflict Of Interest Issues Since 2016

Since UTA's 2016 Letter, the agency has further revised and renamed its Corporate Policy 1.1.11. This policy covers UTA's conflict of interest policy and sets forth processes for the disclosure and review of potential ethical concerns. It also establishes a mechanism for reporting ethical concerns and protecting employees who report such concerns. Further, UTA requires its newly structured Board of Trustees to complete the conflict of interest and financial disclosure forms described above.

C. Monitor's Phase I Findings And Recommendations Regarding Conflict of Interest Reforms

(1) Financial Disclosures

The financial disclosure process is still fairly new at UTA, as it is on an annual cycle. This novelty is compounded by the fact that UTA has experienced significant turnover among its leadership, including its new Board structure under SB 136 and, importantly, the elimination of the General Counsel, who was documented as a significant check in this process. We are interested to see how the financial disclosure process matures given this evolution.

The process may benefit from a corporate policy or standard operating procedure, neither of which we understand to be in place with respect to either the practice of completing the forms, or of reviewing them. A policy or procedure is particularly important given the sensitive nature of the information divulged in the disclosures. For example, during a 2017 audit, UTA's Internal

⁵⁰ Utah Transit Authority, Board Process Policy No. 4.1.10, revised November 18, 2015.

⁵¹ *Id.* Presumably, the legal team from the A.G.'s office has taken over this role, but we have not confirmed that.

⁵² Utah Transit Authority, Corporate Policy 1.1.11, Ethics and Ethics Reporting, revised December 5, 2017.

Audit group recommended that UTA's conflict of interest processes and requirements be more formalized because "[p]roviding clear guidance for TOD staff regarding requirements, adequacy, and completeness of [conflict of interest] declarations would reduce a key risk."⁵³

With respect to the completing of the forms, training may suffice – and perhaps is more practical. We understand from our Phase I interviews that Board members are not specifically trained on this topic. We also understand that UTA does not currently provide consistent training to Trustees regarding the financial disclosure process. Not only might training help ensure the accuracy of the information provided, it may be an opportunity to give Trustees privacy assurances that would benefit the disclosure process.

A policy or procedure may also assist UTA in adhering to a standard approach to reviewing and adjudicating Board members' financial disclosures. This is sensitive work, and it amounts to a review of the interests of the highest level leaders of the agency. That is a lot to place on the shoulders of UTA's staff – whether that is the Internal Audit team, the legal team, or both. We are confident that the professional staff at UTA can handle this responsibility, but standardization would both ensure consistency in their approach and give them some protection in the event that the review process reveals a conflict, especially one that requires remediation. Our interviews suggest that standardization would be a welcome development.

Finally, a standard policy or procedure may be necessary to systemize the walling off of Trustees and other management or employees with potential conflicts of interest from topics that relate to their particular conflict. Personnel may not always be aware of the possibility of being involved in a matter with respect to which they have a conflict. For example, we understand from our interviews that for certain public presentations or committee meetings, Board members are asked if they have a conflict of interest before business is called. While this is a good practice, it is not sufficient to leave it to individual Trustees to identify their own conflicts, though we have no reason to be concerned that the current Board would act in bad faith with respect to these issues.

RECOMMENDATION 10: We will work closely with UTA's legal team, audit staff, and senior leadership to determine whether UTA should develop a corporate policy or standard operating procedure regarding the completion, review, and reporting of conflict of interest and financial disclosures, including protections to ensure that any conflicts result in the appropriate walling off of conflicted individuals.

RECOMMENDATION 11: We will similarly work with UTA's legal team, audit staff, and senior leadership to determine whether it would be more practical, and more useful, for UTA to offer training on the completion of disclosure forms, either in lieu of, or in addition to a policy or procedure.

(2) Procurement Gift Policies

Although not at issue in UTA's 2016 Letter, the agency's gift policies were a topic of discussion during our Phase I interviews. In particular, we were interested in learning how UTA handles gifts and other outside benefits for its procurement employees. We understand from our Phase I

⁵³ UTA Internal Audit Report, Transit Oriented Development Management, R-17-14, November 22, 2017.

interviews that UTA may not have a formal policy concerning gifts that clearly defines who is a procurement professional. This may be a source of confusion for UTA employees, who need guidance regarding their ability to accept meals, training, and other items of value, from outside parties. We understand that UTA's Corporate Policy 1.1.7 - Procurement and Contracting Code of Conduct currently governs the acceptance of gifts by its procurement professionals.⁵⁴ It may, therefore, be sufficient to explore ways to clearly define to whom the policy applies – which, in some cases, could include administrative employees who are unaware that they are considered "procurement professionals."

RECOMMENDATION 12: In the next phase, we intend to work with UTA leadership in procurement to ensure that gift policies are applied to all personnel with potential procurement responsibilities, and that UTA's policies put each such employee on appropriate notice that they are considered part of the procurement staff.

(3) Internal Investigations

Similarly, during our Phase I review UTA's process for managing internal investigations became a discussion point – which we consider relevant to the agency's ability to address any conflict of interest or ethical issues that warrant additional review under UTA's new policies. We understand that UTA has an established practice for conducting internal investigations, but we are interested in learning more about (1) what policies and procedures are in place to tell future UTA personnel how to adhere to established practices, and (2) what systems are in place to ensure the security of internal investigations that are conducted by UTA personnel in the Internal Audit and legal functions. We are also interested in seeing how UTA's new legal team from the A.G. fits into its internal investigation workflow.

During our Phase I interviews, the concern was raised that UTA's existing internal investigations may not do enough to ensure the confidentiality and security of such investigations, including the availability of consistent audit trails to track changes to investigative materials – authorized or otherwise. To the extent that these concerns are justified, a technological fix may be sufficient. We understand that UTA currently uses a spreadsheet to track internal ethics investigations, which could implicate these concerns.

The related issue of how to coordinate internal investigations also came up during our Phase I review. We understand that internal investigations can be conducted by any of UTA's Internal Audit, Human Resources, Civil Rights, law, and leadership teams. This raises the question of how responsibility is coordinated among these groups. It also implicates some of the security and confidentiality issues we described above. How can UTA divide investigatory responsibility among so many groups without risking either a lack of coordination (resulting in overlap and potentially inconsistent results) or confidentiality (which could be undermined by the need to coordinate so many groups)? This is a challenge worth exploring, in our view.

RECOMMENDATION 13: In the next phase we will review with UTA whether it needs to develop a secure system for management of internal ethics and conflict of interest investigations.

⁵⁴ Utah Transit Authority, Corporate Policy 1.1.7, Procurement and Contracting Code of Conduct, revised January 9, 2007.

RECOMMENDATION 14: We will also work with UTA to determine whether changes are needed to its internal investigation process to ensure that investigations are efficiently coordinated among departments and groups without undermining confidentiality and security.

V. 2016 Reforms: Travel

A. Travel Policy Changes Cited By UTA As Part of 2016 Reforms

In its October 2016 Letter, UTA noted several reforms to address the travel issues identified in the 2014 Legislative Audit. First, UTA implemented Board Policy 2.3.1, which requires all international travel to be approved by the Board in a public meeting – a significant deterrent against abuse, in our view.⁵⁵ UTA noted in its Letter that, at that time, since the implementation of this policy, "only one international trip – to Canada – ha[d] been authorized by the Board," and that travel was "made by a single UTA employee at the request of TransLink, the City of Vancouver's transit agency, to participate in a peer review regarding bus safety," and was furthermore "paid for by TransLink." UTA's 2016 Letter also noted that "Board members who made a non-UTA approved trip to Switzerland in 2015 that was funded by companies that built rail projects for UTA are no longer associated with the Authority."

In addition, UTA cited its adoption of Corporate Policy 1.1.8, which outlines the approvals required for travel by UTA employees outside of Utah and establishes the per diem allowance for travel based on location.⁵⁶ According to the Letter, "[p]ursuant to the policy, within ten days of completing travel, employees are required to submit a report of the total costs of the trip as well as a request for reimbursement." "The Authority's Comptroller" then "certifies that each report is compliant with the corporate policy."

B. Additional Changes To Travel Practices Since UTA's 2016 Letter

During our Phase I review, the witnesses we spoke to indicated that UTA's prior travel improprieties, as reflected in the 2014 Legislative Audit, were broadly recognized as inappropriate at the time. This appears not to have been a case of misunderstanding the appropriate ethical considerations relating to travel. It appears instead to have been a personnel and cultural failing. As discussed above, UTA has made significant changes in personnel and culture since 2016. These are positives for the agency, and it is encouraging to see that UTA has also memorialized these changes with a policy and procedures that are intended to prevent abuses in the future, after the current personnel at the agency have turned over.

UTA has also revised its Corporate Policy 1.1.8 since 2016.⁵⁷ It revised the policy on June 13, 2017 to eliminate the use of personal credit cards for travel for employees who have been issued a UTA P-Card. Such employees must use their P-Card. Further, UTA eliminated reimbursements for itemized meals and incidental expenses. Employees are now required to submit the daily per diem on their travel expense forms.

⁵⁵ Utah Transit Authority, Executive Limitations Policy No. 2.3.1, revised June 25, 2014.

⁵⁶ Utah Transit Authority, Corporate Policy No. 1.1.8, revised September 25, 2015.

⁵⁷ Utah Transit Authority, Corporate Policy No. 1.1.8, revised June 13, 2017.

C. Monitor's Phase I Findings And Recommendations Regarding Travel Reforms

UTA's Board Policy 2.3.1 and Corporate Policy 1.1.8 appear to be steps in the right direction on the issue of travel abuse. Board Policy 2.3.1 requires the General Manager to report any UTA-sponsored international travel by UTA employees to the Board for preapproval in a public meeting, which we consider a very smart and effective deterrent strategy.⁵⁸

Since the implementation of these policies, it appears that UTA's Board has only approved international travel in two instances. In October 2016, the Board authorized UTA employee travel to Winnipeg, Canada in February 2017 for inspections required by the Federal Transit Administration on two New Flyer pilot buses.⁵⁹ In March 2018, the Board authorized travel for two employees to attend the American Public Transportation Association Sustainability & Multimodal Workshop in Vancouver, Canada from July 29 to August 1, 2018.⁶⁰ These are short trips by international standards, and they appear at first blush to be related to legitimate purposes, with a close nexus to UTA's mission. This is the kind of international travel we would expect to see from UTA employees.

UTA's historical travel issues likely were a manifestation, rather than a cause, of the agency's broader cultural problems prior to the USAO investigation. UTA's new travel policies are an important step in establishing checks and balances with respect to international travel. But equally important in the long run will be ensuring the continued health of UTA's culture. No travel policy can prevent abuse if the culture of the organization does not value compliance.

Lastly, as a result of our Phase I work, the Transportation Auditors have informed us that UTA's travel authorization forms in the agency's Accounting Manual are helpful in ensuring that appropriate approval has been obtained for travel, with an assessment of the costs and rationale. The Transportation Auditors are concerned, however, that the forms do not provide sufficient information concerning grant compliance and grant use. For example, the forms do not require an indication that grant funded travel complies with "Fly America" requirements.

RECOMMENDATION 15: We understand from our Phase I work that UTA's external auditors sample the agency's travel data to ensure compliance with UTA's travel policies. During Phase II, we are interested in learning more about this sampling, and in potentially reviewing the underlying data for verification.

RECOMMENDATION 16: During Phase II, we expect to commence a dialogue between our Transportation Auditors and appropriate UTA personnel on the question of whether changes should be made to the agency's travel authorization forms in the Accounting Manual. We also intend to assess whether Corporate Policy 1.1.8 should be revised to require that travel and reimbursements comply with federal regulations in the event that federal funds are ever implicated by UTA travel.

⁵⁸ Utah Transit Authority, Executive Limitations Policy No. 2.3.1, revised June 25, 2014.

⁵⁹ Report of the Meeting of the Board of Trustees of the Utah Transit Authority, October 26, 2016.

⁶⁰ Report of the Meeting of the Board of Trustees of the Utah Transit Authority, March 28, 2018.

VI. 2016 Reforms: Transit Oriented Development

A. TOD Changes Cited By UTA As Part of 2016 Reforms

In its October 2016 Letter, UTA assured the USAO that it had been "extremely aggressive in addressing past shortcomings in its TOD program." By the time of its letter, UTA had moved TOD oversight from UTA's Office of General Counsel to its Capital Development Department.⁶¹ UTA also hired a new manager, Paul Drake, to oversee TOD projects.

In addition, according to UTA's Letter, in June 2014, UTA's Board adopted Policy 2.2.4 – Transit Oriented Development, to establish a four-part framework for the review and approval of TOD projects.⁶² UTA described that framework as follows:

First, pursuant to the policy, all projects are required to be presented by the Board's Planning and Development Committee for approval. Second, the policy established an internal, multidisciplinary team to review TOD development and operating agreements. This team includes staff from Property Management, Service Planning, Rail and Bus Operations, Planning, Safety, and Capital Development. As part of the internal review process, UTA now requires the disclosure of all investors on TOD projects so that any conflicts of interest can be identified and addressed. . . . Third, the policy established an independent external review of TOD proposals and operating agreements. To meet this requirement, UTA issued a Request for Proposal and selected Zions Public Finance, Inc. to provide the external reviews. Fourth, the policy requires all operating agreements to be submitted to UTA's Internal Auditor for assessment. As previously noted, new Internal Audit staff were hired to ensure a robust review of TOD projects.

This new TOD policy applied to all phases of all projects following its adoption in June 2014. According to UTA's Letter, by October 2016, this new due diligence process had "already yielded results as it identified two former Board members who were planning to invest in a TOD project they had approved during their tenure on the Board."

According to UTA, by the time of its Letter, it had stepped up efforts to ensure that former Board members were not involved in TOD projects they had approved during their time on the Board, and that such former members are not in a position to "exert influence on decisions regarding current TOD projects."⁶³

⁶¹ Utah Transit Authority, 2016 Grants Management Internal Audit Report, R-16-6, August 25, 2016.

⁶² Utah Transit Authority, Executive Limitations Policy No. 2.2.4, Transit Oriented Development, adopted June 25, 2014.

⁶³ UTA specifically touted that it had "sent Terry Diehl," a Utah developer and former UTA Board member, "a cease and desist letter instructing him to stop all contact with UTA officials regarding [UTA's] projects."

UTA had by October 2016 essentially attempted to reset its TOD program by "pulling back TOD projects that lacked executed contracts and cancelling the procurement of the developer on those projects." It had also notified one developer with an operating agreement that UTA wanted to terminate the agreement "based on the lack of progress on the project." UTA also withdrew from two projects for which developers had entered into exclusivity agreements that had expired.

Finally, by October 2016, UTA was also "in the process of developing written guidelines to govern the involvement of regional and local government and other stakeholders on each project to optimize the use of UTA property before a developer is procured with a particular focus on the promotion of low-income housing."

B. Additional TOD Changes Since UTA's 2016 Letter

Not long after UTA's October 2016 Letter, the agency's Internal Audit team conducted an audit of TOD management, which it completed on November 22, 2017.⁶⁴ The resulting audit report noted that UTA had by then created a draft TOD Policy and SOP, which included roles and responsibilities, best practices, and step-by-step documentation of the critical steps in the TOD process.⁶⁵ The Internal Audit group also recommended formalizing an annual risk assessment process as well as establishing and documenting key performance indicators for TOD personnel.⁶⁶

Additionally, since its October 2016 letter, UTA has moved its TOD function from the Capital Development Department to the Finance Department.⁶⁷ During our Phase I review, UTA was still in the process of developing a standard operating procedure on TOD.⁶⁸

C. Monitor's Phase I Findings And Recommendations Regarding TOD Reforms

(1) TOD Generally

UTA has made great strides in addressing systemic issues that led to the problematic TOD conduct at issue in the Legislative Audits and the USAO investigation. UTA appears to be at a crossroads in TOD. Following the reset of the program described above, the agency must now (1) implement and allow to mature its new policies and procedures concerning TOD, (2) determine where TOD fits into the Trustee/LAC relationship and the specific role the LAC plays with respect to TOD-related agency actions, (3) reprioritize the projects in its TOD portfolio and determine if new projects should be added to it, and (4) get back to making consistent and appropriate progress on TOD projects, consistent with UTA's commitments to doing so ethically and transparently. The current leadership and TOD personnel appear committed to achieving

⁶⁴ UTA Internal Audit Report, Transit Oriented Development Management, R-17-14, November 22, 2017.

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ UTA Organization Chart, September 13, 2018.

⁶⁸ UTA Transit Oriented Development Standard Operating Procedure, Draft 5.0.

these goals. The key will be ensuring that they pave the way for future UTA leaders to continue this work without conflict of interest and mismanagement issues reemerging.

UTA's current corporate structure builds in checks and balances by separating TOD decision-making functions from other aspects of the TOD process – such as legal approval. It is unclear to us whether UTA has established a corporate policy to ensure that this segregation of duties continues beyond UTA's current personnel, however, and UTA was still in the process of developing a corporate policy for TODs during our Phase I review. During our interviews, we heard the proposed policy for TOD decision-making and development described as criteria-based, rather than a policy based on Board member-selection. We understand that the proposed policy emphasizes finding market-ready sites where the local municipality has prepared for development.

During our Phase I review, we were provided an overview of the life of a TOD project, which appears to include:

- Prioritization of sites based on objective criteria.
- Station Area Plans, where UTA works with local municipalities and neighborhood groups to develop a plan.
- Site selection.
- An RFP process, and a selection committee involving local stakeholders and UTA employees (but not Board members).
- An exclusive negotiation agreement to allow for developer diligence.
- A Master Plan for how the site will work within the local area (e.g., streets, capacity, accessibility, infrastructure).
- Site designs or site plans developed by the Design Review Committee at UTA. These may include operating agreements or ground leases.
- Financial analysis of the terms of the operating agreement or ground lease to be reviewed by an external auditor (Zions), Internal Audit, the UTA TOD group, and the executive team and approved by the Board of Trustees.
- Construction and property management.

As this process matures within UTA's new structures and policies, it will be important for UTA to stay vigilant regarding potential weaknesses.

RECOMMENDATION 17: During the next Phase of the monitorship, we intend to review TOD policies and procedures as they are finalized and implemented, with an eye toward ensuring that these materials guard against the types of TOD issues identified in the Legislative Audits, and by UTA during the course of the USAO investigation.

RECOMMENDATION 18: The Monitor would like to observe UTA's TOD function in as many aspects of the TOD "lifecycle" as can practically be achieved, given the significant time it typically takes for a TOD project to be completed.

RECOMMENDATION 19: We intend to check in with UTA's heads of TOD and Internal Audit to determine whether the 2017 audit findings have been adequately addressed.

(2) The LAC's Oversight Role With Respect to TOD

As discussed above in our discussion of Organizational Changes, UTA stakeholders lack a shared understanding of the LAC's role. One important aspect of this misunderstanding concerns the LAC's oversight of TOD. Some interviewees we spoke with during Phase I reported that the LAC's function is purely advisory with respect to TOD, while others felt that the LAC has approval authority over certain critical aspects of the TOD lifecycle. It is not our place to opine on what the intent of SB 136 is in this regard, but we think a fair reading of the statute suggests some formal role for the LAC overseeing TOD. It is understandable that the LAC would be consulted on significant TOD, to ensure a voice for local stakeholders. As we described above, however, we are concerned that the LAC shares some of the features that created weaknesses in UTA's old Board structure. If the LAC has direct approval or oversight authority over critical TOD steps, this may create some of the same risks that had manifested during the Legislative Audits and the USAO investigation. It could also undermine the independence and efficiency of UTA's TOD-related operations generally.

RECOMMENDATION 20: We intend to focus on the dynamics inherent in the LAC's TOD role during Phase II.

VII. 2016 Reforms: Lobbying

A. Lobbying Changes Cited By UTA As Part of 2016 Reforms

After the 2014 Legislative Audit, and during the USAO investigation, UTA determined that it had engaged in problematic practices in its retention of lobbyists. In its October 2016 Letter, UTA wrote: "In spring of 2015, the Authority's new leadership learned that many of lobbyists acting on UTA's behalf did not have contracts and the contracts that did exist were quite old. A review of invoices established that many lobbyists performing work for UTA did not provide sufficient documentation for the payments requested."

As with TOD, UTA addressed these issues with a hard reset of its practices. According to UTA's 2016 Letter, after discovering these issues, "UTA terminated all contracts for state lobbyist services, both written and oral," after which the agency "has not used the services of any state lobbyists," and engage[d two] federal lobbying firms on a month-to-month basis in order to maintain a presence in Washington D.C. with federal agencies and Utah's congressional delegation."

As part of its reset strategy, UTA then "issued a Request for Proposal for state and federal lobbying services," which resulted in the awarding of new contracts after its October 2016 Letter.

B. Additional Changes To Lobbying Practices Since UTA's 2016 Letter

During our Phase I interviews, UTA's practice of engaging lobbyists without a contract was referred to as reflecting the existence of "handshake" deals, which make tracking, compliance, and results assessments difficult. Since its October 2016 Letter, UTA has entered into two

agreements with lobbyists for federal government relations.⁶⁹ UTA has also entered into agreements with two state lobbyists.⁷⁰ These agreements are to last for periods of between one and four years.

C. Monitor's Phase I Findings And Recommendations Regarding Lobbying Reforms

UTA took quick action to proactively address its lack of lobbyist documentation following its discovery of this issue in 2015. It is unclear, however, that UTA has put in place sufficient policies and procedures to ensure the integrity of its lobbying practices in the long run. One witness we spoke with during our Phase I review indicated that, while there are certain requirements related to contracts over \$200,000, and for change orders, there is no corporate policy regarding the retention of lobbyists or lobbyist contracts. Another witness echoed these concerns, noting that historically, it was not unusual for UTA to have unwritten or “handshake” deals with lobbyists. This suggests that there is good reason to put protections in place to ensure that this practice does not return.

Some of the witnesses we spoke with indicated that, while there is a process for paying lobbying invoices, the invoices themselves tend to be fairly vague, and there are no requirements concerning the documentation that lobbyists must provide in connection with their invoices. One witness we spoke with expressed concern that UTA’s culture provided contractors and lobbyists with too much latitude as to how to conduct their work. The practice of requiring written contracts is a good start, but is of limited utility if lobbyists are not required to provide adequate information concerning the work for which they are paid.

RECOMMENDATION 21: During the next Phase of the monitorship, we intend to look more closely at UTA's lobbying retention and payment practices, and to work with UTA personnel on the question of whether the agency should develop policies and procedures to standardize retention and work documentation practices.

VIII. 2016 Reforms: Accounting

A. Accounting Changes Cited By UTA As Part of 2016 Reforms

A strong accounting department is critical to a large organization's effective internal controls. UTA made revamping the department a priority in the wake of the 2014 Legislative Audit. In its October 2016 Letter, UTA wrote that it had "redesigned its Accounting Department to ensure adequate internal controls are in place for financial transactions."

UTA wrote that it had hired a new Comptroller, Danyce Steck, in May 2013, who was at that time "accredited by the Government Finance Officers Association as a Certified Public Finance Officer and has over fifteen years of accounting and management experience in both municipal and county governments." This was followed by a substantial shake up of UTA's Accounting Department:

⁶⁹ Independent Contractor Agreements, both dated November 1, 2016.

⁷⁰ Independent Contractor Agreements, dated November 1, 2016, December 2016 and December 20, 2017.

Prior to November 2013, the Accounting Department had nineteen full-time employees. Ms. Steck initiated a reorganization of the Department. In connection with this reorganization, she revised the job description for accountants, and staff were required to demonstrate mastery of required skills. Subsequent to the reorganization, twelve employees were laid-off or terminated for non-performance or failure to meet minimum requirements and three employees retired.⁷¹

This is consistent with sentiments expressed to us in our Phase I interviews. Several witnesses indicated that some members of the pre-2013 staff were unqualified for their positions at UTA. As of UTA's October 2016 Letter, "[t]he Accounting Department [was] fully staffed with thirteen full-time employees," whom UTA described as having "much stronger skill set" that "meets the increased demands of the organization."

UTA then described the creation of an agency Accounting Manual:

In August 2016, the Department finalized a policy and procedure manual. This 290-page living document, composed of fourteen sections, establishes processes for internal controls, signature authority, etc. These standards serve as effective resources to ensure uniformity among processes.⁷²

UTA also described how it had further segregated duties for grants management to reduce the Accounting Department's role and create additional checks and balances in the overall process.⁷³ Historically, UTA's Assistant Comptroller had been tasked with identifying grant eligible expenses, preparing drawdown requests, and completing the drawdown process. As part of its reforms, UTA limited the Accounting Department's grant-related transaction responsibilities to the actual drawdown procedure, payables, and asset recognition – traditional accounting tasks. Members of UTA's Grants Management group took over responsibility for the identification of eligible expenses and the preparation of the draw down request.

B. Additional Accounting Changes Since UTA's 2016 Letter

In July 2017, Troy Bingham became UTA's Comptroller after Danyce Steck moved on from the agency. Our sense from interviews during Phase I is that Ms. Steck succeeded in an initial overhaul of the Accounting Department, including removing and replacing unqualified personnel, and that Mr. Bingham has continued the project, focusing on improving the department's documentation and processes. We understand from interviews that the Accounting Department required fundamental changes when Ms. Steck joined: significant liabilities were unrecorded (including to a developer central to the TOD issues), federal drawdowns lacked documentation, FTA funding had been reversed because of compliance issues, and some

⁷¹ UTA Accounting Department Reorganization Memo from Danyce Steck to File, October 24, 2013.

⁷² UTA Accounting Policy and Procedure Manual, revised August 30, 2016.

⁷³ UTA Policy ACC-008-101, Accounts Payable Segregation of Duties, revised December 15, 2017.

department personnel were underqualified. Ms. Steck's overhaul apparently focused on these acute issues. Ms. Steck also changed UTA's accounting systems. That has allowed the new accounting leadership, including Mr. Bingham, to focus on proactive endeavors. On the corporate policy front, the Board recently revised its policy regarding Accounts Payable to clarify the accounting department's segregation of duties.⁷⁴

Since 2016, the Audit Department has also made progress in modernizing UTA's asset management processes and information, which are critical to its grants compliance requirements for federal subsidized assets.

C. Monitor's Phase I Findings And Recommendations Regarding Accounting Reforms

UTA's Accounting Department appears to have made real progress in the last several years, but several witnesses acknowledged that the agency still has work to do on documenting controls and processes. During interviews, we heard, for example, that some stakeholders lack a sufficient understanding of FTA accounting requirements. Another confirmed that, while the accounting team had made significant progress in identifying accounting functions and responsibilities, and in creating an accounting policy manual, there is still work to do in improving documentation. One witness noted that many of the current controls and processes in the accounting department are undocumented – which seems to work with the current strong and cohesive team, but may be problematic in the future.

UTA's asset management and tracking also have been a significant area of focus for the agency. During our Phase I review, we learned that historically the agency had not adequately tracked its inventory of federally subsidized assets, which is a significant compliance concern. In particular, UTA's inventorying practices were neglected for years. The Accounting Department recently did a full asset review and inventory, and enlisted an outside auditor to assist with inventory improvements.

RECOMMENDATION 22: During the next Phase of the monitorship, we would like to learn more about what UTA can improve in its accounting documentation and governance, and where the agency stands on accounting for assets relevant to federal funding programs, including potentially meeting with UTA's outside auditor for inventory tracking.

IX. 2016 Reforms: P-Cards and Recordkeeping

A. P-Cards And Recordkeeping Changes Cited By UTA As Part of 2016 Reforms

Separate from its general reforms in the Accounting Department, UTA highlighted in its October 2016 Letter that it had "implemented new measures to ensure employees use P-Cards properly and provide supporting documentation for transactions in which P-Cards are used." This included revised Corporate Policy 1.2.3 – Purchase Card Policy, implemented on June 3, 2015, which imposes penalties, including deactivation, for cards that are not properly reconciled. More

⁷⁴ *Id.*

fundamentally, under the new policy, P-Card receipts could no longer be used as a basis for drawing down grant funds.⁷⁵ UTA has also moved to a paperless receipt storage system, to enhance consistency of reimbursement documentation. The agency also changed fiscal technology solutions to one that analyzes P-Card use for purchases that (1) exceed authorized spending limits; (2) are made from unauthorized vendors; (3) should have been made under contract; or (4) have duplicate invoice billings.⁷⁶ In discussing P-Card issues, UTA also explained in its 2016 Letter that it had hired a new records manager, and had planned at that time to overhaul its document management practices.

B. Additional P-Card and Recordkeeping Changes Since UTA's 2016 Letter

Since 2016, UTA has continued to move toward improving its P-Card practices. UTA's Internal Audit team audited P-Card compliance in February 15, 2017.⁷⁷ The audit gave the policy a yellow rating and concluded that "the [P-Card] Policy and some of the business practices are in conflict, which necessitates that management should review both the policy and business practices to ensure they are aligned." One of the major recommendations from the audit was that P-Card holders should receive further training on what would constitute unacceptable purchases.⁷⁸ The audit also found that:

- P-Cards were inappropriately used to pay suppliers with whom UTA had a contract or line of credit.
- Transactions were split to avoid the dollar limit on a single transaction, which practice had not been investigated in a timely manner.
- There was no monitoring of monthly cardholder account reconciliation or supervisor approval.
- P-card holders could use their cards for cash advances.
- Monthly audits on P-Card expenditures were not being done.
- Transactions over the policy limit of \$3,000 were permitted.⁷⁹

Shortly after the audit, UTA adopted a further revised Corporate Policy 1.2.3 – Purchase Card Policy, on June 27, 2017.⁸⁰ In addition, UTA now provides its P-Cards users with a "P-Card Basic Training Course."⁸¹

⁷⁵ UTA Corporate Policy 1.2.3, Purchase Card, revised June 37, 2015.

⁷⁶ Sales Agreement between UTA and Fiscal Technologies, Contract 15-1596TP, dated January 21, 2016.

⁷⁷ UTA Internal Audit Report, Purchase Card Compliance, R-16-11, dated February 15, 2017.

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ UTA Corporate Policy 1.2.3, Purchase Card, revised June 27, 2017.

⁸¹ UTA P-Card Online Training Module.

C. Monitor's Phase I Findings And Recommendations Regarding P-Cards and Recordkeeping Reforms

The changes to UTA's P-Card practices need time to mature before they can be fully evaluated. In addition to time, some witnesses flagged that UTA is in the process of creating an enterprise-wide records retention policy, which would be relevant to P-Card practices.

FINDING: During the next Phase of the monitorship, we will continue assessing UTA's progress in implementing P-Card practice improvements and a corporate retention policy.

