



**Bridge Factors Factual Report Attachment 62 – MCM and FIGG Bridge Engineers, Inc.
Agreement, Change Order Request No. 8, dated October 18, 2017**

Miami, FL

HWY18MH009

(14 pages)



CHANGE ORDER REQUEST

DATE: 18-Oct-17 COR #: 008

PROJECT: University City Bridge
MCM # 15-711 - FDOT Project Number: BT-904

TO: Dwight Dempsey
FIGG Bridge Engineers
424 N. Calhoun Street
Tallahassee, FL 32301

RE: ABC Requirements for SMPT Scope of Work

The design engineering services price as stipulated in the "Standard Form of Agreement Between Design-Bullder and Design Consultant" is hereby revised. All Terms and Conditions of the "Agreement" are made part of this Change Order. This Change Order does not annul any portion of the "Agreement."

DESCRIPTION:

The Change Order herein is for the additional services associated with the SPMT scope of services submitted under FIGG's Change Order #012. The NTP date this CO has been recorded as of 18Oct17; therefore, its implementation to meet and/or exceed the 4 weeks time frame is anticipated. Also, and for clarification, certain activities are to be executed right away to finalize the current status of the SPMT engineering and monitoring system. Lastly, a daily rate has been established in the event there is a need for additional on-site support beyond the 4-days accounted under this CO.

LABOR

(see attached documents)

MCM 17.5% on the above \$ -

MATERIALS & SUPPLIES

(see attached documents)

MCM 17.5% on the above \$ -

EQUIPMENT

(see attached documents)

MCM 17.5% on the above \$ -
Subtotal \$ -

SUBCONTRACTS

(see attached documents)

MCM 10% on Initial \$50,000.00 Subs \$ -
MCM 5% on Subs \$ -
Subtotal \$ -
Bond & Insurance (0%) \$ -
Direct Costs Subtotal \$ -

EXTENDED OVERHEAD

UNIT QTY. U. COST
\$ -

IN CONTRACT PAY ITEMS:

PAY ITEM	DESCRIPTION	UNIT	QTY.	U. COST	SUB. TOT
N/A	Additional Design Services	LS	1.00	\$ 52,220.00	\$ 52,220.00
					\$ -
Subtotal					\$ 52,220.00
TOTAL:					\$ 52,220.00

TOTAL OF THIS CHANGE ORDER REQUEST ADD DEDUCT TBD \$ 52,220.00

The Contract Time will be revised to reflect: ADD DE 0 Days

MCM Rodrigo Isaza, Sr. Project Manager 18-Oct-17
General Contractor Name Title Date

FIGG Linda Figg, President/CEO 18-Oct-17
Engineer of Record Name Title Date



**CHANGE ORDER 12
ADDITIONAL DESIGN PHASE SERVICES TO BE PROVIDED BY
FIGG BRIDGE ENGINEERS, INC.
FOR THE
UNIVERSITYCITY PROSPERITY PROJECT, BT-904
FOR
MUNILLA CONSTRUCTION MANAGEMENT
OCTOBER 17, 2017**

FIGG PROJECT NO. 2262.03

This scope of services includes additional professional services to be provided by FIGG Bridge Engineers, Inc. (FIGG) as a subconsultant to Munilla Construction Management (MCM) for the UniversityCity Prosperity Project during the design phase for this design-build project. This scope of work pertains to the self propelled modular transporter (SPMT) travel path layout at SW 8th Street with regard to the FDOT permitting drawings and utility coordination. These services will be accomplished on a Lump Sum basis.

Scope

This scope of work includes the following activities:

- 1. Project Management and Subconsultant Coordination (FIGG)** – Coordinate with subconsultants and with MCM/FIU/FDOT/City of Sweetwater for utility agreements and mitigation plans. Perform interdiscipline reviews and coordinate reviews with MCM.
- 2. Bridge Movement Plan Support (FIGG)** – Support MCM’s bridge movement plan preparation with the following activities:
 - a) Review of SPMT movement plan prepared by Barnhart and analyze effect of transporter position on Span 1 structure.
 - b) Assist MCM on-site with the pre-planning and actual movement of Span 1 (2 people on-site for 4 days).
 - c) Provide tolerance requirements for the survey monitoring system.
 - d) Provide hardware details design and location for the stability support system shown in Attachment A.
- 3. FDOT Permit for Bridge Movement (FIGG)** – Assist with preparing FDOT permit package for bridge movement plan.
- 4. Utility Agreements and Mitigation Plans (APCTE)** – Provide binding agreements to cross all affected above and below ground utilities and include in this agreement a plan to mitigate utility issues via partial shut-down of utility, complete shut-down of utility. Investigation of the redistribution of load from the SPMT onto the buried utilities is not included in this scope of work and is the responsibility of the Contractor or their specialty engineer. Information provided by others regarding the redistribution of the load from the SPMT will be submitted to the UAO by APCTE.



