

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



CHANGE ORDER

No. 3

TITLE: Various Scope Modifications for PCO-002, -005, -009, -010, -011, -012, -013 and DATE: 3/22/2023
 PROJECT/CODE: MSP253 - Mid-Valley Connector This is a change order to CONTRACT No: 21-03502BM
 TO: Jacobs Engineering, Inc.
 ATTN: Jeanne Work

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

PCO-002 - Update Specifications \$143,299. PCO-005 - Topo Survey, ROW & Cost-to-Cure Exhibits \$192,404. PCO-009 - Transit Hub Updates \$107,015. PCO-010 - Station Redesign \$116,998. PCO-011 - Side Station Updates \$120,570. PCO-012 - Miscellaneous Design Requests \$111,832. JAC-PCO-013 - Resubmittal 60% Plans for UTA Review \$80,854. PCO-014 - Additional UTA Design Requests \$192,856. Excepting PCO-014, all PCOs are for design work previously completed on the project. PCO-014 is for additional in-scope (additive) modifications that have not commenced. The schedule impact associated with this change was previously addressed in the approval of CO-001. The PCOs comprising this group change order were approved by the UTA CCC committee on 2/13/2023. Total change order amount = \$1,065,828.

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:	\$1,065,828	Original Contract Sum:	\$1,759,533	Final Completion Date Prior to This Change:	12/31/2026
Unit Cost:	-	Net Change by Previously Authorized Changes:	\$174,666	Contract Time Change This Change Order (Calendar Days):	0
Cost Plus:	-	Previous Project Total:	\$1,934,199	Final Completion Date as of This Change Order:	12/31/2026
T&M NTE:	-	Net Change This Change Order:	\$1,065,828		
Total:	\$1,065,828	Current Project Total:	\$3,000,027		

ACCEPTED: DocuSigned by:
 By: *Jeanne Work*
8CB8419EC28C4E8
 Date: 3/1/2023

Jeanne Work
 Jacobs Engineering, Inc.

By: _____
 Date: _____
Andrea Pullos
 Project Manager <\$25,000

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

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

By: _____
 Date: _____
Vicki Woodward
 Procurement

By: DocuSigned by: *Michael Bell*
70232817562976
 Date: 2/28/2023
Mike Bell
 Attorney General >\$10,000

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



Change Order Summary Worksheet
Previously Authorized Changes

Contract **21-03502BM JAC**

Change Order No	Date	Amount of CO	Running Contract Total	Subject
Original Contract			\$1,759,533	
1	1/5/2023	\$0	\$1,759,533	Contract Time Extension
2	2/13/2023	\$174,666	\$1,934,199	Various Scope Modifications for PCO-003, -004, -006, -007
Total to Date		\$ 174,666		



707 17th Street, Suite 2750
Denver, Colorado 80202

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January 30, 2023

Attn: Andrea Pullos, PE
Project Manager
Capital Construction
Utah Transit Authority
Salt Lake City, Utah 84101

Project Name: Midvalley Bus Rapid Transit Design
Project No: Contract #21-03502BM

Subject: Change Order #2: Develop Advertisement Specifications

Dear Andrea,

Jacobs is requesting a contract modification for additional services to update the project specifications from UDOT format to be a unique UTA format. The following tasks were requested by UTA and subsequently performed by the Midvalley BRT Design Team:

- Reformat non-UDOT Specifications into UDOT specials (Avenue & Jacobs)
- Renumber non-UDOT bid items to match UDOT format (Avenue & Jacobs)
- Participation in General Specifications meetings (2 People) (Avenue & Jacobs)
- Reformat of architecture specifications to UDOT specials (Jacobs)
- Assessing language to be used between the UDOT general specifications and UTA boiler plate contract language (Avenue & Jacobs)
 - Any further conversations of UDOT general specifications to UTA general specifications will be completed by UTA

The total estimate cost for this specification reformat is \$143,298.90.

This above amount includes Project Management fees for an additional 30 days.

Please let me know if you have any questions and I appreciate your consideration of this request.

Thank you,

A handwritten signature in blue ink that reads "Nicholas Young".

Nicholas Young, PE
Project Manager

720-286-6262
Nicholas.Young@Jacobs.com

Jacobs Midvalley Connector Final Design Fee Estimate, Amend. #7 12/13/2022		Raw rate -> Multiplier -> Loaded Rate -> Employee ->	TOTAL TASK HOURS	BURDENED LABOR COST
			2,3237	
Task 1	Project Management OLD			
	Project management and coordination (2 months Prior PM)		48	\$14,363.81
	Invoice, schedule, budget (2 months Prior PM)		12	\$2,737.04
	Risk Register Meetings and Prep (9 hours max)		9	\$2,693.21
	Internal/External Project Meetings			
	Weekly UTA Meetings (7 mtgs at 1 hr)		7	\$2,094.72
	Weekly Internal Meetings (7 mtgs at 1 hr)		91	\$15,197.52
	Weekly Design Mtg. w/UTA (6 mtgs at 1.5 hrs)		18	\$4,156.31
			0	\$0.00
	Avenue PM items included in fee below		0	\$0.00
	SUBTOTAL TASK 1		185	\$41,242.62
Task 1A	Project Management A1			
	Project management and coordination (7 months)		210	\$37,474.38
	Invoice, Schedule, Budget (7 months)		63	\$9,230.90
	Risk Register, Meetings and Prep (11 hrs max.)		11	\$1,789.25
	Internal/External Project Meetings			
	Weekly UTA Meetings (28 mtgs at 1 hr)		28	\$5,318.95
	Weekly Internal Meetings (16 mtgs at 1 hr)		206	\$46,765.22
	Weekly Design Mtg. w/UTA (20 mtgs at 1.5 hrs)		75	\$13,812.54
	Package drawing files to UTA		10	\$1,403.47
	Avenue PM items included in fee below		0	\$0.00
	SUBTOTAL TASK 1A		683	\$116,794.67
Task 2	Stakeholder & Public Outreach			
	Architectural Renderings/Powerpoint		13	\$1,978.12
	Continue monitoring emails/update website		19	\$3,177.96
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 2		32	\$5,156.08
Task 5	Surveying and Mapping			
	ESI work items included in fee below		0	\$0.00
	SUBTOTAL TASK 5		0	\$0.00
Task 7	Geotechnical			
	Terracon work items included in fee below		0	\$0.00
	SUBTOTAL TASK 7		0	\$0.00
Task 8E	Develop Ad Plans (90% & 100%)			
	Reset and resubmittal of 60% PS&E		480	\$71,601.98
	Plans and bid item conversion to UTA format		250	\$39,955.53
	Redesign of drainage and gutter to use inlets		200	\$28,389.02
	Pedestrian lighting cost est. - south side 4700 S		5	\$699.89
	Wall 4700 S changes:			
	Regrading		36	\$5,324.62
	Specifications		8	\$1,508.41
	Details		16	\$2,349.61
	Traffic Signal Design			
	4430 S/Riverboat Rd		84	\$12,250.05
	4530 S/Atherton Dr.		84	\$12,250.05
	4700 S/Golf Course Rd		84	\$12,250.05
	4700 S/Riverwood Rd		84	\$12,250.05
	2700 S/4390 S (Avenue)		0	\$0.00
	Assess impacts of Vine St. future widening (5')		6	\$975.40
	Addition of floating curb at Murray Blvd.		4	\$650.26
	Pantograph foundations (2)		62	\$8,896.12
	ATMS design/details across 2 bridges		64	\$9,701.26
	Supplemental UDOT coordination and ratings on box culvert		72	\$11,207.36
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 8E		1639	\$230,212.58
Task 8E-SP	Specs			
	Reformat non-UDOT specs		76	\$13,890.32
	Renumber non-UDOT specs		30	\$5,738.01
	General Specification Meetings		22	\$4,295.17
	Reformat Architectural specs to UDOT specials		112	\$22,078.12
	Language usage between UDOT and UTA		90	\$16,475.40
	No change for not having UDOT Specs at 90% and extra effort to get them there - (50)		0	\$0.00
	SUBTOTAL TASK 8E-SP		330	\$62,467.02
Task 10	Utilities			
	Coordination on storm line video		24	\$4,634.94
	Water service/connections for 4 side stations		16	\$2,691.40
	Supplemental Utility design		82	\$12,799.78
	PRO-PIPE work items included in fee below		0	\$0.00
	SUBTOTAL TASK 10		122	\$20,126.12
Task 11	Right of Way			
	Attend Weekly ROW Meetings		36	\$5,919.58
	Prepare/Update ROW Exhibits		318	\$45,311.82
	Methodology used to establish ROW and TCE limits		28	\$4,465.97
	Avenue work items included in fee below		0	\$0.00
	ESI work items included in fee below		0	\$0.00
	SUBTOTAL TASK 11		382	\$55,697.37
Task 12B	Stations and Transit Plazas			
	SLCC Hub design/landscaping modifications		122	\$14,397.17
	WVC Hub design/landscaping modifications		40	\$5,430.95
	Change millions bid item		2	\$452.15
	Canopy Redesign and additional details		200	\$31,876.19
	Trash Enclosure Design at WVC Station		80	\$12,751.49
	Snowmelt system		117	\$12,131.39
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 12B		561	\$77,039.35
TOTAL JACOBS HOURS			3844	
TOTAL JACOBS LABOR				\$607,735.81
SUBCONSULTANTS				
AVENUE CONSULTANTS				\$ 367,482.49
ESI				\$ 40,329.56
KCI				\$ -
PRO-PIPE				\$ 12,531.47
TERRACON				\$ 5,550.00
NSULTANTS				\$ 425,893.52
OVERHEAD DIRECT COSTS				
DIRECT COSTS				
	Unit Cost	Quantity		
	Mileage \$0.56	150	\$	84.00
	Misc. Transp. \$90.00	2	\$	180.00
	Airfare \$400.00	2	\$	800.00
	Hotel \$140.00	4	\$	560.00
	Per diem \$85.00	4	\$	340.00
ECT COSTS				\$ 1,964.00
SUMMARY				
Total Subs				\$ 425,893.52
Total ODC				\$ 1,964.00
Total Jacobs Labor Costs				\$ 607,735.81
GRAND TOTAL				\$ 1,035,593.33

CHANGE ORDER 2

**DISTRIBUTED IN
CHANGE ORDERS:
2, 3, 5, 9, 10, 11, & 13**

PROJECT ACTIVITIES	Project Manager	Design Oversight	Management Review	Roadway Design	Roadway Design	Drainage Lead	Drainage Design	Utility QC	Signals Lead/Utility Design	CADD Design	CADD Design	CADD Support	Admin	ROW/GIS Dashboard	ROW Manager	ROW Engineer	ROW Engineer	ROW Engineer	ROW Lead	ROW Tech	ROW Engineer	ROW Tech	Traffic Manager	Traffic Lead	Traffic Engineer	Principle	Total Hours	Cost
	Blair Tomten	Jeremy Christensen	Aaron Rasmussen	Heather Hamilton	David Webb	Brian Shevell	Nick Stephens	Santiago Loaliza	Spencer Taylor	Bailey Nielson	Ramin Hameedi	Conrad Anderson	Celeste Madsen	Adrian Welsh	Craig Yates	Isaac Lopez	Jake Wiley	Jared Howland	Jeff Searle	Madeline Beaver	Mike Herbst	Ryan Herbst	Ivan Hooper	Shawn Larson	Greg Sanchez	Andrew Gempelme		
1: Project Management	230	154	36	78	4	36	4	40	64	4	4	4	12	0	0	0	0	0	0	0	0	0	0	0	0	20	690	\$ 138,507.81
Task 1: Project Management	230	154	36	78	4	36	4	40	64	4	4	4	12	0	0	0	0	0	0	0	0	0	0	0	0	20	690	\$ 138,507.81
Internal Team Meetings	12	12		12	4	4	4	4	12	4	4	4															76	\$ 12,267.62
Attend Team (Avenue/Jacobs) Meetings	40	24		36		26			26																		152	\$ 26,933.51
Attend UTA Design Meeting	40	8		2		2			2																		54	\$ 10,689.73
Specifications (Meetings & Coordination)		48																									48	\$ 13,450.10
Coordination with Jacobs, UTA, Cities, and Subs	40	12		28		4			24																		108	\$ 18,041.38
Design Management Review	10	10																									20	\$ 4,692.73
Advertising Management Review	16	16	36					36																			104	\$ 24,287.55
Review/Process Consultant Invoices	12												12														24	\$ 3,253.01
Contract Modifications	60	24																								20	104	\$ 24,892.19
8E: Develop Advertisement Plans for West Valley City Hub	27	32	0	76	54	23	36	10	21	22	26	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	389	\$ 53,565.43
Task 1a: Complete Drainage Design, Plan Sheets, and Documents	0	0	0	0	0	19	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	\$ 5,881.66
Task 2a: Complete Roadway Plans and Documents	6	10	0	42	34	0	0	0	0	18	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	\$ 18,484.44
Task 3a: Complete Signing and Striping Plans and Documents	9	0	0	6	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	\$ 2,570.45
Task 4a: Complete Design Utility Coordination	0	0	0	0	0	0	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	\$ 1,585.45	
Task 5a: Complete Utility Plans and Documents	0	0	0	0	0	0	2	11	0	26	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	\$ 5,119.67
Task 6a: Incorporate 90% Review Comments	12	22	0	28	20	4	18	4	4	4	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	\$ 19,923.76
8E: Develop Advertisement Plans for Side Stations	38	36	0	80	22	29	54	8	40	18	20	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	361	\$ 53,188.02
Task 1b: Complete Drainage Design, Plan Sheets, and Documents	0	0	0	0	0	16	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	\$ 5,522.21
Task 2b: Complete Roadway Plans and Documents	8	10	0	30	16	0	0	0	0	8	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	\$ 11,635.89
Task 3b: Complete Signing and Striping Plans and Documents	6	0	0	18	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	\$ 4,063.68
Task 4b: Complete Design Utility Coordination	0	0	0	0	0	0	2	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	\$ 1,711.17	
Task 5b: Complete Utility Plans and Documents	0	0	0	0	0	0	2	12	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	\$ 2,749.85	
Task 6b: Complete Signal Plans and Documents	0	0	0	0	0	0	0	6	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	\$ 1,563.50	
Task 7b: 90% Review Meeting	6	6	0	6	4	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	\$ 4,813.50	
Task 8b: Incorporate 90% Review Comments	10	10	0	14	4	4	32	2	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	\$ 13,043.37	
Task 9b: Comment Resolution Review Meeting	8	10	0	12	2	5	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	\$ 8,084.85	
8E: Signal Warrant Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	54	154	0	240	\$ 35,064.42
Task 1c: Time Travel Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	24	0	40	\$ 6,093.20
Task 2c: TSP Traffic Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	46	130	200	\$ 28,971.22	
8E: Right-of-Way	16	0	0	0	0	0	0	0	0	24	0	0	0	80	22	147	80	6	92	110	87	32	0	0	0	0	696	\$ 87,094.32
Task 1d: Right-of-Way	0	0	0	0	0	0	0	0	0	0	0	0	0	8	20	125	80	6	56	110	87	32	0	0	0	0	524	\$ 62,967.92
Task 2d: ROW Dashboard	0	0	0	0	0	0	0	0	0	0	0	0	0	72	2	22	0	0	36	0	0	0	0	0	0	132	\$ 18,969.12	
Task 3d: Property Exhibits	16	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	\$ 5,157.28	
13: Construction Support	80	4	0	100	20	16	24	0	40	80	16	48	0	0	0	80	40	4	40	40	40	20	0	0	0	0	692	\$ 99,118.20
Task 13a: Addendums and Advertisement Support	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 2,500.00
Task 13b: RFI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 10,000.00
Task 13c: Siderunning Station Design on 4700 South	40	2	0	58	8	8	12	0	14	32	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182	\$ 24,190.15
Task 13d: Privacy Wall Design on 2700 West	40	2	0	42	12	8	12	0	26	48	8	48	0	0	0	80	40	4	40	40	40	20	0	0	0	0	510	\$ 62,428.05
Summary of Hours	391	226	36	334	100	104	118	58	165	148	66	130	12	80	22	227	120	10	132	150	127	52	32	54	154	20	3068	\$ 466,538.19
Summary of Raw Labor Expense	\$ 73,923.38	\$ 63,327.53	\$ 9,955.27	\$ 37,869.11	\$ 12,984.18	\$ 20,611.61	\$ 13,872.06	\$ 11,574.08	\$ 21,649.06	\$ 13,149.07	\$ 6,404.18	\$ 12,259.49	\$ 984.26	\$ 10,410.09	\$ 4,751.07	\$ 26,060.07	\$ 11,480.21	\$ 1,161.95	\$ 24,355.78	\$ 10,252.01	\$ 19,790.05	\$ 5,685.86	\$ 7,358.08	\$ 8,340.84	\$ 19,365.50	\$ 6,823.40		