X. 2016 Reforms: Grants Management And Oversight

A. Grants Management And Oversight Changes Cited By UTA As Part of 2016 Reforms

In its October 2016 Letter, UTA described that it had conducted an internal audit of its grant management and oversight function, and, based on those findings, "established a Grant Management group, which incorporates all parts of the organization that works with grants, including representatives from Accounting, Grants and Contracts Administration, Civil Rights, Project Controls, and Environmental."⁸² The Grants Management group "holds monthly meetings with all participants to discuss the status of each of the Authority's grants and to evaluate draw downs." The Grants Management group, which was to meet monthly, was to be led by Senior Project Manager, Mary DeLoretto, who was to establish "written procedures for the grant management processes from identification of a grant opportunity through grant closeout."⁸³ These processes were to be "submitted to FTA for review." As of October 2016, Ms. DeLoretto was also "in the process of developing a corporate grants management policy[.]" UTA also noted that in 2016 "General Counsel, Jayme Blakesley, [brought] significant experience in grants management and compliance to UTA and serves as an additional resource to the Grants Management group."

B. Additional Grants Management And Oversight Changes Since UTA's 2016 Letter

UTA adopted its grants management policy, Corporate Policy 3.1.7 – Grants Management, on December 13, 2016.⁸⁴ The policy "establishes the process for complying with federal regulations and administrative requirements governing grants administration and management."⁸⁵ UTA's internal audit of Grants Management in August 2016 found that while the organizational structure for Grants Management had changed, and new controls had been introduced, "the scope, role, and authority of the Grants Management function have not yet been clearly defined or formally documented."⁸⁶ The audit further noted that there "has been no end-

⁸² UTA Grants Development and Management, UTA's Grants-Related Positions, their Interactions, and Processes, Standard Operating Procedures, revised September 2016.

⁸³ *Id.*

⁸⁴ UTA Corporate Policy 3.1.7 – Grants Management, adopted December 13, 2016.

⁸⁵ *Id.*

⁸⁶ UTA 2016 Grants Management Internal Audit Report, R-16-6, August 25, 2016.

to-end monitoring or management of grant related activities across departments over the life of each grant to assure compliance with UTA policies and FTA requirements."⁸⁷ Further, the audit recommended that:

- Management clearly define the role and responsibilities of Grants Management.
- Management establish a policy and update the standard operating procedures to oversee and facilitate the entire life-cycle of all grants received by UTA.
- Changes to the control environment were needed to ensure that grants management was performed consistently.⁸⁸

UTA's Internal Audit team completed a follow up report on March 21, 2017.⁸⁹ Grants Management was given a green rating. The audit found that "the scope, role, and authority of the grants management process had been assigned and documented in a corporate policy."⁹⁰ Further, the audit found that UTA had adequately outlined the roles and responsibilities of the Grants Management group and had implemented a set of procedures.⁹¹

C. Monitor's Phase I Findings And Recommendations Regarding Grants Management And Oversight Reforms

(1) Grants Management Compliance

Grants management is an area where we relied substantially on the Transportation Auditors during our Phase I review, given the specialization involved in federal grants. The Transportation Auditors highlighted two areas of concern: (1) Potential weakness in grant management procedures, including grant pursuit, federal compliance, grant reporting, and grant close out; and (2) potential weakness in oversight of federal funds (including accounting, review of relevant documents, general grant and asset oversight). The potential weaknesses included the following:

- Grant Management's grant status report does not have a column for "Date of Last Reporting."
- The procurement department did not indicate in their records if goods and services being procured were funded through federal grant sources.
- For grant compliance, both the 2016 and the 2018 versions of the Grants standard operating procedure fail to indicate the cycle in which these federal compliance activities must be undertaken.
- It is unclear how the Grants management personnel coordinate compliance activities.

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ UTA 2017 Grants Management Internal Audit Report, R-17-3, March 21, 2017.

⁹⁰ *Id.*

⁹¹ *Id.*

RECOMMENDATION 23: During the next Phase of the monitorship, we will work with UTA Grant Management personnel and our Transportation Auditors to learn more about several areas of UTA's grants management practices:

- UTA's tracking of the cycle in which these federal compliance activities must be undertaken. For example, most Civil Rights activities happen every three years. However, unless one knows when the last update occurred, one cannot track the cycle.
- UTA tracking of timelines for grant management elements that may not be on a strict schedule (e.g., updating the CAFR to Dun and Bradstreet).
- How UTA's Grants Management personnel coordinate compliance activities.
- Whether UTA is adequately documenting certain processes – such as the Single Audit Findings reporting process – timelines for federal drawdowns, date of last reporting in grant status tracking, procurement tracking of federally funded goods and services, and the process for submitting data to TrAMS.
- Whether UTA should update its Accounting Manual to reflect its revised Grants standard operating procedure.

XI. 2016 Reforms: Transparency

A. Transparency Changes Cited By UTA As Part of 2016 Reforms

The final topic addressed by UTA in its October 2016 Letter was transparency. UTA acknowledged "the importance of conducting its business in public" as a protection against the excesses and self-dealing at the heart of the Legislative Audits and the USAO investigation. According to UTA's Letter, by October 2016 it had "implemented a mechanism to take public comments prior to all Board actions," which improved upon its prior practice of allowing only meeting attendees to make comments at the beginning of each Board meeting. UTA also adopted a practice of permitting members of the public to "provide comments prior to each action item considered by the Board," which it described as allowing "more public input on decisions that affect public transportation." UTA had by 2016 also begun the process of determining how to stream Board meetings on the internet.

In its Letter, UTA also highlighted its commitment to compliance with "Open Meeting Law requirements," including opening "all board meetings to the public where a quorum of members is present except where state statutes permit closed session discussions." UTA also indicated that it was looking for structural changes that would ensure Open Meeting Law compliance without impacting the effectiveness of the Board's decision-making processes – though this referred to the Board's prior structure, which included a much larger 16-member Board consisting of part-time trustees.⁹²

Finally, UTA highlighted two transparency changes concerning its public website. First, the agency began "placing documents requested by members of the public and the media on its website so that the general public has access to requested information."⁹³ Second, UTA also

⁹² We discuss Open Meeting Law issues with respect to the new Board structure below.

⁹³ UTA Public Records, <http://utapublicrecords.com/sirepub/home.aspx> (last accessed May 30, 2019).

began posting "performance metrics on ridership and reliability on its website, along with detailed transit information in a dashboard format for Davis, Weber, and Tooele Counties that provides residents from those counties with information on services directly funded by Proposition One dollars."⁹⁴

B. Additional Transparency Changes Since UTA's 2016 Letter

During our Phase I review, we learned that, on May 15, 2018, Utah Attorney General Sean D. Reyes sent UTA a letter regarding possible violations of the Open Public Meetings Act concerning meetings held on February 22, 2017 and April 18, 2018.⁹⁵ The letter alleges that UTA considered in a closed session business that was required to be considered in open session.

We also learned that UTA has successfully started a YouTube Channel to stream its Board meetings.⁹⁶ We also confirmed that UTA posts public notices of its Board meetings.⁹⁷

C. Monitor's Phase I Findings And Recommendations Regarding Transparency Reforms

(1) Utah Open Meetings Laws

The Utah Attorney General's May 2018 notice of potential violations appears to have had a significant impact at UTA. Several interviewees described to us that UTA's three Trustees are exceedingly careful to avoid substantive policy discussions with one another that could run afoul of the Open Meeting requirements. In addition, we learned that the three Trustees have divided operational oversight responsibility among them, and in essence leave all collaborative discussions regarding their respective areas of oversight to open Board meetings.

The upshot is that the Trustees hold open meetings whenever information needs to be provided to or discussed among more than one Trustee – even with respect to basic operating information that the Trustees need to be familiar with in order to effectively oversee the agency. We witnessed one such meeting during a site visit. While we generally applaud UTA's current commitment to public transparency, we are mildly concerned that open session working meetings between the Board and its various executive teams could chill dialogue, or prevent discussions of sensitive matters that do not qualify for closed session treatment.

RECOMMENDATION 24: During the next Phase of the monitorship, we intend to work with UTA's trustees and senior leadership to assess whether the agency has over-corrected in response to external criticisms regarding Open Meeting issues, and whether a recalibration is appropriate. To be clear, we do not mean to prejudge this issue, nor do we intend to criticize the agency's

⁹⁴ UTA characterized Proposition One as allowing "residents to increase sale tax in their respective counties for the purpose of increasing funding for transportation."

⁹⁵ Letter from Attorney General Sean D. Reyes to UTA, dated May 15, 2018.

⁹⁶ UTA You Tube Channel for Board Meetings, <https://www.youtube.com/user/UTArise/videos>.

⁹⁷ UTA Public Notices, <https://www.utah.gov/pmn/index.html>, Under Government Tab, Select "Special Districts" (Under Entity Tab, Select "Utah Transit Authority"; Under Body(s) Tab, Select "Board of Trustees").

move toward transparency. But we think it is prudent to test whether the current approach makes sense operationally.

(2) Transparency More Generally

UTA's website could use an update. For example, when last we looked the website included a link to Standard Operating Procedures and Manuals, but the content at the available link is an inconsistent compendium of agency documents. Similarly, corporate policies and the results of important third party reviews, such as the triennial Title VI Program Update, do not appear to be available.

RECOMMENDATION 25: During the next phase of the monitorship, we intend to delve more deeply into UTA's efforts to optimize its website for the availability of important agency information to the public.

CONCLUSION

With this Initial Report, the first phase of this independent monitorship of UTA is complete. The monitorship will now transition into the second phase, as described above, which will feature four semi-annual reports. We expect to issue our first such report in December 2019. We expect each semi-annual report to focus on specific aspects of UTA's reform efforts, as opposed to the agency, or its reforms, as a whole. The areas of focus will be drawn from among those described above in the Monitor's recommendations, as well as any relevant issues that arise during the course of the Monitor's continued work. Our work on the second phase will commence immediately.

BUS STOP

MASTER PLAN

2019



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Bus Stop Master Plan

UTA 
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Executive Summary

Because of the expansive inventory of more than 6,300 bus stops, stops are most often public's first impression of UTA and its presence in the community. This is true whether or not people ride transit. Bus stops are ubiquitous from suburban neighborhoods to downtown cores. UTA's objective is to make bus stops a positive contribution to the community, both for riders and people who host them in their neighborhood. Bus stops should contribute to the streetscape and be a place where all riders can obtain transit related information. Stops should be a community asset as well and provide easy, intuitive access to transit service for people of all ages and abilities.

It is important that bus stops, to the maximum extent possible, are easily identifiable, clean, safe, accessible, and a comfortable place to wait for the bus. Although, there may be underdeveloped bus stops that do not currently achieve all of the standards outlined in the following pages, this master plan and associated guidelines provide a framework for retrofitting, maintaining and building new bus stops in order to make the entire system as accessible and user friendly as possible.

In addition to providing an inventory of existing conditions, this document is intended to provide a common set of goals, design principles, guidelines and policies to promote consistency in the design and provision of bus stops and their associated amenities. The aim is to ensure that stops are suited to their location, operationally functional and attractive to current and potential riders.

The Bus Stop Master Plan outlines and encourages partnerships with local governments and property owners. UTA is continually working with communities to improve access to bus stops, including sidewalks, street crossings, curb ramps and bicycle lanes. UTA continually affirms that the quality of the streetscape is critical to the success of the bus stop improvement program.

The primary objectives of this document are to identify and outline each of the elements of UTA bus stops, set design guidelines for the bus stops including placement and amenities and to describe the process for developing and managing a comprehensive bus stop inventory at UTA.

This document will also act as the basis for annual Capital Improvement budgets that will be used in combination with a prioritized program of bus stop projects that support the stated goals of the plan.

This document contains four major sections. They are (1) a brief introduction to the purpose and need as well as the goals for the master plan, (2) a description of the existing conditions, (3) the design criteria and guidelines (4) a prioritization methodology for managing the bus stop capital improvement program.

Introduction

The need for this plan is rooted in a bus stop management process that has focused on improvements upon request and has resulted in an inconsistent inventory of stops that ranges from exceptional to less than ideal. During 2016-2017 there was a proactive effort in the UTA Planning Department to inventory, document and catalogue every bus stop in the system. This inventory was the first ever comprehensive collection of organized and accurate data on the bus stops. To date, there has not been a cohesive strategy for organizing, tracking and prioritizing any proposed changes to bus stops.

Work on bus stops has traditionally been done on an *ad hoc* basis through an internal work order system, via email, or oral request. These improvements were most often based on customer or stakeholder comments or feedback, as a result of a specific grant project or based on staff priorities. While this approach has improved a large number of stops, it has often led to inefficient and ineffective use of capital. Specifically reviewing individual stops for improvement rather than looking at the network of stops as a system has led to inconsistencies and potential misallocation of improvement funds.

Perhaps more important than a process for addressing complaints and route changes is the fact that UTA lacks any current standard for bus stop design. Bus stops are the public's primary interface with the UTA system. In some cases stop conditions are more than adequate however there are also a large number of noncompliant or under improved stops. The need for a set of minimum standards, guidelines and policies for UTA's bus stop system will be addressed in this plan.

The purpose of this Bus Stop Master Plan is create a guiding document for UTA that can be used for strategically identifying, analyzing and prioritizing improvements to all bus stop amenities throughout the UTA system. The overarching intent of the Bus Stop Master Plan is *to enhance the customer experience by creating safe, comfortable, easy to use bus stops and amenities that are ADA accessible.*

The plan will provide a prioritized and phased schedule, design criteria and cost estimates for bus stop improvements. The schedule and prioritization will be based on different criteria including but not limited to total stop activity (TSA), compliance with the Americans with Disabilities Act and safety. The Bus Stop Master Plan will transform the network of stops into an asset that enhances the experience for existing customers, operators and the public and draws potential new riders to the UTA system.

Bus Stop Master Plan Goals

UTA has established a basic set of universal requirements that are addressed as every bus stop is considered. Each stop should, at a minimum:

- Meet minimum federal ADA and safety requirements which consists of a reasonably sloped, paved surface with access to a safe pedestrian pathway to and from the stop, where applicable
- Be designed to meet Crime Prevention through Environmental Design (CPTED) recommendations
- Have visible, consistent and easily identifiable signage
- Be unobscured and clearly visible by approaching bus where possible
- Be safely and conveniently accessed by a typical UTA fixed-route or Flex route vehicle
- Allow for the most effective and efficient system operation
- Provide accurate, up-to-date information for riders about services at the stop
- Provide placement and improvements which are sensitive to the community setting



- Meet local code, where applicable

Existing Conditions

UTA serves more than 2 million people along the Wasatch Front, with about 44% of that population living within ¼ mile of a bus stop. For many communities, the bus stop is the first and primary interaction they have with UTA. As of January 2018 the UTA System has 6,346 total active bus stop locations.

ADA Compliance

Existing bus stops that are currently not fully ADA compliant make it difficult for those with disabilities, or using mobility devices to enter and exit the bus safely (See Figure 1). Even passengers not faced with those challenges must still give attention to potential obstacles (i.e. snow, mud etc.) and terrain faced when boarding and alighting the bus.



FIGURE 1 - NON-COMPLIANT UTA BUS STOP

In addition, bus operators are also faced with challenges when servicing a bus stop that is not ADA compliant. They are left to use their best judgment to find a suitable location to unload or pick up passengers in mobility devices or those with other disabilities. The Federal Transit Administration (FTA) provides guidance for ADA compliance for both new and existing stops. The rule states that, to the maximum extent practicable:

- *New, altered, or relocated bus stops must have a firm, stable surface and must provide a clear length of 96 inches, measured perpendicular to the curb or vehicle roadway edge, and a clear width of 60 inches, measured parallel to the vehicle roadway.*
- *Bus stops must also connect via an accessible route to streets, sidewalks, or pedestrian paths.*
- *The slope of the bus boarding and alighting area in the direction parallel to the roadway must be the same as that of the roadway to the maximum extent practicable. Perpendicular to the roadway, the slope must not exceed 1:48, that is, not more than 1 inch of rise over a horizontal distance of 48 inches¹.*

For existing stops, there is no explicit language in the guidance that exempts transit agencies from providing accessible bus stops, but rather the guidance states:

- *An individual with a disability who could otherwise ride an accessible bus but cannot reach the bus stop due to the lack of an accessible route would be eligible for complementary paratransit, at least on a conditional basis.*
- *FTA encourages transit agencies to inventory the location of their bus stops in relation to accessible pedestrian routes, and coordinate with owners of public rights-of-way (e.g., local municipalities) to help ensure connections to stops are as accessible as possible².*

For UTA specifications for minimum standard bus stop requirements, see Appendix B - *Landing Zone and Accessible Route Requirement*

Obstructions

Stop locations located in proximity to obstacles or obstructions such as power/telephone poles, hydrants, and utility boxes also pose additional barriers and not just to those persons with disabilities. These obstructions represent potential of interruption in service and damage to

¹ Americans with Disabilities Act of 1990 (ADA), Section 810.2

² Americans with Disabilities Act of 1990 (ADA), Section 209.2.3

property if vehicle contact is made with any of these obstacles. For example, when a bus makes contact with the curbside mirror of the bus with an obstruction, replacement costs may exceed \$1,500. In addition to the financial cost of the incident, the operator must stop to file a report causing an interruption of service. If the damage is severe enough that the bus is inoperable, the bus must remain at the location until a replacement bus is called out. This requires the time of a mechanic, leading to more time lost and costs continue to cascade. Repeated time and financial impacts can be mitigated if the bus stop is properly assessed and can be redesigned or relocated to a more ideal location.

Existing Bus Stop Amenities

While ADA Compliance and safety are the primary criteria to be used when evaluating stops, many stops are “underserved” in terms of the level of additional amenities. Amenities refer to those attributes of a bus stop beyond UTA and ADA minimum compliance standards (i.e. benches, trashcans, shelters, informational signage, etc.). In addition to a firm stable landing surface for ADA compliance, a sign pole and a route sign there are a range of amenities present at some but not all bus stops throughout the system. These amenities include:

- Shelters
- Benches
- Trash Cans
- Lighting
- Bike Racks
- Simme-Seats
- Electronic Signs
- Quartz Heaters

Prior to this plan, the determination of which stops in the system received additional amenities were determined on an *ad hoc* basis using a simple metric of bus stop activity as the primary indicator of performance. Decisions on which stops to improve have also often been based on things such as complaints, rider requests, elected official comments, special grants received to improve routes or corridors or on staff recommendations. In recent years UTA has addressed many individual bus stop related problems and the agency intends to continue this forward progress. This plan will provide a more structured and measureable approach to stop improvements.

The Bus Stop Master Plan provides a clear, consistent, quantitative methodology for assessing the current conditions of a bus stop, determining the appropriate level of amenities and prioritizing the budgeting, construction and placement of stops and amenities.

Existing Bus Stop Inventory

In 2016 UTA conducted a comprehensive inventory of the status of all of the bus stops within the UTA system. This inventory included all of the amenities present at each stop as well as other information related to the general condition of the stop including accessibility. As part of that inventory process, many variables associated with each stop were identified as being present or not present at any given stop location. The inventory process is an ongoing function of the Bus Stop Administrator and other Planning and UTA staff. The continual cataloging of every bus stop is ongoing and is critical in meeting the goal to implement system wide consistency and improvement. Table 1 shows the amenity categories that are currently documented and maintained.

Inventory Category		
• ADA Access	• Obstruction - Guy Wire	• Sidewalk
• Bench - Advertisement	• Park Strip	• Park and Ride
• Shelter	• Pole	• Trash Cans
• Lighting	• Bike Lane - Buffered	• Quartz Heaters
• Schedule Holder	• Bike Rack	
• Route Information	• Bathroom	

TABLE 1 - EXISTING AMENITY CATEGORIES

These levels have been determined by assessing the average daily total stop activity (boardings and alightings) at each stop. Table 2 provides descriptions of the levels including required average daily total stop activity (TSA), associated amenities.

Stop Level	Headway	Avg. Daily Boardings	Amenities
Level I - A	15 Min or Less	0 to 9	<ul style="list-style-type: none"> • Pole • Sign • ADA Pad
Level I - B	Greater than 15 Min	0 to 4	<ul style="list-style-type: none"> • Pole • Sign • ADA Pad
Level II - A	15 Min or Less	10 to 39	<ul style="list-style-type: none"> • Pole • Sign • ADA Pad • Bench • Trash Can
Level II - B	Greater than 15 Min	5 to 9	<ul style="list-style-type: none"> • Pole • Sign • ADA Pad • Bench
Level III - A	15 Min or Less	40 to 59	<ul style="list-style-type: none"> • Pole • Sign • ADA Pad • Bench • Trash Can • 4'x8' Shelter**
Level III - B	Greater than 15 Min	10 to 19	<ul style="list-style-type: none"> • Pole • Sign • ADA Pad • Bench • Trash Can • 4' x 8' Shelter**
Level IV - A	15 Min or Less	60 to 79	<ul style="list-style-type: none"> • Pole • Sign • ADA Pad • Bench • Trash Can • 6' x 12' Shelter**
Level IV - B	Greater than 15 Min	20 - 29	<ul style="list-style-type: none"> • Pole • Sign • ADA Pad • Bench • Trash Can • 6' x 12' Shelter**
Level V - A	15 Min or Less	80 to 99	<ul style="list-style-type: none"> • Pole • Sign • ADA Pad • Trash Can • Two (2) Benches • 6' x 12' Shelter**
Level VI - A	15 Min or Less	100 to 149	<ul style="list-style-type: none"> • Pole • Sign • ADA Pad • Trash Can • 6' x 16' Shelter** • Two (2) Benches • Light Fixture
Level VII - A	15 Min or Less	150 +	<ul style="list-style-type: none"> • Pole • Sign • ADA Pad • Trash Can • Two (2) Benches • Custom Shelter • Light Fixture • Digital Sign

TABLE 2 – BUS STOP LEVELS BY TSA

**Cantilever Option Available

NOTE: The amenity levels shown are based upon UTA being the sole provider of the amenity performing the upgrades at the bus stop location. Actual amenity levels may vary based upon local partnerships or third party financial participation including signage located in building in relative proximity to high performing stop locations. On-site conditions and availability of property may limit listed upgrades.

These bus stop levels are also stratified by the frequency of the route(s) that serve any given stop. The two frequency thresholds used are (a) 15-minute or less and (b) Greater than 15-minute.

Bus Stop Spacing and Placement

Bus stop spacing has a major impact on transit performance. Stop spacing affects both access time and line-haul time, and therefore affects the demand for transit service. In general, there is a tradeoff between: (a) closely spaced, frequent stops and shorter walking distance, but more time on the vehicle and (b) stops spaced further apart and longer walking distance, but less time on the vehicle.

Industry practices on spacing vary, as different agencies opt for different bus stop spacing standards. Often, bus stops are added on an as requested basis along existing bus routes. The addition of bus stops should be evaluated carefully prior to implementation to ensure that

operational efficiencies in bus services are not degraded and they do not negatively impact service reliability. Additionally, a periodic reexamination of stop spacing is recommended. Table 3 provides one example of typical industry practices. NOTE: These numbers represent typical fixed-route bus service and should not be applied to BRT service.

Environment ³	Stop Spacing (in feet)
Central Business District (CBD)	400–800
Urban Areas	500–1,000
Suburban	600–1,200
Rural	800 (as needed based on surrounding development and activities)

TABLE 3 - TYPICAL STOP SPACING

In general, stops located on the far-side of intersections are preferable; however, other types of stops may be unavoidable or justified in certain situations. There are advantages and disadvantages to each location. There are also opportunities to work with local municipalities and UDOT to take advantage of queue jump technology and Traffic Signal Prioritization (TSP) in order to optimize bus stop locations and minimize impacts to local automobile traffic. Extensive discussion and guidance for determining proper bus stop locations, including traffic signals and operations, are provided in the Transit Street Design Guide published by NACTO⁴. Assuming that all stop location variables are equal, Figure 2 shows the recommended stop locations for basic, fixed route and ADA accessible service.

Design drawings and more specific planning and design guidance for recommended siting, location and designs are included in Appendix A - *Guidelines for the Location and Design of Bus Stops*.

Bus Stop Elimination and Consolidation

While there are far more opportunities for improvements to existing bus stops or even adding new stops to the system, there is also a need to monitor, analyze and assess whether a stop is necessary any longer. There may be an opportunity to eliminate or consolidate one or more stops. This decision is not a trivial one and should be based a series of steps before any stops are eliminated or moved. These steps include using the same evaluation methodology as outlined in this document but elimination and consolidations requires much more community and rider engagement than would be needed for new stop installations or improvements. For more guidance on stop elimination and consolidation see *“Best Practices in Bus Stop Consolidation and Optimization”*⁵

Bus Stop Amenities

The basis for providing amenities and particular bus stops takes into account multiple factors. As mentioned above, one key factor is the average daily total stop activity (TSA). Other factors include wayfinding, safety, comfort and curb appeal in order to make UTA stops attractive as assets to a community. In addition to the physical location of a bus stop, the design and amenities should be considered in terms of having minimal visual and physical impact to the surrounding environment, especially in residential areas. Each of the available amenities for certain stops are described below, including the UTA design standards for each amenity.

³ Central Business Districts are loosely defined as a one (1) mile radius around the geographic city center or city hall
 Urban Areas are areas defined by the US Census that contain 50,000 or more people.
 Suburban Areas can be generally defined as the area outside of a central business district but still within the limits of the official census urban area
 Rural areas can generally be defined as those areas outside of the official census urban areas

⁴ Transit Street Design Guide, National Association of City Transportation Officials, 2016 <https://nacto.org/publication/transit-street-design-guide/>

⁵ “Best Practices in Bus Stop Consolidation and Optimization” <https://issuu.com/uclapubaffairs/docs/2/>

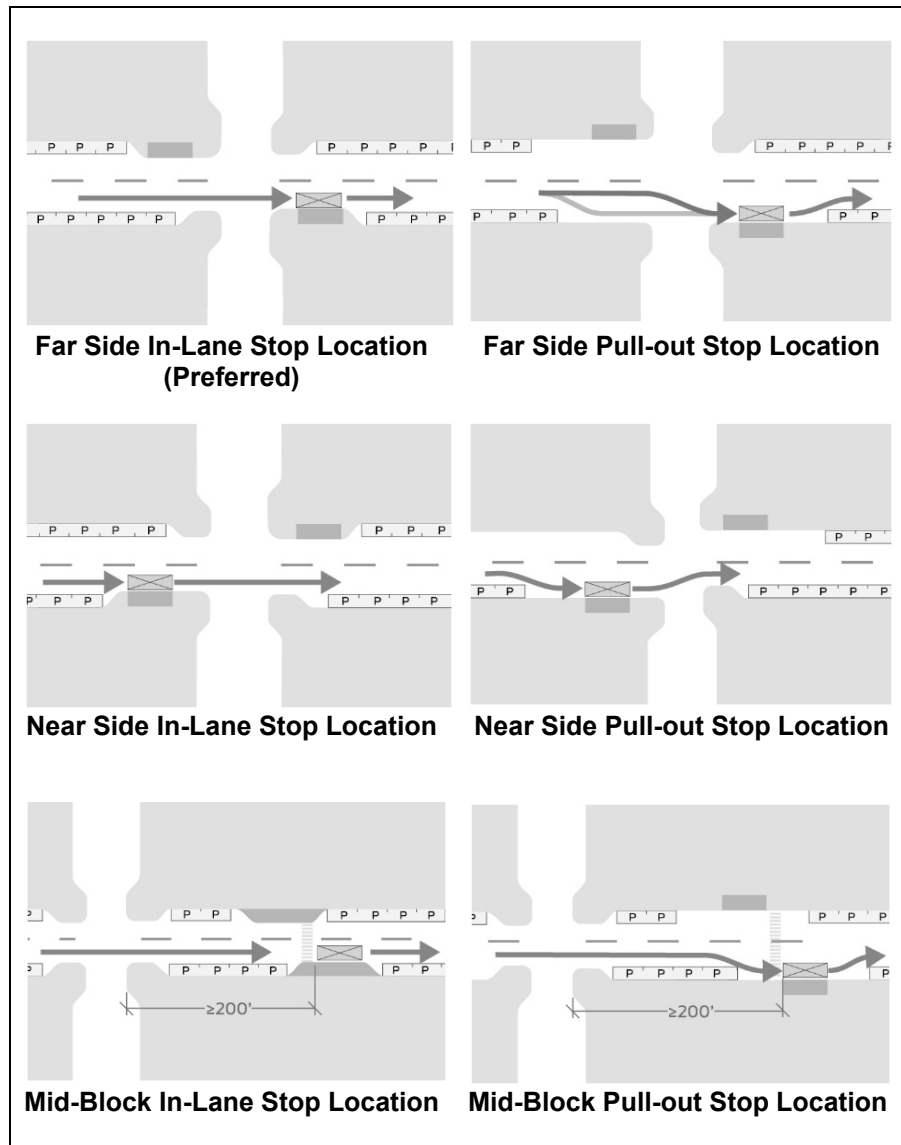


FIGURE 2 - STOP LOCATION RECOMMENDATIONS

Benches

Benches are a simple, easy and cost effective way to provide comfort and security for waiting passengers and help in wayfinding. UTA currently uses two styles of benches: Park Benches and Team Benches. Limiting the number of styles of benches in the system helps to keep maintenance costs low and allows for purchasing contracts that include multi-year options. This design criteria also provides uniformity in appearance at the bus stops across the system. This in turn helps passengers and operators quickly identify bus stops especially those unfamiliar with a route. For UTA specifications for standard bus benches, see Appendix B - *Trash Can and Bus Bench Specifications*

Shelters

While shelters require increased capital costs associated with the construction and maintenance of a bus stop, they provide greater security, protection and wayfinding for passengers and operators alike. Typically bus stops with higher boardings will receive shelters and depending on the TSA, the sizes of those shelters will vary to accommodate the volume of waiting passengers.

A recent study⁶ shows that providing shelters at bus stops will not only increase ridership but more importantly help retain ridership, especially during inclement weather. This is especially true when transfers are required as most riders can control the initial point of origin when taking public transit (i.e. leaving home, workplace, etc.). A 2015 UTA rider survey found that a single rider transfers an average of 1.39 times. When offering shelters at high boarding stops and focusing on transfer points it influences choices people make in relation to using transit on days when weather is a factor (i.e. heat, cold, rain, snow). For UTA specifications for standard bus shelters, see Appendix B - *Shelter Design Specifications (Typical)*

Signage

The Bus Stop Master Plan will always refer to the signage standards as presented in the current UTA Customer Information Standards and UTA Wayfinding Strategy documents.