Schedule

FDOT Permit Package will be submitted within 4 weeks of NTP. Utility Agreements and Mitigation Plans will be submitted within 4 weeks of NTP.

An additional 1 week will be required following receipt of all Owner comments to address comments.

Exclusions

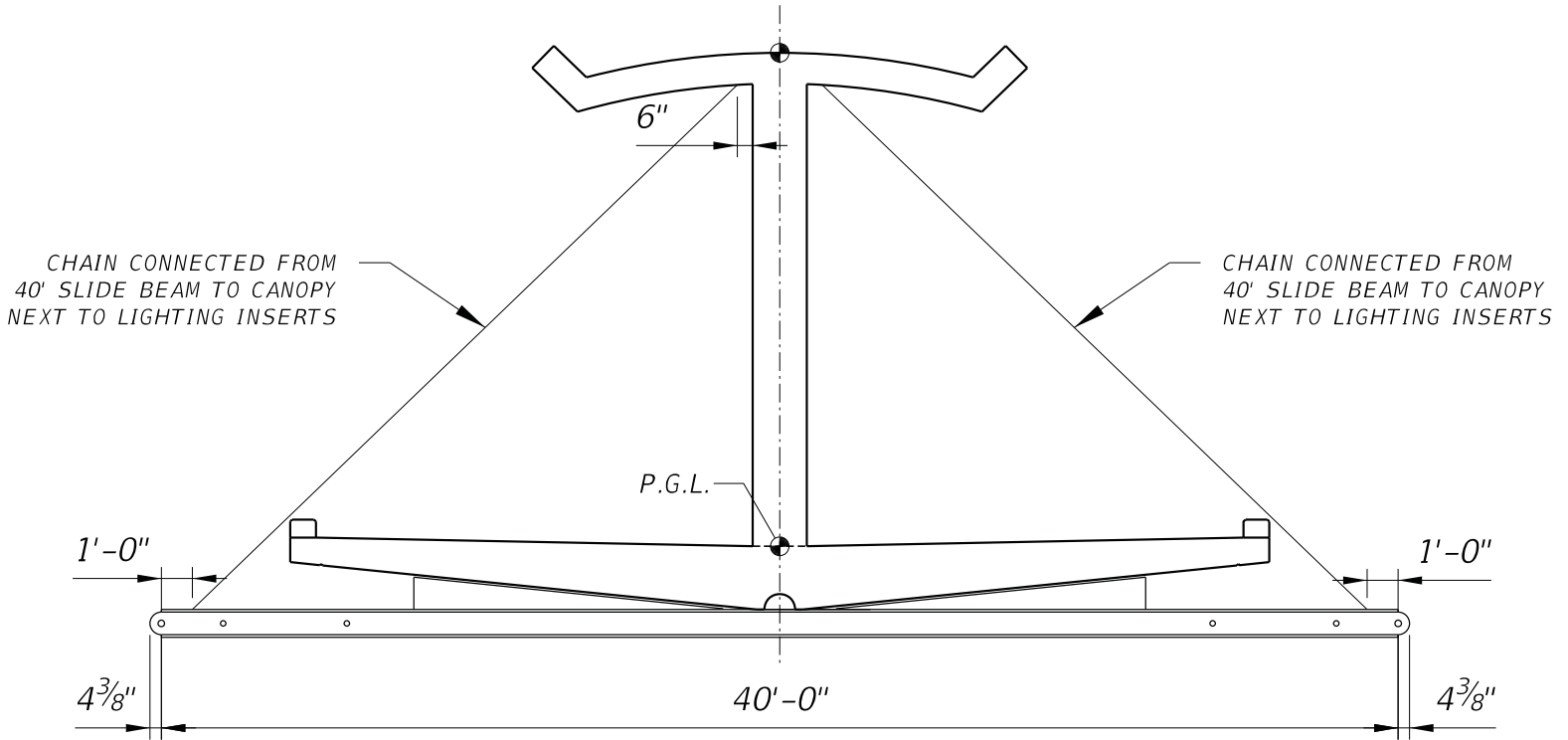
1. Based on latest information from MCM/Barnhart, curb/median removal will not be required from the north side, median, or the south side. As a result, the following items have been removed from this scope of work:
 - a) Plans to show the curb/median removal to be completed in three phases during off-peak hours, with multiple lane closures for each phase. One phase for north side, one phase for median work and one phase for the south side.
 - b) A pedestrian detour plan for the sidewalk impacted on the south side.
 - c) Temporary lighting plans for the poles being impacted on the north side. From coordination with MCM, there be 1 pole that will be temporarily removed for the span movement only and will not require temporary lighting plans.
 - d) Temporary drainage analysis and plans for the curb/median removals.
 - e) Updated roadways plans to reflect the reconstruction/replacement of all curb, guardrail, drainage, lighting, traffic separator, and sidewalks impacted by this work.
2. Investigation of the redistribution of load from the SPMT onto the buried utilities during bridge movement is not included in this scope of work and is the responsibility of the Contractor or their specialty engineer.
3. The buried gas line running east-west under SW 8th Street will be evaluated by the Utility Agency/Owner (UAO). From previous utility coordination, maximum wheel/axle loads (provided by MCM) will be provided to the UAO and they will evaluate their gas line and provide approval.
4. Monitoring Plan for monitoring structure deflections during the bridge move.
5. Bridge Movement Plan will be prepared by MCM and their Specialty Contractor. This will be included in the FDOT Permit Package that FIGG/APCTE will submit to FDOT.