CHANGE ORDER 2

Direct Expenses

Description	Rate	Quantity	Cost
Travel (mileage)	\$ 0.625	100	\$ 62.50
Total			\$ 62.50

Total MOD

Labor Subtotal \$ 466,538.19

Direct Expenses \$ 62.50

Total \$ 466,600.69



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January 30, 2023

Attn: Andrea Pullos, PE
Project Manager
Capital Construction
Utah Transit Authority
Salt Lake City, Utah 84101

Project Name: Midvalley Bus Rapid Transit Design
Project No: Contract #21-03502BM

Subject: Change Order #5: Project Topographic Survey, Right of Way, and Cost to Cure Exhibits

Dear Andrea,

Jacobs is requesting a contact modification for additional services to update the project topographic survey, Right of Way (ROW) documents, and cost to cure exhibits. The following tasks were requested by UTA and subsequently performed by the Midvalley BRT Design Team:

- Obtained additional survey along 2700 W (ESI)
- Obtained adjacent projects topographic survey (ESI)
- Obtained topographic survey at Murray Hub, West Valley City Hub, and on Allerton (ESI)
- Topographic CADD creation (ESI)
- Dimension of Bridge Elements (ESI)
- P6 Revisions (ESI)
- Complete ROW research, legal descriptions and submittals including 7 ROW parcels (1 partial summaries) along 2700 West. (Avenue)
- Develop a ROW dashboard for tracking property progress. Weekly updates and maintenance through the acquisition process will be included. (Avenue)
- Create property exhibits for meetings between the public involvement team and property owners. (Avenue & Jacobs)
- Attendance at weekly ROW meetings (Avenue & Jacobs)
- Document Cost to Cure Methodology (Jacobs)

The total estimate cost for this specification reformat is \$192,403.69. This cost estimate includes a Jacobs Project Manager transition credit of \$58,099.34 due to Jacobs changing project managers.

This above amount includes Project Management fees for an additional 30 days.

Date: 30 January 2023

Subject: Change Order #5: Project Topographic Survey, Right of Way, and Cost to Cure Exhibits

The following table provides a breakdown of costs per firm based on Project Management fees and ROW task fees.

Firm	Task	Cost
Jacobs	Project Management (1 Month)	\$58,099.34
	Project Management Credit (1 Month)	(\$58,099.34)
	Jacobs ROW Tasks	\$55,697.37
Avenue	Project Management (1 Month)	\$9,282.44
	Avenue ROW Tasks	\$87,094.32
ESI	ESI ROW Tasks	\$75,329.56
	5th Partial Summary ESI Credit	(\$35,000.00)
Total Change Order Request		\$192,403.69

Please let me know if you have any questions and I appreciate your consideration of this request.

Thank you,

Nicholas Young, PE
Project Manager

720-286-6262
Nicholas.Young@Jacobs.com

Jacobs Midvalley Connector Final Design Fee Estimate, Amend. #7 12/13/2022		Raw rate -> Multiplier -> Loaded Rate -> Employee ->	TOTAL TASK HOURS	BURDENED LABOR COST
			2,3237	
Task 1	Project Management OLD			
	Project management and coordination (2 months Prior PM)		48	\$14,363.81
	Invoice, schedule, budget (2 months Prior PM)		12	\$2,737.04
	Risk Register Meetings and Prep (9 hours max)		9	\$2,693.21
	Internal/External Project Meetings		0	\$0.00
	Weekly UTA Meetings (7 mtgs at 1 hr)		7	\$2,094.72
	Weekly Internal Meetings (7 mtgs at 1 hr)		91	\$15,197.52
	Weekly Design Mtg. w/UTA (6 mtgs at 1.5 hrs)		18	\$4,156.31
			0	\$0.00
	Avenue PM items included in fee below		0	\$0.00
	SUBTOTAL TASK 1		185	\$41,242.62
Task 1A	Project Management A1			
	Project management and coordination (7 months)		210	\$37,474.38
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	Internal/External Project Meetings		0	\$0.00
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	Weekly Internal Meetings (16 mtgs at 1 hr)		206	\$46,765.22
	Weekly Design Mtg. w/UTA (20 mtgs at 1.5 hrs)		75	\$13,812.54
	Package drawing files to UTA		10	\$1,403.47
			0	\$0.00
	Avenue PM items included in fee below		0	\$0.00
	SUBTOTAL TASK 1A		693	\$116,794.67
Task 2	Stakeholder & Public Outreach			
	Architectural Renderings/Powerpoint		13	\$1,978.12
	Continue monitoring emails/update website		19	\$3,177.96
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 2		32	\$5,156.08
Task 5	Surveying and Mapping			
	ESI work items included in fee below		0	\$0.00
	SUBTOTAL TASK 5		0	\$0.00
Task 7	Geotechnical			
	Terracon work items included in fee below		0	\$0.00
	SUBTOTAL TASK 7		0	\$0.00
Task 8E	Develop Ad Plans (90% & 100%)			
	Reset and resubmittal of 60% PS&E		480	\$71,601.98
	Plans and bid item conversion to UTA format		250	\$39,965.53
	Redesign of drainage and gutter to use inlets		200	\$28,389.02
	Pedestrian lighting cost est. - south side 4700 S		5	\$699.89
	Wall 4700 S changes:			
	Regrading		36	\$5,324.62
	Specifications		8	\$1,508.41
	Details		16	\$2,349.61
	Traffic Signal Design			
	4430 S/Riverboat Rd		84	\$12,250.05
	4530 S/Atherton Dr.		84	\$12,250.05
	4700 S/Golf Course Rd		84	\$12,250.05
	4700 S/Rosewood Rd		84	\$12,250.05
	2700 S/4390 S (Avenue)		0	\$0.00
	Assess impacts of Vine St. future widening (5')		6	\$975.40
	Addition of floating curb at Murray Blvd.		4	\$650.26
	Pantograph foundations (2)		62	\$8,896.12
	ATMS design/details across 2 bridges		64	\$9,701.26
	Supplemental UDOT coordination and ratings on box culvert		72	\$11,207.36
			0	\$0.00
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 8E		1639	\$230,212.58
Task 8E-SP	Specs			
	Reformat non-UDOT specs		76	\$13,880.32
	Renumber non-UDOT specs		30	\$5,738.01
	General Specification Meetings		22	\$4,295.17
	Reformat Architectural specs to UDOT specials		112	\$22,078.12
	Language usage between UDOT and UTA		90	\$16,475.40
	No change for not having UDOT Specs at 90% and extra effort to get them there - (\$0)		0	\$0.00
	SUBTOTAL TASK 8E-SP		330	\$62,467.02
Task 10	Utilities			
	Coordination on storm line video		24	\$4,634.94
	Water service/connections for 4 side stations		16	\$2,691.40
	Supplemental Utility design		82	\$12,799.78
	PRO-PIPE work items included in fee below		0	\$0.00
	SUBTOTAL TASK 10		122	\$20,126.12
Task 11	Right of Way			
	Attend Weekly ROW Meetings		36	\$5,919.58
	Prepare/Update ROW Exhibits		318	\$45,311.82
	Methodology used to establish ROW and TCE limits		28	\$4,485.97
	Avenue work items included in fee below		0	\$0.00
	ESI work items included in fee below		0	\$0.00
	SUBTOTAL TASK 11		382	\$55,697.37
Task 12B	Stations and Transit Plazas			
	SLCC Hub design/landscaping modifications		122	\$14,397.17
	WVC Hub design/landscaping modifications		40	\$5,430.96
	Change millions bid item		2	\$452.15
	Canopy Redesign and additional details		200	\$31,876.19
	Trash Enclosure Design at WVC Station		80	\$12,751.49
	Snowmelt system		117	\$12,131.39
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 12B		561	\$77,039.35
TOTAL JACOBS HOURS			3844	
TOTAL JACOBS LABOR				\$607,735.81
SUBCONSULTANTS				
AVENUE CONSULTANTS				\$ 367,482.49
ESI				\$ 40,329.56
KCI				\$ -
PRO-PIPE				\$ 12,531.47
TERRACON				\$ 5,550.00
NSULTANTS				\$ 425,893.52
OVERHEAD DIRECT COSTS				
DIRECT COSTS				
	Unit Cost	Quantity		
	Mileage \$0.56	150	\$	84.00
	Misc. Transp. \$90.00	2	\$	180.00
	Airfare \$400.00	2	\$	800.00
	Hotel \$140.00	4	\$	560.00
	Per diem \$85.00	4	\$	340.00
ECT COSTS				\$ 1,964.00
SUMMARY				
Total Subs				\$ 425,893.52
Total ODC				\$ 1,964.00
Total Jacobs Labor Costs				\$ 607,735.81
GRAND TOTAL				\$ 1,035,593.33

**CHANGE
ORDER 5**

**DISTRIBUTED IN
CHANGE ORDERS:
2, 3, 5, 9, 10, 11, & 13**

PROJECT ACTIVITIES	Project Manager	Design Oversight	Management Review	Roadway Design	Roadway Design	Drainage Lead	Drainage Design	Utility OC	Signals Lead/Utility Design	CADD Design	CADD Design	CADD Support	Admin	ROW/GIS Dashboard	ROW Manager	ROW Engineer	ROW Engineer	ROW Engineer	ROW Lead	ROW Tech	ROW Engineer	ROW Tech	Traffic Manager	Traffic Lead	Traffic Engineer	Principle	Total Hours	Cost	
1: Project Management	Blair Tomten	Jeremy Christensen	Aaron Rasmussen	Heather Hamilton	David Webb	Brian Shevell	Nick Stephens	Santiago Loaliza	Spencer Taylor	Bailey Nielson	Ramin Harneedi	Conrad Anderson	Celeste Madsen	Adrian Welsh	Craig Yates	Isaac Lopez	Jake Wiley	Jared Howland	Jeff Searle	Madeline Beaver	Mike Herbst	Ryan Herbst	Ivan Hooper	Shawn Larson	Greg Sanchez	Andrew Gempelmeier	690	\$ 138,507.81	
Task 1: Project Management	230	154	36	78	4	36	4	40	64	4	4	4	12	0	0	0	0	0	0	0	0	0	0	0	0	0	20	690	\$ 138,507.81
Internal Team Meetings	12	12		12	4	4	4	4	12	4	4	4															76	\$ 12,267.62	
Attend Team (Avenue/Jacobs) Meetings	40	24		36		26			26																		152	\$ 26,933.51	
Attend UTA Design Meeting	40	8		2		2			2																		54	\$ 10,689.73	
Specifications (Meetings & Coordination)		48																									48	\$ 13,450.10	
Coordination with Jacobs, UTA, Cities, and Subs	40	12		28		4			24																		108	\$ 18,041.38	
Design Management Review	10	10																									20	\$ 4,692.73	
Advertising Management Review	16	16	36					36																			104	\$ 24,287.55	
Review/Process Consultant Invoices	12												12														24	\$ 3,253.01	
Contract Modifications	60	24																							20	104	\$ 24,892.19		
8E: Develop Advertisement Plans for West Valley City Hub	27	32	0	76	54	23	36	10	21	22	26	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	389	\$ 53,565.43	
Task 1a: Complete Drainage Design, Plan Sheets, and Documents	0	0	0	0	0	19	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	\$ 5,881.66	
Task 2a: Complete Roadway Plans and Documents	6	10	0	42	34	0	0	0	0	18	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	\$ 18,484.44	
Task 3a: Complete Signing and Striping Plans and Documents	9	0	0	6	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	\$ 2,570.45	
Task 4a: Complete Design Utility Coordination	0	0	0	0	0	0	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	\$ 1,585.45	
Task 5a: Complete Utility Plans and Documents	0	0	0	0	0	0	0	2	11	0	26	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	\$ 5,119.67	
Task 6a: Incorporate 90% Review Comments	12	22	0	28	20	4	18	4	4	4	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	\$ 19,923.76	
8E: Develop Advertisement Plans for Side Stations	38	36	0	80	22	29	54	8	40	18	20	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	361	\$ 53,188.02	
Task 1b: Complete Drainage Design, Plan Sheets, and Documents	0	0	0	0	0	16	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	\$ 5,522.21	
Task 2b: Complete Roadway Plans and Documents	8	10	0	30	16	0	0	0	0	8	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	\$ 11,635.89	
Task 3b: Complete Signing and Striping Plans and Documents	6	0	0	18	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	\$ 4,063.68	
Task 4b: Complete Design Utility Coordination	0	0	0	0	0	0	2	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	\$ 1,711.17	
Task 5b: Complete Utility Plans and Documents	0	0	0	0	0	0	2	12	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	\$ 2,749.85	
Task 6b: Complete Signal Plans and Documents	0	0	0	0	0	0	0	6	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	\$ 1,563.50	
Task 7b: 90% Review Meeting	6	6	0	6	4	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	\$ 4,813.50	
Task 8b: Incorporate 90% Review Comments	10	10	0	14	4	4	32	2	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	\$ 13,043.37	
Task 9b: Comment Resolution Review Meeting	8	10	0	12	2	5	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	\$ 8,084.85	
8E: Signal Warrant Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	54	154	0	240	\$ 35,064.42	
Task 1c: Time Travel Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	24	0	40	\$ 6,093.20	
Task 2c: TSP Traffic Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	46	130	0	200	\$ 28,971.22	
8E: Right-of-Way	16	0	0	0	0	0	0	0	24	0	0	0	80	22	147	80	6	92	110	87	32	0	0	0	0	0	0	696	\$ 87,094.32
Task 1d: Right-of-Way	0	0	0	0	0	0	0	0	0	0	0	0	0	8	20	125	80	6	56	110	87	32	0	0	0	0	524	\$ 62,967.92	
Task 2d: ROW Dashboard	0	0	0	0	0	0	0	0	0	0	0	0	0	72	2	22	0	0	36	0	0	0	0	0	0	0	132	\$ 18,969.12	
Task 3d: Property Exhibits	16	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	\$ 5,157.28	
13: Construction Support	80	4	0	100	20	16	24	0	40	80	16	48	0	0	0	80	40	4	40	40	40	20	0	0	0	0	692	\$ 99,118.20	
Task 13a: Addendums and Advertisement Support	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 2,500.00	
Task 13b: RFI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 10,000.00	
Task 13c: Siderunning Station Design on 4700 South	40	2	0	58	8	8	12	0	14	32	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182	\$ 24,190.15	
Task 13d: Privacy Wall Design on 2700 West	40	2	0	42	12	8	12	0	26	48	8	48	0	0	0	80	40	4	40	40	40	20	0	0	0	0	510	\$ 62,428.05	
Summary of Hours	391	226	36	334	100	104	118	58	165	148	66	130	12	80	22	227	120	10	132	150	127	52	32	54	154	20	3068	\$ 466,538.19	
Summary of Raw Labor Expense	\$ 73,923.38	\$ 63,327.53	\$ 9,955.27	\$ 37,869.11	\$ 12,984.18	\$ 20,611.61	\$ 13,872.06	\$ 11,574.08	\$ 21,649.06	\$ 13,149.07	\$ 6,404.18	\$ 12,259.49	\$ 984.26	\$ 10,410.09	\$ 4,751.07	\$ 26,060.07	\$ 11,480.21	\$ 1,161.95	\$ 24,355.78	\$ 10,252.01	\$ 19,790.05	\$ 5,685.86	\$ 7,358.08	\$ 8,340.84	\$ 19,365.50	\$ 6,823.40			