The standards and wayfinding strategy have been structured to support the needs of each affected group within the UTA system. In addition, the sign standards are organized into families of sign types, bus stops signs are represented independently in the standards (See Section 13 – Customer Information Standards). Within the bus stop sign family, there are design specifications for specific sign types, each with physical characteristics tailored to fit specific information and site-specific needs. For instance in remote locations on rural routes there is no need for sophisticated multi-route information signs. In this situation a simple post and bus stop sign serves perfectly to mark a bus stop. However, as population and route density increase approaching population centers, more and more sophisticated signs are required to handle the greater information density. The standards include details regarding the information display requirements, a set of detailed construction drawings, specifications, and typical installation.

Finally, the mechanism for planning, procurement, management and maintenance of the sign program is essential to the success of the sign and information design. An internal administration process, including procurement, installation and removal is included in Appendix D - *Processes*.

Stop Assessment Methodology

This section outlines the methodology that is being used by UTA to evaluate the existing conditions of the stops in the system. While the level of stop amenities is determined by the TSA at the stop, these recommended amenities come with a significant capital and operating cost. This methodology is used to determine *which* stops will receive improvements and thus appropriate the limited amenity resources equitably.

Before determining what design level will be assigned to a stop, there are several key factors, or minimum standards, that must be met. These factors are driven by federal ADA standards, UTA safety standards and bus stop operations serviceability standards. These standards provide the first level of screening for each of the stops within the system.

Over the lifetime of a bus stop, the largest cost is operation and maintenance (i.e. cost to maintain trash receptacle, shelter, and lighting etc.) of the amenities located at any particular bus stop. Because of this ongoing cost, the initial installation and purchase of the amenities to be installed is evaluated and carefully considered before approving amenities to be installed at a stop. This is done to ensure that stops with the most daily activity receive priority of UTA’s limited resources. In order to determine what bus stops are improved on a prioritized basis, UTA has developed a Bus Stop Scoring Matrix where each stop is assigned “points” (see Table 4).

⁶ *Impacts of Bus Stop Improvements*, University of Utah Department of City and Metropolitan Planning, 2018, K. Bartholomew et. al.

The matrix below has been approved by the FTA to comply with Civil Rights, ADA and Title VI regulations. By evaluating each stop location and scoring the various categories at each stop, the highest scoring stops are prioritized and addressed first. While the Bus Stop Master Plan is designed to address all the bus stops system-wide, this process helps UTA prioritize a limited annual budget for bus stop improvements. The underlying assumption associated with the Bus Stop Scoring Matrix is that it is used to address only those stops in the UTA system that are currently non-ADA compliant. The reasoning is that if UTA has funds to improve stops in the system, the first stops to be improved should be those that do not meet federal ADA compliance standards.

Category	1 Point	2 Points	3 Points	4 Points	5 Points
Non-ADA Compliant*	-	-	-	-	Yes
Total Stop Activity (TSA) – Average Daily Weekday**	1 to 19	20 to 39	40 to 59	60 to 79	80 +
Total Annual Bus Ramp Deployments	1 to 49	50 to 99	100 – 149	150 – 199	200+
Transfer Point***					
<i>Equal to or Greater than 30 min. freq.</i>	1 Route	2 Routes	3 Routes	4 Routes	5+ Routes
<i>Less than 29 the min. freq.</i>	1 Route	2 Routes	3 Routes	4 Routes	5+ Routes
Serves Title VI Community	Title VI Route/Area				
Safety					
<i>Intersection</i>	1 of 5 Elements	2 of 5 Elements	3 of 5 Elements	4 of 5 Elements	5 of 5 Elements
<i>Parking Allowed</i>					
<i>Obstacle(s) Present</i>					
<i>No lighting Present</i>					
<i>Sidewalk Not Level</i>					
Social					
Education Adjacent	Yes				
Library Adjacent	Yes				

Table 4 - Bus Stop Scoring Matrix

* Non-ADA compliant bus stop locations automatically receive five (5) points

** TSA Data is average weekday ridership taken from the last eight change day periods

***One (1) additional point is assessed each route at a transfer point with 30 minute or less frequency

The results of this methodology are compiled annually into the Bus Stop Planning Reports. These reports represent the top tier of bus stops that UTA has prioritized as needing to be addressed for one or more of the screening criteria listed above. These reports can be found in Appendix F – *Annual Bus Stop Planning Reports*.

Funding

One purpose of this Master Plan is to develop a 2-5 year strategy for bus stop improvements. UTA’s Bus Stop Administrator will manage the development and administration of this strategy and working with the Service Planning Department prepare an annual budget associated with a

prioritized schedule of bus stop improvements or new construction. This budget should include capital costs as well as operating and maintenance costs for the life of the stop.

It should also be noted there are opportunities for cities and counties to participate in contributing additional funding for local stops in their communities. These stops may not necessarily appear in the *Annual Bus Stop Planning Report* as a prioritized location, but UTA recognizes that outside funding contributions may not always completely align with the schedule or prioritization that UTA has prepared for stop improvements. In these cases, the Bus Stop Administrator will work directly with city or county staff in preparing a work scope, budget and schedule for these situations. The responsibility for the maintenance and upkeep of the stops, shelters and amenities paid for by others become will be explicitly outlined in a Memorandum of Understanding or Memorandum of Agreement between UTA and the sponsoring agency. This agreement may also call for UTA to maintain the facility as part of its routine maintenance and be reimbursed by the sponsoring agency. For more guidance on this process, see Appendix E - *Bus Stop Amenities Installation Standard Operating Procedure*

New Bus Routes and Route Modifications

In the case of new routes or new service being introduced, the Service Planner(s), regardless of the levels or type of stops that may be required, will collaborate with the Bus Stop Administrator and together evaluate and select the optimal locations of bus stops and plan the stop locations according to the guidance established in this document. Stop amenities at the new stops will be based on estimated ridership using UTA's travel demand modeling tool (TBEST). At a minimum, every new stop will require all of the Level I stop amenities in order to be ADA compliant. Sufficient time for both planning, ordering and installing new stops needs to be provided. In no case should a new route start operation without proper, accessible, safe bus stops in the designated locations.

Routes are often modified to improve operational efficiency of provide access to a new customer base. All new bus stops on modified routing must be made ADA compliant to the maximum extent practicable. This is true where the change originated with UTA. Where the change was forced by an outside factor, stop locations may receive temporary placards until the location can be improved.

Bus Stop Administration

The UTA Bus Stop Administrator is responsible for coordinating with other UTA departments all of the work that is done with regard to the planning, feasibility, design, installation and maintenance of any UTA bus stop. This does not necessarily mean that the Bus Stop Administrator is responsible for the actual tasks associated with the design, installation and maintenance, just their proper execution according the Bus Stop Master Plan. UTA has established processes and procedures that are used for everything from planning and installation of bus stops to the procurement of shelters and amenities to the removal or replacement of existing amenities. UTA also has an adopted Standard Operating Procedures that outline the entire bus stop administration process, including explicit steps and persons responsible for each step. These SOPs can be found in Appendix E - *Policies & Standard Operating Procedures*.

Annual Bus Stop Planning Reports

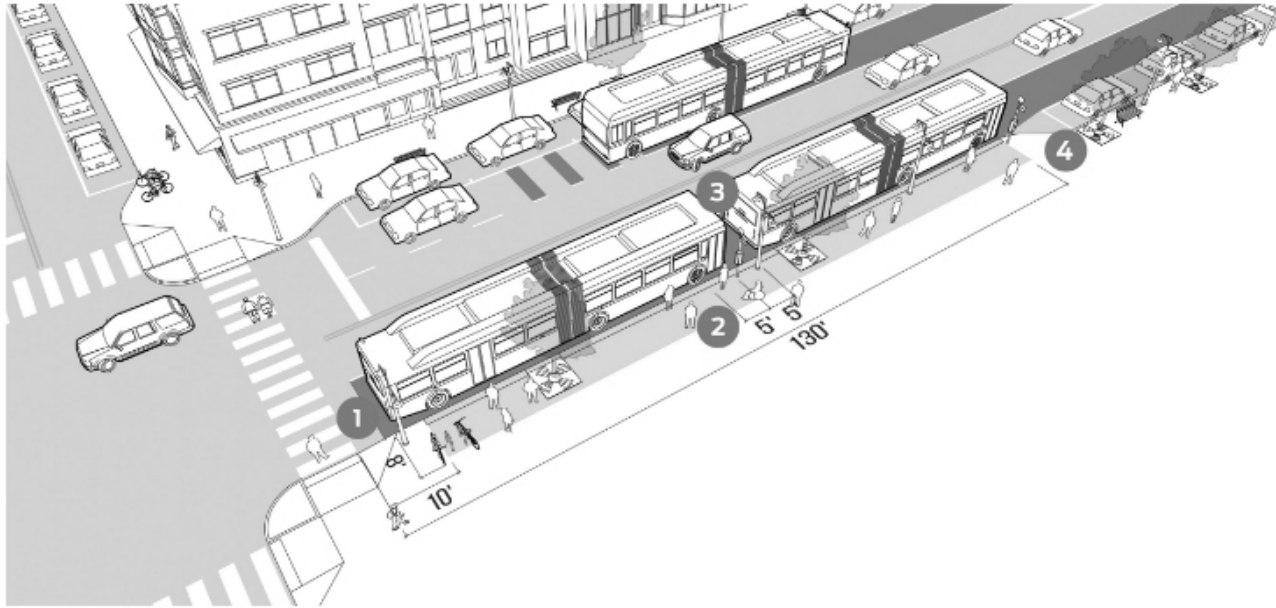
Bus Stop Planning reports are generated and reviewed annually in order to track progress on the improvements⁷ made to bus stops throughout the system. These reports are generated prior to the UTA budget period so that capital budget requests can be made by the Bus Stop Administrator for the following year. These requests represent the total cost of the cumulative work identified in the prioritization matrix. These reports are subject to review, and change, by executive leadership in order to make sure the program of bus stop improvements is in line with the annual goals as established by the Board of Trustees. Since local revenue is generated at the county level, these reports are generated on a county-by-county basis and represent the total capital that is anticipated to be spent bus stops and amenities in any particular county. This allows for UTA to also report to local municipal and county leaders how their tax dollars are being spent in their respective jurisdictions. These annual reports can be found in Appendix F - *Annual Bus Stop Planning Reports*.

⁷ It should be noted that these reports also contain recommendations for stops that should be consolidated or completely eliminated.

Appendix A – Guidelines for the Location and Design of Bus Stops

A no parking zone is required at all bus stops. The length of the no parking zone is dependent on the length of the bus operating on the stop’s route. The next section describes the required length of the no parking zones in front of bus stops depending on whether the bus stop is an ‘in lane’ stop or a ‘pull out’ stop.

Stop/Platform Lengths



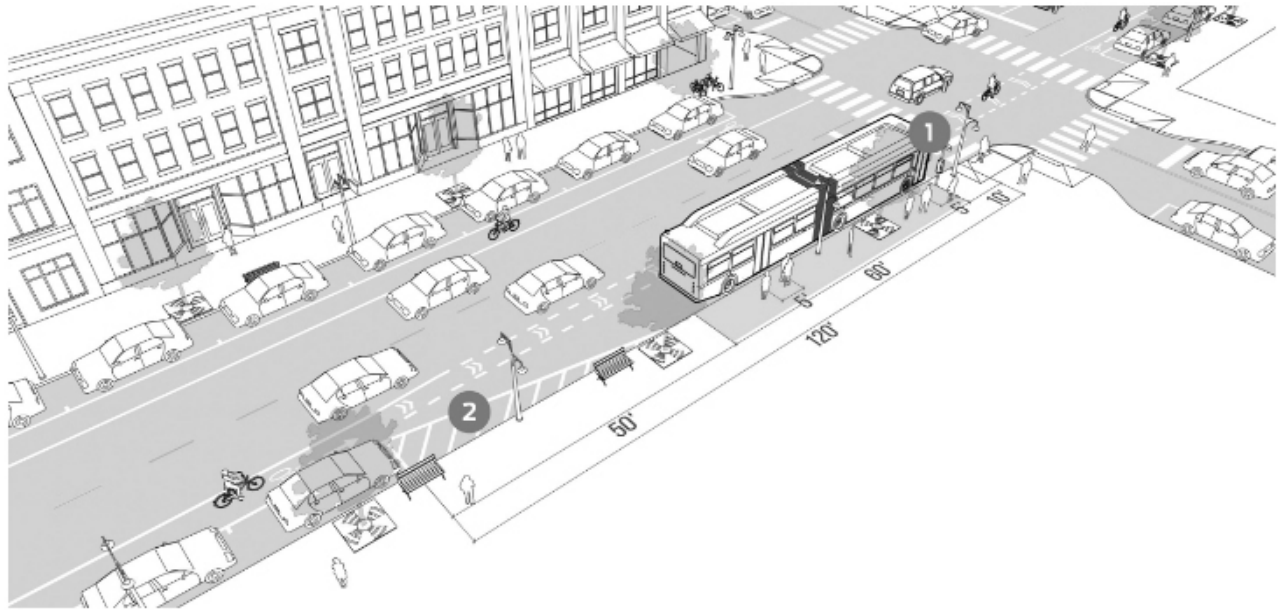
In-Lane Stops

Desired Minimum Stop/Platform Length by Vehicle Type (feet)*				
Stop Location	40' Bus	60' Bus	2 x 40' Bus	2x 60' Bus
Near-side	35	55	80	115
Far-side	45	65	90	130
Mid-block	35	55	80	115

*Bus stop/platform lengths also represent the distances where ‘No Parking’ restrictions should be enforced in the street.

NOTES:

- 1 Locate platform with at least 10 feet of clear distance from crosswalk or curb return. Measure to transit stop pole at near-side, or rear of transit vehicle at far-side.
- 2 While 5 feet is the minimum curb length for a receiving facility at each boarding door (ADA Std. §810.2.2), design platforms to be continuous through all doors, and consider additional elements to improve passenger comfort
- 3 Provide 5–10 feet of distance between each additional transit vehicle expected to be dwelling at the platform consistently throughout the day.
- 4 Design boarding bulbs and islands to accommodate proper drainage and sweeping; tight radii may require maintenance agreements to ensure bulbs are properly cleaned and maintained.



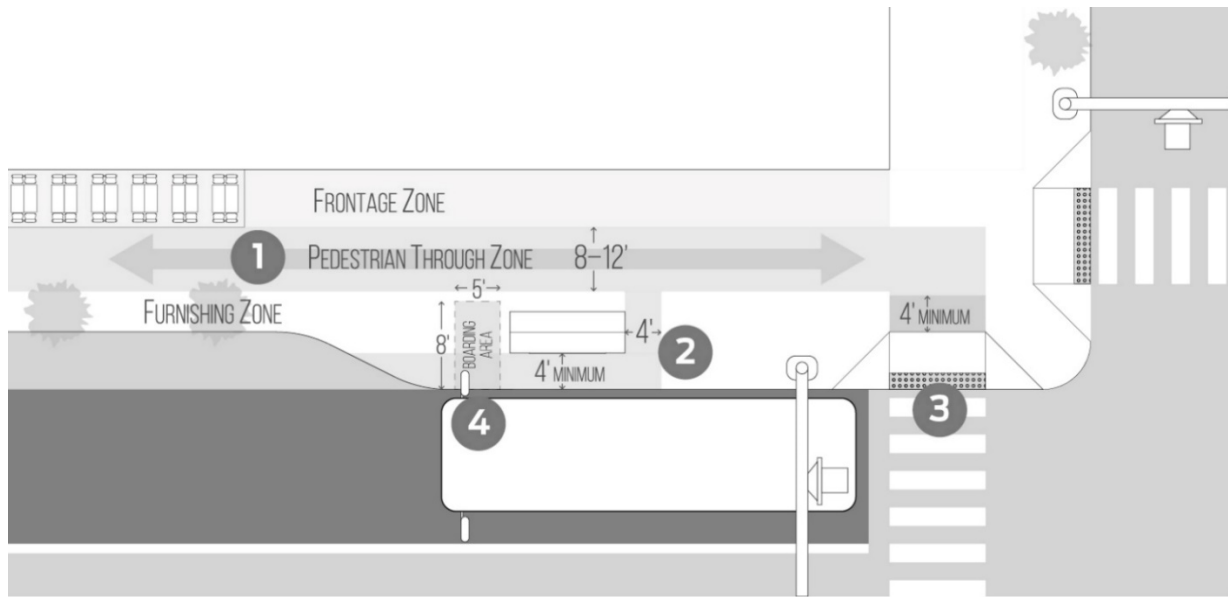
Pull-out Stops

Desired Minimum Stop/Platform Length by Vehicle Type (feet)*				
Stop Location	40' Bus	60' Bus	2 x 40' Bus	2x 60' Bus
Near-side	100	120	145	185
Far-side	80	100	125	165
Far-side (right turn)	140	160	140	230
Mid-block	120	145	185	210

*Bus stop/platform lengths also represent the distances where 'No Parking' restrictions should be enforced in the street.

NOTES:

- 1 Locate stop zone with at least 10 feet of clear distance from crosswalk or curb return. Measure to transit stop pole at near-side, or rear of transit vehicle at far-side.
- 2 White diagonal hatch line markings may be striped to delineate the entry and exit tapers and discourage blocking. Provide 5–10 feet of distance between each additional transit vehicle expected to be dwelling at the platform consistently throughout the day.



Accessible Paths and Slopes

Stop Location	Desired Minimum Stop/Platform Length by Vehicle Type (feet)*			
	40' Bus	60' Bus	2 x 40' Bus	2x 60' Bus
Near-side	35	55	80	115
Far-side	45	65	90	130
Mid-block	35	55	80	115

*Bus stop/platform lengths also represent the distances where 'No Parking' restrictions should be enforced in the street.

NOTES:

- 1 For pedestrian travel paths, a clear width of 8–12 feet is preferred where transit is present, and may be wider based on pedestrian and transit rider capacity. Pinch-points less than 6 feet wide create capacity and comfort issues and should be avoided. A 4-foot clear width is acceptable around some design elements like shelters and seating, and may be used especially where access is helpful but not essential, such as between a curb and the back of a building-facing shelter. Shelters and seating should be positioned so that all riders can comfortably wait, board, and alight without obstruction.
- 2 Turns in travel paths must have a landing at least 4 feet deep (ADAAG §403), and a minimum 4-foot by 5-foot turning space is preferred (PROWAG §304.2.1). Crosswalks must be accessible, with special attention to both people using wheelchairs and wheeled mobility devices and people with no or low vision. Curb ramps must be provided at all street crossings that involve a change in grade. Do not obstruct the top of the curb ramp. Curb ramps and other travel paths should be designed to prevent the accumulation of water and snow. Ramps may not have a slope exceeding 1:12. Ramps must have a landing for each 30 inches of rise (ADAAG §405).
- 3 An accessible boarding area must be provided, typically measuring 5 feet long (parallel to the curb) by 8 feet wide (perpendicular to the curb). This includes 5 feet of width for a wheelchair waiting area, plus additional width to deploy a wheelchair ramp to serve the waiting area (typically 3 feet). Longer ramps may require additional length (see ADAAG §810.2.2). To provide accessible boarding, the vertical step between a platform and a vehicle (or ramp) must not exceed 5/8 inch, with a maximum horizontal gap of 3 inches (49 CFR §38.23). For near-level boarding, bridge plates used to enable accessible boarding should not rise more than 3 inches or exceed 1:8 slope, with shallower slopes preferred. The slope for a bridge plate depends on the height of the vehicle floor and ranges from 1:4 to 1:12 [49 CFR §38.83(c)(5)].

Appendix B – Bus Stop Construction Standards & Design Specifications

As of 2018 UTA will consider the 2015 circular from the FTA the primary authority yet the 2015 circular does not void the guidelines in place in the 2010 DOJ and the 2006 FTA ADA guidelines. These guidelines will be supplemental and referenced within this document.

<https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/fta-circulars>

ADA requirements state the landing zone must be 5' x 8' (See Figure 1) and less than 2% sloping toward the road. UTA standards have increased the size of the required landing zone to 6' x 8' to accommodate a stop flag. The stop flag will be installed on the far side of the landing zone 1.5 feet away from the curb. See SHEET #1 (Plan View). Slope of all concrete flatwork shall not exceed 2%. Concrete flatwork should drain toward the roadway where possible.

Landing Zone and Accessible Route Requirement

UTA standards require an accessible route complying with Chapter 4 of the 2010 ADA guidelines connecting the bus shelter, the landing zone and the sidewalk (See Figure 1). If sidewalk is not present sidewalk should be constructed. If sidewalk construction will exceed 20% of the cost of the bus stop, alternative construction options will be considered. A possible alternative could include a curb ramp into the roadway but the location's specific needs must be analyzed by UTA's Capital Development and Civil Rights Departments.

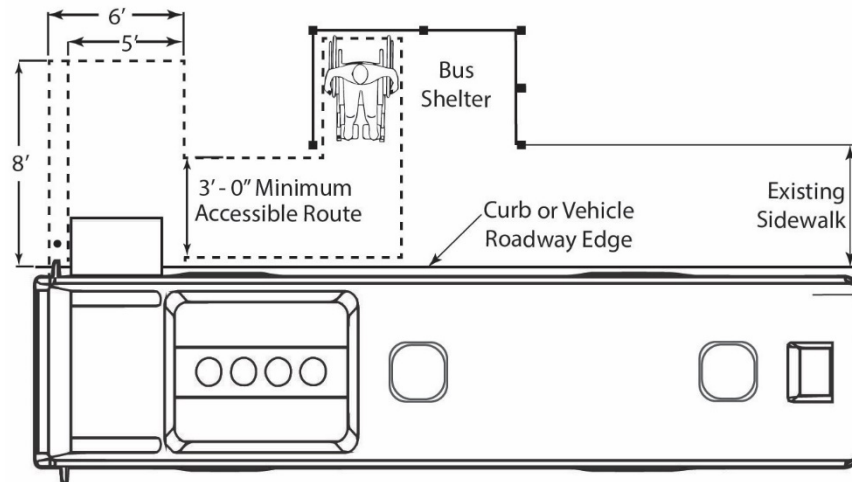


FIGURE 3 - ACCESSIBLE ROUTE DIAGRAM

1. Bus stops require a Landing Zone complying with 810 of the 2010 ADA guidelines. This landing zone must be 6' x 8' as indicated in Figure 2 and less than 2% sloping toward the road.
2. This Landing Zone must be connected to the sidewalk and shelter with an accessible route complying with 402 of the 2010 ADA guidelines.
 - a. The accessible route must be at least 3 feet wide and have a slope less than 2% in any direction
 - i. If 2% cannot be achieved, an ADA ramp may be employed to connect the landing zone and the sidewalk. The ramp must comply with Fig. 2 below. The ramp may have a maximum slope of 5% unless handrails are included increasing the maximum slope to 8.3% (or 1:12).

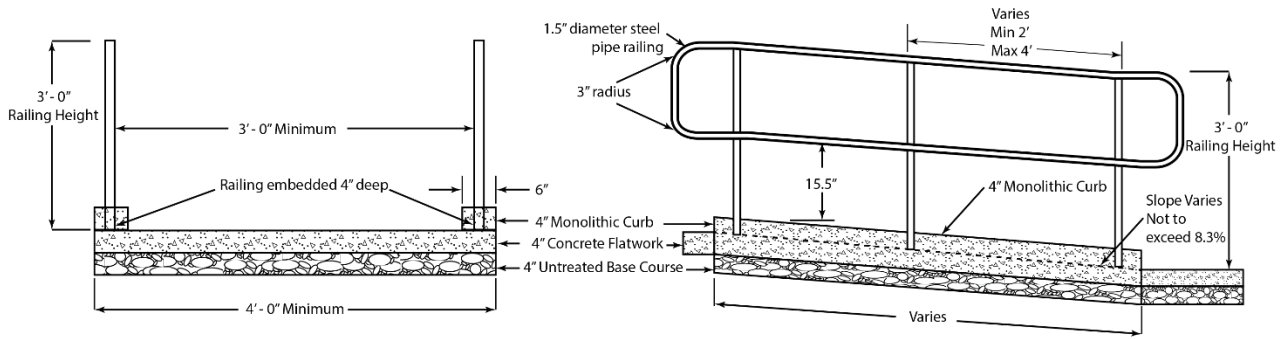


FIGURE 4 - ADA RAMP DESIGN

- ii. With UTA engineer approval, a raised curb may be employed in accordance with Fig. 3 to reduce the length of the ramp.
 - 1. The horizontal spacing between the “L” #2 rebar installments must be 18” maximum on center. (See Fig. 3)
 - 2. Clear distance between the rebar and concrete edges must be at least 7/8” inches.
 - 3. Use only epoxy coated rebar.
 - iii. If the length of the ramp exceeds 10 feet, stairs must be installed concurrent with the ramp in accordance with the detail in Figure 6.
 - iv. If the length of the ramp reaches 30 feet a 5 foot landing must be installed where the slope is reduced to below 2% in the direction of the ramp. (Reconsideration of the ramp route or stop location may be appropriate.)
3. Amenities shall be installed with 0.5 inch clearance between appurtenances.

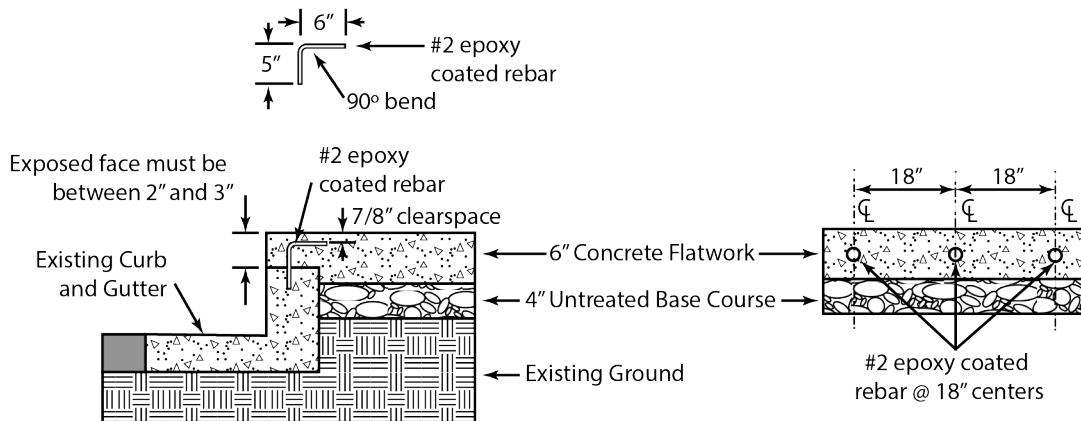


FIGURE 5 - RAISED CURB FACE DESIGN

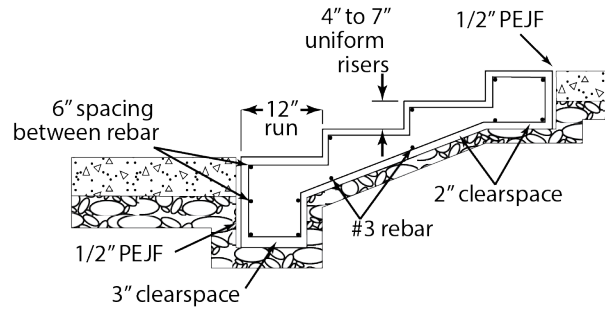


FIGURE 6 - STAIR DETAIL

Hardware

1. Rebar Specifications
 - a. Use #2 epoxy coated rebar used for the raised curb face.
 - b. Bend and cut the #2 rebar into a 90 degree “L” bend (See Fig. 3)
 - c. Install the “L” bends 18 inches on center. (See Fig. 3)
2. Bus Stop Flag Installations
 - a. Mount the Bus Stop Flag 1.5 feet from the Top Back of Curb. edge of the mount should be 6 inches from the far edge of the concrete in the “mount alley”. (See Fig. 7)
 - i. Use a Strong-Tie Titen HD bolt or UTA approved equivalent. (See Fig. 5)
 1. Bolt shall be 0.5 inches thick
 2. Bolt shall be 3 inches long
 3. Bolt shall be fastened with a 0.5 inch washer
 - b. Use Stainless Steel Base Flange for Square tubing or UTA approved equivalent (See Fig.6)
 - c. The mount must remain in the "mount alley". (See Fig. 7)
 - d. The mount alley consists of the 1 foot corridor perpendicular to the roadway on the farside of the landing zone. (See Fig. 7)

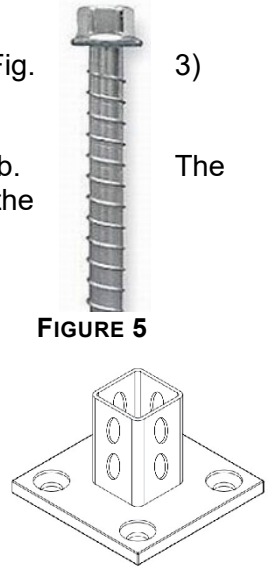


FIGURE 5

FIGURE 6 - BASE FLANGE FLAG MOUNT (TYPICAL)

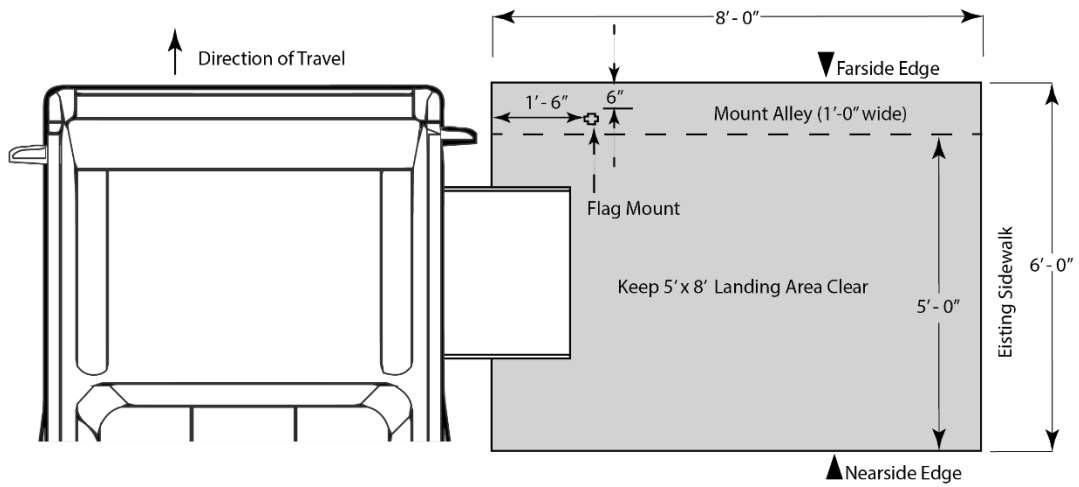


FIGURE 7 - ADA LANDING PAD DESIGN

Shelter Design Specifications (Typical)