Compensation

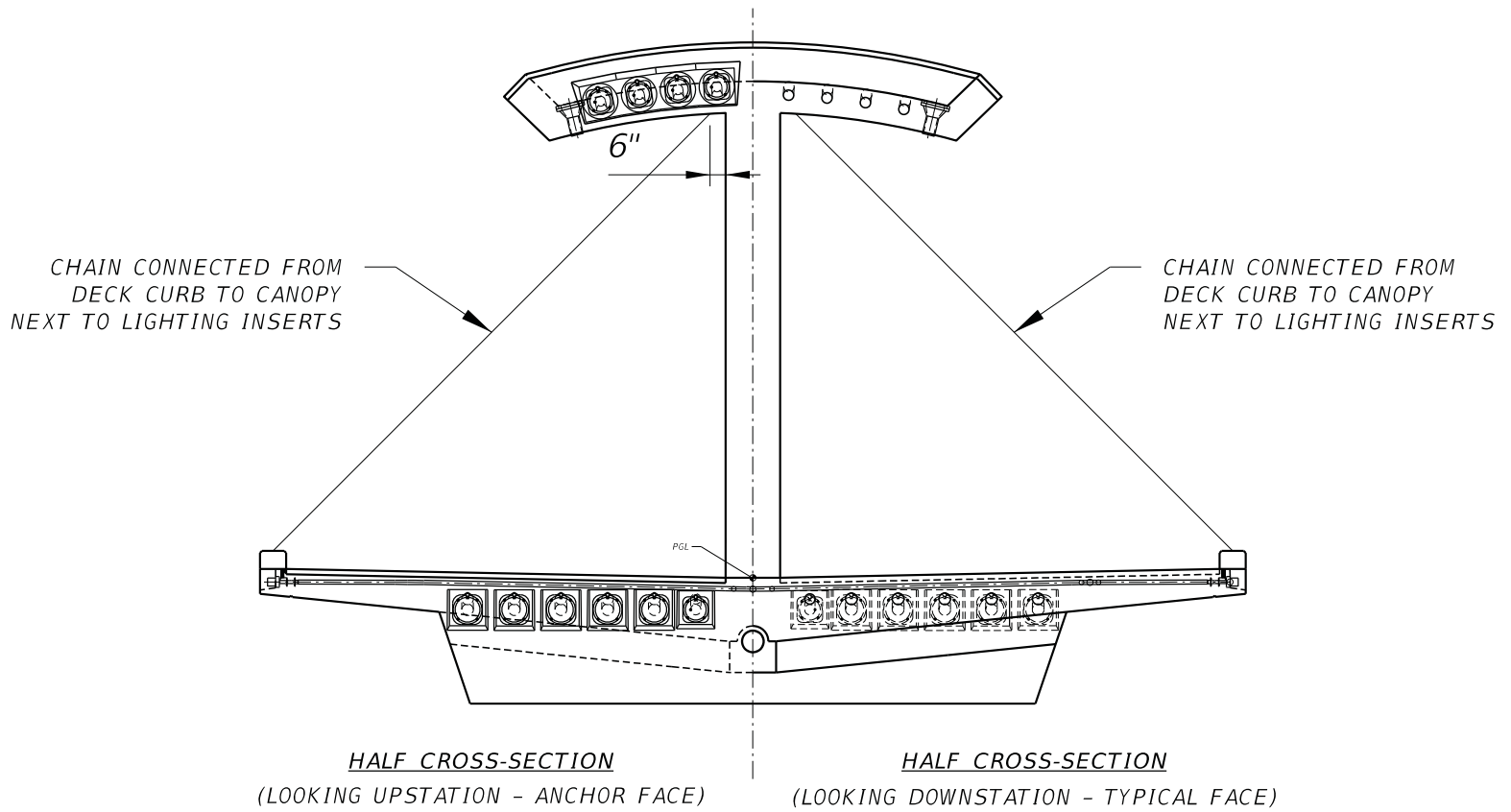
Total Lump Sum Compensation for these services will be \$52,220.00