CHANGE ORDER 5

Direct Expenses

Description	Rate	Quantity	Cost
Travel (mileage)	\$ 0.625	100	\$ 62.50
Total			\$ 62.50

Total MOD	
Labor Subtotal	\$ 466,538.19
Direct Expenses	\$ 62.50
Total	\$ 466,600.69

Stremel, Doug

From: Young, Nicholas
Sent: Wednesday, November 2, 2022 3:37 PM
To: Stremel, Doug
Subject: FW: Midvalley Connector BRT - Out of scope work for ESI Engineering

Follow Up Flag: Follow up
Flag Status: Completed

FYI

From: Matt Peterson <matt.peterson@esieng.com>
Sent: Wednesday, October 12, 2022 9:38 AM
To: Young, Nicholas <Nicholas.Young@jacobs.com>
Cc: Sargent, Kirsten E. <Kirsten.Sargent@jacobs.com>
Subject: [EXTERNAL] RE: Midvalley Connector BRT - Out of scope work for ESI Engineering

Nick,

I computed rough estimates of the costs of the additional out of scope work:

- *Various survey requests along 2700 West Street as new construction was being completed or proposed stations being relocated.* **\$24,702**
- *Calculations to incorporate other ongoing projects within the project area and to rectify their coordinate systems with our own.* **\$1,368**
- *Additional topographic survey north of the Murray hub.* **\$4,570**
- *Additional topographic survey east of the West Valley hub.* **\$3,494**
- *Additional topographic survey along Atherton.* **\$3,494**
- *Surveying and developing CADD deliverables for all new KCI items in multiple areas (except the intersection of Murray-Taylorsville Rd. & Atherton).* **\$28,504**
- *Photos and dimensions of bridge elements.* **\$1,608**

The total rough estimate of cost is \$67,740

Our scope for the current contract included the preparation of documents on 76 parcels, with 35 of those parcels needing a Warranty Deed and a Temporary Construction Easement and 41 of those parcels needing only a Temporary Construction Easement. The total document count in the current contract was for 111 documents.

Currently, ESI has prepared 25 Warranty Deeds, 52 Temporary Construction Easements, and 14 Public Utility Easements for a total of 91 documents. The 8th and final summary will have four more Temporary Construction Easements.

Avenue compiled the project dashboard and completed the 5th Partial summary, which included 1 Warranty Deed and 7 Temporary Construction Easements. I don't believe we have an exact count on the 7th Partial summary because design is still being finalized.

My rough estimate for cost of the work that was transferred to Avenue is approximately \$35,000

The out of scope work costs (\$67,740) minus the work that was transferred to Avenue (\$35,000) equals **\$32,740**

Please let me know if this information will meet your needs, or if you need any additional information.

Thank again!

Matt Peterson, PLS

ESI Engineering, Inc.

Civil :: Structural :: Land Survey

We've relocated to a new office:

4141 West 2100 South, Suite 100

West Valley City, Utah 84120

Direct: (801)747-5939 Cell: (801)953-4830

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From: Young, Nicholas <Nicholas.Young@jacobs.com>

Sent: Tuesday, October 11, 2022 5:21 PM

To: Matt Peterson <matt.peterson@esieng.com>

Cc: Sargent, Kirsten E. <Kirsten.Sargent@jacobs.com>

Subject: RE: Midvalley Connector BRT - Out of scope work for ESI Engineering

Matt,

We are working on the change order. We spoke to Marcus yesterday and he is requesting that we combine everyone's changes into one master change order. We need the list of changes from you and the cost for each change to roll up into the master change order.

It also sounds like some of your scope was shifted to Avenue, will there be a financial credit for that scope reduction that we need to track?

Please let me know if you have any questions or comments.

Thanks,

Nick

Nicholas Young, PE, PTOE | Jacobs | Project Manager

O: 720.286.6262 | Nicholas.Young@Jacobs.com
717 17th Street, Suite 2750 | Denver Colorado 80202 | USA
www.jacobs.com [Browse our jobs!](#)

From: Matt Peterson <matt.peterson@esieng.com>
Sent: Tuesday, October 11, 2022 11:15 AM
To: Young, Nicholas <Nicholas.Young@jacobs.com>
Cc: Sargent, Kirsten E. <Kirsten.Sargent@jacobs.com>
Subject: [EXTERNAL] RE: Midvalley Connector BRT - Out of scope work for ESI Engineering

Nick,
I just wanted to touch base with you on this. We'll be finishing up with the 6th Partial Summary soon and we will be at or over our current contract budget. We'll still have Right of Way documents to complete for the 8th Partial Summary, as well as finalizing the Right of Way Plans. Is a contract Mod forthcoming? Will we need to stop work while the mod is processed?
Thanks again!

Matt Peterson, PLS

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From: Young, Nicholas <Nicholas.Young@jacobs.com>
Sent: Thursday, September 22, 2022 2:04 PM
To: Matt Peterson <matt.peterson@esieng.com>
Cc: Sargent, Kirsten E. <Kirsten.Sargent@jacobs.com>
Subject: RE: Midvalley Connector BRT - Out of scope work for ESI Engineering

Matt,
Thanks for reaching out and providing the information below. We are compiling out of scope work items for the team. I am still getting up to speed with everything, but I understand this is important for everyone.

Thanks,
Nick

Nicholas Young, PE, PTOE | [Jacobs](#) | Project Manager
O: 720.286.6262 | Nicholas.Young@Jacobs.com
717 17th Street, Suite 2750 | Denver Colorado 80202 | USA
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From: Matt Peterson <matt.peterson@esieng.com>
Sent: Wednesday, September 21, 2022 11:48 AM
To: Young, Nicholas <Nicholas.Young@jacobs.com>
Subject: [EXTERNAL] Midvalley Connector BRT - Out of scope work for ESI Engineering

Nick,

Newel let me know that you are the new point of contact for Jacobs for this project. Congrats! My name is Matt Peterson with ESI Engineering, Newel asked me to put together a list of all of the out-of-scope items that have been completed to date and any request for additional budget to cover the costs. As you can see below, I let Newel know that we may want to secure another \$20,000 to finish work. I just received the latest budget report and we have approximately \$21,000 remaining. We may want to adjust my request to \$30,000 to be safe:

Hi Newel,

I've been checking into the current budget as you requested, and now that I have the data on the amount of time we spent on the Right of Way packages in August and early September it looks like we may want to err on the side of caution if you are already pursuing a mod.

In the month of August we worked on two packages and invoiced approximately \$51,000. We have two more packages to complete, the final of which will require a finalized ROW plan set. Our current budget has approximately \$43,000 left. We may want to pursue another \$20,000 just to be safe.

Most of the cost of the original contract, as you are aware, was for Right of Way document preparation. While we scaled down the right of way and distributed about 10 parcels to others, this did not offset the amount of additional survey tasks that were needed. Including:

- Various survey requests along 2700 West Street as new construction was being completed or proposed stations being relocated.*
- Calculations to incorporate other ongoing projects within the project area and to rectify their coordinate systems with our own.*
- Additional topographic survey north of the Murray hub.*
- Additional topographic survey east of the West Valley hub.*
- Additional topographic survey along Atherton.*
- Surveying and developing CADD deliverables for all new KCI items in multiple areas (except the intersection of Murray-Taylorville Rd. & Atherton).*
- Photos and dimensions of bridge elements.*

Please let me know if there are any questions or concerns, or if you would like any other documentation from me.

Thank you,

Matt Peterson, PLS

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Mid-Valley BRT - Taylorsville - Additional Survey Costs - Out of Scope

Task Description	Senior Project Manager (PLS)	Project Manager / Principal (PLS)	Staff Land Surveyor (PLS)	Survey Cadd Designer	Survey Party Chief	Survey Tech. I	Survey Tech. II	LABOR HOURS	DIRECT LABOR	
	63.00	58.00	53.00	42.50	33.00	29.00	26.00			
Various Requests along 2700 West		8		24	96	96	70	294	\$9,256.00	
Adjacent project calculations and translations		10						10	\$580.00	
Additional Survey - Murray Hub		3		8	16	16	16	59	\$1,922.00	
Additional Survey - WVC Hub		3		8	16	16		43	\$1,506.00	
Additional Survey - Atherton		3		8	16	16		43	\$1,506.00	
Survey and Drafting for all new KCI items (multiple areas)		8		38	96	96	96	334	\$10,527.00	
Photos and dimensions of structures					4	4		8	\$768.00	
Total Direct Labor	0	35	0	86	244	244	182	791	\$26,065.00	
								Overhead (112.58% of Direct Labor)	\$29,343.98	
								Direct Labor Cost	\$26,065.00	
								Subtotal Labor	\$55,408.98	
								Fixed Fee (11% of Subtotal Labor)	\$6,094.99	
								TOTAL LABOR	\$61,503.96	
 <p>ESI Engineering, Inc. 4141 S. 2100 W. , Suite 100 West Valley City, Utah 84120 (801)263-1752 www.esiengineeringinc.com</p>				Direct Costs		Quantity	Rate			
				Mileage		860	0.45	\$387.00		
				GPS/Survey Equipment		130	45	\$5,850.00		
								\$0.00		
								TOTAL DIRECT COSTS		\$6,237.00
				PROJECT TOTAL				\$67,740.96		

P6 Revisions Subtotal + \$7,588.60
Less \$35K NOT transferred to Avenue - \$35,000.00

Total Amendment #1 Request \$40,329.56



ESI Engineering, Inc.
4141 West 2100 South, Suite 100
West Valley City, Utah 84120

Tel: (801) 263-1752
www.esiengineeringinc.com

Nov 18, 2022

Mr. Douglas Stremel PE
Sr. Project Manager
JACOBS
6440 S. Millrock Dr., Suite 300
Salt Lake City, UT, 84121

RE: City of Taylorsville
West Valley Bus Rapid Transit Project
Survey Services

Dear Doug:

Following is a man-hour and cost proposal to provide the requested services as requested in our meeting today. Tasks to be completed by ESI Engineering are as follows:

DEVELOP RIGHT OF WAY PLANS AND DOCUMENTS

Description of Activities:

1. Modify Right of Way documents prepared for the 6th Partial Summary of Right of Way to reflect recent changes to the Temporary Construction Easement areas. Assume changes to Parcels 109,110,112,113,114,115,116, and 117. Assume also that the current Right of Way takes will remain the same, and that only the temporary construction easements will be modified.
2. Submit documents to Region Right of Way manager for review.
3. Update the right of way documents from review comments.
4. Develop ROW plan to show the acquisitions that are required to accommodate all aspects of the project, including fee takings, perpetual easements and temporary easements.
 - a. Conform to latest UDOT CADD standards.
 - b. Documents will be uploaded into Project Wise and EPM per UDOT standards.

Deliverables:

1. Deeds and/or Easements for each parcel to be acquired.
2. Right of Way Plan set in MicroStation format.
3. Right of Way Plan set in PDF format with electronic signature.

The man-hour and cost estimate follows. If you have any comments or questions, please feel free to call.

Very truly yours,

ESI Engineering Inc.

A handwritten signature in blue ink, appearing to read 'Matt Peterson', is written over a light blue circular stamp.

Matt Peterson, P.L.S.



ESI Engineering, Inc.
 4141 West 2100 South, Suite 100
 West Valley City, Utah 84120

Tel: (801) 263-1752
 www.esiengineeringinc.com

Mid-Valley BRT - Taylorsville - 06P Easement Modifications

Task Description	Senior Project Manager (PLS)	Project Manager / Principal (PLS)	Staff Land Surveyor (PLS)	Survey Cadd Designer	Survey Party Chief	Survey Tech. I	Survey Tech. II	LABOR HOURS	DIRECT LABOR	
	63.00	58.00	53.00	42.50	33.00	29.00	26.00			
Develop Right of Way Plans and Documents	16		16	32				64	\$3,216.00	
								0	\$0.00	
								0	\$0.00	
								0	\$0.00	
								0	\$0.00	
Total Direct Labor	16	0	16	32	0	0	0	64	\$3,216.00	
								Overhead (112.58% of Direct Labor)	\$3,620.57	
								Direct Labor Cost	\$3,216.00	
								Subtotal Labor	\$6,836.57	
								Fixed Fee (11% of Subtotal Labor)	\$752.02	
								TOTAL LABOR	\$7,588.60	
 <p>ESI Engineering, Inc. 4141 S. 2100 W., Suite 100 West Valley City, Utah 84120 (801)263-1752 www.esiengineeringinc.com</p>						Direct Costs		Quantity	Rate	
						Mileage		0	0.45	\$0.00
						GPS/Survey Equipment		0	45	\$0.00
										\$0.00
						TOTAL DIRECT COSTS				\$0.00
						PROJECT TOTAL			\$7,588.60	



707 17th Street, Suite 2750
Denver, Colorado 80202

T 720-286-6262
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**Challenging today.
Reinventing tomorrow.**

January 30, 2023

Attn: Andrea Pullos, PE
Project Manager
Capital Construction
Utah Transit Authority
Salt Lake City, Utah 84101

Project Name: Midvalley Bus Rapid Transit Design
Project No: Contract #21-03502BM

Subject: Change Order #9: Transit Hub Updates

Dear Andrea,

Jacobs is requesting a contract modification for additional services to update the transit hub designs at Salt Lake Community College (SLCC) and West Valley City (WVC). The following tasks were requested by UTA and subsequently performed by the Midvalley BRT Design Team:

- SLCC Hub Design Modifications:
 - Landscape redesign (Jacobs)
 - "Ratchet angle" geometry change (Jacobs)
- WVC Hub Design Modifications:
 - Landscaping (Jacobs)
 - Civil Redesign (Avenue)
- Water & Utility Connections (Jacobs)
- Design for two Pantograph foundations for bus charging (Jacobs)
- Develop structural details for trash enclosure design at WVC (Jacobs)

The total estimate cost for this specification reformat is \$107,015.01. This cost estimate includes a Jacobs Project Manager transition credit of \$58,099.34 due to Jacobs changing project managers.

This above amount includes Project Management fees for an additional 30 days.

Please let me know if you have any questions and I appreciate your consideration of this request.

Thank you,

A handwritten signature in blue ink that reads "Nicholas Young".