Materials

- Dark bronze anodized aluminum structure
- 1/4" tempered safety glass
- Dark bronze standing seam hip roof with fascia and gutter system
- Partial length aluminum bench with backrest

Custom Shelters

- Must provide roof, back, and side weather coverage similar in dimension to standard shelters that UTA would normally provide
- Must meet all UTA structural and building code requirements

Lighting

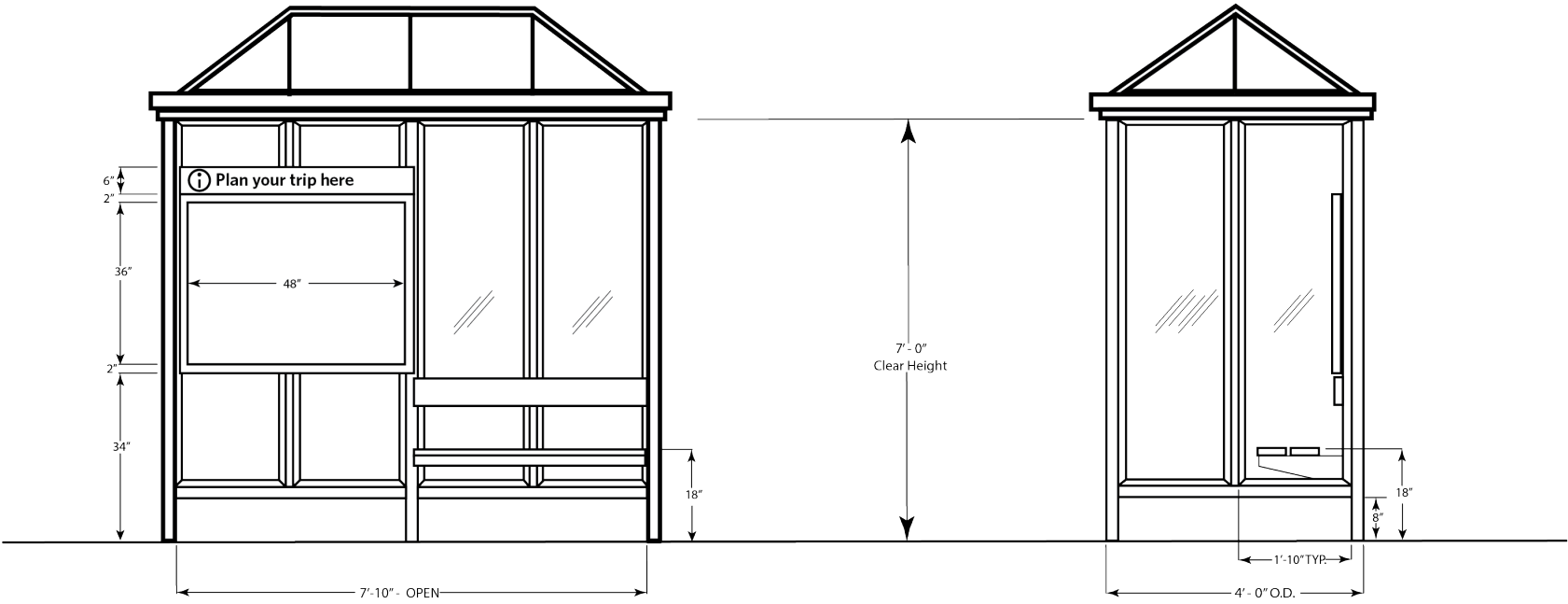
- External lighting can include streetlights, pedestrian lights, or floodlights
- Where possible bus stops should be located adjacent to existing lighting sources. Shelters and other furniture should be located within the flood of existing lights
- UTA prefers to install internally lit shelters at all new or refurbished Level V, Level VI and Level VII bus stops
- Standard lighting fixtures should be used at bus stops because they are easier and less costly to maintain than uniquely designed fixtures

Artwork

- Municipalities may request artwork to be installed at bus stops
- Funding for the artist's time and material will be paid by the requesting municipality
- UTA will develop agreements with the artists including but not limited to contractual obligations that address future modifications or other impacts to the art pieces

Benches

- Benches should be provided in all shelters
- A single bench is provided at all Level II bus stops
- Additional benches are placed outside Level III through Level VII shelters
- Benches may be installed at stops where a shelter is warranted but will not fit

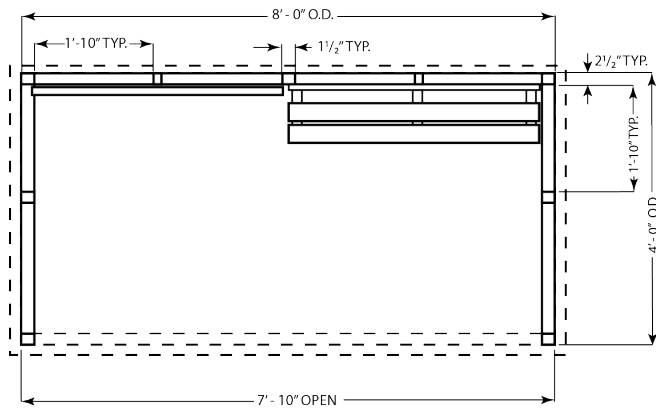


Front Elevation

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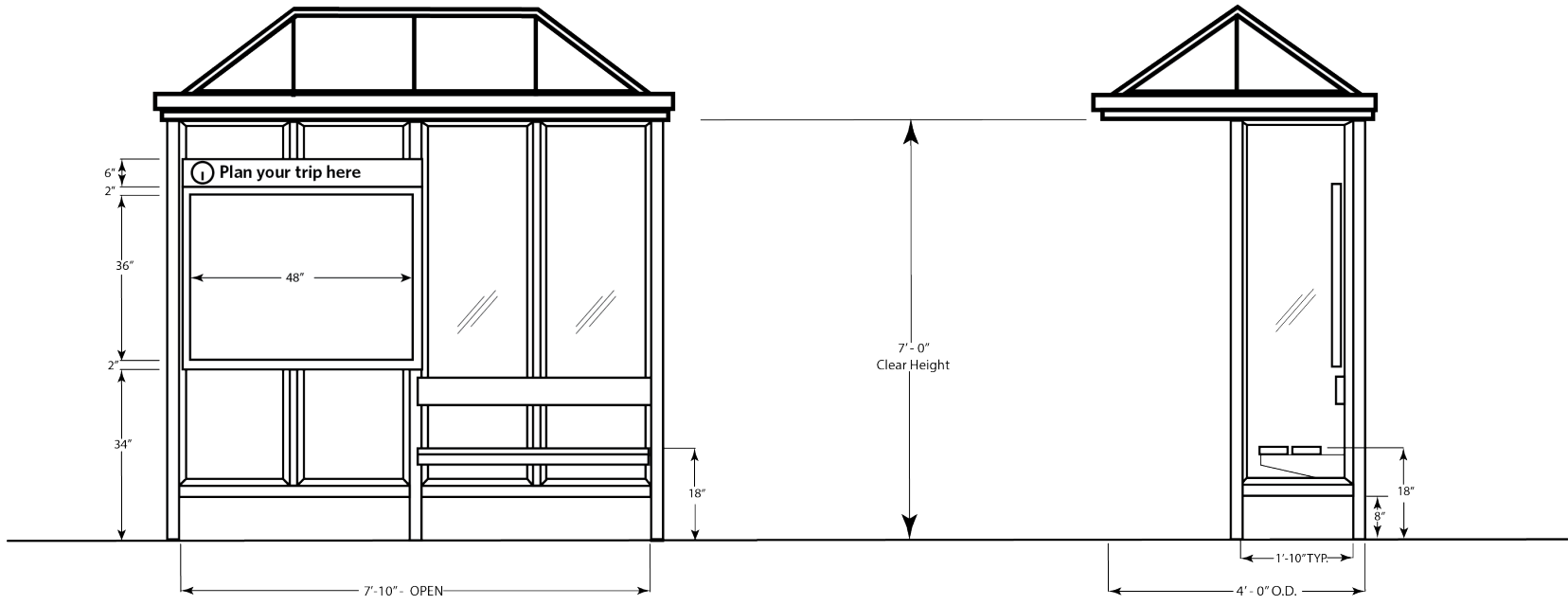
Side Elevation

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Plan View

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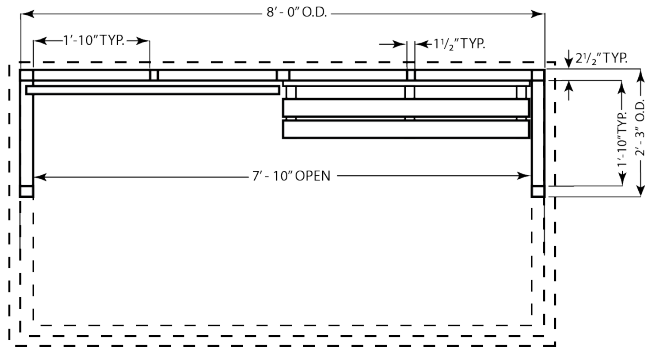


Front Elevation

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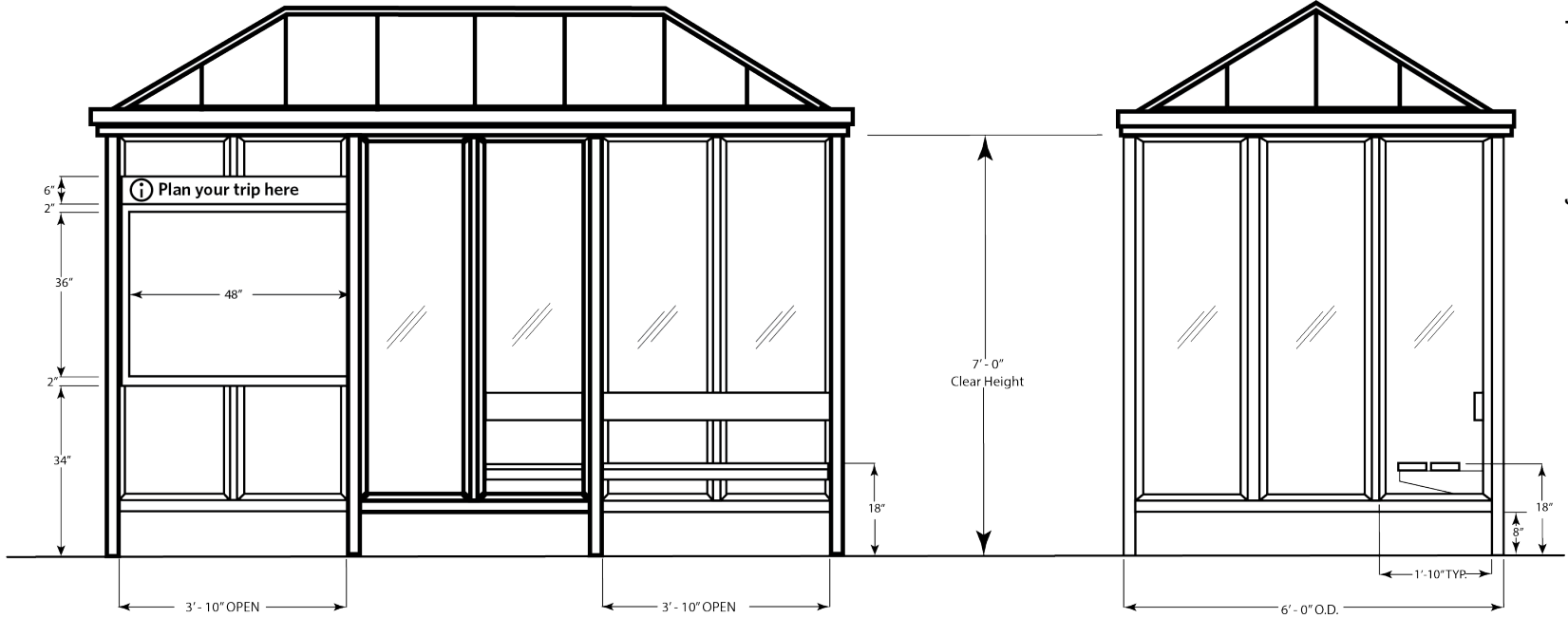
Side Elevation

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Plan View

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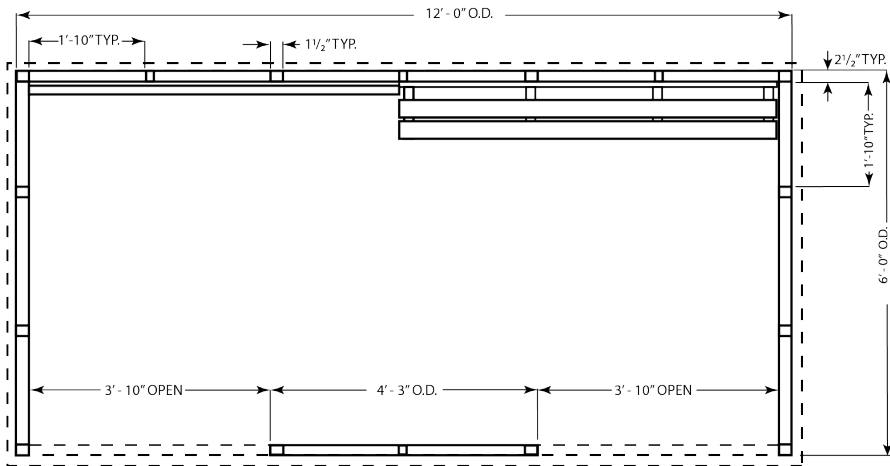


Front Elevation

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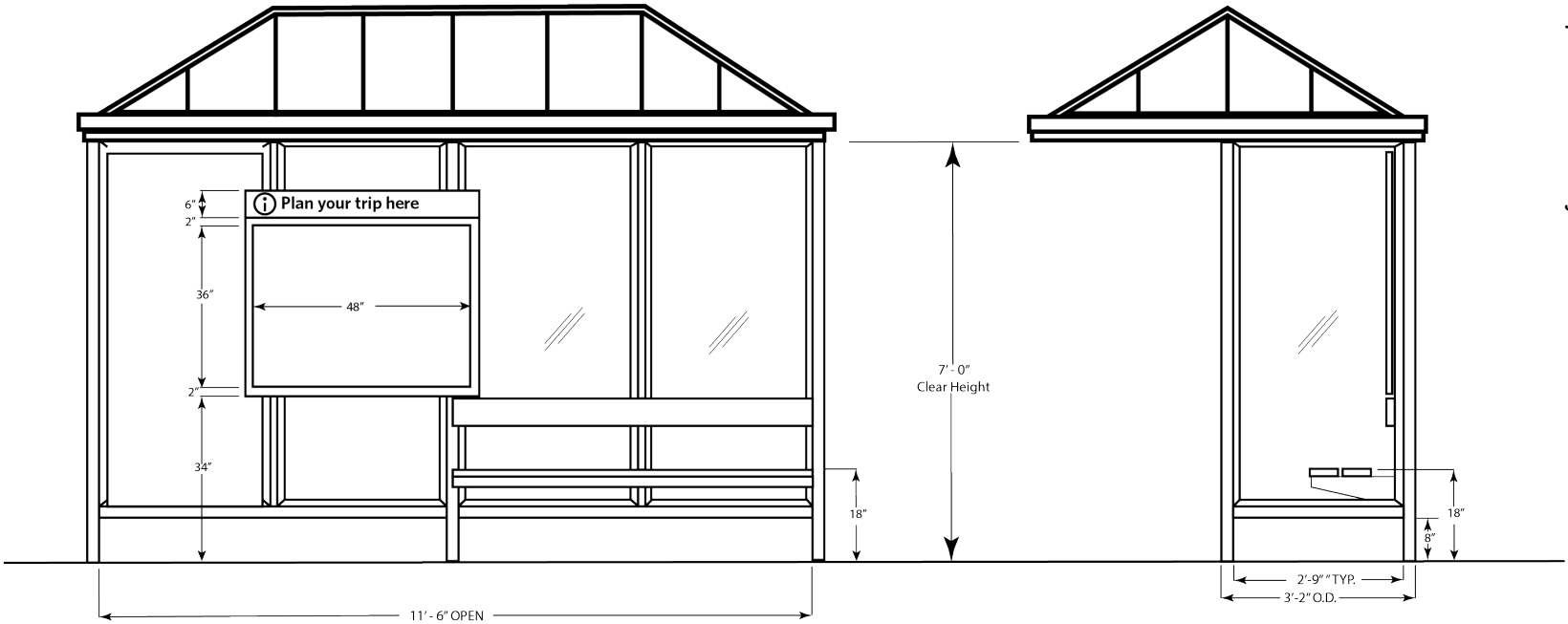
Side Elevation

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Plan View

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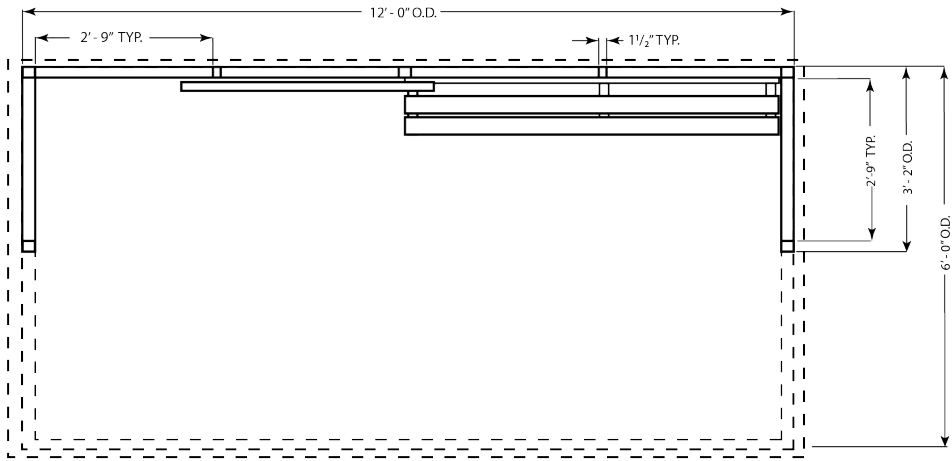


Front Elevation

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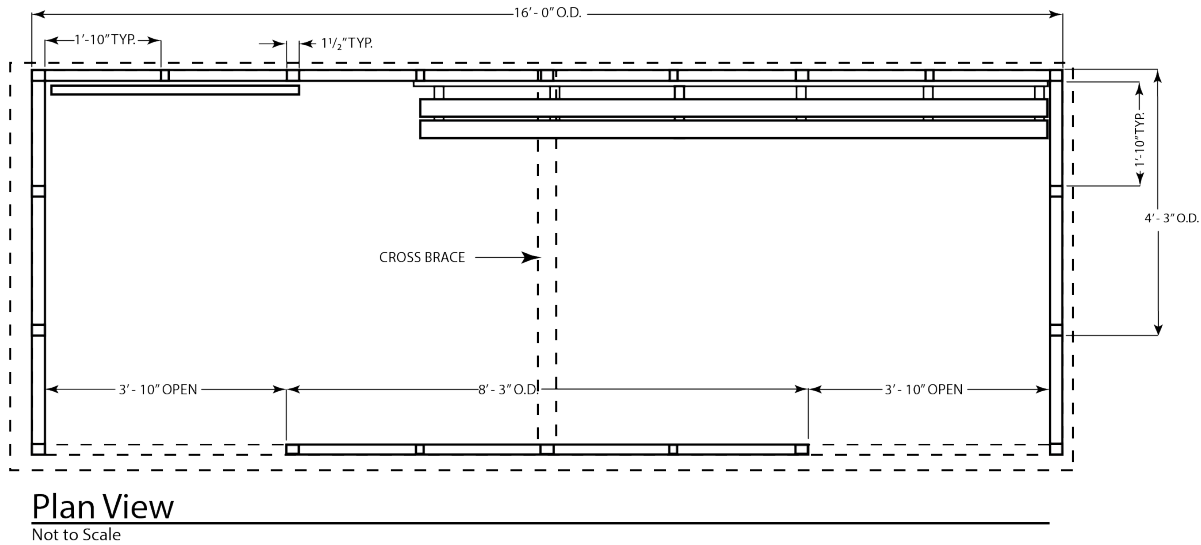
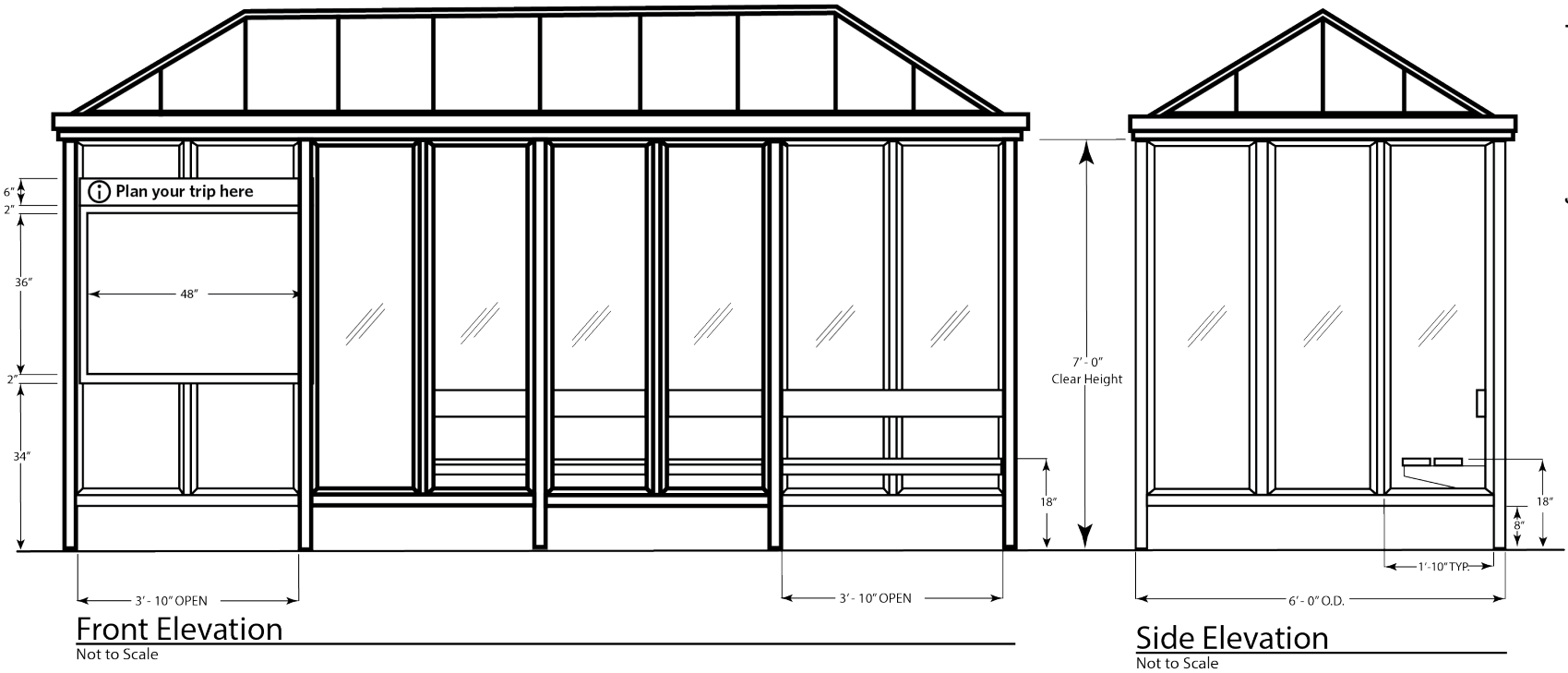
Side Elevation

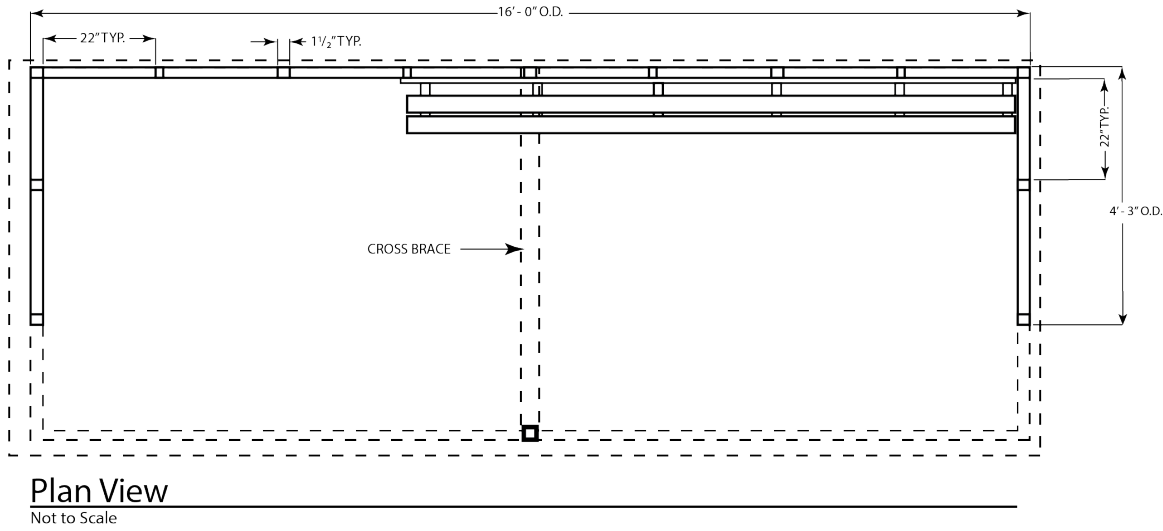
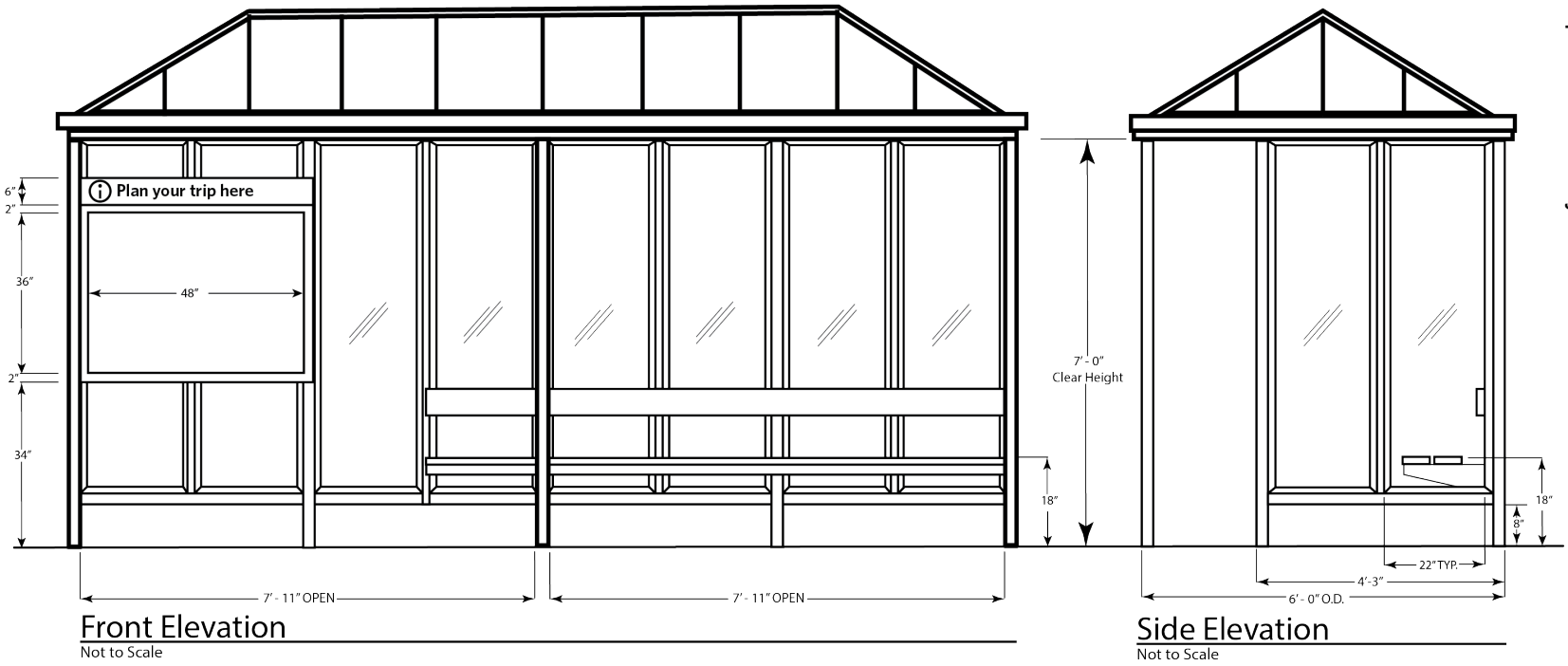
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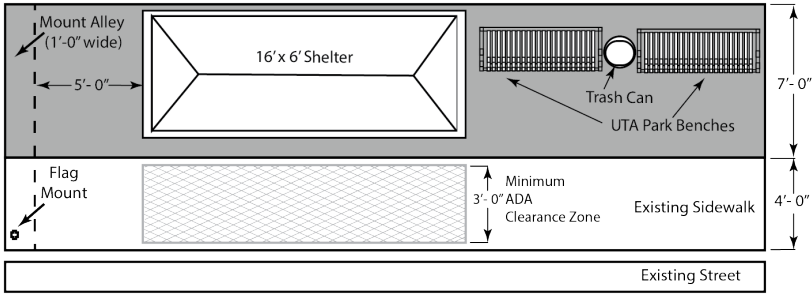


Plan View

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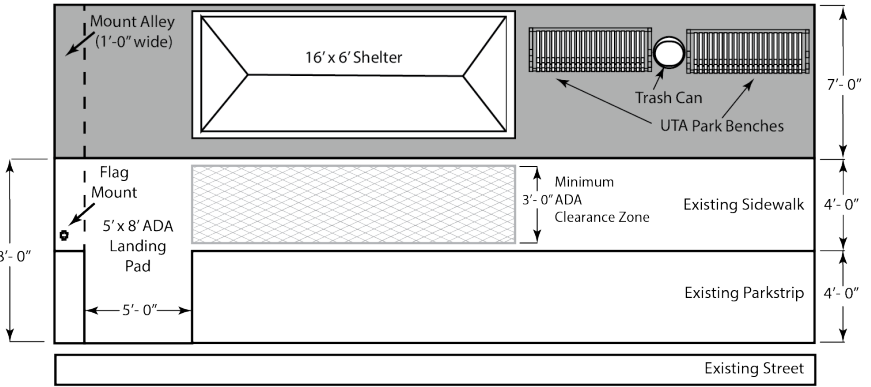