For Scope Item 2.b), extending the duration of the on-site personnel beyond 4 days will be at a rate of \$1,800 per day/per person under the original mobilization. If an additional mobilization is needed, a separate change order will be required.

A breakdown of the compensation is presented in Attachment B.



PROPOSED SUPPORT SYSTEM FOR STABILITY
@ TEMPORARY SUPPORT LOCATIONS DURING MOVEMENT



PROPOSED SUPPORT SYSTEM FOR STABILITY ON ENDS OF SPAN
AT STAGING AREA AND FINAL SET LOCATION

Note: Bridge south end shown. Proposed support system also applies at the pylon end. Contractor to coordinate location of chain anchor points at deck level per diaphragm configuration.

**UNIVERSITYCITY PROSPERITY PROJECT, BT-904
FOR
MUNILLA CONSTRUCTION MANAGEMENT**

**FIGG Bridge Engineers, Inc.
FIGG Project No. 2262.03**

**Compensation Summary for Change Order No. 12
October 17, 2017**

Firm	Services Provided	Total
FIGG	Item 1 - Project Management and Subconsultant Coordination (30 hours)	\$5,550.00
	Item 2(a) - Bridge Movement Plan Support: Review of SPMT movement plan prepared by Barnhart and analyze effect of transporter position on Span 1 structure. (30 hours)	\$4,500.00
	Item 2(b) - Bridge Movement Plan Support: Assist MCM on-site with the pre-planning and actual movement of Span 1 (2 people on-site for 4 days + planning/coordination = 72 hours). See Note 1.	\$16,140.00
	Item 2(c) - Bridge Movement Plan Support: Provide tolerance requirements for the survey monitoring system (Based on rerunning 3D FEM analysis to obtain anticipated span deflections for bridge movement plan, includes teleconferences with MCM and Barnhart) (40 hours)	\$7,500.00
	Item 2(d) - Bridge Movement Plan Support: Provide hardware details design and location for the stability support system shown in Attachment A. (50 hours)	\$8,000.00
	Item 3 - FDOT Permit for Bridge Movement (40 hours)	\$7,000.00
APCTE	Item 4 - Utility Agreements and Mitigation Plans	\$3,536.09
Total		\$52,226.09

USE TOTAL LUMP SUM COMPENSATION

\$52,220.00

Note 1: For Scope Item 2(b), extending the duration of the on-site personnel beyond 4 days will be at a rate of \$1,800 per day/per person under the original mobilization. If an additional mobilization is needed, a separate change order will be required.