Nicholas Young, PE
Project Manager

720-286-6262
Nicholas.Young@Jacobs.com

Jacobs Midvalley Connector Final Design Fee Estimate, Amend. #7 12/13/2022		Raw rate -> Multiplier -> Loaded Rate -> Employee ->	TOTAL TASK HOURS	BURDENED LABOR COST
Task 1 Project Management OLD				2,3237
	Project management and coordination (2 months Prior PM)		48	\$14,363.81
	Invoice, schedule, budget (2 months Prior PM)		12	\$2,737.04
	Risk Register Meetings and Prep (9 hours max)		9	\$2,693.21
	Internal/External Project Meetings			
	Weekly UTA Meetings (7 mtgs at 1 hr)		7	\$2,094.72
	Weekly Internal Meetings (7 mtgs at 1 hr)		91	\$15,197.52
	Weekly Design Mtg. w/UTA (6 mtgs at 1.5 hrs)		18	\$4,156.31
			0	\$0.00
	Avenue PM items included in fee below		0	\$0.00
	SUBTOTAL TASK 1		185	\$41,242.62
Task 1A Project Management A1				
	Project management and coordination (7 months)		210	\$37,474.36
	Invoice, Schedule, Budget (7 months)		63	\$9,230.90
	Risk Register, Meetings and Prep (11 hrs max.)		11	\$1,789.25
	Internal/External Project Meetings			
	Weekly UTA Meetings (28 mtgs at 1 hr)		28	\$5,318.95
	Weekly Internal Meetings (16 mtgs at 1 hr)		206	\$46,765.22
	Weekly Design Mtg. w/UTA (20 mtgs at 1.5 hrs)		75	\$13,812.54
	Package drawing files to UTA		10	\$1,403.47
	Avenue PM items included in fee below		0	\$0.00
	SUBTOTAL TASK 1A		683	\$115,794.67
Task 2 Stakeholder & Public Outreach				
	Architectural Renderings/Powerpoint		13	\$1,978.12
	Continue monitoring emails/update website		19	\$3,177.96
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 2		32	\$5,156.08
Task 5 Surveying and Mapping				
	ESI work items included in fee below		0	\$0.00
	SUBTOTAL TASK 5		0	\$0.00
Task 7 Geotechnical				
	Terracon work items included in fee below		0	\$0.00
	SUBTOTAL TASK 7		0	\$0.00
Task 8E Develop Ad Plans (90% & 100%)				
	Reset and resubmittal of 60% PS&E		480	\$71,601.98
	Plans and bid item conversion to UTA format		250	\$39,965.53
	Redesign of drainage and gutter to use inlets		200	\$28,389.02
	Pedestrian lighting cost est. - south side 4700 S		5	\$699.89
	Wall 4700 S changes:			
	Regrading		36	\$5,324.62
	Specifications		8	\$1,508.41
	Details		16	\$2,349.61
	Traffic Signal Design			
	4430 S/Riverboat Rd		84	\$12,250.05
	4530 S/Atherton Dr.		84	\$12,250.05
	4700 S/Golf Course Rd		84	\$12,250.05
	4700 S/Riverwood Rd		84	\$12,250.05
	2700 S/4390 S (Avenue)		0	\$0.00
	Assess impacts of Vine St. future widening (5')		6	\$975.40
	Addition of floating curb at Murray Blvd.		4	\$650.28
	Pantograph foundations (2)		62	\$8,896.12
	ATMS design/details across 2 bridges		64	\$9,701.26
	Supplemental UDOT coordination and ratings on box culvert		72	\$11,207.36
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 8E		1539	\$230,212.58
Task 8E-SP Specs				
	Reformat non-UDOT specs		76	\$13,880.32
	Renumber non-UDOT specs		30	\$5,738.01
	General Specification Meetings		22	\$4,295.17
	Reformat Architectural specs to UDOT specials		112	\$22,078.12
	Language usage between UDOT and UTA		90	\$16,475.40
	No change for not having UDOT Specs at 90% and extra effort to get them there - (50)		0	\$0.00
	SUBTOTAL TASK 8E-SP		330	\$62,467.02
Task 10 Utilities				
	Coordination on storm line video		24	\$4,634.94
	Water service/connections for 4 side stations		16	\$2,691.40
	Supplemental Utility design		82	\$12,799.78
	PRO-PIPE work items included in fee below		0	\$0.00
	SUBTOTAL TASK 10		122	\$20,126.12
Task 11 Right of Way				
	Attend Weekly ROW Meetings		36	\$5,919.58
	Prepare/Update ROW Exhibits		318	\$45,311.82
	Methodology used to establish ROW and TCE limits		28	\$4,465.97
	Avenue work items included in fee below		0	\$0.00
	ESI work items included in fee below		0	\$0.00
	SUBTOTAL TASK 11		382	\$55,697.37
Task 12B Stations and Transit Plazas				
	SLCIC Hub design/landscaping modifications		122	\$14,397.17
	WVC Hub design/landscaping modifications		40	\$5,430.95
	Change millions bid item		2	\$452.15
	Canopy Redesign and additional details		200	\$31,876.19
	Trash Enclosure Design at WVC Station		80	\$12,751.42
	Snowmelt system		117	\$12,131.39
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 12B		561	\$77,039.35
TOTAL JACOBS HOURS			3844	
TOTAL JACOBS LABOR				\$607,735.81
SUBCONSULTANTS				
AVENUE CONSULTANTS				\$ 367,482.49
ESI				\$ 40,329.56
KCI				\$ -
PRO-PIPE				\$ 12,531.47
TERRACON				\$ 5,550.00
NSULTANTS				\$ 425,893.52
OVERHEAD DIRECT COSTS				
DIRECT COSTS		Unit Cost	Quantity	
	Mileage	\$0.56	150	\$ 84.00
	Misc. Transp.	\$90.00	2	\$ 180.00
	Airfare	\$400.00	2	\$ 800.00
	Hotel	\$140.00	4	\$ 560.00
	Per diem	\$85.00	4	\$ 340.00
ECT COSTS				\$ 1,964.00
SUMMARY				
Total Subs				\$ 425,893.52
Total ODC				\$ 1,964.00
Total Jacobs Labor Costs				\$ 607,735.81
GRAND TOTAL				\$ 1,035,593.33

CHANGE ORDER 9

CHANGE ORDER 9

CHANGE ORDER 9

**DISTRIBUTED IN
CHANGE ORDERS:
2, 3, 5, 9, 10, 11, & 13**

PROJECT ACTIVITIES	Project Manager	Design Oversight	Management Review	Roadway Design	Roadway Design	Drainage Lead	Drainage Design	Utility QC	Signals Lead/Utility Design	CADD Design	CADD Design	CADD Support	Admin	ROW/GIS Dashboard	ROW Manager	ROW Engineer	ROW Engineer	ROW Engineer	ROW Lead	ROW Tech	ROW Engineer	ROW Tech	Traffic Manager	Traffic Lead	Traffic Engineer	Principle	Total Hours	Cost	
1: Project Management	Blair Tomten	Jeremy Christensen	Aaron Rasmussen	Heather Hamilton	David Webb	Brian Shevell	Nick Stephens	Santiago Loaliza	Spencer Taylor	Bailey Nielson	Ramin Hameedi	Conrad Anderson	Celeste Madsen	Adrian Welsh	Craig Yates	Isaac Lopez	Jake Wiley	Jared Howland	Jeff Searle	Madeline Beaver	Mike Herbst	Ryan Herbst	Ivan Hooper	Shawn Larson	Greg Sanchez	Andrew Gempelme	690	\$ 138,507.81	
Task 1: Project Management	230	154	36	78	4	36	4	40	64	4	4	4	12	0	0	0	0	0	0	0	0	0	0	0	0	0	20	690	\$ 138,507.81
Internal Team Meetings	12	12		12	4	4	4	4	12	4	4	4															76	\$ 12,267.62	
Attend Team (Avenue/Jacobs) Meetings	40	24		36		26			26																		152	\$ 26,933.51	
Attend UTA Design Meeting	40	8		2		2			2																		54	\$ 10,689.73	
Specifications (Meetings & Coordination)		48																									48	\$ 13,450.10	
Coordination with Jacobs, UTA, Cities, and Subs	40	12				4			24																		108	\$ 18,041.38	
Design Management Review	10	10																									20	\$ 4,692.73	
Advertising Management Review	16	16	36					36																			104	\$ 24,287.55	
Review/Process Consultant Invoices	12												12														24	\$ 3,253.01	
Contract Modifications	60	24																								20	104	\$ 24,892.19	
8E: Develop Advertisement Plans for West Valley City Hub	27	32	0	76	54	23	36	10	21	22	26	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	389	\$ 53,565.43	
Task 1a: Complete Drainage Design, Plan Sheets, and Documents	0	0	0	0	0	19	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	\$ 5,881.66	
Task 2a: Complete Roadway Plans and Documents	6	10	0	42	34	0	0	0	0	18	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	\$ 18,484.44	
Task 3a: Complete Signing and Striping Plans and Documents	9	0	0	6	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	\$ 2,570.45	
Task 4a: Complete Design Utility Coordination	0	0	0	0	0	0	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	\$ 1,585.45	
Task 5a: Complete Utility Plans and Documents	0	0	0	0	0	0	2	11	0	26	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	\$ 5,119.67	
Task 6a: Incorporate 90% Review Comments	12	22	0	28	20	4	18	4	4	4	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	\$ 19,923.76	
8E: Develop Advertisement Plans for Side Stations	38	36	0	80	22	29	54	8	40	18	20	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	361	\$ 53,188.02	
Task 1b: Complete Drainage Design, Plan Sheets, and Documents	0	0	0	0	0	16	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	\$ 5,522.21	
Task 2b: Complete Roadway Plans and Documents	8	10	0	30	16	0	0	0	0	8	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	\$ 11,635.89	
Task 3b: Complete Signing and Striping Plans and Documents	6	0	0	18	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	\$ 4,063.68	
Task 4b: Complete Design Utility Coordination	0	0	0	0	0	0	2	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	\$ 1,711.17	
Task 5b: Complete Utility Plans and Documents	0	0	0	0	0	0	2	12	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	\$ 2,749.85	
Task 6b: Complete Signal Plans and Documents	0	0	0	0	0	0	0	6	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	\$ 1,563.50	
Task 7b: 90% Review Meeting	6	6	0	6	4	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	\$ 4,813.50	
Task 8b: Incorporate 90% Review Comments	10	10	0	14	4	4	32	2	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	\$ 13,043.37	
Task 9b: Comment Resolution Review Meeting	8	10	0	12	2	5	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	\$ 8,084.85	
8E: Signal Warrant Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	54	154	0	240	\$ 35,064.42	
Task 1c: Time Travel Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	24	0	40	\$ 6,093.20	
Task 2c: TSP Traffic Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	46	130	0	200	\$ 28,971.22	
8E: Right-of-Way	16	0	0	0	0	0	0	0	24	0	0	0	80	22	147	80	6	92	110	87	32	0	0	0	0	0	696	\$ 87,094.32	
Task 1d: Right-of-Way	0	0	0	0	0	0	0	0	0	0	0	0	8	20	125	80	6	56	110	87	32	0	0	0	0	0	524	\$ 62,967.92	
Task 2d: ROW Dashboard	0	0	0	0	0	0	0	0	0	0	0	0	72	2	22	0	0	36	0	0	0	0	0	0	0	0	132	\$ 18,969.12	
Task 3d: Property Exhibits	16	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	\$ 5,157.28	
13: Construction Support	80	4	0	100	20	16	24	0	40	80	16	48	0	0	0	80	40	4	40	40	40	20	0	0	0	0	692	\$ 99,118.20	
Task 13a: Addendums and Advertisement Support	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 2,500.00	
Task 13b: RFI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 10,000.00	
Task 13c: Siderunning Station Design on 4700 South	40	2	0	58	8	8	12	0	14	32	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182	\$ 24,190.15	
Task 13d: Privacy Wall Design on 2700 West	40	2	0	42	12	8	12	0	26	48	8	48	0	0	0	80	40	4	40	40	40	20	0	0	0	0	510	\$ 62,428.05	
Summary of Hours	391	226	36	334	100	104	118	58	165	148	66	130	12	80	22	227	120	10	132	150	127	52	32	54	154	20	3068	\$ 466,538.19	
Summary of Raw Labor Expense	\$ 73,923.38	\$ 63,327.53	\$ 9,955.27	\$ 37,869.11	\$ 12,984.18	\$ 20,611.61	\$ 13,872.06	\$ 11,574.08	\$ 21,649.06	\$ 13,149.07	\$ 6,404.18	\$ 12,259.49	\$ 984.26	\$ 10,410.09	\$ 4,751.07	\$ 26,060.07	\$ 11,480.21	\$ 1,161.95	\$ 24,355.78	\$ 10,252.01	\$ 19,790.05	\$ 5,685.86	\$ 7,358.08	\$ 8,340.84	\$ 19,365.50	\$ 6,823.40			

CHANGE ORDER 9

Direct Expenses

Description	Rate	Quantity	Cost
Travel (mileage)	\$ 0.625	100	\$ 62.50
Total			\$ 62.50

Total MOD

Labor Subtotal \$ 466,538.19

Direct Expenses \$ 62.50

Total \$ 466,600.69



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January 30, 2023

Attn: Andrea Pullos, PE
Project Manager
Capital Construction
Utah Transit Authority
Salt Lake City, Utah 84101

Project Name: Midvalley Bus Rapid Transit Design
Project No: Contract #21-03502BM

Subject: Change Order #10: Station Redesign

Dear Andrea,

Jacobs is requesting a contact modification for additional services to update the station design. The following tasks were requested by UTA and subsequently performed by the Midvalley BRT Design Team:

- Eliminate the cycle track from 2700 West Stations (Avenue)
- Develop and model architectural renderings of stations (Jacobs)
- Change mullions to be a separate bid item from glass at stations (Jacobs)
- Relocate and redesign of canopies, multiple moves (Jacobs)
- Snow melt system bid items and specifications (Jacobs)
 - Assumes only specifications for describing systems (no drawings)

The total estimate cost for this specification reformat is \$116,997.59.

This above amount includes Project Management fees for an additional 30 days.

Please let me know if you have any questions and I appreciate your consideration of this request.

Thank you,

A handwritten signature in blue ink that reads "Nicholas Young".