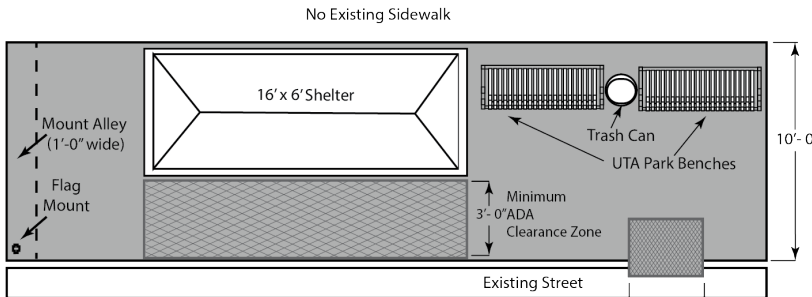
Existing Sidewalk Adjacent to Curb and Street

Not to Scale



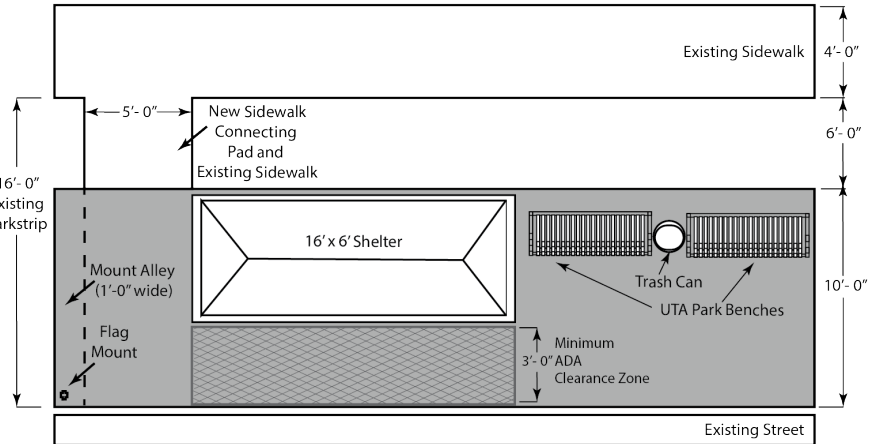
Existing 4'-0" Parkstrip Adjacent to Curb and Street

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No Existing Sidewalk or ADA Connection

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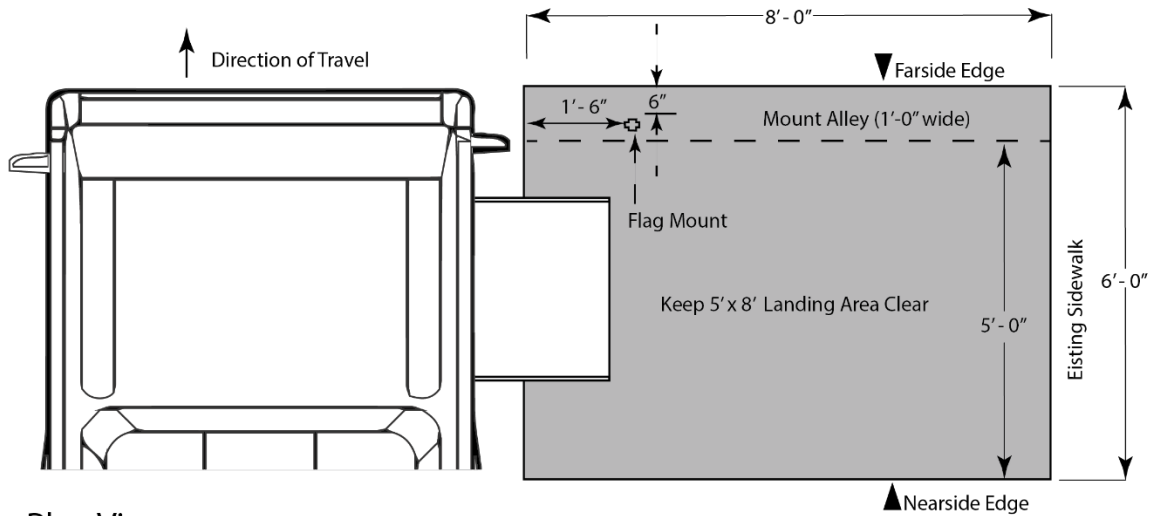


Existing 16'-0" Parkstrip Adjacent to Curb and Street

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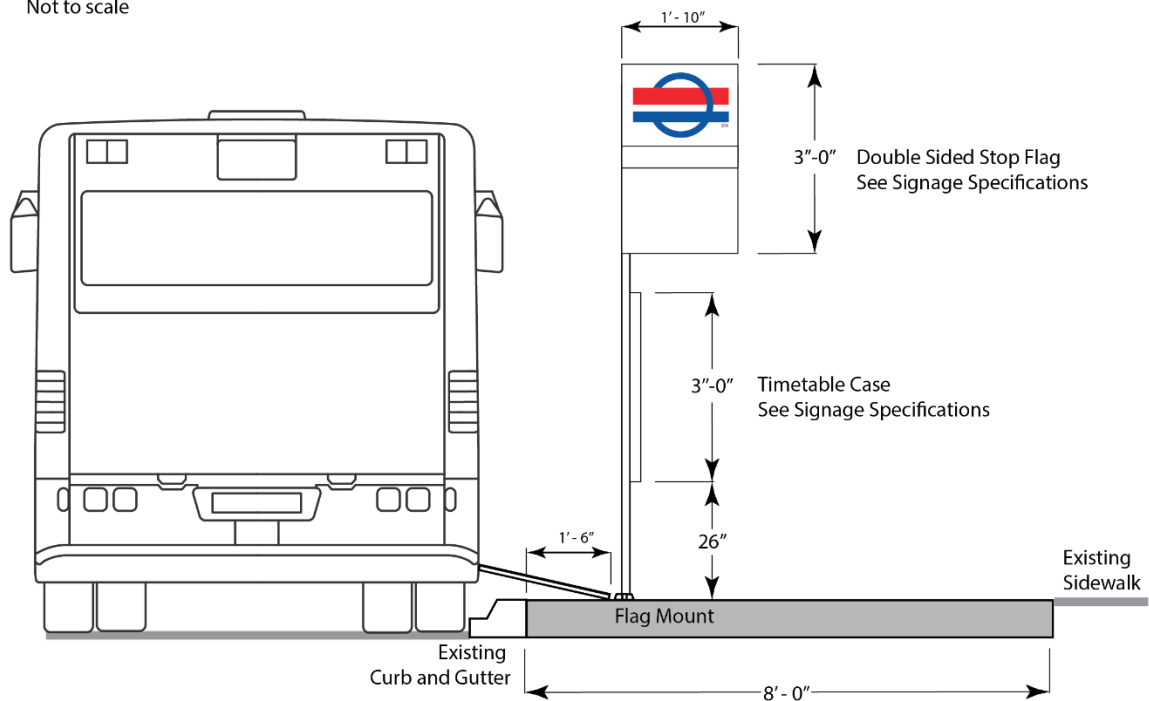
Bus Stop Designs by Level
Level I Bus Stop Design (Typical)

Updated January 2019



Plan View

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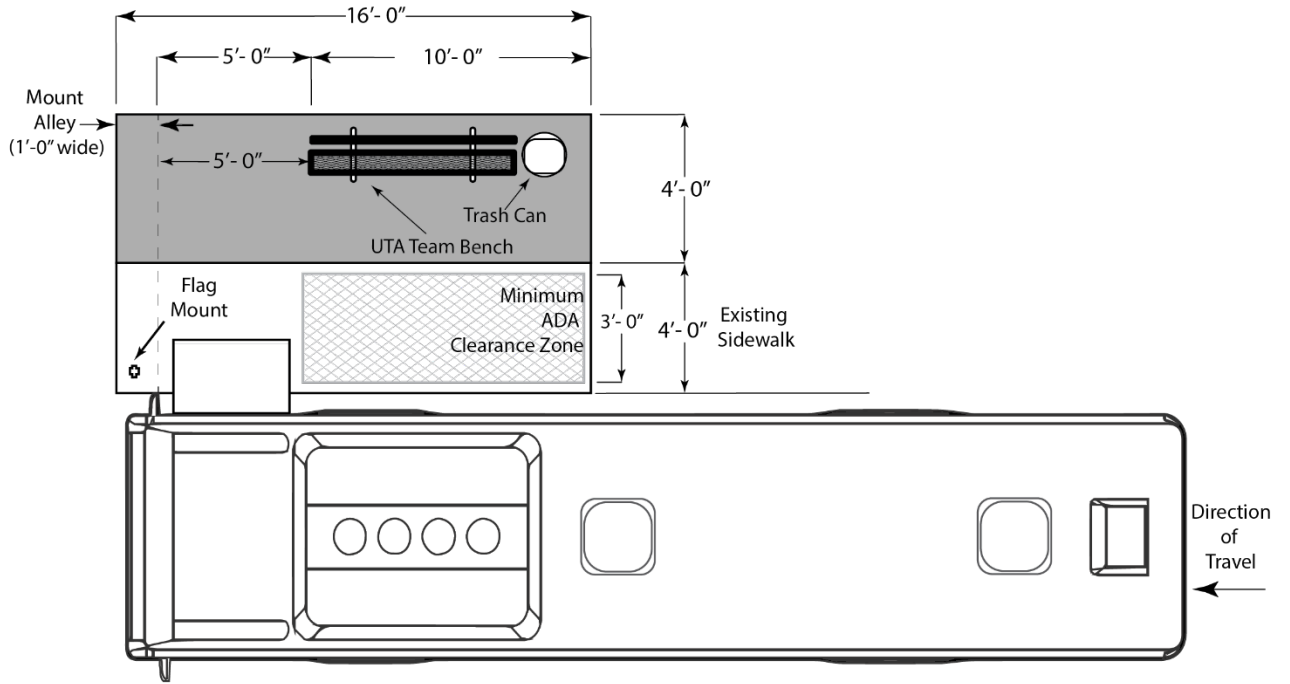


Side Elevation View

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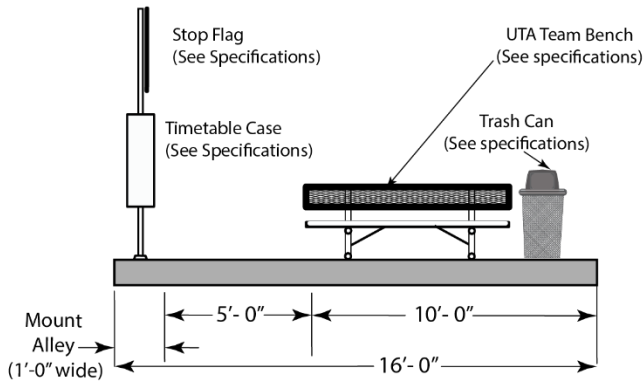
Level II Bus Stop Design (Typical)

Updated January 2019



Plan View

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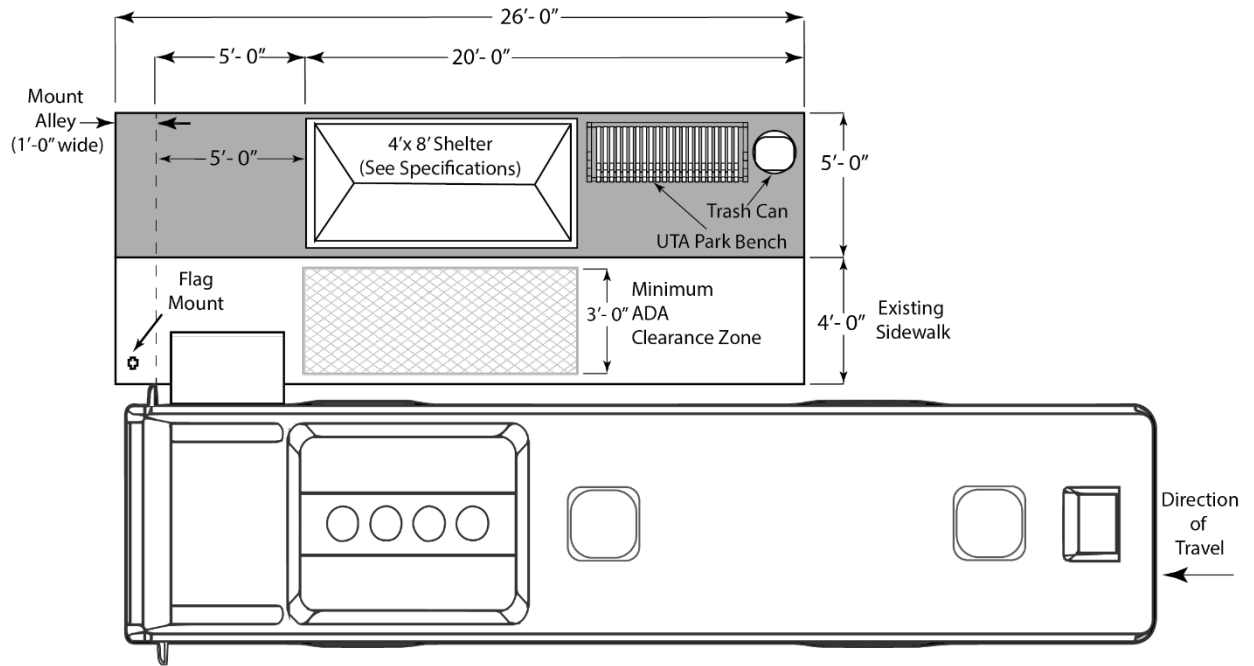


Front Elevation View

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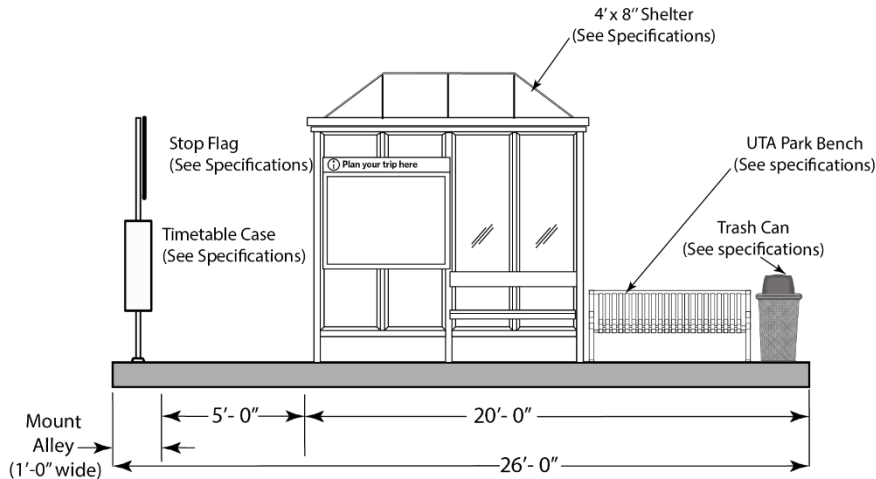
Level III Bus Stop Design (Typical)

Updated January 2019



Plan View

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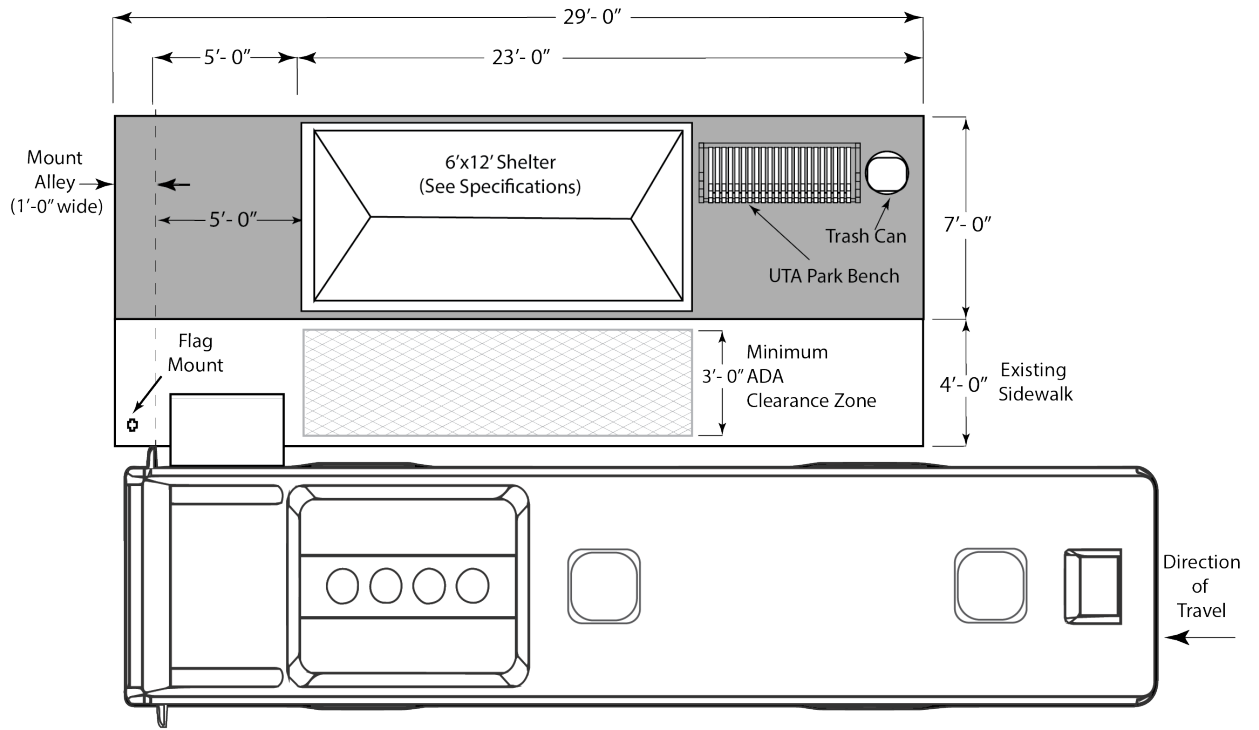


Front Elevation View

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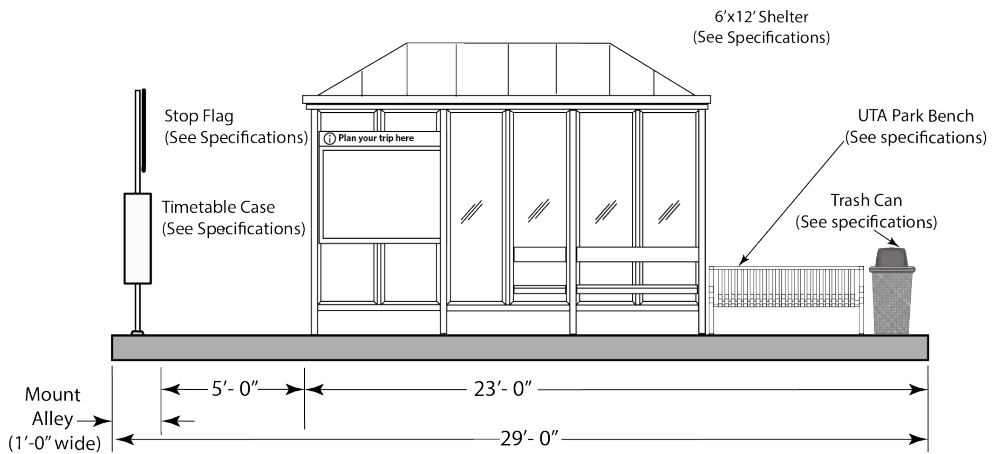
Level IV Bus Stop Design (Typical)

Updated January 2019



Plan View

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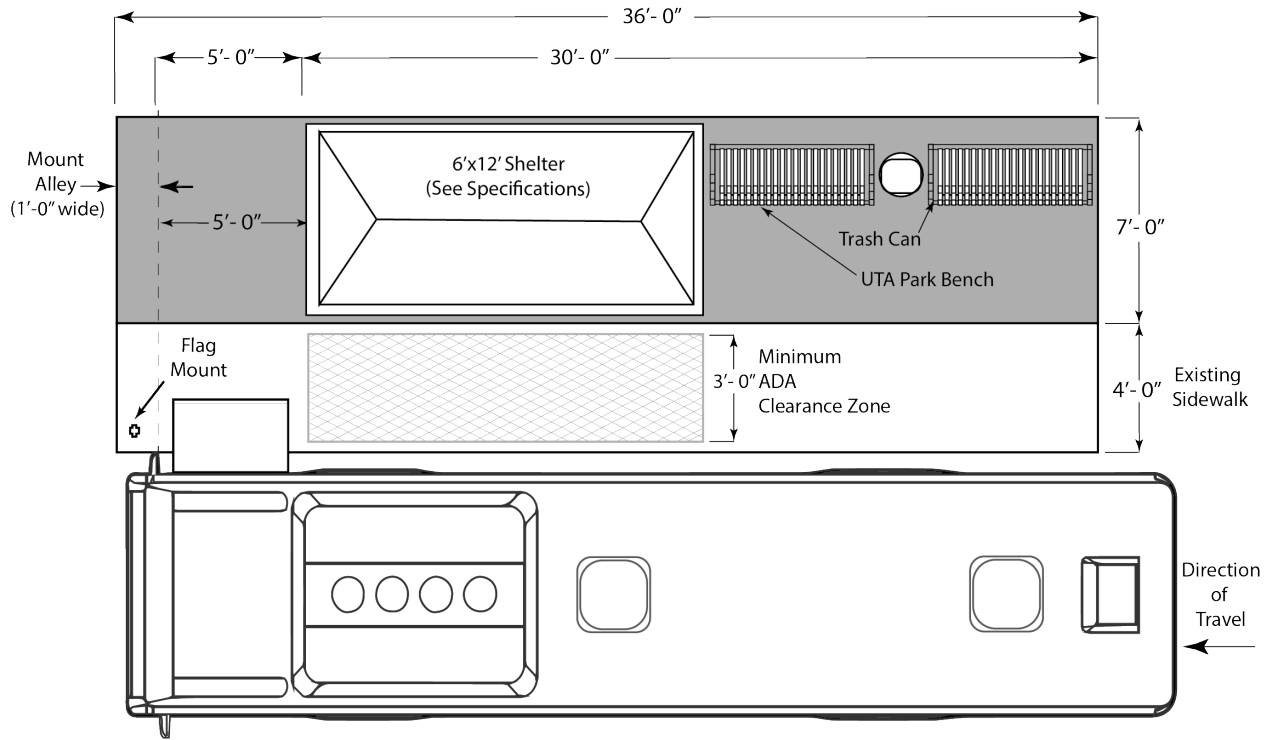


Front Elevation View

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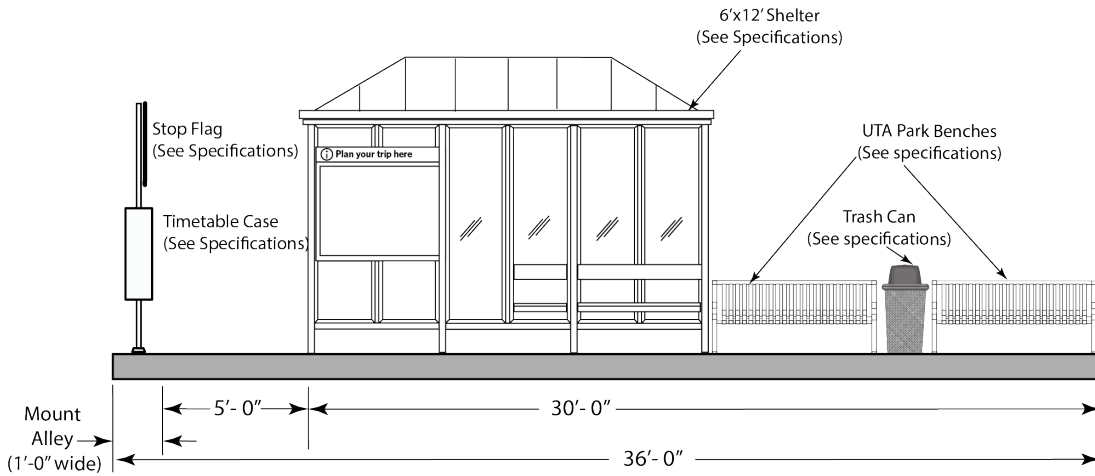
Level V Bus Stop Design (Typical)

Updated January 2019



Plan View

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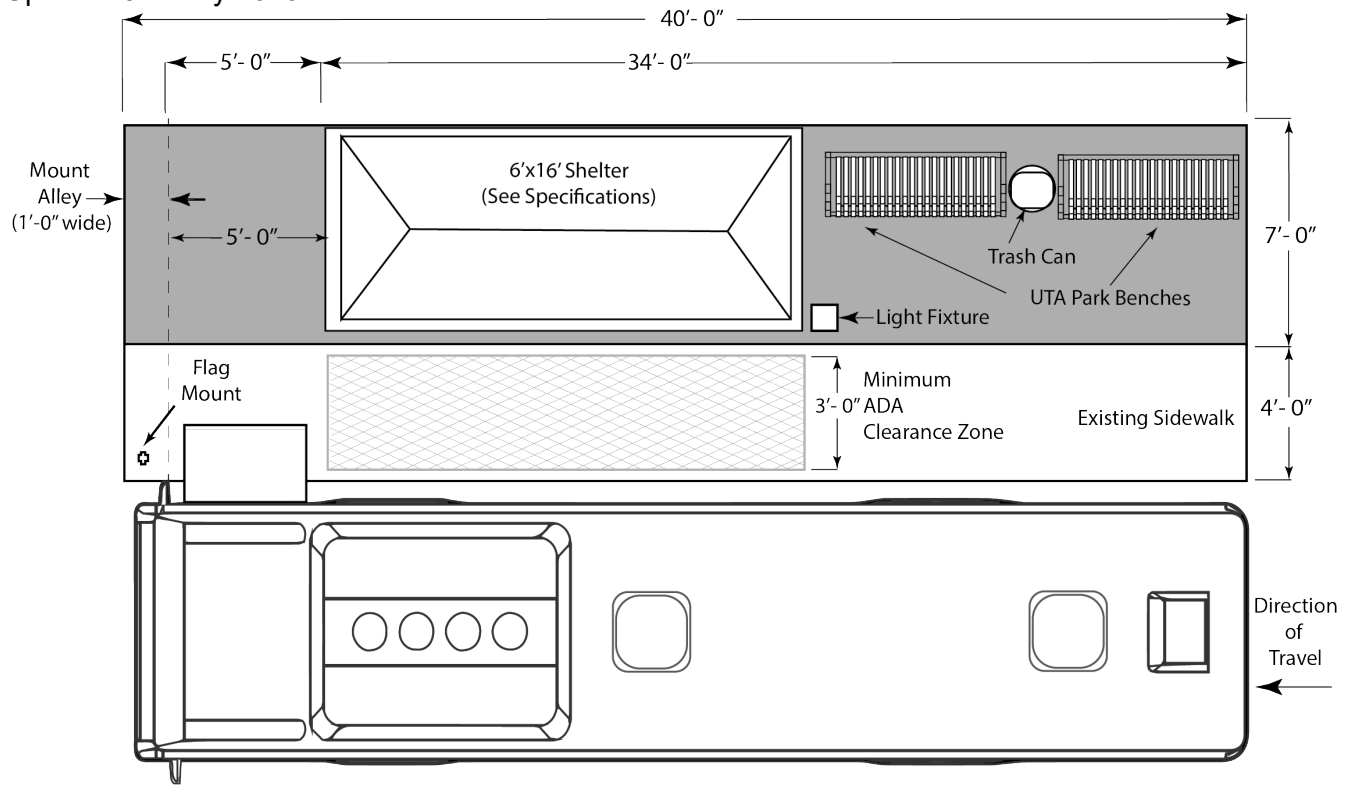


Front Elevation View

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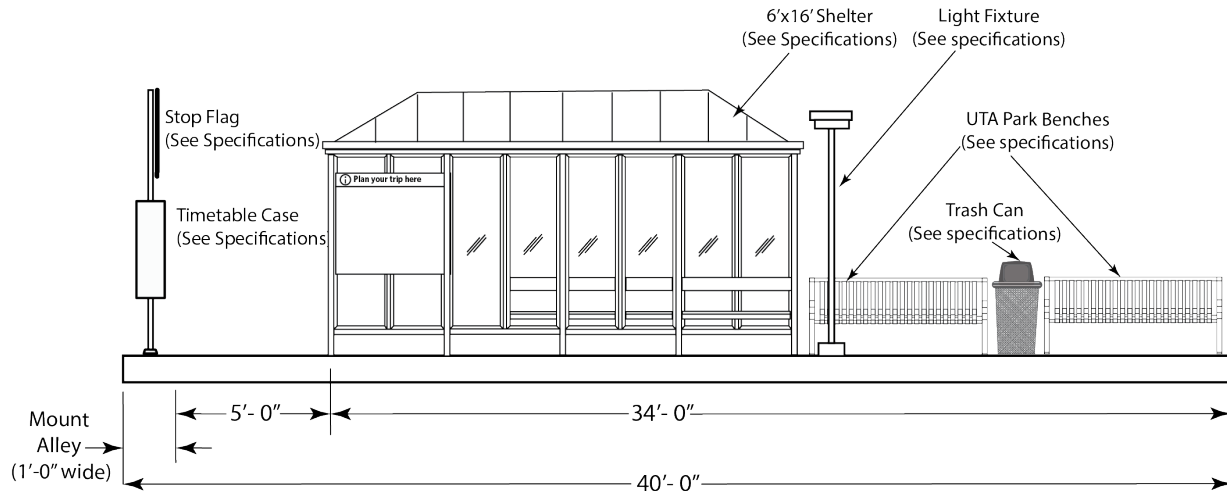
Level VI Bus Stop Design (Typical)