Nicholas Young, PE
Project Manager

720-286-6262
Nicholas.Young@Jacobs.com

**DISTRIBUTED IN
CHANGE ORDERS:
2, 3, 5, 9, 10, 11, & 13**

Jacobs Midvalley Connector Final Design Fee Estimate, Amend. #7 12/13/2022		Raw rate -> Multiplier -> Loaded Rate -> Employee ->	TOTAL TASK HOURS	BURDENED LABOR COST
			2,3237	
Task 1	Project Management OLD			
	Project management and coordination (2 months Prior PM)		48	\$14,363.81
	Invoice, schedule, budget (2 months Prior PM)		12	\$2,737.04
	Risk Register Meetings and Prep (9 hours max)		9	\$2,693.21
	Internal/External Project Meetings		0	\$0.00
	Weekly UTA Meetings (7 mtgs at 1 hr)		7	\$2,094.72
	Weekly Internal Meetings (7 mtgs at 1 hr)		91	\$15,197.52
	Weekly Design Mtg. w/UTA (6 mtgs at 1.5 hrs)		18	\$4,156.31
			0	\$0.00
	Avenue PM items included in fee below		0	\$0.00
	SUBTOTAL TASK 1		185	\$41,242.62
Task 1A	Project Management A1			
	Project management and coordination (7 months)		210	\$37,474.38
	Invoice, Schedule, Budget (7 months)		63	\$9,230.90
	Risk Register, Meetings and Prep (11 hrs max.)		11	\$1,789.25
	Internal/External Project Meetings		0	\$0.00
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	Weekly Internal Meetings (16 mtgs at 1 hr)		206	\$46,765.22
	Weekly Design Mtg. w/UTA (20 mtgs at 1.5 hrs)		75	\$13,812.54
	Package drawing files to UTA		10	\$1,403.47
	Avenue PM items included in fee below		0	\$0.00
	SUBTOTAL TASK 1A		693	\$116,794.67
Task 2	Stakeholder & Public Outreach			
	Architectural Renderings/Powerpoint		13	\$1,978.12
	Continue monitoring emails/update website		19	\$3,177.96
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 2		32	\$5,156.08
Task 5	Surveying and Mapping			
	ESI work items included in fee below		0	\$0.00
			0	\$0.00
	SUBTOTAL TASK 5		0	\$0.00
Task 7	Geotechnical			
	Terracon work items included in fee below		0	\$0.00
			0	\$0.00
	SUBTOTAL TASK 7		0	\$0.00
Task 8E	Develop Ad Plans (90% & 100%)			
	Reset and resubmittal of 60% PS&E		480	\$71,601.98
	Plans and bid item conversion to UTA format		250	\$39,965.53
	Redesign of drainage and gutter to use inlets		200	\$28,389.02
	Pedestrian lighting cost est. - south side 4700 S		5	\$699.89
	Wall 4700 S changes:			
	Regrading		36	\$5,324.62
	Specifications		8	\$1,508.41
	Details		16	\$2,349.61
	Traffic Signal Design			
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	4530 S/Atherton Dr.		84	\$12,250.05
	4700 S/Golf Course Rd		84	\$12,250.05
	4700 S/Riverwood Rd		84	\$12,250.05
	2700 S/4390 S (Avenue)		0	\$0.00
	Assess impacts of Vine St. future widening (5')		6	\$975.40
	Addition of floating curb at Murray Blvd.		4	\$650.28
	Pantograph foundations (2)		62	\$8,896.12
	ATMS design/details across 2 bridges		64	\$9,701.26
	Supplemental UDOT coordination and ratings on box culvert		72	\$11,207.36
	Avenue work items included in fee below		0	\$0.00
			0	\$0.00
	SUBTOTAL TASK 8E		1639	\$230,212.58
Task 8E-SP	Specs			
	Reformat non-UDOT specs		76	\$13,880.32
	Renumber non-UDOT specs		30	\$5,738.01
	General Specification Meetings		22	\$4,295.17
	Reformat Architectural specs to UDOT specials		112	\$22,078.12
	Language usage between UDOT and UTA		90	\$16,475.40
	No change for not having UDOT Specs at 90% and extra effort to get them there - (\$0)		0	\$0.00
	SUBTOTAL TASK 8E-SP		330	\$62,467.02
Task 10	Utilities			
	Coordination on storm line video		24	\$4,634.94
	Water service/connections for 4 side stations		16	\$2,691.40
	Supplemental Utility design		82	\$12,799.78
	PRO-PIPE work items included in fee below		0	\$0.00
			0	\$0.00
	SUBTOTAL TASK 10		122	\$20,126.12
Task 11	Right of Way			
	Attend Weekly ROW Meetings		36	\$5,919.58
	Prepare/Update ROW Exhibits		318	\$45,311.82
	Methodology used to establish ROW and TCE limits		28	\$4,465.97
	Avenue work items included in fee below		0	\$0.00
	ESI work items included in fee below		0	\$0.00
	SUBTOTAL TASK 11		382	\$55,697.37
Task 12B	Stations and Transit Plazas			
	SLCC Hub design/landscaping modifications		122	\$14,397.17
	WVC Hub design/landscaping modifications		40	\$5,430.96
	Change millions bid item		2	\$452.15
	Canopy Redesign and additional details		200	\$31,876.19
	Trash Enclosure Design at WVC Station		80	\$12,751.49
	Snowmelt system		117	\$12,131.39
	Avenue work items included in fee below		0	\$0.00
			0	\$0.00
	SUBTOTAL TASK 12B		561	\$77,039.35
TOTAL JACOBS HOURS			3844	
TOTAL JACOBS LABOR				\$607,735.81
SUBCONSULTANTS				
AVENUE CONSULTANTS				\$ 367,482.49
ESI				\$ 40,329.56
KCI				\$ -
PRO-PIPE				\$ 12,531.47
TERRACON				\$ 5,550.00
NSULTANTS				\$ 425,893.52
OVERHEAD DIRECT COSTS				
DIRECT COSTS				
	Unit Cost	Quantity		
	Mileage	\$0.56 150	\$	84.00
	Misc. Transp.	\$90.00 2	\$	180.00
	Airfare	\$400.00 2	\$	800.00
	Hotel	\$140.00 4	\$	560.00
	Per diem	\$85.00 4	\$	340.00
ECT COSTS				\$ 1,964.00
SUMMARY				
Total Subs				\$ 425,893.52
Total ODC				\$ 1,964.00
Total Jacobs Labor Costs				\$ 607,735.81
GRAND TOTAL				\$ 1,035,593.33

**CHANGE
ORDER 10**

**CHANGE
ORDER 10**

**DISTRIBUTED IN
CHANGE ORDERS:
2, 3, 5, 9, 10, 11, & 13**

PROJECT ACTIVITIES	Project Manager	Design Oversight	Management Review	Roadway Design	Roadway Design	Drainage Lead	Drainage Design	Utility OC	Signals Lead/Utility Design	CADD Design	CADD Design	CADD Support	Admin	ROW/GIS Dashboard	ROW Manager	ROW Engineer	ROW Engineer	ROW Engineer	ROW Lead	ROW Tech	ROW Engineer	ROW Tech	Traffic Manager	Traffic Lead	Traffic Engineer	Principle	Total Hours	Cost	
	Blair Tomten	Jeremy Christensen	Aaron Rasmussen	Heather Hamilton	David Webb	Brian Shevell	Nick Stephens	Santiago Loaiza	Spencer Taylor	Bailey Nielson	Ramin Hameedi	Conrad Anderson	Celeste Madsen	Adrian Welsh	Craig Yates	Isaac Lopez	Jake Wiley	Jared Howland	Jeff Searle	Madeline Beaver	Mike Herbst	Ryan Herbst	Ivan Hooper	Shawn Larson	Greg Sanchez	Andrew Gempelme			
1: Project Management	230	154	36	78	4	36	4	40	64	4	4	4	12	0	0	0	0	0	0	0	0	0	0	0	0	20	690	\$ 138,507.81	
Task 1: Project Management	230	154	36	78	4	36	4	40	64	4	4	4	12	0	0	0	0	0	0	0	0	0	0	0	0	20	690	\$ 138,507.81	
Internal Team Meetings	12	12		12	4	4	4	4	12	4	4	4															76	\$ 12,267.62	
Attend Team (Avenue/Jacobs) Meetings	40	24		36		26			26																		152	\$ 26,933.51	
Attend UTA Design Meeting	40	8		2		2			2																		54	\$ 10,689.73	
Specifications (Meetings & Coordination)	48																										48	\$ 13,450.10	
Coordination with Jacobs, UTA, Cities, and Subs	40	12		28		4			24																		108	\$ 18,041.38	
Design Management Review	10	10																									20	\$ 4,692.73	
Advertising Management Review	16	16	36					36																			104	\$ 24,287.55	
Review/Process Consultant Invoices	12												12														24	\$ 3,253.01	
Contract Modifications	60	24																								20	104	\$ 24,892.19	
8E: Develop Advertisement Plans for West Valley City Hub	27	32	0	76	54	23	36	10	21	22	26	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	389	\$ 53,565.43	
Task 1a: Complete Drainage Design, Plan Sheets, and Documents	0	0	0	0	0	19	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	\$ 5,881.66	
Task 2a: Complete Roadway Plans and Documents	6	10	0	42	34	0	0	0	0	18	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	\$ 18,484.44	
Task 3a: Complete Signing and Striping Plans and Documents	9	0	0	6	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	\$ 2,570.45	
Task 4a: Complete Design Utility Coordination	0	0	0	0	0	0	0	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	\$ 1,585.45	
Task 5a: Complete Utility Plans and Documents	0	0	0	0	0	0	0	2	11	0	26	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	\$ 5,119.67	
Task 6a: Incorporate 90% Review Comments	12	22	0	28	20	4	18	4	4	4	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	\$ 19,923.76	
8E: Develop Advertisement Plans for Side Stations	38	36	0	80	22	29	54	8	40	18	20	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	361	\$ 53,188.02	
Task 1b: Complete Drainage Design, Plan Sheets, and Documents	0	0	0	0	0	16	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	\$ 5,522.21	
Task 2b: Complete Roadway Plans and Documents	8	10	0	30	16	0	0	0	0	8	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	\$ 11,635.89	
Task 3b: Complete Signing and Striping Plans and Documents	6	0	0	18	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	\$ 4,063.68	
Task 4b: Complete Design Utility Coordination	0	0	0	0	0	0	0	2	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	\$ 1,711.17	
Task 5b: Complete Utility Plans and Documents	0	0	0	0	0	0	0	2	12	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	\$ 2,749.85	
Task 6b: Complete Signal Plans and Documents	0	0	0	0	0	0	0	0	6	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	\$ 1,563.50	
Task 7b: 90% Review Meeting	6	6	0	6	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	\$ 4,813.50	
Task 8b: Incorporate 90% Review Comments	10	10	0	14	4	4	32	2	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	\$ 13,043.37	
Task 9b: Comment Resolution Review Meeting	8	10	0	12	2	5	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	\$ 8,084.85	
8E: Signal Warrant Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	54	154	0	240	\$ 35,064.42
Task 1c: Time Travel Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	24	0	40	\$ 6,093.20	
Task 2c: TSP Traffic Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	46	130	0	200	\$ 28,971.22	
8E: Right-of-Way	16	0	0	0	0	0	0	0	0	24	0	0	0	80	22	147	80	6	92	110	87	32	0	0	0	0	696	\$ 87,094.32	
Task 1d: Right-of-Way	0	0	0	0	0	0	0	0	0	0	0	0	0	8	20	125	80	6	56	110	87	32	0	0	0	0	524	\$ 62,967.92	
Task 2d: ROW Dashboard	0	0	0	0	0	0	0	0	0	0	0	0	0	72	2	22	0	0	36	0	0	0	0	0	0	0	132	\$ 18,969.12	
Task 3d: Property Exhibits	16	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	\$ 5,157.28	
13: Construction Support	80	4	0	100	20	16	24	0	40	80	16	48	0	0	0	80	40	4	40	40	40	20	0	0	0	0	692	\$ 99,118.20	
Task 13a: Addendums and Advertisement Support	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 2,500.00	
Task 13b: RFI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 10,000.00	
Task 13c: Siderunning Station Design on 4700 South	40	2	0	58	8	8	12	0	14	32	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182	\$ 24,190.15	
Task 13d: Privacy Wall Design on 2700 West	40	2	0	42	12	8	12	0	26	48	8	48	0	0	0	80	40	4	40	40	40	20	0	0	0	0	510	\$ 62,428.05	
Summary of Hours	391	226	36	334	100	104	118	58	165	148	66	130	12	80	22	227	120	10	132	150	127	52	32	54	154	20	3068	\$ 466,538.19	
Summary of Raw Labor Expense	\$ 73,923.38	\$ 63,327.53	\$ 9,955.27	\$ 37,869.11	\$ 12,984.18	\$ 20,611.61	\$ 13,872.06	\$ 11,574.08	\$ 21,649.06	\$ 13,149.07	\$ 6,404.18	\$ 12,259.49	\$ 984.26	\$ 10,410.09	\$ 4,751.07	\$ 26,060.07	\$ 11,480.21	\$ 1,161.95	\$ 24,355.78	\$ 10,252.01	\$ 19,790.05	\$ 5,685.86	\$ 7,358.08	\$ 8,340.84	\$ 19,365.50	\$ 6,823.40			

Direct Expenses

Description	Rate	Quantity	Cost
Travel (mileage)	\$ 0.625	100	\$ 62.50
Total			\$ 62.50

Total MOD

Labor Subtotal \$ 466,538.19

Direct Expenses \$ 62.50

Total \$ 466,600.69



707 17th Street, Suite 2750
Denver, Colorado 80202

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**Challenging today.
Reinventing tomorrow.**

January 30, 2023

Attn: Andrea Pullos, PE
Project Manager
Capital Construction
Utah Transit Authority
Salt Lake City, Utah 84101

Project Name: Midvalley Bus Rapid Transit Design
Project No: Contract #21-03502BM

Subject: Change Order #11: Side Station Updates

Dear Andrea,

Jacobs is requesting a contract modification for additional services to update the side station design. The following tasks were requested by UTA and subsequently performed by the Midvalley BRT Design Team:

- Drainage & utility plan updates (Avenue)
- Roadway plan updates (Avenue)
- Signing & Striping Updates (Avenue)
- Design Traffic Signals at the following locations:
 - 2700 South and 4390 South (Avenue)
- Coordination Meetings (Avenue)

The total estimate cost for this specification reformat is \$120,569.81.

This above amount includes Project Management fees for an additional 30 days.

Please let me know if you have any questions and I appreciate your consideration of this request.

Thank you,

A handwritten signature in blue ink that reads "Nicholas Young".