Updated January 2019



Plan View

Not to scale

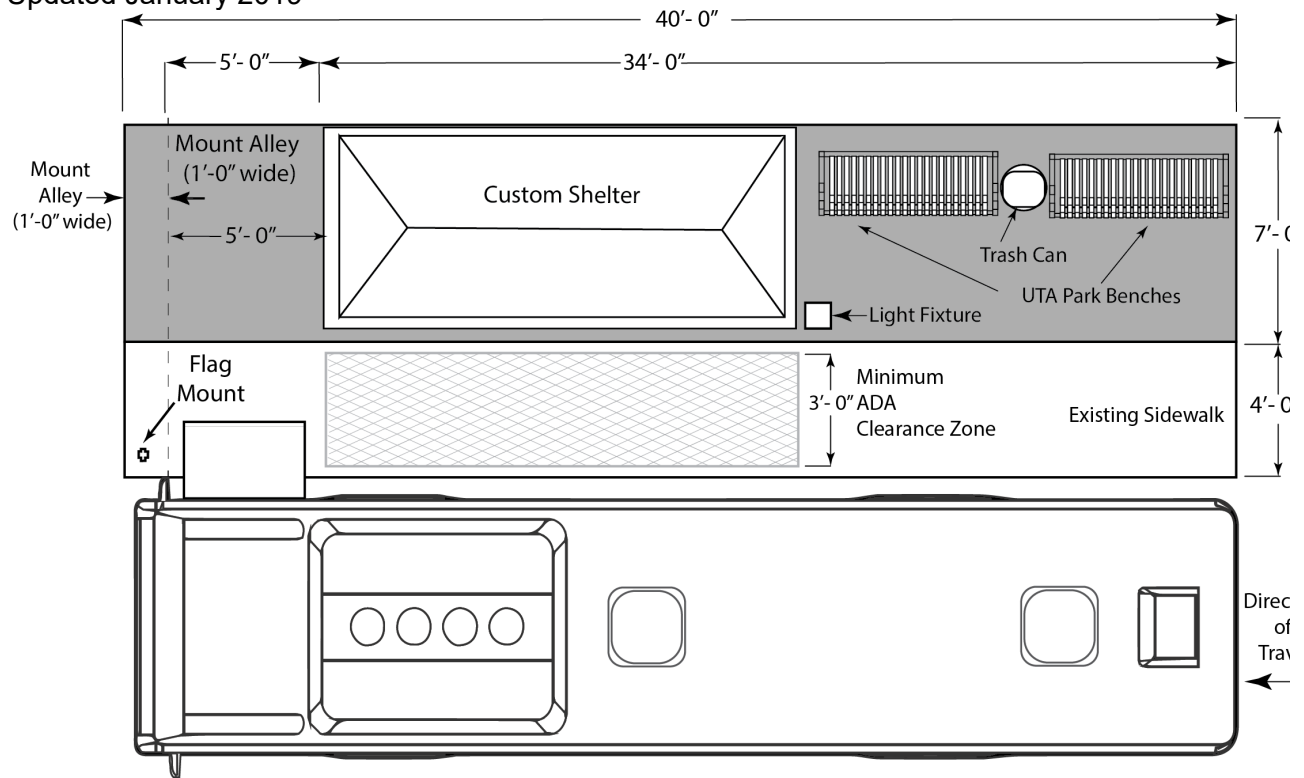


Front Elevation View

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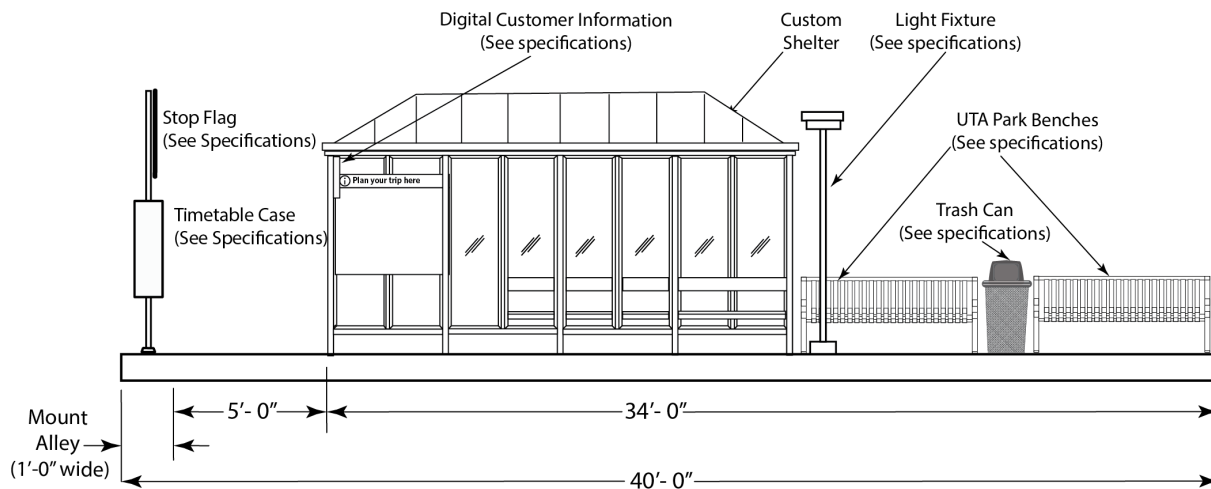
Level VII Bus Stop Design (Custom)

Updated January 2019



Plan View

Not to scale

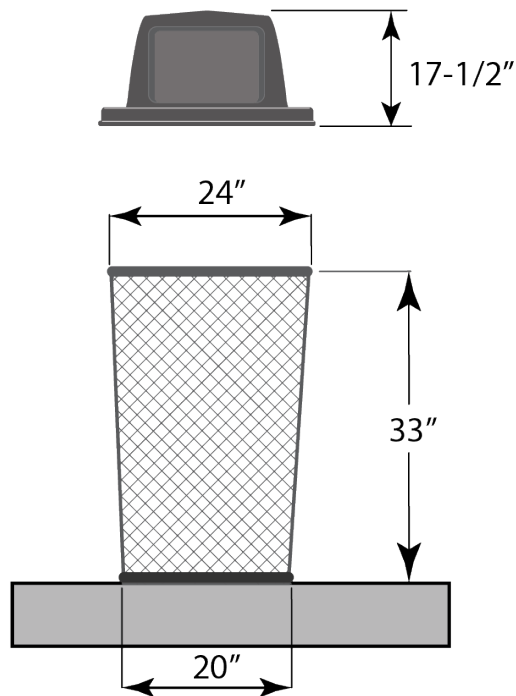


Front Elevation View

Not to scale

- UTA has chosen the Brasco 'Eclipse' series for custom shelter applications
- They are available in 5' depth by lengths of 8', 10', 12', 14', 16'
- The shelter may be customized with features such as interior lighting, branded glass panels and digital real-time signage
- Various wall glazing options are available, including tempered glass, laminate glass or perforated aluminum, all of which can be tailored with custom branding elements

Trash Can and Bus Bench Specifications



Trash Container Dome Top

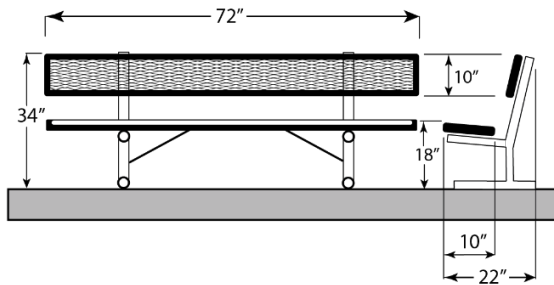
- Black colored
- 26" x 17-1/2"
- Wide rim and tight-fitting door
- Rain deflector
- Fits the Huskee container model #4442, 4443 & 4444

Trash Container

- Dimensions: 33" high x 24" Top Dia. and 19" Bottom diameter
- Weight: 33 lbs.
- Finish: Hot dipped galvanized
- Capacity 45 gal.
- UPS: Can ship UPS. Ships at UPS 70 LB. rate
- Sides are Constructed of 16 gauge steel, base is constructed of 18 gauge steel
- Color: Galvanized Steel

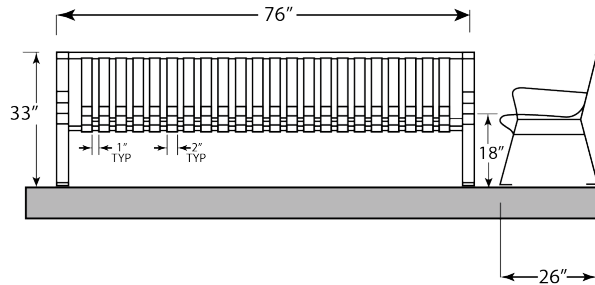
Updated June 2018

Team Bench

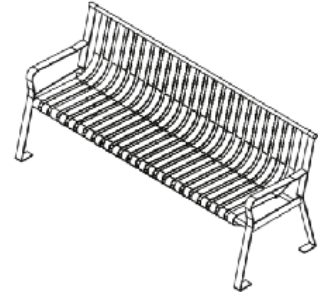


- Overall Length: 72"
- Overall Height: 34"
- Overall Depth: 26"
- Seat Height: 18"
- Seat and Back: 10" x 72" (11 gage die formed angle frame 1" x 1 7/8" with 3" radius corners, 3/4" #9 steel expanded metal. 10 gauge x 1-1/2" flat bar center support and mounting bracket understructure. Electrically MIG welded.
- Hardware: Benches should be in knock-down condition in the largest modular sections possible. Benches will be assembled after delivery by UTA personnel. All hardware and fasteners to be stainless steel.
- Mounting: Benches will be surface mounted. The legs will have a perpendicular cross bar (approximately 24") to increase stability and allow the bench to be self-standing. A 12" long angle iron will be welded to both cross bars and have 2 pre-drilled 1/2" holes for mounting the bench to concrete with concrete anchors (to be provided by UTA) This angle iron should be at least 2" wide and 1/4" thick. See image.
- Frame Coating: Electrostatic powder coated black application and oven cured
- Seat Finish: Seat to be thermoplastic coated in blue.
- Benches should be fully warrantied from defects for 1 year from date of delivery.

Park Bench

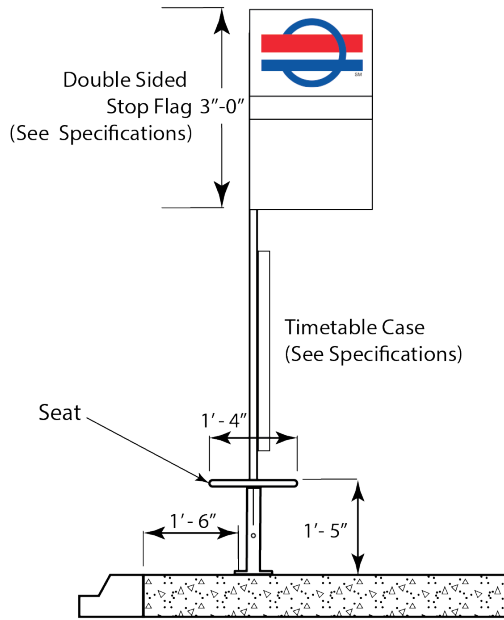


- Overall Length: 76"
- Overall Height: 33"
- Overall Depth: 25"
- Seat Height: 18"
- Seat Slats: 2" wide (3/16" gauge) mild steel slats with 1" space
- Legs and brace: 1/4" gauge mild steel legs and cross braces
- Center Brace: 1/2" steel rod
- Tube Rails: 1" (14 gauge)
- Finish: Electrostatically applied polyester power coated over shot blasted and zinc primer coated substrate
- Hardware: Benches should be knock-down condition in the largest modular sections possible. Benches will be assembled upon delivery by UTA personnel
- Mounting: Surface mount is required with mounting hardware
- Warranty: Benches should be fully warrantied from defects for 1 year from date of delivery



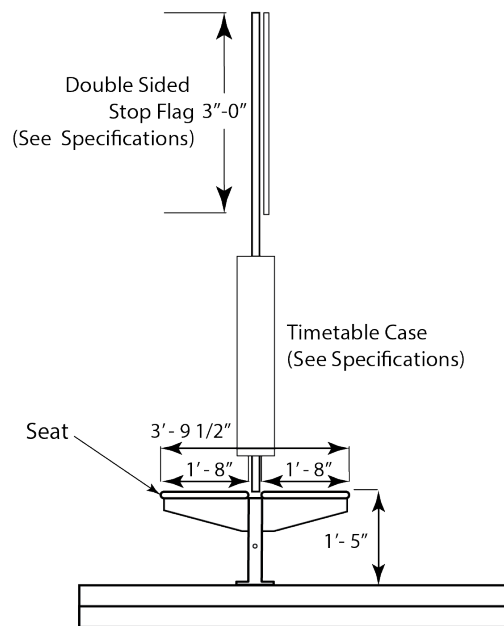
Updated June 2018

'Simme' Seat Specifications (Typical)



Side Elevation

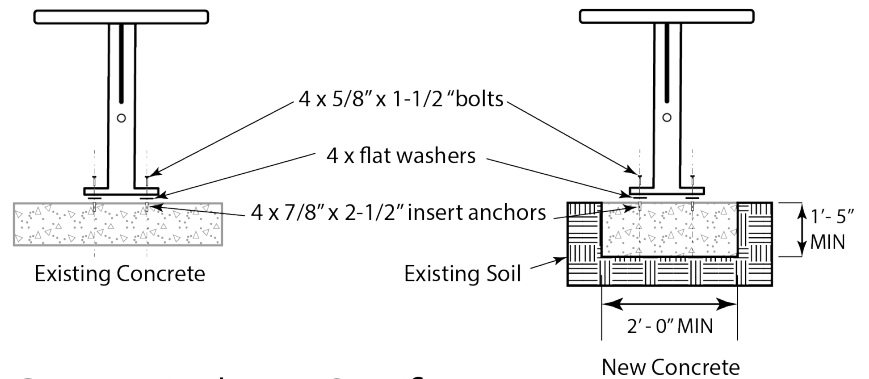
Not to Scale



Front Elevation (from street)

Not to Scale

- Simme bus stop seat shall include a tube dimensioned to encompass a 2" x 2" sign post.
- The Simme-Seat mounts to a 2"x2" square steel bus stop sign pole or a seat divider.
- The seat may consist of a single or pair of rigid seats connected to the tube on opposite sides of the tube.
- Seats are 17" inches in height above grade and provide seating for one or two people.
- Seat shall be powdered coated steel and designed for external use.
- Seat shall be rated to hold 500 pounds on per seat
- Seat divider is 1" bent tubing fabricated in a 14" half round and mounted on square tubing that can be secured in the receiver in the Simme Seat
- Seat shall meet American with Disability Act (ADA) requirements.
- Seat shall include an anchoring metal plate attached to the lower end of the center tube.
- All required drop-in anchors and bolts for mounting the seat to a sidewalk or other concrete surface shall be included.



Concrete Anchoring Specifications

Not to Scale

Bus Stop Signage (Typical)



- One or two routes
- Bus Bays

- Three to six Routes

- Color coded

- Seven to nine routes

Technology

[THIS SECTION IS UNDER DEVELOPMENT]

1. Electrical power source
 - a. Wired (Preferred)
 - b. Solar
2. Data connectivity source
 - a. Backend – who manages it, hosted (Vendor) or onsite (UTA)
3. Total Cost of Ownership
 - a. Cost of Sign
 - i. Maintenance
 1. Monitoring for device health and content integrity
 2. Servicing, cleaning, and visible maintenance
 - ii. Warranty – length of warranty
 - b. Cost of and Options for Content Management
 - i. Hosted – only vendor furnished
 - ii. Hosted – Hybrid, meaning UTA and Vendor can upload
 - iii. Onsite – UTA is responsible for content uploads
 - c. Cost of Data Connectivity
 - i. Hard Wired – Copper or Fiber cable to UTA network
 - ii. Cellular –
 1. Hosted (Vendor)
 2. Onsite (UTA)
4. Cost of Installation
 - a. UTA installed
 - b. Vendor installed

Appendix C – Cost Estimates

Capital, Design and Engineering Cost Estimates

Capital Cost Category	Description	Sq. Ft.	Estimated Cost (\$) *
Contractor Mobilization	Standard Requirement		\$800
ADA Landing Zone	ADA Landing Zone Pad (6' x 8')	48	\$624
Concrete Amenities Pad**	16' x 4' Concrete Pad	64	\$832
Concrete Amenities Pad**	26' x 5' Concrete Pad	130	\$1,690
Concrete Amenities Pad**	29' x 7' Concrete Pad	203	\$2,639
Concrete Amenities Pad**	36' x 7' Concrete Pad	252	\$3,276
Concrete Amenities Pad**	40' x 7' Concrete Pad	280	\$3,640
Concrete Amenities Pad**	Carlisle - Sidewalk		\$1,800
Concrete Amenities Pad**	Carlisle - Sidewalk & Amenity Pad		\$3,300
Pole & Hardware	8' pole (Pedestal Mount)		\$85
Bus Stop Sign	Aluminum		\$17
Bus Stop Flag	Aluminum		\$6
Parkstrip Pour	Parkstrip Pour (4' x 20')		\$900
Simme Seat	Two-seat model (includes hardware)		\$600
Simme Seat	Single seat model (includes hardware)		\$500
Simme Seat	Square poles		\$110
Trash Receptacle	Trash Receptacle		\$170
Trash Receptacle	Trash Receptacle Lid		\$80
Bench	Team Blue Bench (with back)		\$150
Bench	Park Bench		\$700
Bench	Park Bench (Anti-sleeper add \$150)		\$850
Shelter	4'x8' Shelter	32	\$3,275
Shelter	4'x8' Shelter (Cantilever)	32	\$2,745
Shelter	6'x12' Shelter	72	\$4,775
Shelter	6'x12' Shelter (Cantilever)	72	NA
Shelter	6'x16' Shelter	96	\$6,000
Shelter	6'x16' Shelter (Cantilever)	96	\$6,000
Shelter	Custom Shelter (i.e. Ski Shelter)	96	\$11,000
Shelter	9 x 12 Steel Post and Glass Shelter	108	\$8,725
Fixture	Light Fixture		\$1,000
Customer Information	Digital Signage		\$2,500
Bike Rack	Bike Rack		\$555

Engineering Work*	Description	Estimated Cost (\$) *
UTA Design Needed	Engineering & Flatwork Design	\$2,000
Miscellaneous Repairs	Unforeseen obstacles on site	\$400

* 2018 Costs from Purchasing and Capital Development

** Concrete Costs Per Sq Ft = \$13.00

Capital, O&M and Total Lifecycle Costs by Stop Level Type

Description	Level I	Level II	Level III	Level IV	Level V	Level VI	Level VII
Contractor Mobilization	\$800	\$800	\$800	\$800	\$800	\$800	\$800
Pole and Mount	\$200	\$200	\$200	\$200	\$200	\$200	\$200
ADA Landing Zone Pad (6' x 8')	\$720						
16' x 4' Concrete Pad		\$960					
26' x 5' Concrete Pad			\$1,950				
29' x 7' Concrete Pad				\$3,045			
36' x 7' Concrete Pad					\$3,780		
40' x 7' Concrete Pad						\$4,200	\$4,200
Team Blue Bench		\$170					
Park Bench			\$700	\$700			
Two (2) Park Benches					\$1,400	\$1,400	\$1,400
Trash Can		\$170	\$170	\$170	\$170	\$170	\$170
4'x8' Shelter			\$3,225				
6'x12' Shelter				\$4,575	\$4,575		
6'x16' Shelter						\$5,995	
Custom (i.e. Ski Shelter etc)							\$11,000
Lighting Fixture						\$1,000	\$1,000
Digital Customer Information							\$2,500
Total Capital Cost	\$1,720	\$2,300	\$7,045	\$9,490	\$10,925	\$13,765	\$21,270
Contingency Work	-	\$9,500	\$9,500	\$9,500	\$9,500	\$9,500	\$9,500
Total Estimated Capital Cost	\$1,720	\$11,800	\$16,545	\$18,990	\$20,425	\$23,265	\$30,770

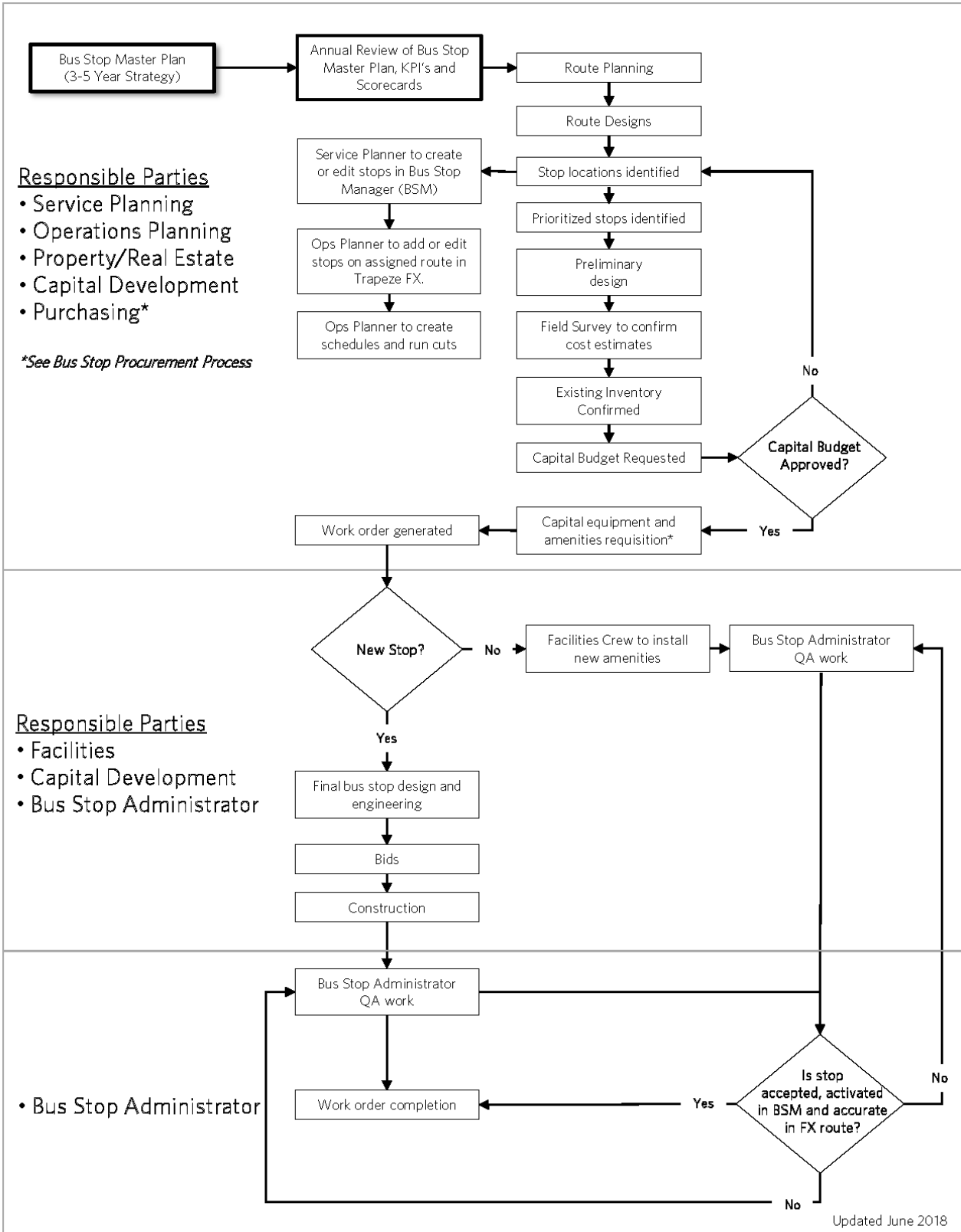
Operating Cost Description	Level I	Level II	Level III	Level IV	Level V	Level VI	Level VII
Power Washing	\$77	\$102	\$208	\$325	\$403	\$448	\$448
Window Cleaning	-	-	\$51	\$115	\$115	\$154	\$154
Trash Pick-up	-	\$480	\$480	\$480	\$480	\$480	\$480
General Maintenance & Repairs	\$430	\$575	\$1,761	\$2,373	\$2,731	\$3,441	\$5,318
Removal & Demolition	\$430	\$575	\$1,761	\$2,373	\$2,731	\$3,441	\$5,318
Total Estimated Annual O&M*	\$937	\$1,732	\$4,262	\$5,665	\$6,461	\$7,964	\$11,717
Total Estimated Lifecycle O&M	\$18,736	\$34,648	\$85,234	\$113,300	\$129,218	\$159,282	\$234,332

Assumptions

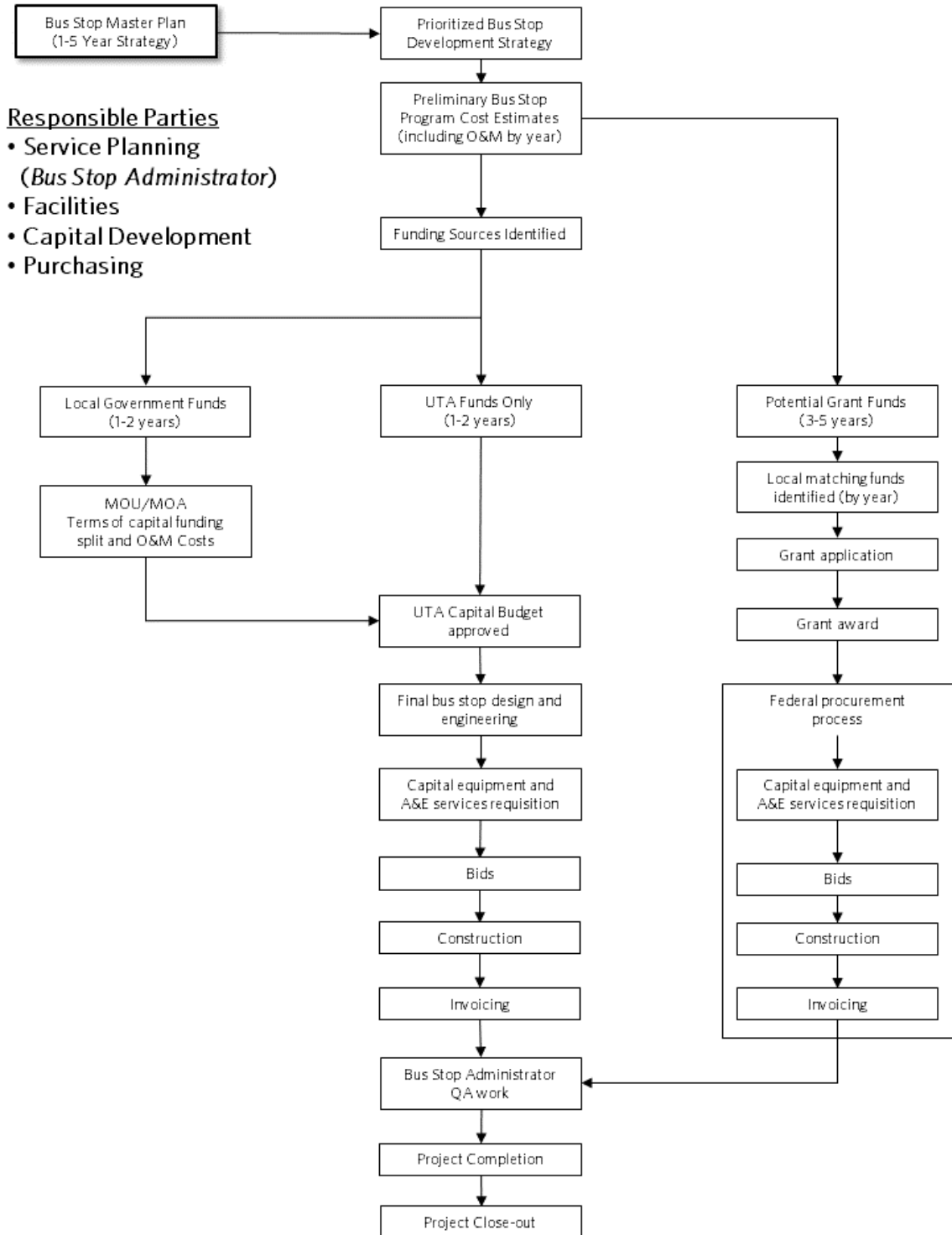
Fully Loaded Hourly Rate	\$40.00	= \$25.00/ hr * 16 (Benefits)
Power Washing	30 min. per 100 sf @4 x year	
Window Cleaning	30 min. per 100 sf @4 x year	
Trash Pick-up	30 min. per can @24 x year	
General Maintenance & Repairs	25% of capital cost	
Removal & Demolition	25% of capital cost	
Amenities Lifecycle	20 years	

Appendix D – Processes

Bus Stop Administration Process




Bus Stop Amenity Procurement Process



Responsible Parties

- Service Planning
(Bus Stop Administrator)
- Facilities
- Capital Development
- Purchasing

Bus Stop Administration Standard Operating Procedure

Standard Operating Procedure		
No.	Effective Date:	Supersedes: BU7.0
Applies to: Service Planning, Bus Control, Capital Development, Salt Lake Business Unit, Facilities, Mt. Ogden Business Unit, Timpanogos Business Unit, Planning Department.		
Title: UTA Bus Stop Administration		

Purpose: To assist the Business Units and other UTA Departments in providing bus stops that are designed to make transit more convenient, accessible and aesthetically appealing to transit users. The proper design of transit bus stops will increase transit access and convenience by eliminating barriers, especially for those individuals with mobility limitations. The appeal of public transportation will be increased further by the installation of amenities that: (a) enhance the attractiveness of public transportation, (b) increase passengers’ comfort levels and feelings of security, (c) provide bus stop locations that are designed with paved waiting pads and where appropriate, shelters, benches, windbreaks etc. (d) provide customers with timely, accurate information about the arrival and departures of routes serving these stops (e) with consideration given to the private or public property owner needs and requirements where the amenities will be located.

Application: Business Unit General Managers, Service Planners, Operations Planners, Bus Stop Administrator, Training, Schedulers, Facilities Road Crew, Operations Supervisors, Capital Development and State of Good Repair

Procedure: Concrete pads, posts, flags, shelters, benches or other amenities will only be installed at an official bus stop location upon approval from the Bus Stop Administrator with input from the Service Planning Division and Operations Planning group. The Service Planning Division will approve the relocation of an existing bus stop in order to provide for the safe operation of the bus, more efficiency in serving adjacent stops or in relation to vehicle and pedestrian movements, including ADA considerations. These actions will only be taken with the approval of the private property owner (adjacent to the public right of way), local municipality, county or state government (UDOT).

Schedule: The Bus Stop Administrator will prepare the Annual Bus Stop Planning Reports according to the same schedule as outlined in the Five Year Service Plan so that there is coordination between service plan improvements and the installation, consolidation or elimination of bus stops.