Nicholas Young, PE
Project Manager

720-286-6262
Nicholas.Young@Jacobs.com

Jacobs Midvalley Connector Final Design Fee Estimate, Amend. #7 12/13/2022		Raw rate -> Multiplier -> Loaded Rate -> Employee ->	TOTAL TASK HOURS	BURDENED LABOR COST 2.3237
Task 1	Project Management OLD			
	Project management and coordination (2 months Prior PM)		48	\$14,363.81
	Invoice, schedule, budget (2 months Prior PM)		12	\$2,737.04
	Risk Register Meetings and Prep (9 hours max)		9	\$2,693.21
	Internal/External Project Meetings			
	Weekly UTA Meetings (7 mtgs at 1 hr)		7	\$2,094.72
	Weekly Internal Meetings (7 mtgs at 1 hr)		91	\$15,197.52
	Weekly Design Mtg. w/UTA (6 mtgs at 1.5 hrs)		18	\$4,156.31
			0	\$0.00
	Avenue PM items included in fee below		0	\$0.00
	SUBTOTAL TASK 1		185	\$41,242.62
Task 1A	Project Management A1			
	Project management and coordination (7 months)		210	\$37,474.38
	Invoice, Schedule, Budget (7 months)		63	\$9,230.90
	Risk Register, Meetings and Prep (11 hrs max.)		11	\$1,789.25
	Internal/External Project Meetings			
	Weekly UTA Meetings (28 mtgs at 1 hr)		28	\$5,318.95
	Weekly Internal Meetings (16 mtgs at 1 hr)		206	\$46,765.22
	Weekly Design Mtg. w/UTA (20 mtgs at 1.5 hrs)		75	\$13,812.54
	Package drawing files to UTA		10	\$1,403.47
	Avenue PM items included in fee below		0	\$0.00
	SUBTOTAL TASK 1A		693	\$116,794.67
Task 2	Stakeholder & Public Outreach			
	Architectural Renderings/Powerpoint		13	\$1,978.12
	Continue monitoring emails/update website		19	\$3,177.96
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 2		32	\$5,156.08
Task 5	Surveying and Mapping			
	ESI work items included in fee below		0	\$0.00
	SUBTOTAL TASK 5		0	\$0.00
Task 7	Geotechnical			
	Terracon work items included in fee below		0	\$0.00
	SUBTOTAL TASK 7		0	\$0.00
Task 8E	Develop Ad Plans (90% & 100%)			
	Reset and resubmittal of 60% PS&E		480	\$71,601.68
	Plans and bid item conversion to UTA format		250	\$39,965.53
	Redesign of drainage and gutter to use inlets		200	\$28,389.02
	Pedestrian lighting cost est. - south side 4700 S		5	\$699.89
	Wall 4700 S changes:			
	Regrading		36	\$5,324.62
	Specifications		8	\$1,508.41
	Details		16	\$2,349.61
	Traffic Signal Design			
	4430 S/Riverboat Rd		84	\$12,250.05
	4530 S/Atherton Dr.		84	\$12,250.05
	4700 S/Golf Course Rd		84	\$12,250.05
	4700 S/Riverwood Rd		84	\$12,250.05
	2700 S/4390 S (Avenue)		0	\$0.00
	Assess impacts of Vine St. future widening (5')		6	\$975.40
	Addition of floating curb at Murray Blvd.		4	\$650.26
	Pantograph foundations (2)		62	\$8,896.12
	ATMS design/details across 2 bridges		64	\$9,701.26
	Supplemental UDOT coordination and ratings on box culvert		72	\$11,207.36
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 8E		1639	\$230,212.58
Task 8E-SP	Specs			
	Reformat non-UDOT specs		76	\$13,880.32
	Renumber non-UDOT specs		30	\$5,738.01
	General Specification Meetings		22	\$4,295.17
	Reformat Architectural specs to UDOT specials		112	\$22,078.12
	Language usage between UDOT and UTA		90	\$16,475.40
	No change for not having UDOT Specs at 90% and extra effort to get them there - (\$0)		0	\$0.00
	SUBTOTAL TASK 8E-SP		330	\$62,467.02
Task 10	Utilities			
	Coordination on storm line video		24	\$4,634.94
	Water service/connections for 4 side stations		16	\$2,691.40
	Supplemental Utility design		82	\$12,799.78
	PRO-PIPE work items included in fee below		0	\$0.00
	SUBTOTAL TASK 10		122	\$20,126.12
Task 11	Right of Way			
	Attend Weekly ROW Meetings		36	\$5,919.58
	Prepare/Update ROW Exhibits		318	\$45,311.82
	Methodology used to establish ROW and TCE limits		28	\$4,465.97
	Avenue work items included in fee below		0	\$0.00
	ESI work items included in fee below		0	\$0.00
	SUBTOTAL TASK 11		382	\$55,697.37
Task 12B	Stations and Transit Plazas			
	SLCC Hub design/landscaping modifications		122	\$14,397.17
	WVC Hub design/landscaping modifications		40	\$5,430.96
	Change millions bid item		2	\$452.15
	Canopy Redesign and additional details		200	\$31,876.19
	Trash Enclosure Design at WVC Station		80	\$12,751.49
	Snowmelt system		117	\$12,131.39
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 12B		561	\$77,039.35
TOTAL JACOBS HOURS			3844	
TOTAL JACOBS LABOR				\$607,735.81
SUBCONSULTANTS				
AVENUE CONSULTANTS				\$ 367,482.49
ESI				\$ 40,329.56
KCI				\$ -
PRO-PIPE				\$ 12,531.47
TERRACON				\$ 5,550.00
NSULTANTS				\$ 425,893.52
OVERHEAD DIRECT COSTS				
DIRECT COSTS				
	Unit Cost	Quantity		
	Mileage	\$0.56	150	\$ 84.00
	Misc. Transp.	\$90.00	2	\$ 180.00
	Airfare	\$400.00	2	\$ 800.00
	Hotel	\$140.00	4	\$ 560.00
	Per diem	\$85.00	4	\$ 340.00
ECT COSTS				\$ 1,964.00
SUMMARY				
Total Subs				\$ 425,893.52
Total ODC				\$ 1,964.00
Total Jacobs Labor Costs				\$ 607,735.81
GRAND TOTAL				\$ 1,035,593.33

**DISTRIBUTED IN
CHANGE ORDERS:
2, 3, 5, 9, 10, 11, & 13**

PROJECT ACTIVITIES	Project Manager	Design Oversight	Management Review	Roadway Design	Roadway Design	Drainage Lead	Drainage Design	Utility OC	Signals Lead/Utility Design	CADD Design	CADD Design	CADD Support	Admin	ROW/GIS Dashboard	ROW Manager	ROW Engineer	ROW Engineer	ROW Engineer	ROW Lead	ROW Tech	ROW Engineer	ROW Tech	Traffic Manager	Traffic Lead	Traffic Engineer	Principle	Total Hours	Cost	
1: Project Management	Blair Tomten	Jeremy Christensen	Aaron Rasmussen	Heather Hamilton	David Webb	Brian Shevell	Nick Stephens	Santiago Loaliza	Spencer Taylor	Bailey Nielson	Ramin Harneedi	Conrad Anderson	Celeste Madsen	Adrian Welsh	Craig Yates	Isaac Lopez	Jake Wiley	Jared Howland	Jeff Searle	Madeline Beaver	Mike Herbst	Ryan Herbst	Ivan Hooper	Shawn Larson	Greg Sanchez	Andrew Gempelme	690	\$ 138,507.81	
Task 1: Project Management	230	154	36	78	4	36	4	40	64	4	4	4	12	0	0	0	0	0	0	0	0	0	0	0	0	0	20	690	\$ 138,507.81
Internal Team Meetings	12	12		12	4	4	4	4	12	4	4	4															76	\$ 12,267.62	
Attend Team (Avenue/Jacobs) Meetings	40	24		36		26			26																		152	\$ 26,933.51	
Attend UTA Design Meeting	40	8		2		2			2																		54	\$ 10,689.73	
Specifications (Meetings & Coordination)		48																									48	\$ 13,450.10	
Coordination with Jacobs, UTA, Cities, and Subs	40	12		28		4			24																		108	\$ 18,041.38	
Design Management Review	10	10																									20	\$ 4,692.73	
Advertising Management Review	16	16	36					36																			104	\$ 24,287.55	
Review/Process Consultant Invoices	12												12														24	\$ 3,253.01	
Contract Modifications	60	24																								20	104	\$ 24,892.19	
8E: Develop Advertisement Plans for West Valley City Hub	27	32	0	76	54	23	36	10	21	22	26	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	389	\$ 53,565.43	
Task 1a: Complete Drainage Design, Plan Sheets, and Documents	0	0	0	0	0	19	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	\$ 5,881.66	
Task 2a: Complete Roadway Plans and Documents	6	10	0	42	34	0	0	0	0	18	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	\$ 18,484.44	
Task 3a: Complete Signing and Striping Plans and Documents	9	0	0	6	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	\$ 2,570.45	
Task 4a: Complete Design Utility Coordination	0	0	0	0	0	0	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	\$ 1,585.45	
Task 5a: Complete Utility Plans and Documents	0	0	0	0	0	0	2	11	0	26	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	\$ 5,119.67	
Task 6a: Incorporate 90% Review Comments	12	22	0	28	20	4	18	4	4	4	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	\$ 19,923.76	
8E: Develop Advertisement Plans for Side Stations	38	36	0	80	22	29	54	8	40	18	20	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	361	\$ 53,188.02	
Task 1b: Complete Drainage Design, Plan Sheets, and Documents	0	0	0	0	0	16	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	\$ 5,522.21	
Task 2b: Complete Roadway Plans and Documents	8	10	0	30	16	0	0	0	0	8	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	\$ 11,635.89	
Task 3b: Complete Signing and Striping Plans and Documents	6	0	0	18	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	\$ 4,063.68	
Task 4b: Complete Design Utility Coordination	0	0	0	0	0	0	2	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	\$ 1,711.17	
Task 5b: Complete Utility Plans and Documents	0	0	0	0	0	0	2	12	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	\$ 2,749.85	
Task 6b: Complete Signal Plans and Documents	0	0	0	0	0	0	0	6	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	\$ 1,563.50	
Task 7b: 90% Review Meeting	6	6	0	6	4	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	\$ 4,813.50	
Task 8b: Incorporate 90% Review Comments	10	10	0	14	4	4	32	2	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	\$ 13,043.37	
Task 9b: Comment Resolution Review Meeting	8	10	0	12	2	5	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	\$ 8,084.85	
8E: Signal Warrant Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	54	154	0	240	\$ 35,064.42	
Task 1c: Time Travel Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	24	0	40	\$ 6,093.20	
Task 2c: TSP Traffic Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	46	130	0	200	\$ 28,971.22	
8E: Right-of-Way	16	0	0	0	0	0	0	0	0	24	0	0	0	80	22	147	80	6	92	110	87	32	0	0	0	0	696	\$ 87,094.32	
Task 1d: Right-of-Way	0	0	0	0	0	0	0	0	0	0	0	0	0	8	20	125	80	6	56	110	87	32	0	0	0	0	524	\$ 62,967.92	
Task 2d: ROW Dashboard	0	0	0	0	0	0	0	0	0	0	0	0	0	72	2	22	0	0	36	0	0	0	0	0	0	0	132	\$ 18,969.12	
Task 3d: Property Exhibits	16	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	\$ 5,157.28	
13: Construction Support	80	4	0	100	20	16	24	0	40	80	16	48	0	0	0	80	40	4	40	40	40	20	0	0	0	0	692	\$ 99,118.20	
Task 13a: Addendums and Advertisement Support	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 2,500.00	
Task 13b: RFI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 10,000.00	
Task 13c: Siderunning Station Design on 4700 South	40	2	0	58	8	8	12	0	14	32	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182	\$ 24,190.15	
Task 13d: Privacy Wall Design on 2700 West	40	2	0	42	12	8	12	0	26	48	8	48	0	0	0	80	40	4	40	40	40	20	0	0	0	0	510	\$ 62,428.05	
Summary of Hours	391	226	36	334	100	104	118	58	165	148	66	130	12	80	22	227	120	10	132	150	127	52	32	54	154	20	3068	\$ 466,538.19	
Summary of Raw Labor Expense	\$ 73,923.38	\$ 63,327.53	\$ 9,955.27	\$ 37,869.11	\$ 12,984.18	\$ 20,611.61	\$ 13,872.06	\$ 11,574.08	\$ 21,649.06	\$ 13,149.07	\$ 6,404.18	\$ 12,259.49	\$ 984.26	\$ 10,410.09	\$ 4,751.07	\$ 26,060.07	\$ 11,480.21	\$ 1,161.95	\$ 24,355.78	\$ 10,252.01	\$ 17,990.05	\$ 5,685.86	\$ 7,358.08	\$ 8,340.84	\$ 19,365.50	\$ 6,823.40			

CHANGE ORDER 11

Direct Expenses

Description	Rate	Quantity	Cost
Travel (mileage)	\$ 0.625	100	\$ 62.50
Total			\$ 62.50

Total MOD

Labor Subtotal \$ 466,538.19

Direct Expenses \$ 62.50

Total \$ 466,600.69



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Denver, Colorado 80202

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January 30, 2023

Attn: Andrea Pullos, PE
Project Manager
Capital Construction
Utah Transit Authority
Salt Lake City, Utah 84101

Project Name: Midvalley Bus Rapid Transit Design
Project No: Contract #21-03502BM

Subject: Change Order #12: Miscellaneous Design Requests

Dear Andrea,

Jacobs is requesting a contact modification for additional services to update various design modifications. The following tasks were requested by UTA and subsequently performed by the Midvalley BRT Design Team:

- Drainage gutter inlet redesign (Jacobs)
- Pedestrian lighting cost estimate along 4700 South (Jacobs)
- Wall Height Changes (Jacobs)
- Design Traffic Signals at the following locations:
 - 4430 South & Riverboat Road (Jacobs)
 - 4530 South & Atherton Drive (Jacobs)
 - 4700 South & Golf Course Entrance (Jacobs)
 - 4700 South & Redwood Road (Jacobs)
- Vine Street Widening Analysis
- Floating Curb design
- ATMS design across bridges
- Coordination with North Jordan Canal and UDOT for the box culvert design
- Other direct costs (Jacobs & Avenue)

The total estimate cost for this specification reformat is \$111,832.47.

This above amount includes no project management fees.

Please let me know if you have any questions and I appreciate your consideration of this request.

Thank you,

A handwritten signature in blue ink that reads "Nicholas Young".