Supporting Documentation: Bus Stop Master Plan, Five Year Service Plan

Practice:

1. Bus Stop Planning and Prioritization

Using the Bus Stop Master Plan and Five Year Service Plan, bus stop locations are identified and prioritized annually for installation, improvement (receive new bus stop amenities), consolidation or removal. Specific recommendations for improvements, consolidation or removal will be developed with consideration to the location, ADA compliance, service to Title VI communities, total stop activity, service levels and safety. This prioritization process will use a scoring matrix that ensures that equitable comparisons are made among all of the bus stops in the system. The current scoring matrix can be found in Exhibit A.

The prioritized stops will then have capital improvement and operating costs calculated for each stop on the list. The lists will finally be segmented by County. These lists are collectively referred to as the Annual Bus Stop Planning Reports.

Exceptions to the Annual Bus Stop Planning Report prioritized list may be granted in cases where there are:

- a. Immediate risks to the safety of customers or UTA vehicles
- b. Requests from cities or other municipalities (as determined by the Regional General Managers) who may want to contribute to the cost of the improvements
- c. Bus stop improvement requests are received via the customer comment program (TransTrack)
- d. Other unanticipated circumstances related to the administration of the Bus Stop Master Plan

2. Bus Stop Design Criteria

UTA bus stop design criteria shall follow the guidance as established in the Bus Stop Master Plan in the appendix titled ‘Bus Stop Construction and Design Specifications’.

3. Title VI, Americans with Disabilities Act (ADA) and Architectural Barriers Act Compliance

The Service Planners, Bus Stop Administrator and Capital Development engineers will ensure that the design and installation of any bus stop and associated amenities, (by UTA, local or state government agency or private agency), at an official UTA bus stop, meets the Americans with *Disabilities* Act (ADA), Section 504 of the Rehabilitation Act of 1973 and the Architectural Barriers Act (ABA) and UTA Corporate Policy No. 1.1.28 - Title VI Compliance as they pertain to bus stops and public transit. A bus stop installation that does not meet these standards will not be accepted by the Bus Stop Administrator as “Completed”.

4. Bus Stop Program Budget

Using the prioritized list of stops on the Annual Bus Stop Planning Reports, the Bus Stop Administrator, along with the Service Planning Division, Capital Development and Facilities departments will prepare an annual schedule and preliminary budget request no later than October 31st of each year. This budget will be submitted for approval as part of the annual UTA capital budgeting process. (See also ‘Funding’ section below) The program budget shall include estimated labor and capital costs for design, procurement, construction and installation as well as all labor required for operating and maintaining the requested bus stops and amenities.(See also ‘State of Good Repair’ below)

5. Design, Procurement, Construction and Installation

Pending budget approval for the annual Bus Stop Planning Reports, the Service and Operations Planners, Bus Stop Administrator, Capital Development staff, contractors, surveyor, engineers etc., will conduct an on-site visit of each approved location. Service and Operations Planners as well as the Bus Stop Administrator will review engineering drawings and confirm compliance to ADA/ABA federal regulations and as well as operational safety standards before construction begins. (See also ‘Bus Stop Amenity Procurement Process’ diagram)

The Project Manager (Capital Development or designated contractor) will prepare Cooperative Agreement documents with local agencies and property owners and will obtain approval and signatures from all involved parties as required. This shall include sending a registered letter to the property owner(s) who will be directly affected by the installation of the bus stop. The Project Manager must obtain approval in writing prior to the installation of any facilities or amenities. The Project Manager will complete the

necessary requisitions, bid packages, contracting, permits, and follow through with development. Maintenance and upkeep of the facility will be conducted by UTA Facilities.

the Bus Stop Administrator will coordinate with the Capital Development and Facilities departments to schedule procurement, construction and installation (or removal) of the stops and amenities identified on the annual Bus Stop Planning Report (See also ‘Bus Stop Amenities Inventory’ below).

6. Bus Stop Amenities Inventory

In order to expedite the execution of the constructions and installation of the approved bus stop improvements, there will be an inventory of standard equipment maintained by the Facilities Department. The quantities of equipment maintained in this inventory will be calculated based on the average number of pieces of equipment that are used each year as part of the implementation of the bus stop program. This inventory is ‘universal’ meaning that the equipment held in inventory does not belong to a specific business unit and shall be accounted for through a centralized asset management process.

7. Bus Stop Data Management

All bus stops identified to be installed, improved, consolidated or removed per the Annual Bus Stop Planning Reports will be coordinated with each Business Unit Operations Planner(s) in order to update the bus stop information in Bus Stop Manager (BSM). It is the responsibility of the Bus Stop Administrator to maintain the integrity of the data associated with each bus stop in the BSM.

Each year the Bus Stop Administrator will review the updates and changes in BSM in order to confirm that any and all changes that have been affected with regard to the execution of the Bus Stop Planning Report are accurate and timely. After the BSM has been updated the Bus Stop Administrator will again begin preparation of a prioritized list of bus stop improvements for the coming year.

8. Funding

The Service Planners, Bus Stop Administrator and Capital Development engineers will ensure that the appropriate funding for the design, installation and maintenance of any bus stop and associated amenities, whether by UTA, local or state government agency or private agency has been identified prior to the execution of any work. Sources of funding for the bus stop program may include but are not limited to:

- 5339 (a) Bus and Bus Facilities Formula Grant Funds
- 5339 (b) Bus and Bus Facilities Discretionary Funds
- 5339 (c) Bus and Bus Facilities Lo-no Grant Funds
- Local UTA Capital Funding
- Community Development Block Grant (CDBG) Funds
- Local municipal/DOT funding partnerships (full or partial match funding)
- UTA Operations and Maintenance Funding (Facilities)

The Bus Stop Administrator will ensure that operation and maintenance funding is budgeted annually for the Facilities Department to hire one (1) facilities service employee for approximately every twenty (20) additional bus stops that UTA is required to maintain. No new stops or amenities will be approved without first identifying funding for ongoing operation and maintenance of the new facilities.

Unobligated transit enhancement funds will roll over from one year to the next within a three year cycle and shall be managed by the Capital Development Department as part of the Bus Stop Program according to the schedule of improvements identified in the annual Bus Stop Planning Reports.

Local matching funds may be used for the construction and installation and maintenance of bus stops and amenities. Guidance for the use of local matching funds consists of the following:

- The Project Manager (Capital Development or designated contractor) will prepare Cooperative Agreement documents with partner funding agencies and will obtain approval, signatures and exceptions (i.e. waiving of permitting fees) from all involved parties as required.
- The partnering agency will provide for the operation and maintenance for the projected life of the amenity. Maintenance may be performed by the partner agency or UTA Facilities Department by agreement.
- The partnering agency is expected to provide at least 20% funding for the project if federal transit enhancement funds are used.
- The partnering agency is expected to provide at least 50% of funding if local funds are used.

9. Bus Stop Work Order System

All work pertaining to new bus stops, bus stop amenity upgrades, bus stop removal or consolidation which are planned to be handled by the UTA Facilities Division will be initiated via a work order generated through the Bus Stop Manager program. Work orders may be generated by Service Planners, Business Unit Operations Planners or the Bus Stop Administrator. The Bus Stop Administrator must review, approve, inspect and accept or reject all work orders and finished work.

10. State of Good Repair

As part of the UTA Bus stop program and annual review of bus stops and amenities, the Bus Stop Administrator will create and manage a replacement schedule for facilities and amenities based on the average life cycle of each of the elements of bus stop. This schedule shall include the cost (in future dollars) of the replacement of facilities and equipment related to each bus stop in the UTA system. This data should be used as part of the annual budget requests.

11. Exceptions

None

Exhibit A

Bus Stop Scoring Matrix


Category	1 Point	2 Points	3 Points	4 Points	5 Points
Non-ADA Compliant*	-	-	-	-	Yes
Total Stop Activity (TSA) – Average Daily Weekday**	1 to 19	20 to 39	40 to 59	60 to 79	80 +
Transfer Point***					
<i>Equal to or Greater than 30 min. freq.</i>	1 Route	2 Routes	3 Routes	4 Routes	5+ Routes
<i>Less than 29 the min. freq.</i>	1 Route	2 Routes	3 Routes	4 Routes	5+ Routes
Serves Title VI Community	Title VI Route	Minority OR Low Income	Minority AND Low Income	2 x Minority + Low Income	2 x Minority + 2x Low Income
Safety					
<i>Intersection</i>	1 of 5 Elements	2 of 5 Elements	3 of 5 Elements	4 of 5 Elements	5 of 5 Elements
<i>Parking Allowed</i>					
<i>Obstacle(s) Present</i>					
<i>No lighting Present</i>					
<i>Sidewalk Not Level</i>					

* Non-ADA compliant bus stop locations automatically receive five (5) points

** TSA Data is average weekday ridership taken from the last eight change day periods

***One (1) additional point is assessed each route at the transfer point with 30 minute or less frequency

Bus Stop Relocation System Standard Operating Procedure

Standard Operating Procedure		
No.	Effective Date:	Supersedes: BO 1.17
Applies to: Service Planning, Capital Development, Salt Lake Business Unit, Facilities, Mt. Ogden Business Unit, Timpanogos Business Unit, Special Services, Planning Department.		
Title: Bus Stop Relocation System		

Purpose: To assist the Business Units in becoming more efficient and effective in providing our customers with accurate bus stop information.

Application: Service Planners, Operations Planners, Bus Stop Administrator, Training, Schedulers, Facilities Road Crew, Operations Supervisors

Procedure: Business Unit Planners evaluate all service requests and determine when a service request is necessary. If a service request is necessary Service Planners evaluate the service request for regulatory and safety compliance and obtain any necessary permits or agreements necessary for implementation. Service Planners generate a work order to implement all service requests and forward the work order to the Passenger Facilities Road Crew Supervisor. All work orders must meet the requirements contained in section 4.

Supporting Documentation: Definitions which is Exhibit A, the Bus Stop Relocation Matrix which is Exhibit B, and the Bus Stop Relocation Software Manual.

Practice:

1. **Service Requests**

The Bus Stop Administrator working with the Service Planning Division and the Operations Planners within each Business Unit generates requests to remove, add, relocate, or obtain the accurate GPS location of a bus stop. Once a service request is created automatic notification will be sent to all of the appropriate individuals. These same individuals will also be notified once the service request has been completed and closed.

- a. Request to add bus stops
 - i. Requests are generated by the Bus Stop Administrator after the white line has been drawn on the ground. A request will be created for each bus stop with the exception of short term bus stop changes (See Exhibit A - ‘Definitions’).
- b. Request to remove bus stops.
 - i. Requests for bus stop removals are generated by the Bus Stop Administrator for permanent and temporary removals. (See Exhibit B – ‘Bus Stop Relocation Matrix’)
- c. Request to relocate bus stops
 - i. Requests to relocate a bus stop are generated by the Bus Stop Administrator for each bus stop that requires relocation. (See Exhibit B – ‘Bus Stop Relocation Matrix’)
- d. Request to obtain a new GPS reading.
 - i. The Bus Stop Administrator generates the request by checking the “GPS Only” check box. (See also ‘Bus Stop Relocation Software Manual’)

2. Maintenance Requests

- a. Maintenance requests are entered into the Bus Stop Manager (BSM) program by the Bus Stop Administrator to notify the Passenger Facilities Road Crew Supervisor of stop locations that need attention.
- b. Safety concerns should be entered into the system by the Service Planners or Bus Operations Planners.
 - i. Maintenance requests relating to safety issues may be generated after the action has been taken.
 - ii. Once a request is created in the bus Stop Relocation Program, a follow-up phone call to the Passenger Facilities Road Crew Supervisor to make him/her aware of the pending work order may help to expedite the process.
- c. A maintenance request may be entered into the BSM by the Passenger Facilities Road Crew Supervisor if:
 - i. It is out of the scope responsibility of Service Planner or Operations Planner
 - ii. If the Bus Stop Administrator is made aware of the request
- d. Once a maintenance request is created in BSM an automatic notification will be sent to all of the appropriate individuals needing to be notified. These same individuals will also be notified once the service request has been completed and the work order closed. A work order may not be closed until the Bus Stop Administrator has approved and accepted the stop as complete. (See Exhibit A - ‘Definitions’)

3. Miscellaneous Requests

With the approval of the Bus Stop Administrator, miscellaneous requests for work orders related to bus stops may be generated by the Service Planners or Operations Planners for items such as facilities cost estimates, changes to a facility, new facility requests, and detour signage (See Exhibit A - ‘Definitions’). All work must be documented and tracked in BSM according to this document.

4. Facilities Work Orders and Service Requests

Service requests are generated by the Bus Stop Administrator to remove, add, relocate, or GPS a bus stop. These requests require that all of the information and work order details are entered into BSM. (See also ‘Bus Stop Relocation Software Manual’).

- a. Request to add bus stops.
 - i. It is the responsibility of Service Planners or Operations Planners to provide the information such as the exact physical address, side of street, direction of travel, and basic characteristics at a proposed stop location, whether the proposed location will be in the park strip, behind the sidewalk, or on the side of the road. This information is required prior to submitting any locations to Blue Stakes for a dig ticket and underground utility locating.
- b. Work Orders.

The Facilities Road Crew Supervisor will only respond to a service request if all necessary details and requisite information have been included by the Service Planners or Operations Planners. Any service request that does not contain complete details and instructions will be returned to the originator for completion and resubmission. After a period of five business days incomplete service requests that have not been revised will be processed and closed as identified with the note “Complete - no action taken”. Only authorized business unit requests will be accepted to ensure the integrity of the system. The only exception will be for safety issues that require immediate action.
- c. The Facilities Road Crew Supervisor will determine whether to complete any site preparation with UTA Facilities Crew resources or utilize an outside contractor.
- d. Miscellaneous requests as approved by the Bus Stop Administrator may be generated by the by the Service Planners or Operations Planners for items such as facility cost estimates, changes to a facility, and new facility requests. The Service Planner or Operations Planner is responsible for providing any necessary site drawings and assisting Capital Development in

securing any permits from the affected city or municipality need for site preparation and/or installation of all passenger amenities.

- e. Once a Work Order is complete the Facilities Road Crew Supervisor will notify the Bus Stop Administrator. The Bus Stop Administrator will inspect the work for compliance with all federal, local and UTA standards. If the work is unsatisfactory and additional work is necessary, the Bus Stop Administrator will reject the close out of the work order resubmit the work to be completed properly. If the Bus Stop Administrator is satisfied and accepts the final work, Facilities Road Crew Supervisor will close out the work order and an automatic notification will be sent to the appropriate individuals.

5. Global Positioning System (GPS) and Attribute Collection Work

- a. Once the Facilities Road Crew has closed the work order and the post has been properly mounted to the regulation bus stop concrete pad the Bus Stop Administrator is notified so he/she can obtain the GPS position of the post.
- b. At the same time that the GPS coordinates are obtained, a final inventory of the actual physical attributes for that bus stop location is taken. It should be noted that all signs prior to being mounted on the post require the six digit location identifier.
- c. The Bus Stop Administrator, or Operations Planners if so designated, is responsible to update the data in BSM and ensure that the new data is imported to Trapeze. An automatic notification will then be sent to the appropriate individuals notifying them that the GPS and attribute data has been updated. (See also ‘Bus Stop Relocation Software Manual’)

6. Trapeze Work

- a. Once the Bus Stop Administrator and Operations Planners have been notified they are responsible to perform the required steps in the Trapeze program.
- b. Any bus stop changes that require the post to remain out of the ground for more than 30 days will be marked in Trapeze as “not in Use” in order to ensure customer data accuracy.
- c. Once the steps in Trapeze are completed the Operations Planner fills out the Quality Control sheet in the system.
- d. Once this action is complete an automatic notification is sent to the appropriate individuals for confirmation and final approval.

7. Transit Master Work

- a. The Bus Stop Administrator performs the Transit Master surveys and the service request is closed and automatic notification is sent to the appropriate individuals.

8. Temporary Signs

- a. Operations Supervisors input all temporary sign requests into the system
- b. The request will state why a particular temporary sign is required and when it is scheduled to be removed.
- c. Temporary sign requests may be entered into the system after the placement of the sign.
- d. The Facilities Road Crew Supervisors will be notified by an automatic report when the signs are scheduled for removal.

Exceptions: None

Exhibit A Definitions

The following terms will be used when referring to the planning, design, installation, consolidation or removal of bus stops:

- A. **Action List:** listing created by the business units of bus stops that will be upgraded in the current year.
- B. **ADA:** Americans with Disabilities Act of 1990
- C. **Amenities:** Bus shelter, bench, trash can, cement flat work, ADA ramp, schedule holder, additional signage, lighting, anything other than the bus stop pole and signs etc.
- D. **Bus Stop Planning Report(s):** annual prioritized lists developed by the Service Planning Division which identifies new bus stops or bus stops that are eligible for improvements, consolidation or removal using the matrix criteria in Exhibit A. These reports include capital, operating and maintenance costs and are organized by County
- E. **Complete(d) Bus Stop:** Status of an installation, improvement, consolidation or removal once the Bus Stop Administrator is satisfied following a Quality Assurance review of the work
- F. **Obligated Funds:** Monies that have been explicitly budgeted for a particular bus stop for improvements, consolidation or removal but have not yet spent.
- G. **Property Owner:** The land owner whose property may be directly affected by a recommended stop location or improvement. This may also be defined as the owner of the private property that is ‘adjacent’ to the recommended stop location or improvement.
- H. **Detour Signage** – signs that are placed for a period of 30 days or more but do not require the installation or removal of a pole or an update in Trapeze. These signs are usually tacked to street light or other fixture and are due to a route detour.
- I. **Long Term Removal** – stops that are removed for a period of 30 days or more. These will often require that the pole is removed but may require the removal of the sign only. Trapeze work is required for long term removals.
- J. **New Location** – the placement of a stop that requires Passenger Facilities Road Crew preparation, GPS data gathering, the installation of a pole in the ground and a new 6-digit location number.
- K. **Permanent Removal** – the total removal of a stop and its hardware with no expectation that they will be reinstalled.
- L. **Relocation** – May not always require a new 6 digit number. If the address changes then it requires a new six digit number. If the stop retains its geographic address but the pole is taken out of the ground and moved to a different location the GPS location will be different, but the six digit number will be the same. Example you move a pole from the north end of a home to the south end. Because the address is the same, the six digit number is the same but, GPS is different.
- M. **Service Request** – Means any request by anyone to add, relocate, remove, maintain, and repair a bus stop due to temporary detour or permanent change. It also may include change route flags, evaluating a potential safety hazard at a bus stop obtaining a GPS reading.
- N. **Short Term Stops** – bus stops that are placed or removed for a period of two weeks or more but less than 30 days (between 14 and 29 days). Trapeze work is not required.
- O. **Temporary Stops** – any stop that will be discontinued for a period of less than two weeks and the pole is not removed. They are typically informational signs posted on the existing sign informing the customer that there are some changes to service at that particular stop for a stated duration of time. Examples include locations where there is unplanned or limited construction or maintenance at the location. Typically operations supervisors will always install and remove temporary signs.
- P. **Temporary Signage** – is an information sign that is posted on an existing Bus Stop pole informing the customer that there are some changes to service at that particular stop for duration of less than 2 weeks. Three types of colors are used for signage: Orange is a discontinued sign, Yellow is an information sign and Blue is a temporary sign. All signs list appropriate details for the customer.

**Exhibit B
Bus Stop Relocation Matrix**

Task/Activity*	Description	Change Day Process Required	Maintenance Request Only	Miscellaneous Request
New Bus Stop	Stop is created as part of a new route or added to an existing route	✓		
Pole Remains/Stop Location is Discontinued (i.e. sign and flags are removed)	Pole to remain < 30 days	✓		
	Pole to remain > 30 days		✓	
Pole is removed	Temporary removal < 30 days (i.e. for roadway construction)		✓	
	Permanent removal > 30 days (i.e. stop is being taken out of service)	✓		
A temporary stop becomes a permanent stop	Temporary location was not a UTA stop	✓		
	Temporary location is already a UTA stop	✓		
Move a permanent stop (immediately)	Near the same address	✓		
	To a new address (<i>Planner must check the 'New Address' box in Trapeze</i>)	✓		
Change out route flags			✓	
Damage or other need of attention	Regardless of person(s) responsible for the damage		✓	
Detour stop identification	A short term temporary stop becomes a long term temporary stop (i.e. a long term detour)			✓

* All new stop information must be entered in Trapeze before proceeding with any work orders

Cross References:

Corporate Standard Operating Procedure BO1.17 - Bus Stop Relocation System
 Corporate Policy No. 1.1.28 – Title VI Compliance
 Architectural Barriers Act of 1968
 Americans with *Disabilities* Act of 1990

Section 504 of the Rehabilitation Act of 1973

Bus Stop Amenities Procedure was reviewed by the Business Unit Forum on _____ and approved by the Regional General Managers on this _____ day of _____, 2019 and takes effect on the latter date.

 Steve Meyer, Chief Operating Officer

 Eddy Cumins, Mt. Ogden Regional General Manager

 Mary DeLaMare-Schaefer, Timpanogos Regional General Manager

 Lorin Simpson, Salt Lake Regional General Manager

 Cheryl Beveridge, Special Services General Manager

Revision History			
Title	No.	Date	Version
Bus Stop Amenities Installation	OPO 1.2	11/9/2008	1
Revised, Renumbered and Renamed Transit Improvements BU 7.0	BU 7.0	8/15/2016	2
BU 7.0 Updated	BU 7.0	11/15/2016	3
Revised, Renumbered and Renamed Bus Stop Administration BU ##			4

Appendix F – Annual Bus Stop Planning Reports

Top 50 Systemwide

City	County	Stop Abbr	Stop Name	Time Between	Total Stop Activity	Total Ramp	Score	Recommended Amenity
MURRAY	SALT LAKE	153170	COTTONWOOD ST @ 5149 S	5	1020	1442	20	Level VII - A
MILLCREEK	SALT LAKE	136071	3900 S @ 61 W	18	532	998	21	Level VII - A
LAYTON	DAVIS	101007	RING RD @ 425 W (LAYTON	5	441	269	22	Level VII - A
SALT LAKE C	SALT LAKE	117005	NORTH TEMPLE ST @ 275 W	3	384	629	19	Level VII - A
WEST VALLE	SALT LAKE	101208	6200 S @ 5699 W	5	240	651	24	Level VII - A
SALT LAKE C	SALT LAKE	117020	1300 N @ 1710 W	9	237	353	21	Level VII - A
WEST VALLE	SALT LAKE	101386	REDWOOD RD @ 3538 S	18	215	765	19	Level VII - A
TAYLORSVIL	SALT LAKE	153076	REDWOOD RD @ 5595 S	18	202	1753	19	Level VII - A
SALT LAKE C	SALT LAKE	126468	STATE ST @ 1730 S	16	182	459	19	Level VII - A
SALT LAKE C	SALT LAKE	126558	Stadium Station	17	164	289	19	Level VII - A
SALT LAKE C	SALT LAKE	198356	GAR SIDE ST @ 129 N	9	163	559	22	Level VII - A
SOUTH OGD	Weber	629235	CHAMBERS AVE @ 928 E (S.	8	154	448	20	Level VII - A
LAYTON	DAVIS	301442	MAIN ST @ 723 N	16	145	363	19	Level VII - A
SALT LAKE C	SALT LAKE	101974	SOUTH CAMPUS DR @ 1665	8	118	17	19	Level VII - A
MILLCREEK	SALT LAKE	137360	4500 S @ 930 E	17	115	644	19	Level VII - A
OGDEN	Weber	629149	HARRISON BLVD @ 4255 S	8	109	708	19	Level VII - A
MILLCREEK	SALT LAKE	101915	4500 S @ 877 E	18	107	479	19	Level VII - A
MILLCREEK	SALT LAKE	137013	900 E @ 3265 S	17	104	813	19	Level VII - A
MURRAY	SALT LAKE	137352	4500 S @ 155 E	9	103	316	20	Level VII - A
TAYLORSVIL	SALT LAKE	153069	REDWOOD RD @ 5375 S	18	100	563	19	Level VI - A
SPANISH FOR	UTAH	825021	800 E @ 713 N	28	99	157	21	Level V - A
FARMINGTO	DAVIS	107003	200 E @ 190 S	17	98	157	19	Level V - A
MILLCREEK	SALT LAKE	137029	900 E @ 3334 S	18	96	547	19	Level V - A
SALT LAKE C	SALT LAKE	126339	2100 S @ 1671 E	16	95	219	19	Level V - A
PROVO	UTAH	820080	UNIVERSITY AVE @ 885 S	8	93	748	22	Level V - A
SALT LAKE C	SALT LAKE	127139	2100 E @ 2001 S	15	92	213	19	Level V - A
SALT LAKE C	SALT LAKE	127153	2100 E @ 1954 S	15	90	246	21	Level V - A
SALT LAKE C	Salt Lake	198460	200 N @ 413 W	6	90	43	19	Level V - A
PROVO	UTAH	830044	UNIVERSITY AVE @ 872 S	8	87	280	22	Level V - A
SALT LAKE C	SALT LAKE	117015	REDWOOD RD @ 720 N	18	85	688	20	Level V - A
OGDEN	Weber	601168	26TH ST @ 150 E	12	82	255	21	Level V - A
SALT LAKE C	SALT LAKE	125170	REDWOOD RD @ 1945 S	13	82	560	20	Level V - A
MURRAY	SALT LAKE	137452	STATE ST @ 4540 S	9	82	282	19	Level V - A
SOUTH SALT	SALT LAKE	137085	500 E @ 3275 S	17	81	400	20	Level V - A
SALT LAKE C	SALT LAKE	126451	2100 S @ 201 E	16	81	1591	19	Level V - A
SALT LAKE C	SALT LAKE	125014	400 S @ 65 W	16	77	248	21	Level VI - A
MAGNA	SALT LAKE	133029	3500 S @ 8345 W	17	76	234	21	Level VI - A
CLEARFIELD	DAVIS	301367	MAIN ST @ 1338 S	9	73	136	19	Level VI - A
MURRAY	SALT LAKE	154097	900 E @ 5545 S	17	68	203	20	Level VI - A
NORTH SALT	DAVIS	111077	US HWY 89 @ 16 S (N. SALT	16	63	142	19	Level VI - A
OGDEN	Weber	629162	HARRISON BLVD @ 4286 S	8	63	328	21	Level VI - A
MURRAY	SALT LAKE	154071	900 E @ 5640 S	18	62	401	20	Level VI - A
OGDEN	Weber	601052	ADAMS AVENUE @ 2241 S (28	42	216	19	Level III - A
TAYLORSVIL	SALT LAKE	136030	4700 S @ 1685 W	17	55	227	19	Level VI - A
SALT LAKE C	SALT LAKE	126482	STATE ST @ 1495 S	16	47	205	19	Level III - A
SALT LAKE C	SALT LAKE	117226	300 W @ 505 N	15	43	73	19	Level III - A
SALT LAKE C	SALT LAKE	117070	NORTHSTAR DR @ 1675 W	9	48	286	22	Level III - A
PROVO	UTAH	820081	UNIVERSITY AVE @ 455 S	8	44	578	19	Level III - A
PROVO	UTAH	820090	UNIVERSITY AVE @ 320 S	8	41	227	19	Level III - A
SALT LAKE C	SALT LAKE	117221	300 W @ 610 N	16	37	155	20	Level III - B

Weber County

City	County	StopName	StopAbbr	Time Between Buses	Total Stop Activity	Total Ramp	Score	Recommended Amenity
OGDEN	Weber	2900 S @ 1870 W	601233	395	10	195	17	Level III - B
OGDEN	Weber	9TH ST @ 955 E	616167	143	122	95	16	Level V - A
SOUTH OGD	Weber	36TH ST @ 425 E	623340	32	38	185	16	Level II - A
OGDEN	Weber	ADAMS AVENUE @ 2240 S (OGDEN)	601051	29	54	272	18	Level III - A
RIVERDALE	Weber	RIVERDALE RD @ 895 W	601108	29	61	343	18	Level IV - A
OGDEN	Weber	ADAMS AVENUE @ 2241 S (OGDEN)	601052	28	42	216	19	Level III - A
ROY	Weber	3500 W @ 4830 S	627040	27	18	261	16	Level III - B
NORTH OGD	Weber	400 E @ 2485 N	611046	20	35	164	16	Level II - A
OGDEN	Weber	WASHINGTON BLVD @ 2511 S	623025	20	36	281	18	Level II - A
OGDEN	Weber	25TH ST @ 999 E	623150	17	40	152	18	Level III - A
OGDEN	Weber	2ND ST @ 415 E (OGDEN)	616117	17	20	30	16	Level IV - B
RIVERDALE	Weber	RIVERDALE RD @ 4066 S (RIVERDALE)	601144	16	53	151	17	Level III - A
SOUTH OGD	Weber	WALL AVE @ 3648 S	636163	16	135	572	15	Level V - A
ROY	Weber	5305 S @ 1900 W	636111	16	52	211	18	Level III - A
OGDEN	Weber	INDUSTRIAL DR @ 2640 S (OGDEN)	622021	14	84	284	16	Level V - A
OGDEN	Weber	WASHINGTON BLVD @ 223 S	616069	14	82	241	15	Level V - A
OGDEN	Weber	WASHINGTON BLVD @ 390 S	616007	14	31	240	17	Level II - A
OGDEN	Weber	WASHINGTON BLVD @ 1146 S	623013	14	151	629	15	Level VII - A
OGDEN	Weber	HARRISON BLVD @ 2903 S (OGDEN)	623209	13	26	181	16	Level IV - B
OGDEN	Weber	WASHINGTON BLVD @ 2711 S (OGDEN)	623154	12	94	585	15	Level V - A
OGDEN	Weber	26TH ST @ 150 E	601168	12	82	255	21	Level V - A
OGDEN	Weber	17TH ST @ 135 W (OGDEN GARAGE)	623423	12	101	1	17	Level V - A
ROY	Weber	3500 W @ 5515 S (ROY)	627007	12	68	149	18	Level IV - A
OGDEN	Weber	WASHINGTON BLVD @ 1215 S	636207	11	147	566	17	Level V - A
OGDEN	Weber	WASHINGTON BLVD @ 2335 S	623024	11	152	847	15	Level VII - A
OGDEN	Weber	WASHINGTON BLVD @ 120 S	616031	11	100	274	16	Level V - A
OGDEN	Weber	WALL AVE @ 1987 S	601206	10	53	544	18	Level III - A
OGDEN	Weber	WALL AVE @ 1725 S	623202	10	118	345	17	Level V - A
OGDEN	Weber	WASHINGTON BLVD @ 2280 S	623003	10	54	225	15	Level III - A
OGDEN	Weber	WASHINGTON BLVD @ 2392 S	623305	10	129	740	17	Level V - A
NORTH OGD	Weber	400 E @ 2626 N (N. OGDEN)	611004	9	43	107	16	Level III - A
SOUTH OGD	Weber	CHAMBERS AVE @ 928 E (S. OGDEN)	629235	8	154	448	20	Level VII - A
OGDEN	Weber	HARRISON BLVD @ 3415 S	623214	8	36	56	15	Level II - A
OGDEN	Weber	HARRISON BLVD @ 3225 S	623212	8	46	126	18	Level III - A
OGDEN	Weber	HARRISON BLVD @ 3065 S	623418	8	81	334	16	Level V - A
OGDEN	Weber	HARRISON BLVD @ 4106 S	601105	8	44	78	15	Level III - A
OGDEN	Weber	HARRISON BLVD @ 3210 S	623242	8	47	96	17	Level III - A
OGDEN	Weber	HARRISON BLVD @ 4255 S	629149	8	109	708	19	Level V - A
OGDEN	Weber	26TH ST @ 321 E (OGDEN)	601160	8	576	3827	17	Level VII - A
OGDEN	Weber	26TH ST @ 310 E (OGDEN)	623292	8	547	3086	17	Level VII - A
OGDEN	Weber	HARRISON BLVD @ 4286 S	629162	8	63	328	21	Level IV - A
OGDEN	Weber	DIXON DRIVE @ 3900 S	601104	7	45	107	17	Level III - A
OGDEN	Weber	36TH ST @ 1220 E (OGDEN)	623238	7	103	363	18	Level V - A
OGDEN	Weber	36TH ST @ 1255 E (OGDEN)	623231	6	111	343	17	Level V - A
OGDEN	Weber	4400 S @ 1150 E	629086	6	32	196	16	Level II - A
OGDEN	Weber	HARRISON BLVD @ 4401 S (OGDEN)	629249	6	150	1626	15	Level VII - A
OGDEN	Weber	EDVALSON ST @ 1349 E	623223	6	433	383	15	Level VII - A
OGDEN	Weber	EDVALSON ST @ 1550 E	636121	6	306	125	15	Level VII - A
OGDEN	Weber	EDVALSON ST @ 1348 E	623296	6	412	369	16	Level VII - A
OGDEN	Weber	AVC LN @ 502 E	616034	5	266	595	15	Level VII - A

Davis County

City	County	Stop Abbr	Stop Name	Time Between Buses	Total Stop Activity	Total Ramp	Score	Recommended Amenity
LAYTON	DAVIS	101007	RING RD @ 425 W (LAYTON MALL)	5	441	269	22	Level VII - A
LAYTON	DAVIS	301442	MAIN ST @ 723 N	16	145	363	19	Level VI - A
LAYTON	DAVIS	101097	MAIN ST @ 688 N (LAYTON)	16	99	278	14	Level V - A
FARMINGTO	DAVIS	107003	200 E @ 190 S	17	98	157	19	Level V - A
FARMINGTO	DAVIS	107062	200 E @ 111 S	18	87	360	14	Level V - A
FARMINGTO	DAVIS	301012	STATE ST @ 45 E	11	74	130	13	Level IV - A
CLEARFIELD	DAVIS	301367	MAIN ST @ 1338 S	9	73	136	19	Level IV - A
NORTH SALT	DAVIS	111077	US HWY 89 @ 16 S (N. SALT LAKE)	16	63	142	19	Level IV - A
LAYTON	DAVIS	633125	MAIN ST @ 2065 N (LAYTON)	12	61	206	18	Level IV - A
LAYTON	DAVIS	633087	MAIN ST @ 2030 N (LAYTON)	17	58	178	17	Level III - A
NORTH SALT	DAVIS	117078	US HWY 89 @ 15 S (N. SALT LAKE)	25	50	128	15	Level III - A
KAYSVILLE	DAVIS	104054	MAIN ST @ 547 S	17	49	100	14	Level III - A
LAYTON	DAVIS	101089	GENTILE ST @ 223 E	16	49	178	16	Level III - A
BOUNTIFUL	DAVIS	109169	MAIN ST @ 505 S (BOUNTIFUL)	29	46	138	13	Level III - A
CLEARFIELD	DAVIS	633152	MAIN ST @ 364 N	29	44	135	14	Level III - A
CLEARFIELD	DAVIS	633150	ANTELOPE DR @ 421 E (CLEARFIELD)	17	41	23	13	Level III - A
LAYTON	DAVIS	101086	FORT LN @ 203 S	16	37	45	13	Level II - A
LAYTON	DAVIS	101104	MAIN ST @ 1986 N (LAYTON)	29	35	64	13	Level II - A
NORTH SALT	DAVIS	111033	US HWY 89 @ 2604 S	27	34	71	13	Level II - A
SUNSET	DAVIS	628160	MAIN ST @ 2331 N	16	34	61	14	Level II - A
NORTH SALT	DAVIS	111013	US HWY 89 @ 1085 N	26	32	107	14	Level II - A
BOUNTIFUL	DAVIS	109119	MAIN ST @ 1550 N (BOUNTIFUL)	28	32	127	15	Level II - A
CLEARFIELD	DAVIS	633108	MAIN ST @ 649 N	28	32	59	14	Level II - A
CLEARFIELD	DAVIS	633090	STATE ST @ 1299 S	11	28	58	15	Level II - A
BOUNTIFUL	DAVIS	112097	500 W @ 2554 S	29	28	40	13	Level II - A
CLEARFIELD	DAVIS	633114	13TH ST @ 1600 S	32	27	7	13	Level II - A
KAYSVILLE	DAVIS	104039	MAIN ST @ 360 S (KAYSVILLE)	28	26	56	13	Level II - A
BOUNTIFUL	DAVIS	301323	500 W @ 2520 S	28	22	35	13	Level II - A
CLEARFIELD	DAVIS	633026	STATE ST @ 712 S	28	21	15	13	Level II - A
CLEARFIELD	DAVIS	632004	1000 W @ 345 N	32	21	30	14	Level II - A
KAYSVILLE	DAVIS	104055	MAIN ST @ 325 S	12	21	76	13	Level II - A
KAYSVILLE	DAVIS	301357	MAIN ST @ 250 N	18	20	77	14	Level II - A
CLINTON	DAVIS	627016	2000 W @ 1830 N (CLINTON)	38	16	60	14	Level II - A
SUNSET	DAVIS	628161	MAIN ST @ 2001 N	16	14	18	14	Level III - B
LAYTON	DAVIS	634003	ANTELOPE DR @ 415 W	32	14	8	14	Level III - B
NORTH SALT	DAVIS	111079	US HWY 89 @ 270 S (N. SALT LAKE)	15	11	25	16	Level II - A
NORTH SALT	DAVIS	111036	ORCHARD DR @ 3422 S	34	11	17	14	Level III - B
CLEARFIELD	DAVIS	301096	1450 S @ 1157 E	16	10	3	14	Level II - B
LAYTON	DAVIS	101062	MAIN ST @ 145 N	16	9	13	14	Level II - B
CLEARFIELD	DAVIS	632008	1000 W @ 762 N	32	7	1	14	Level II - B
NORTH SALT	DAVIS	301283	FOX HOLLOW DR @ 631 N	70	5	97	15	Level II - B
NORTH SALT	DAVIS	301282	FOX HOLLOW DR @ 620 N	70	4	50	14	Level I - B
NORTH SALT	DAVIS	111027	MAIN ST @ 3563 S	27	3	1	14	Level I - B
CENTERVILL	DAVIS	301147	400 W @ 1689 N	39	3	1	14	Level I - B
WOODS CRC	DAVIS	108025	800 W @ 1415 S	26	2	1	14	Level I - B
BOUNTIFUL	DAVIS	112060	DEBORAH DR @ 1153 E	135	2	1	14	Level I - B
NORTH SALT	DAVIS	301321	MAIN ST @ 44 S	23	2	73	14	Level I - B
BOUNTIFUL	DAVIS	112003	ELAINE AVE @ 931 E	135	1	1	14	Level I - B
NORTH SALT	DAVIS	301190	FOXBORO DR @ 467 N	70	1	1	14	Level I - B
FARMINGTO	DAVIS	106001	STATE ST @ 398 W	11	1	1	14	Level I - A

City	County	Stop Abbr	Stop Name	Time Between Buses	Total Stop Activity	Total Ramp	Score	Recommended Amenity
MURRAY	SALT LAKE	153170	COTTONWOOD ST @ 5149 S	5	1020	1442	20	Level VII - A
MILLCREEK	SALT LAKE	136071	3900 S @ 61 W	18	532	998	21	Level VII - A
SALT LAKE C	SALT LAKE	126511	STATE ST @ 355 S	5	449	861	18	Level VII - A
SALT LAKE C	SALT LAKE	117005	NORTH TEMPLE ST @ 275 W	3	384	629	19	Level VII - A
SALT LAKE C	SALT LAKE	126513	STATE ST @ 185 S	4	377	888	18	Level VII - A
SALT LAKE C	SALT LAKE	126729	STATE ST @ 420 S	7	254	516	18	Level VII - A
WEST VALLE	SALT LAKE	101208	6200 S @ 5699 W	5	240	651	24	Level VII - A
SALT LAKE C	SALT LAKE	117020	1300 N @ 1710 W	9	237	353	21	Level VII - A
SALT LAKE C	SALT LAKE	126631	200 S @ 129 E	8	233	569	18	Level VII - A
SALT LAKE C	SALT LAKE	117003	NORTH TEMPLE ST @ 198 W	4	223	679	18	Level VII - A
WEST VALLE	SALT LAKE	101386	REDWOOD RD @ 3538 S	18	215	765	19	Level VII - A
SALT LAKE C	SALT LAKE	126530	200 S @ 120 E	8	212	450	18	Level VII - A
SALT LAKE C	SALT LAKE	101522	UNIVERSITY ST @ 160 S	7	208	44	18	Level VII - A
TAYLORSVIL	SALT LAKE	153076	REDWOOD RD @ 5595 S	18	202	1753	19	Level VII - A
SALT LAKE C	SALT LAKE	125197	Redwood Road @ 1722 S	14	184	1246	18	Level VII - A
SALT LAKE C	SALT LAKE	126468	STATE ST @ 1730 S	16	182	459	19	Level VII - A
SALT LAKE C	SALT LAKE	125021	200 S @ 255 W	5	179	445	18	Level VII - A
WEST VALLE	SALT LAKE	135245	3500 S @ 3980 W	12	171	196	18	Level VII - A
SALT LAKE C	SALT LAKE	126558	Stadium Station	17	164	289	19	Level VII - A
SALT LAKE C	SALT LAKE	198356	GARSDALE ST @ 129 N	9	163	559	22	Level VII - A
TAYLORSVIL	SALT LAKE	153007	REDWOOD RD @ 5480 S	18	153	749	18	Level VII - A
SALT LAKE C	SALT LAKE	127127	FOOTHILL DR @ 585 S	7	150	215	18	Level VII - A
SALT LAKE C	SALT LAKE	125450	200 S @ 316 W	3	150	701	18	Level VI - A
SALT LAKE C	SALT LAKE	101974	SOUTH CAMPUS DR @ 1665 E	8	118	17	19	Level VI - A
MILLCREEK	SALT LAKE	137360	4500 S @ 930 E	17	115	644	19	Level VI - A
MILLCREEK	SALT LAKE	101915	4500 S @ 877 E	18	107	479	19	Level VI - A
MILLCREEK	SALT LAKE	137013	900 E @ 3265 S	17	104	813	19	Level VI - A
MURRAY	SALT LAKE	137352	4500 S @ 155 E	9	103	316	20	Level VI - A
TAYLORSVIL	SALT LAKE	153069	REDWOOD RD @ 5375 S	18	100	563	19	Level VI - A
MILLCREEK	SALT LAKE	137029	900 E @ 3334 S	18	96	547	19	Level V - A
SALT LAKE C	SALT LAKE	126339	2100 S @ 1671 E	16	95	219	19	Level V - A
SALT LAKE C	SALT LAKE	127139	2100 E @ 2001 S	15	92	213	19	Level V - A
SALT LAKE C	SALT LAKE	127153	2100 E @ 1954 S	15	90	246	21	Level V - A
SALT LAKE C	SALT LAKE	198460	200 N @ 413 W	6	90	43	19	Level V - A
SALT LAKE C	SALT LAKE	117015	REDWOOD RD @ 720 N	18	85	688	20	Level V - A
SALT LAKE C	SALT LAKE	125170	REDWOOD RD @ 1945 S	13	82	560	20	Level V - A
MURRAY	SALT LAKE	137452	STATE ST @ 4540 S	9	82	282	19	Level V - A
SOUTH SALT	SALT LAKE	137085	500 E @ 3275 S	17	81	400	20	Level V - A
SALT LAKE C	SALT LAKE	126451	2100 S @ 201 E	16	81	1591	19	Level V - A
SALT LAKE C	SALT LAKE	125014	400 S @ 65 W	16	77	248	21	Level IV - A
MAGNA	SALT LAKE	133029	3500 S @ 8345 W	17	76	234	21	Level IV - A
MURRAY	SALT LAKE	154097	900 E @ 5545 S	17	68	203	20	Level IV - A
MURRAY	SALT LAKE	154071	900 E @ 5640 S	18	62	401	20	Level IV - A
TAYLORSVIL	SALT LAKE	136030	4700 S @ 1685 W	17	55	227	19	Level III - A
SALT LAKE C	SALT LAKE	117070	NORTHSTAR DR @ 1675 W	9	48	286	22	Level III - A
SALT LAKE C	SALT LAKE	126482	STATE ST @ 1495 S	16	47	205	19	Level III - A
SALT LAKE C	SALT LAKE	117226	300 W @ 505 N	15	43	73	19	Level III - A
SALT LAKE C	SALT LAKE	117221	300 W @ 610 N	16	37	155	20	Level III - A
WEST VALLE	SALT LAKE	135119	3650 S @ 3101 W	8	22	515	19	Level III - A
SALT LAKE C	SALT LAKE	117088	1000 W @ 196 N	31	9	260	19	Level III - A

City	County	Stop Name	Stop Abbr	Time Between Buses	Total Stop Activity	Total Ramp	Score	Recommended Amenity
PROVO	UTAH	900 N @ 792 E	830032	11	155	800	15	Level VII - A
OREM	UTAH	1200 S @ 735 W	816038	11	342	401	15	Level VII - A
PROVO	UTAH	900 N @ 783 E	830116	11	186	912	15	Level VII - A
OREM	UTAH	CAMPUS DR @ 900 S	816119	10	634	200	14	Level VII - A
OREM	UTAH	CAMPUS DR @ 791 W	816003	4	383	607	16	Level VII - A
OREM	UTAH	STATE ST @ 44 N	812003	18	125	203	15	Level VI - A
OREM	UTAH	1000 S @ 1418 W	801284	12	128	150	18	Level VI - A
SPANISH F	UTAH	800 E @ 713 N	825021	28	99	157	21	Level V - A
PROVO	UTAH	UNIVERSITY AVE @ 885 S	820080	8	93	748	22	Level V - A
PROVOxxx	UTAH	UNIVERSITY AVE @ 872 S	830044	8	87	280	22	Level V - A
SPRINGVIL	UTAH	MAIN ST @ 444 S	823100	40	27	48	15	Level IV - B
PROVO	UTAH	STATE ST @ 2051 S	821006	37	20	46	14	Level IV - B
OREM	UTAH	SANDHILL RD @ 1355 S	816131	32	24	301	17	Level IV - B
OREM	UTAH	1200 W @ 1586 N	812048	31	29	122	14	Level IV - B
OREM	UTAH	1200 W @ 1575 N	812047	30	26	99	15	Level IV - B
AMERICAN	UTAH	STATE ST @ 1084 E	806011	18	27	87	15	Level IV - B
PLEASANT	UTAH	STATE RD @ 1344 W	806106	18	27	37	14	Level IV - B
AMERICAN	UTAH	STATE ST @ 433 E	806001	18	19	162	15	Level IV - B
OREM	UTAH	STATE ST @ 1975 N	812027	18	19	171	14	Level IV - B
PLEASANT	UTAH	STATE RD @ 1909 W	806024	17	27	126	15	Level IV - B
OREM	UTAH	1200 W @ 712 S	816049	14	63	41	15	Level IV - A
OREM	UTAH	CAMPUS DR @ 950 S	816078	10	77	30	16	Level IV - A
SPRINGVIL	UTAH	MAIN ST @ 865 N	823053	40	11	11	15	Level III - B
PROVO	UTAH	CENTER ST @ 2084 W	830181	39	14	348	15	Level III - B
PROVO	UTAH	900 E @ 44 N	820251	28	18	261	16	Level III - B
PROVO	UTAH	500 W @ 931 N	817251	18	13	106	15	Level III - B
PROVO	UTAH	UNIVERSITY AVE @ 455 S	820081	8	44	578	19	Level III - A
PROVO	UTAH	UNIVERSITY AVE @ 320 S	820090	8	41	227	19	Level III - A
SPRINGVIL	UTAH	400 E @ 212 S	823105	40	7	3	15	Level II - B
PROVO	UTAH	CENTER ST @ 548 W	830179	39	7	189	16	Level II - B
PROVO	Utah	CENTER ST @ 2915 W	830200	39	6	255	16	Level II - B
OREM	UTAH	UNIVERSITY PKWY @ 40 W	816111	11	9	302	15	Level I - A
OREM	UTAH	UNIVERSITY PKWY @ 145 W	816047	11	0	109	15	Level I - A
PROVO	UTAH	UNIVERSITY AVE @ 110 S	820089	9	4	197	15	Level I - A
PROVO	UTAH	1720 N @ 745 W	817034	32	55	226	18	Level III - A
OREM	UTAH	1435 S @ 420 W	816134	32	41	275	16	Level III - A
OREM	UTAH	1435 S @ 429 W	816128	32	52	292	17	Level III - A
PROVO	UTAH	300 S @ 780 E	820017	32	29	159	15	Level III - A
PROVO	UTAH	900 E @ 470 N	817058	28	45	9	15	Level III - A
PROVO	UTAH	STATE ST @ 1730 N	817371	18	48	44	14	Level III - A
PROVO	UTAH	500 W @ 852 N	817256	18	41	88	14	Level III - A
LINDON	UTAH	STATE ST @ 660 N	807002	18	33	142	14	Level III - A
AMERICAN	UTAH	STATE ST @ 695 E	806013	18	46	43	15	Level III - A
OREM	UTAH	800 S @ 334 E	816127	18	60	162	15	Level III - A
PROVO	UTAH	100 N @ 485 W	820184	18	52	229	16	Level III - A
OREM	UTAH	STATE ST @ 1360 S	817240	18	51	355	17	Level III - A
PROVO	UTAH	500 W @ 1145 N	817249	18	39	203	16	Level III - A
OREM	Utah	1200 W @ 707 S	830243	16	51	58	14	Level III - A
OREM	Utah	980 W @ 919 N	830236	16	44	61	14	Level III - A
AMERICAN	UTAH	STATE ST @ 218 N	801126	16	29	59	15	Level IV - B

Box Elder County

City	County	Stop Abbr	Stop Name	Time Between Buses	Total Stop Activity	Total Ramp	Score	Recommended Amenity
BRIGHAM CI	BOX ELDER	603014	MAIN ST @ 395 N	64	12	191	14	Level III - B
BRIGHAM CI	BOX ELDER	603013	MAIN ST @ 485 N	64	7	8	11	Level II - B
BRIGHAM CI	BOX ELDER	605020	MAIN ST @ 910 S (BRIGHA	64	5	16	13	Level II - B
BRIGHAM CI	BOX ELDER	605047	MAIN ST @ 1120 S	64	4	4	13	Level II - B
WILLARD	BOX ELDER	636007	US HWY 89 @ 198 S	64	4	1	14	Level I - B
BRIGHAM CI	BOX ELDER	603015	MAIN ST @ 267 N	64	3	30	11	Level I - B
WILLARD	BOX ELDER	636013	US HWY 89 @ 1025 N	64	2	0	11	Level I - B
BRIGHAM CI	BOX ELDER	605015	MAIN ST @ 310 S	64	2	2	12	Level I - B
WILLARD	BOX ELDER	605083	US HWY 89 @ 20 S	64	1	18	12	Level I - B
PERRY	BOX ELDER	605052	US HWY 89 @ 2670 S	64	1	4	12	Level I - B
BRIGHAM CI	BOX ELDER	605017	MAIN ST @ 510 S	64	1	2	12	Level I - B
WILLARD	BOX ELDER	636014	US HWY 89 @ 735 N	64	1	0	11	Level I - B
WILLARD	BOX ELDER	605074	US HWY 89 @ 1435 N	64	1	0	11	Level I - B
BRIGHAM CI	BOX ELDER	605016	MAIN ST @ 404 S	64	1	2	11	Level I - B
PERRY	BOX ELDER	605053	US HWY 89 @ 3460 S	64	0	6	12	Level I - B
BRIGHAM CI	BOX ELDER	605065	MAIN ST @ 696 S (BRIGHA	63	6	58	14	Level II - B
BRIGHAM CI	BOX ELDER	605060	MAIN ST @ 1175 S (BRIGH	63	3	3	11	Level I - B
BRIGHAM CI	BOX ELDER	603009	100 E @ 801 N	63	2	35	12	Level I - B
PERRY	BOX ELDER	605056	US HWY 89 @ 2435 S	63	2	18	11	Level I - B
PERRY	BOX ELDER	701003	US HWY 89 @ 2075 S	63	2	0	11	Level I - B
WILLARD	BOX ELDER	610050	US HWY 89 @ 8705 S	63	2	1	12	Level I - B
PERRY	BOX ELDER	605059	US HWY 89 @ 1755 S	63	1	2	12	Level I - B
BRIGHAM CI	BOX ELDER	603008	MAIN ST @ 898 N	63	1	12	11	Level I - B
WILLARD	BOX ELDER	636011	US HWY 89 @ 760 N	63	1	2	11	Level I - B
BRIGHAM CI	BOX ELDER	603017	700 N @ 5 W	60	8	0	12	Level II - B
BRIGHAM CI	BOX ELDER	701005	300 E @ 625 S	60	7	0	11	Level II - B
BRIGHAM CI	BOX ELDER	603039	500 W @ 51 N	60	3	0	13	Level I - B
BRIGHAM CI	BOX ELDER	603043	500 W @ 206 S	60	2	0	12	Level I - B
BRIGHAM CI	BOX ELDER	603018	500 W @ 491 N	60	1	0	11	Level I - B
BRIGHAM CI	BOX ELDER	605004	MAIN ST @ 751 S	39	10	38	13	Level III - B
BRIGHAM CI	BOX ELDER	603001	MAIN ST @ 112 N	39	6	16	11	Level II - B
BRIGHAM CI	BOX ELDER	603005	MAIN ST @ 510 N	39	5	40	12	Level II - B
BRIGHAM CI	BOX ELDER	603002	MAIN ST @ 206 N	39	5	30	12	Level II - B
BRIGHAM CI	BOX ELDER	605005	MAIN ST @ 585 S	39	5	10	13	Level II - B
BRIGHAM CI	BOX ELDER	605003	MAIN ST @ 889 S	39	5	12	13	Level II - B
BRIGHAM CI	BOX ELDER	603006	MAIN ST @ 610 N	39	4	4	12	Level I - B
BRIGHAM CI	BOX ELDER	603003	MAIN ST @ 306 N	39	3	32	11	Level I - B
BRIGHAM CI	BOX ELDER	605001	MAIN ST @ 1065 S	39	3	7	13	Level I - B
BRIGHAM CI	BOX ELDER	605007	MAIN ST @ 395 S	39	1	2	12	Level I - B
BRIGHAM CI	BOX ELDER	605084	MAIN ST @ 493 S	39	1	4	13	Level I - B
BRIGHAM CI	BOX ELDER	603004	MAIN ST @ 410 N	39	1	18	11	Level I - B
BRIGHAM CI	BOX ELDER	603011	700 N @ 75 E (BRIGHAM	32	57	215	18	Level IV - A
BRIGHAM CI	BOX ELDER	605006	1100 S @ 765 W	32	12	55	12	Level III - B
BRIGHAM CI	BOX ELDER	605018	800 W @ 1055 S	32	9	83	13	Level II - B
BRIGHAM CI	BOX ELDER	605034	950 S @ 665 W	32	7	65	14	Level II - B
BRIGHAM CI	BOX ELDER	701008	MEDICAL DR @ 950 S	28	8	0	11	Level II - B
BRIGHAM CI	BOX ELDER	605035	MEDICAL DR @ 984 S (BR	25	17	156	16	Level III - B
BRIGHAM CI	BOX ELDER	605042	MEDICAL DR @ 1050 S	25	8	51	13	Level II - B
BRIGHAM CI	BOX ELDER	605014	1100 S @ 305 W	25	3	3	12	Level I - B
BRIGHAM CI	BOX ELDER	701021	800 W @ 960 S	0	2	24	11	Level I - B

Tooele County

City	County	Stop Abbr	Stop Name	Time Between Buses	Total Stop Activity	Total Ramp	Score	Recommended Amenity
TOOELE	TOOELE	165002	UT-36 @ 2450 N Park & Ride	15	139	31	11	Level VI - A
STANSBURY	TOOELE	146022	STANSBURY PARKWAY @ 6670 N	61	18	2	14	Level III - B
TOOELE	TOOELE	501033	MAIN ST @ 989 N	28	17	1	14	Level III - B
STANSBURY	TOOELE	146027	STANSBURY PARKWAY @ 188 W	61	17	0	11	Level III - B
STANSBURY	TOOELE	146024	STANSBURY PARKWAY @ 189 W	67	14	1	13	Level III - B
TOOELE	TOOELE	501038	SADDLEBACK BLVD @ 1635 S	73	13	1	11	Level III - B
STANSBURY	TOOELE	146021	STANSBURY PARKWAY @ 6675 N	67	12	0	13	Level III - B
GRANTSVILL	TOOELE	161011	MAIN ST @ 294 E	211	0	0	12	Level I - B
GRANTSVILL	TOOELE	501027	MAIN ST @ 793 E	195	1	0	13	Level I - B
GRANTSVILL	TOOELE	161013	MAIN ST @ 345 E	195	1	0	13	Level I - B
GRANTSVILL	TOOELE	162003	MAIN ST @ 727 E	195	0	0	11	Level I - B
GRANTSVILL	TOOELE	162004	MAIN ST @ 647 E	195	0	0	13	Level I - B
GRANTSVILL	TOOELE	162005	MAIN ST @ 503 E	195	0	0	13	Level I - B
GRANTSVILL	TOOELE	161014	MAIN ST @ 303 E	195	0	0	12	Level I - B
GRANTSVILL	TOOELE	161026	QUIRK ST @ 180 S	156	5	0	16	Level II - B
GRANTSVILL	TOOELE	161027	CHERRY ST @ 195 E	156	3	0	15	Level I - B
GRANTSVILL	TOOELE	161006	CENTER ST @ 1 S	156	3	0	14	Level I - B
GRANTSVILL	TOOELE	161009	MAIN ST @ 98 E	156	2	0	14	Level I - B
GRANTSVILL	TOOELE	161025	QUIRK ST @ 11 S	156	2	0	14	Level I - B
GRANTSVILL	TOOELE	501028	MAIN ST @ 236 E	156	1	0	13	Level I - B
GRANTSVILL	TOOELE	161028	CHERRY ST @ 75 E	156	0	0	13	Level I - B
GRANTSVILL	TOOELE	501002	MAIN ST @ 17 W	156	0	0	14	Level I - B
GRANTSVILL	TOOELE	161029	CHERRY ST @ 16 W	156	0	0	15	Level I - B
GRANTSVILL	TOOELE	161010	MAIN ST @ 200 E	156	0	0	12	Level I - B
STANSBURY	TOOELE	146018	COUNTRY CLUB DR @ 5501 N	148	1	0	11	Level I - B
STANSBURY	TOOELE	146004	COUNTRY CLUB DR @ 6025 N	148	1	0	11	Level I - B
STANSBURY	TOOELE	146008	COUNTRY CLUB DR @ 5551 N	148	1	0	11	Level I - B
STANSBURY	TOOELE	146007	COUNTRY CLUB DR @ 5625 N	148	0	0	11	Level I - B
STANSBURY	TOOELE	146019	COUNTRY CLUB DR @ 5550 N	125	4	0	11	Level I - B
TOOELE	TOOELE	182029	200 W @ 1 S	73	2	0	12	Level I - B
TOOELE	TOOELE	182024	400 S @ 96 W	73	1	0	12	Level I - B
TOOELE	TOOELE	182028	200 W @ 105 S	73	1	0	12	Level I - B
TOOELE	TOOELE	182026	200 W @ 305 S	73	0	0	11	Level I - B
STANSBURY	TOOELE	146023	STANSBURY PARKWAY @ 465 W	67	3	0	13	Level I - B
TOOELE	TOOELE	182021	200 N @ 125 W	62	2	0	12	Level I - B
STANSBURY	TOOELE	146028	STANSBURY PARKWAY @ 470 W	61	4	0	12	Level I - B
TOOELE	TOOELE	501021	UTAH AVE @ 475 W	48	3	0	11	Level I - B
TOOELE	TOOELE	501054	400 E @ 2319 N	48	2	0	11	Level I - B
TOOELE	TOOELE	501010	VINE ST @ 122 W	45	3	0	12	Level I - B
TOOELE	Tooele	501042	BROADWAY ST @ 86 N	44	3	0	12	Level I - B
TOOELE	Tooele	501040	400 N @ 29 E	44	2	0	13	Level I - B
TOOELE	Tooele	501049	400 N @ 176 W	44	0	0	12	Level I - B
TOOELE	TOOELE	182025	400 S @ 198 W	38	8	0	14	Level II - B
TOOELE	TOOELE	501005	400 S @ 10 W	38	0	0	14	Level I - B
TOOELE	TOOELE	501023	1000 W @ 114 S	25	2	0	11	Level I - B
TOOELE	TOOELE	501075	UTAH AVE @ 468 W	24	4	0	11	Level II - B
TOOELE	Tooele	501041	COLEMAN ST (600 W) @ 41 N	24	1	0	11	Level I - B
TOOELE	TOOELE	182030	200 W @ 60 N	21	6	0	14	Level II - B
GRANTSVILL	TOOELE	161012	MAIN ST @ 348 E	21	1	0	11	Level I - B
GRANTSVILL	TOOELE	162001	MAIN ST @ 820 E	21	1	0	11	Level I - B