Nicholas Young, PE
Project Manager

720-286-6262
Nicholas.Young@Jacobs.com

**DISTRIBUTED IN
CHANGE ORDERS:
2, 3, 5, 9, 10, 11, & 13**

Jacobs Midvalley Connector Final Design Fee Estimate, Amend. #7 12/13/2022		Raw rate -> Multiplier -> Loaded Rate -> Employee ->	TOTAL TASK HOURS	BURDENED LABOR COST
			2,3237	
Task 1	Project Management OLD			
	Project management and coordination (2 months Prior PM)		48	\$14,363.81
	Invoice, schedule, budget (2 months Prior PM)		12	\$2,737.04
	Risk Register Meetings and Prep (9 hours max)		9	\$2,693.21
	Internal/External Project Meetings			
	Weekly UTA Meetings (7 mtgs at 1 hr)		7	\$2,094.72
	Weekly Internal Meetings (7 mtgs at 1 hr)		91	\$15,197.52
	Weekly Design Mtg. w/UTA (6 mtgs at 1.5 hrs)		18	\$4,156.31
			0	\$0.00
	Avenue PM items included in fee below		0	\$0.00
	SUBTOTAL TASK 1		185	\$41,242.62
Task 1A	Project Management A1			
	Project management and coordination (7 months)		210	\$37,474.36
	Invoice, Schedule, Budget (7 months)		63	\$9,230.90
	Risk Register, Meetings and Prep (11 hrs max.)		11	\$1,789.25
	Internal/External Project Meetings			
	Weekly UTA Meetings (28 mtgs at 1 hr)		28	\$5,318.95
	Weekly Internal Meetings (16 mtgs at 1 hr)		206	\$46,765.22
	Weekly Design Mtg. w/UTA (20 mtgs at 1.5 hrs)		75	\$13,812.54
	Package drawing files to UTA		10	\$1,403.47
	Avenue PM items included in fee below		0	\$0.00
	SUBTOTAL TASK 1A		693	\$116,794.67
Task 2	Stakeholder & Public Outreach			
	Architectural Renderings/Powerpoint		13	\$1,978.12
	Continue monitoring emails/update website		19	\$3,177.96
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 2		32	\$5,156.08
Task 5	Surveying and Mapping			
	ESI work items included in fee below		0	\$0.00
	SUBTOTAL TASK 5		0	\$0.00
Task 7	Geotechnical			
	Terracon work items included in fee below		0	\$0.00
	SUBTOTAL TASK 7		0	\$0.00
Task 8E	Develop Ad Plans (90% & 100%)			
	Reset and resubmittal of 60% PS&E		480	\$71,601.98
	Plans and bid item conversion to UTA format		250	\$39,955.53
	Redesign of drainage and gutter to use inlets		200	\$28,389.02
	Pedestrian lighting cost est. - south side 4700 S		5	\$699.89
	Wall 4700 S changes:			
	Regrading		36	\$5,324.62
	Specifications		8	\$1,598.41
	Details		16	\$2,349.61
	Traffic Signal Design			
	4430 S/Riverboat Rd		84	\$12,250.05
	4530 S/Asherton Dr.		84	\$12,250.05
	4700 S/Golf Course Rd		84	\$12,250.05
	4700 S/Belvedere Rd		84	\$12,250.05
	2700 S/4390 S (Avenue)		0	\$0.00
	Assess impacts of Vine St. future widening (S')		6	\$975.40
	Addition of floating curb at Murray Blvd.		4	\$650.28
	Pantograph foundations (2)		62	\$8,896.12
	ATMS design/details across 2 bridges		64	\$9,701.26
	Supplemental UDOT coordination and ratings on box culvert		72	\$11,267.39
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 8E		1639	\$230,212.58
Task 8E-SP	Specs			
	Reformat non-UDOT specs		76	\$13,880.32
	Renumber non-UDOT specs		30	\$5,738.01
	General Specification Meetings		22	\$4,295.17
	Reformat Architectural specs to UDOT specials		112	\$22,078.12
	Language usage between UDOT and UTA		90	\$16,475.40
	No change for not having UDOT Specs at 90% and extra effort to get them there - (\$0)		0	\$0.00
	SUBTOTAL TASK 8E-SP		330	\$62,467.02
Task 10	Utilities			
	Coordination on storm line video		24	\$4,634.94
	Water service/connections for 4 side stations		16	\$2,691.40
	Supplemental Utility design		82	\$12,799.78
	PRO-PIPE work items included in fee below		0	\$0.00
	SUBTOTAL TASK 10		122	\$20,126.12
Task 11	Right of Way			
	Attend Weekly ROW Meetings		36	\$5,919.58
	Prepare/Update ROW Exhibits		318	\$45,311.82
	Methodology used to establish ROW and TCE limits		28	\$4,465.97
	Avenue work items included in fee below		0	\$0.00
	ESI work items included in fee below		0	\$0.00
	SUBTOTAL TASK 11		382	\$55,697.37
Task 12B	Stations and Transit Plazas			
	SLCC Hub design/landscaping modifications		122	\$14,397.17
	WVC Hub design/landscaping modifications		40	\$5,430.96
	Change millions bid item		2	\$452.15
	Canopy Redesign and additional details		200	\$31,876.19
	Trash Enclosure Design at WVC Station		80	\$12,751.49
	Snowmelt system		117	\$12,131.39
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 12B		561	\$77,039.35
TOTAL JACOBS HOURS			3844	
TOTAL JACOBS LABOR				\$607,735.81
SUBCONSULTANTS				
AVENUE CONSULTANTS				\$ 367,482.49
ESI				\$ 40,329.56
KCI				\$ -
PRO-PIPE				\$ 12,531.47
TERRACON				\$ 5,550.00
NSULTANTS				\$ 425,893.52
OVERHEAD DIRECT COSTS				
DIRECT COSTS				
	Unit Cost	Quantity		
	Mileage \$0.56	150	\$	84.00
	Misc. Transp. \$90.00	2	\$	180.00
	Airfare \$400.00	2	\$	800.00
	Hotel \$140.00	4	\$	560.00
	Per diem \$85.00	4	\$	340.00
ECT COSTS				\$ 1,964.00
SUMMARY				
Total Subs				\$ 425,893.52
Total ODC				\$ 1,964.00
Total Jacobs Labor Costs				\$ 607,735.81
GRAND TOTAL				\$ 1,035,593.33

CHANGE ORDER 12

CHANGE ORDER 12

CHANGE ORDER 12

**DISTRIBUTED IN
CHANGE ORDERS:
2, 3, 5, 9, 10, 11, & 13**

PROJECT ACTIVITIES	Project Manager	Design Oversight	Management Review	Roadway Design	Roadway Design	Drainage Lead	Drainage Design	Utility QC	Signals Lead/Utility Design	CADD Design	CADD Design	CADD Support	Admin	ROW/GIS Dashboard	ROW Manager	ROW Engineer	ROW Engineer	ROW Engineer	ROW Lead	ROW Tech	ROW Engineer	ROW Tech	Traffic Manager	Traffic Lead	Traffic Engineer	Principle	Total Hours	Cost	
1: Project Management	Blair Tomten	Jeremy Christensen	Aaron Rasmussen	Heather Hamilton	David Webb	Brian Shevell	Nick Stephens	Santiago Loaliza	Spencer Taylor	Bailey Nielson	Ramin Harneedi	Conrad Anderson	Celeste Madsen	Adrian Welsh	Craig Yates	Isaac Lopez	Jake Wiley	Jared Howland	Jeff Searle	Madeline Beaver	Mike Herbst	Ryan Herbst	Ivan Hooper	Shawn Larson	Greg Sanchez	Andrew Gempelmeier	690	\$ 138,507.81	
Task 1: Project Management	230	154	36	78	4	36	4	40	64	4	4	4	12	0	0	0	0	0	0	0	0	0	0	0	0	0	20	690	\$ 138,507.81
Internal Team Meetings	12	12		12	4	4	4	4	12	4	4	4															76	\$ 12,267.62	
Attend Team (Avenue/Jacobs) Meetings	40	24		36		26			26																		152	\$ 26,933.51	
Attend UTA Design Meeting	40	8		2		2			2																		54	\$ 10,689.73	
Specifications (Meetings & Coordination)		48																									48	\$ 13,450.10	
Coordination with Jacobs, UTA, Cities, and Subs	40	12				4			24																		108	\$ 18,041.38	
Design Management Review	10	10																									20	\$ 4,692.73	
Advertising Management Review	16	16	36					36																			104	\$ 24,287.55	
Review/Process Consultant Invoices	12												12														24	\$ 3,253.01	
Contract Modifications	60	24																								20	104	\$ 24,892.19	
8E: Develop Advertisement Plans for West Valley City Hub	27	32	0	76	54	23	36	10	21	22	26	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	389	\$ 53,565.43	
Task 1a: Complete Drainage Design, Plan Sheets, and Documents	0	0	0	0	0	19	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	\$ 5,881.66	
Task 2a: Complete Roadway Plans and Documents	6	10	0	42	34	0	0	0	0	18	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	\$ 18,484.44	
Task 3a: Complete Signing and Striping Plans and Documents	9	0	0	6	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	\$ 2,570.45	
Task 4a: Complete Design Utility Coordination	0	0	0	0	0	0	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	\$ 1,585.45		
Task 5a: Complete Utility Plans and Documents	0	0	0	0	0	0	2	11	0	26	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	\$ 5,119.67	
Task 6a: Incorporate 90% Review Comments	12	22	0	28	20	4	18	4	4	4	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	\$ 19,923.76	
8E: Develop Advertisement Plans for Side Stations	38	36	0	80	22	29	54	8	40	18	20	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	361	\$ 53,188.02	
Task 1b: Complete Drainage Design, Plan Sheets, and Documents	0	0	0	0	0	16	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	\$ 5,522.21	
Task 2b: Complete Roadway Plans and Documents	8	10	0	30	16	0	0	0	0	8	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	\$ 11,635.89	
Task 3b: Complete Signing and Striping Plans and Documents	6	0	0	18	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	\$ 4,063.68	
Task 4b: Complete Design Utility Coordination	0	0	0	0	0	0	2	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	\$ 1,711.17		
Task 5b: Complete Utility Plans and Documents	0	0	0	0	0	0	2	12	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	\$ 2,749.85		
Task 6b: Complete Signal Plans and Documents	0	0	0	0	0	0	0	6	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	\$ 1,563.50		
Task 7b: 90% Review Meeting	6	6	0	6	4	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	\$ 4,813.50	
Task 8b: Incorporate 90% Review Comments	10	10	0	14	4	4	32	2	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	\$ 13,043.37	
Task 9b: Comment Resolution Review Meeting	8	10	0	12	2	5	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	\$ 8,084.85	
8E: Signal Warrant Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	54	154	0	240	\$ 35,064.42	
Task 1c: Time Travel Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	24	0	40	\$ 6,093.20	
Task 2c: TSP Traffic Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	46	130	0	200	\$ 28,971.22	
8E: Right-of-Way	16	0	0	0	0	0	0	0	0	24	0	0	0	80	22	147	80	6	92	110	87	32	0	0	0	0	696	\$ 87,094.32	
Task 1d: Right-of-Way	0	0	0	0	0	0	0	0	0	0	0	0	0	8	20	125	80	6	56	110	87	32	0	0	0	0	524	\$ 62,967.92	
Task 2d: ROW Dashboard	0	0	0	0	0	0	0	0	0	0	0	0	0	72	2	22	0	0	36	0	0	0	0	0	0	0	132	\$ 18,969.12	
Task 3d: Property Exhibits	16	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	\$ 5,157.28	
13: Construction Support	80	4	0	100	20	16	24	0	40	80	16	48	0	0	0	80	40	4	40	40	40	20	0	0	0	0	692	\$ 99,118.20	
Task 13a: Addendums and Advertisement Support	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 2,500.00	
Task 13b: RFI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 10,000.00	
Task 13c: Siderunning Station Design on 4700 South	40	2	0	58	8	8	12	0	14	32	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182	\$ 24,190.15	
Task 13d: Privacy Wall Design on 2700 West	40	2	0	42	12	8	12	0	26	48	8	48	0	0	0	80	40	4	40	40	40	20	0	0	0	0	510	\$ 62,428.05	
Summary of Hours	391	226	36	334	100	104	118	58	165	148	66	130	12	80	22	227	120	10	132	150	127	52	32	54	154	20	3068	\$ 466,538.19	
Summary of Raw Labor Expense	\$ 73,923.38	\$ 63,327.53	\$ 9,955.27	\$ 37,869.11	\$ 12,984.18	\$ 20,611.61	\$ 13,872.06	\$ 11,574.08	\$ 21,649.06	\$ 13,149.07	\$ 6,404.18	\$ 12,259.49	\$ 984.26	\$ 10,410.09	\$ 4,751.07	\$ 26,060.07	\$ 11,480.21	\$ 1,161.95	\$ 24,355.78	\$ 10,252.01	\$ 19,790.05	\$ 5,685.86	\$ 7,358.08	\$ 8,340.84	\$ 19,365.50	\$ 6,823.40			

Direct Expenses

Description	Rate	Quantity	Cost
Travel (mileage)	\$ 0.625	100	\$ 62.50
Total			\$ 62.50

CHANGE ORDER 12

Total MOD

Labor Subtotal \$ 466,538.19

Direct Expenses \$ 62.50

Total \$ 466,600.69



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Denver, Colorado 80202

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January 30, 2023

Attn: Andrea Pullos, PE
Project Manager
Capital Construction
Utah Transit Authority
Salt Lake City, Utah 84101

Project Name: Midvalley Bus Rapid Transit Design
Project No: Contract #21-03502BM

Subject: Change Order #13: Resubmittal of 60% Plans to UTA for Review

Dear Andrea,

Jacobs is requesting a contact modification for additional services to submit an updated 60% plan to UTA for review and comment. The following tasks were requested by UTA and subsequently performed by the Midvalley BRT Design Team:

- Reset and resubmittal of 60% plans, specifications, and const estimate (Avenue & Jacobs)
- Revise plans and bid items from UDOT format to be unique UTA format, including development of sample plans (Avenue & Jacobs)

The total estimate cost for this specification reformat is \$80,854.48. This cost estimate includes a Jacobs Project Manager transition credit of \$58,099.34. Additionally, this cost estimate includes a Jacobs design inefficiency credit of \$174,701.99.

This above amount includes Project Management fees for an additional 90 days.

Please let me know if you have any questions and I appreciate your consideration of this request.

Thank you,

A handwritten signature in blue ink that reads "Nicholas Young".

Nicholas Young, PE
Project Manager

720-286-6262
Nicholas.Young@Jacobs.com

Jacobs Midvalley Connector Final Design Fee Estimate, Amend. #7 12/13/2022		Raw rate -> Multiplier -> Loaded Rate -> Employee ->	TOTAL TASK HOURS	BURDENED LABOR COST
			2,3237	
Task 1	Project Management OLD			
	Project management and coordination (2 months Prior PM)		48	\$14,363.81
	Invoice, schedule, budget (2 months Prior PM)		12	\$2,737.04
	Risk Register Meetings and Prep (9 hours max)		9	\$2,693.21
	Internal/External Project Meetings			
	Weekly UTA Meetings (7 mtgs at 1 hr)		7	\$2,094.72
	Weekly Internal Meetings (7 mtgs at 1 hr)		91	\$15,197.52
	Weekly Design Mtg. w/UTA (6 mtgs at 1.5 hrs)		18	\$4,156.31
			0	\$0.00
	Avenue PM items included in fee below		0	\$0.00
	SUBTOTAL TASK 1		185	\$41,242.62
Task 1A	Project Management A1			
	Project management and coordination (7 months)		210	\$37,474.38
	Invoice, Schedule, Budget (7 months)		63	\$9,230.90
	Risk Register, Meetings and Prep (11 hrs max.)		11	\$1,789.25
	Internal/External Project Meetings			
	Weekly UTA Meetings (28 mtgs at 1 hr)		28	\$5,318.95
	Weekly Internal Meetings (16 mtgs at 1 hr)		206	\$46,765.22
	Weekly Design Mtg. w/UTA (20 mtgs at 1.5 hrs)		75	\$13,812.54
	Package drawing files to UTA		10	\$1,403.47
	Avenue PM items included in fee below		0	\$0.00
	SUBTOTAL TASK 1A		683	\$116,794.67
Task 2	Stakeholder & Public Outreach			
	Architectural Renderings/Powerpoint		13	\$1,978.12
	Continue monitoring emails/update website		19	\$3,177.96
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 2		32	\$5,156.08
Task 5	Surveying and Mapping			
	ESI work items included in fee below		0	\$0.00
	SUBTOTAL TASK 5		0	\$0.00
Task 7	Geotechnical			
	Terracon work items included in fee below		0	\$0.00
	SUBTOTAL TASK 7		0	\$0.00
Task 8E	Develop Ad Plans (90% & 100%)			
	Reset and resubmittal of 60% PS&E		480	\$71,691.88
	Plans and bid item conversion to UTA format		250	\$39,955.55
	Redesign of drainage and gutter to use inlets		200	\$28,389.02
	Pedestrian lighting cost est. - south side 4700 S		5	\$699.89
	Wall 4700 S changes:			
	Regrading		36	\$5,324.62
	Specifications		8	\$1,508.41
	Details		16	\$2,349.61
	Traffic Signal Design			
	4430 S/Riverboat Rd		84	\$12,250.05
	4530 S/Atherton Dr.		84	\$12,250.05
	4700 S/Golf Course Rd		84	\$12,250.05
	4700 S/Riverwood Rd		84	\$12,250.05
	2700 S/4390 S (Avenue)		0	\$0.00
	Assess impacts of Vine St. future widening (5')		6	\$975.40
	Addition of floating curb at Murray Blvd.		4	\$650.26
	Pantograph foundations (2)		62	\$8,896.12
	ATMS design/details across 2 bridges		64	\$9,701.26
	Supplemental UDOT coordination and ratings on box culvert		72	\$11,207.36
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 8E		1639	\$230,212.58
Task 8E-SP	Specs			
	Reformat non-UDOT specs		76	\$13,880.32
	Renumber non-UDOT specs		30	\$5,738.01
	General Specification Meetings		22	\$4,295.17
	Reformat Architectural specs to UDOT specials		112	\$22,078.12
	Language usage between UDOT and UTA		90	\$16,475.40
	No change for not having UDOT Specs at 90% and extra effort to get them there - (\$0)		0	\$0.00
	SUBTOTAL TASK 8E-SP		330	\$62,467.02
Task 10	Utilities			
	Coordination on storm line video		24	\$4,634.94
	Water service/connections for 4 side stations		16	\$2,691.40
	Supplemental Utility design		82	\$12,799.78
	PRO-PIPE work items included in fee below		0	\$0.00
	SUBTOTAL TASK 10		122	\$20,126.12
Task 11	Right of Way			
	Attend Weekly ROW Meetings		36	\$5,919.58
	Prepare/Update ROW Exhibits		318	\$45,311.82
	Methodology used to establish ROW and TCE limits		28	\$4,465.97
	Avenue work items included in fee below		0	\$0.00
	ESI work items included in fee below		0	\$0.00
	SUBTOTAL TASK 11		382	\$55,697.37
Task 12B	Stations and Transit Plazas			
	SLCC Hub design/landscaping modifications		122	\$14,397.17
	WVC Hub design/landscaping modifications		40	\$5,430.96
	Change millions bid item		2	\$452.15
	Canopy Redesign and additional details		200	\$31,876.19
	Trash Enclosure Design at WVC Station		80	\$12,751.49
	Snowmelt system		117	\$12,131.39
	Avenue work items included in fee below		0	\$0.00
	SUBTOTAL TASK 12B		561	\$77,039.35
TOTAL JACOBS HOURS			3844	
TOTAL JACOBS LABOR				\$607,735.81
SUBCONSULTANTS				
AVENUE CONSULTANTS				\$ 367,482.49
ESI				\$ 40,329.56
KCI				\$ -
PRO-PIPE				\$ 12,531.47
TERRACON				\$ 5,550.00
NSULTANTS				\$ 425,893.52
OVERHEAD DIRECT COSTS				
DIRECT COSTS				
	Unit Cost	Quantity		
	Mileage	\$0.56	150	\$ 84.00
	Misc. Transp.	\$90.00	2	\$ 180.00
	Airfare	\$400.00	2	\$ 800.00
	Hotel	\$140.00	4	\$ 560.00
	Per diem	\$85.00	4	\$ 340.00
ECT COSTS				\$ 1,964.00
SUMMARY				
Total Subs				\$ 425,893.52
Total ODC				\$ 1,964.00
Total Jacobs Labor Costs				\$ 607,735.81
GRAND TOTAL				\$ 1,035,593.33

CHANGE ORDER 12

**DISTRIBUTED IN
CHANGE ORDERS:
2, 3, 5, 9, 10, 11, & 13**

PROJECT ACTIVITIES	Project Manager	Design Oversight	Management Review	Roadway Design	Roadway Design	Drainage Lead	Drainage Design	Utility OC	Signals Lead/Utility Design	CADD Design	CADD Design	CADD Support	Admin	ROW/GIS Dashboard	ROW Manager	ROW Engineer	ROW Engineer	ROW Engineer	ROW Lead	ROW Tech	ROW Engineer	ROW Tech	Traffic Manager	Traffic Lead	Traffic Engineer	Principle	Total Hours	Cost	
1: Project Management	Blair Tomten	Jeremy Christensen	Aaron Rasmussen	Heather Hamilton	David Webb	Brian Shevell	Nick Stephens	Santiago Loaliza	Spencer Taylor	Bailey Nielson	Ramin Hameedi	Conrad Anderson	Celeste Madsen	Adrian Welsh	Craig Yates	Isaac Lopez	Jake Wiley	Jared Howland	Jeff Searle	Madeline Beaver	Mike Herbst	Ryan Herbst	Ivan Hooper	Shawn Larson	Greg Sanchez	Andrew Gempelmeier	690	\$ 138,507.81	
Task 1: Project Management	230	154	36	78	4	36	4	40	64	4	4	4	12	0	0	0	0	0	0	0	0	0	0	0	0	0	20	690	\$ 138,507.81
Internal Team Meetings	12	12		12	4	4	4	4	12	4	4	4															76	\$ 12,267.62	
Attend Team (Avenue/Jacobs) Meetings	40	24		36		26			26																		152	\$ 26,933.51	
Attend UTA Design Meeting	40	8		2		2			2																		54	\$ 10,689.73	
Specifications (Meetings & Coordination)		48																									48	\$ 13,450.10	
Coordination with Jacobs, UTA, Cities, and Subs	40	12		28		4			24																		108	\$ 18,041.38	
Design Management Review	10	10																									20	\$ 4,692.73	
Advertising Management Review	16	16	36					36																			104	\$ 24,287.55	
Review/Process Consultant Invoices	12												12														24	\$ 3,253.01	
Contract Modifications	60	24																								20	104	\$ 24,892.19	
8E: Develop Advertisement Plans for West Valley City Hub	27	32	0	76	54	23	36	10	21	22	26	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	389	\$ 53,565.43	
Task 1a: Complete Drainage Design, Plan Sheets, and Documents	0	0	0	0	0	19	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	\$ 5,881.66	
Task 2a: Complete Roadway Plans and Documents	6	10	0	42	34	0	0	0	0	18	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	\$ 18,484.44	
Task 3a: Complete Signing and Striping Plans and Documents	9	0	0	6	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	\$ 2,570.45	
Task 4a: Complete Design Utility Coordination	0	0	0	0	0	0	0	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	\$ 1,585.45	
Task 5a: Complete Utility Plans and Documents	0	0	0	0	0	0	0	2	11	0	26	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	\$ 5,119.67	
Task 6a: Incorporate 90% Review Comments	12	22	0	28	20	4	18	4	4	4	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	\$ 19,923.76	
8E: Develop Advertisement Plans for Side Stations	38	36	0	80	22	29	54	8	40	18	20	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	361	\$ 53,188.02	
Task 1b: Complete Drainage Design, Plan Sheets, and Documents	0	0	0	0	0	16	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	\$ 5,522.21	
Task 2b: Complete Roadway Plans and Documents	8	10	0	30	16	0	0	0	0	8	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	\$ 11,635.89	
Task 3b: Complete Signing and Striping Plans and Documents	6	0	0	18	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	\$ 4,063.68	
Task 4b: Complete Design Utility Coordination	0	0	0	0	0	0	0	2	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	\$ 1,711.17	
Task 5b: Complete Utility Plans and Documents	0	0	0	0	0	0	0	2	12	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	\$ 2,749.85	
Task 6b: Complete Signal Plans and Documents	0	0	0	0	0	0	0	0	6	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	\$ 1,563.50	
Task 7b: 90% Review Meeting	6	6	0	6	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	\$ 4,813.50	
Task 8b: Incorporate 90% Review Comments	10	10	0	14	4	4	32	2	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	\$ 13,043.37	
Task 9b: Comment Resolution Review Meeting	8	10	0	12	2	5	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	\$ 8,084.85	
8E: Signal Warrant Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	54	154	0	240	\$ 35,064.42	
Task 1c: Time Travel Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	24	0	40	\$ 6,093.20	
Task 2c: TSP Traffic Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	46	130	0	200	\$ 28,971.22	
8E: Right-of-Way	16	0	0	0	0	0	0	0	0	24	0	0	0	80	22	147	80	6	92	110	87	32	0	0	0	0	696	\$ 87,094.32	
Task 1d: Right-of-Way	0	0	0	0	0	0	0	0	0	0	0	0	0	8	20	125	80	6	56	110	87	32	0	0	0	0	524	\$ 62,967.92	
Task 2d: ROW Dashboard	0	0	0	0	0	0	0	0	0	0	0	0	0	72	2	22	0	0	36	0	0	0	0	0	0	0	132	\$ 18,969.12	
Task 3d: Property Exhibits	16	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	\$ 5,157.28	
13: Construction Support	80	4	0	100	20	16	24	0	40	80	16	48	0	0	0	80	40	4	40	40	40	20	0	0	0	0	692	\$ 99,118.20	
Task 13a: Addendums and Advertisement Support	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 2,500.00	
Task 13b: RFI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 10,000.00	
Task 13c: Siderunning Station Design on 4700 South	40	2	0	58	8	8	12	0	14	32	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182	\$ 24,190.15	
Task 13d: Privacy Wall Design on 2700 West	40	2	0	42	12	8	12	0	26	48	8	48	0	0	0	80	40	4	40	40	40	20	0	0	0	0	510	\$ 62,428.05	
Summary of Hours	391	226	36	334	100	104	118	58	165	148	66	130	12	80	22	227	120	10	132	150	127	52	32	54	154	20	3068	\$ 466,538.19	
Summary of Raw Labor Expense	\$ 73,923.38	\$ 63,327.53	\$ 9,955.27	\$ 37,869.11	\$ 12,984.18	\$ 20,611.61	\$ 13,872.06	\$ 11,574.08	\$ 21,649.06	\$ 13,149.07	\$ 6,404.18	\$ 12,259.49	\$ 984.26	\$ 10,410.09	\$ 4,751.07	\$ 26,060.07	\$ 11,480.21	\$ 1,161.95	\$ 24,355.78	\$ 10,252.01	\$ 19,790.05	\$ 5,685.86	\$ 7,358.08	\$ 8,340.84	\$ 19,365.50	\$ 6,823.40			

Direct Expenses

Description	Rate	Quantity	Cost
Travel (mileage)	\$ 0.625	100	\$ 62.50
Total			\$ 62.50

Total MOD

Labor Subtotal \$ 466,538.19

Direct Expenses \$ 62.50

Total \$ 466,600.69



707 17th Street, Suite 2750
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**Challenging today.
Reinventing tomorrow.**

February 6, 2023

Attn: Andrea Pullos, PE
Project Manager
Capital Construction
Utah Transit Authority
Salt Lake City, Utah 84101

Project Name: Midvalley Bus Rapid Transit Design
Project No: Contract #21-03502BM

Subject: Change Order #14: Additional UTA Design Requests

Dear Andrea,

Jacobs is requesting a contact modification for additional services to provide additional UTA directed design updates to the 100% plans, specifications, and estimate. The following tasks were requested by UTA and subsequently performed by the Midvalley BRT Design Team:

- Revise characteristics of wall along 4700 South:
 - Provide pedestrian access at Beechwood Road to the proposed shared use path
 - Change post and panel 6-ft wall height to 8-ft for properties on Hemlock Drive (completed)
- Use/share UDOT's ATMS conduit for MVBRT ATMS
- Lighting on the south side of 4700 S
- Elimination of discharge into the North Jordan Canal
- Structural Analysis for larger real time sign
- Obliterate and regrade existing SLCC Hub along Bruin Blvd. (survey required)

The total estimate cost for the above changes is estimated at \$192,855.60.

This above amount includes Project Management fees for an additional 30 days.

The following page includes a detailed scope for the items listed above.

Please let me know if you have any questions and I appreciate your consideration of this request.

Thank you,

A handwritten signature in blue ink that reads "Nicholas Young".

Nicholas Young, PE
Project Manager

720-286-6262
Nicholas.Young@Jacobs.com

Date: 6 February 2023

Subject: Change Order #14: Additional UTA Design Requests



Detailed Scope of Work

Revise characteristics of post & panel wall along 4700 S

- Redesign wall height to be 8-ft for Hemlock Road properties between shared use path on the west and Beechwood Road on the east (Completed)
- Provide a Pedestrian Access at Beechwood Road
 - Design for wall opening and pedestrian access at Beechwood Road
 - New 8-ft wall designed behind pedestrian wall opening
 - Update applicable plan sheets that show the change
 - Update Summary sheets and Cost estimate
- Wall redesign QC
- Assumptions:
 - Following similar design as 1300 W wall opening for pedestrian access
 - Additional ROW not required
 - Specification updates not required

Use/share UDOT's ATMS conduit for MVBRT ATMS

- Revise ATMS design to share in UDOT conduit
 - ATMS coordination and approval with UDOT
 - Update applicable plan sheets that show the change
 - Update Summary sheets and Cost estimate
 - Update M&P and Specifications
- ATMS design QC
- Site visit by one person (completed)
- Assumptions:
 - One review required by UDOT

Lighting on the south side of 4700 S

- Update lighting design to accommodate lighting along the south side of 4700 S
 - Lighting Coordination with UTA and UDOT
 - Lighting Design and Calculations
 - Update lighting plans and details
 - Update Summary sheets and Cost estimate
 - Update Lighting Specifications
- Lighting design QC
- Assumptions:
 - Design and details fit on existing sheets - new sheets not required
 - Additional ROW not required
 - Additional utility coordination not required

Elimination of discharge in the North Jordan Canal

- Coordination with UDOT on canal structure
 - UDOT comments required for revision to begin 100% design
 - 3-4 coordination calls with UDOT (30 minutes each call)

Date: 6 February 2023

Subject: Change Order #14: Additional UTA Design Requests



- Resubmittal to UDOT
 - 2 submittals to UDOT (100% and Advertisement)
 - Comment Resolution meeting after 100%
 - 5S approval received
- Structure design
 - Detail for gutter and HMA interface for UDOT review and acceptance
 - Update structural plans
- Drainage
 - Update drainage SDB model
 - Update two drainage plan sheets and one drainage profile sheet
 - No drainage meetings with UDOT
 - Drainage report updates
 - A separate change order will be submitted if UDOT changes direction
 - No additional utility coordination will be required
- Roadway
 - Updates not required
- Update Summary sheets and Cost estimate
- Update M&P and Specifications – Remove Snout
- Assumptions:
 - Assumes draining to the east across top of box culvert is accepted design
 - Redesign of Curb and gutter not required
 - Typical section updates not required
 - Utility coordination not required
 - New permits or exhibits are not required
 - Additional ROW not required
 - Coordination with UDOT drainage not required

Structural analysis for larger real time sign

- Analyze load capacity for station canopies utilizing a larger real time station sign
- Redesign of connections between real time sign and canopy
- Assumptions:
 - Redesign of station canopies not required

Obliterate and regrade existing SLCC Hub along Bruin Blvd.

- Perform topographic survey of existing site limits (ESI - see Figure 1 attached)
- Site visit by 3 team members
- Design site to grade and drain utilizing existing storm drains
- Develop additional Plan Sheets
 - Removals
 - Roadway Plan & Details
 - Grading Plan
 - Landscape Plan

Date: 6 February 2023

Subject: Change Order #14: Additional UTA Design Requests



- Lighting Plan
- Drainage Plan
- Erosion Control Plan
- Update Summary Sheets, Cost Estimate, and specifications
- Assumptions:
 - Design not required outside of surveyed limits
 - Additional ROW acquisition not required
 - Can drain to and utilize existing storm sewer systems

17842 - Mid-Valley Connector BRT - Additional Survey

Task Description	Project Manager / Principal (PLS)	Staff Land Surveyor (PLS)	Survey Cadd Designer	Survey Party Chief	Survey Tech. I	Survey Tech. II	Admin. Assistant	LABOR HOURS	DIRECT LABOR
	65.00	58.00	46.00	37.00	32.00	30.00	25.00		
Topographic survey of transit hub area on north side of SLCC campus.	2		4	8	8		1	23	\$891.00
								0	\$0.00
								0	\$0.00
								0	\$0.00
								0	\$0.00
Total Direct Labor	2	0	4	8	8	0	1	23	\$891.00
							Overhead (108.59% of Direct Labor)		\$967.54
							Direct Labor Cost		\$891.00
							Subtotal Labor		\$1,858.54
							Fixed Fee (11% of Subtotal Labor)		\$204.44
							TOTAL LABOR		\$2,062.98
 <p>ESI Engineering, Inc. 4141 W. 2100 S., Suite 100 West Valley City, Utah 84120 (801)263-1752 www.esiengineeringinc.com</p>					Direct Costs		Quantity	Rate	
					Mileage		48	0.655	\$31.44
					GPS/Survey Equipment		12	45	\$540.00
									\$0.00
					TOTAL DIRECT COSTS		\$571.44		
					PROJECT TOTAL		\$2,634.42		