CHANGE ORDER – 12
ADDITIONAL DESIGN PHASE SERVICES TO BE PROVIDED BY
A&P CONSULTING TRANSPORTATION ENGINEERS (APCTE)
FOR THE
UNIVERSITYCITY PROSPERITY PROJECT, BT-904

CHANGE ORDER 12 - ATTACHMENT B

ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

Name of Project: FIU Pedestrian Bridge Change Order No.6
 County: Miami-Dade
 FPN: 434688-1-58-01
 FAP No.: 1/0/1900

Consultant Name: APCTE Engineers
 Consultant No.: enter consultants proj. number
 Date: 8/21/2017
 Estimator: insert name

Staff Classification	Total Staff Hours From "SH Summary -	Project Manager	Project Engineer	Cadd Tech	Staff Classification 4	Staff Classification 5	Staff Classification 6	Staff Classification 7	Staff Classification 8	Staff Classification 9	Staff Classification 10	Staff Classification 11	Staff Classification 12	SH By Activity	Salary Cost By Activity	Average Rate Per Task
		\$70.00	\$46.00	\$35.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
3. Project General and Project Common Tasks	8	4	4	0	0	0	0	0	0	0	0	0	0	8	\$464	\$58.00
4. Roadway Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
5. Roadway Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
6. Drainage Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
7. Utilities	16	3	8	5	0	0	0	0	0	0	0	0	0	16	\$753	\$47.06
8. Environmental Permits, Compliance & Clearances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
9. Structures - Misc. Tasks, Dwg, Non-Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
10. Structures - Bridge Development Report	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
11. Structures - Temporary Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
12. Structures - Short Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
13. Structures - Medium Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
14. Structures - Structural Steel Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
15. Structures - Segmental Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
16. Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
17. Structures - Retaining Walls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
18. Structures - Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
19. Signing & Pavement Marking Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
20. Signing & Pavement Marking Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
21. Signalization Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
22. Signalization Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
23. Lighting Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
24. Lighting Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
25. Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
26. Landscape Architecture Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
27. Survey (Field & Office Support)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
28. Photogrammetry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
29. Mapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
30. Terrestrial Mobile LIDAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
31. Architecture Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
32. Noise Barriers Impact Design Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
33. Intelligent Transportation Systems Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
34. Intelligent Transportation Systems Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
35. Geotechnical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
Total Staff Hours	24	7	12	5	0	0	0	0	0	0	0	0	0	24		
Total Staff Cost		\$490.00	\$552.00	\$175.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$1,217.00	\$50.71

Survey Field Days by Subconsultant
4 - Person Crew:

- Notes:
 1. This sheet to be used by Prime Consultant to calculate the Grand Total fee.
 2. Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden.

SALARY RELATED COSTS:				
OVERHEAD:		169%		\$2,060.26
OPERATING MARGIN:		15%		\$182.55
FCCM (Facilities Capital Cost Money):		0.03%		\$0.34
EXPENSES:		6.24%		\$75.94
Survey (Field - if by Prime)	0	4-man crew days @	\$ - / day	\$0.00
SUBTOTAL ESTIMATED FEE:				\$3,536.09
Subconsultant: Enter Name Sub 1				\$0.00
Subconsultant: Sub 2				\$0.00
Subconsultant: Sub 3				\$0.00
Subconsultant: Sub 4				\$0.00
Subconsultant: Sub 5				\$0.00
Subconsultant: Sub 6				\$0.00
Subconsultant: Sub 7				\$0.00
Subconsultant: Sub 8				\$0.00
Subconsultant: Sub 9				\$0.00
Subconsultant: Sub 10				\$0.00
Subconsultant: Sub 11				\$0.00
Subconsultant: Sub 12				\$0.00
SUBTOTAL ESTIMATED FEE:				\$3,536.09
Geotechnical Field and Lab Testing				\$0.00
SUBTOTAL ESTIMATED FEE:				\$3,536.09
Optional Services				\$0.00
GRAND TOTAL ESTIMATED FEE:				\$3,536.09

Check = \$1,217.00

Project Activity 3: General Tasks

Estimator:

FIU Pedestrian Bridge Change Order No.6
434688-1-58-01

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
3.1	Public Involvement					
3.1.1	Community Awareness Plan	LS	1	0	0	
3.1.2	Notifications	LS	1	0	0	
3.1.3	Prepare Mailing Lists	LS	1	0	0	
3.1.4	Median Modification Letters	LS	1	0	0	
3.1.5	Driveway Modification Letters	LS	1	0	0	
3.1.6	Newsletters	LS	1	0	0	
3.1.7	Renderings and Fly Throughs	LS	1	0	0	
3.1.8	PowerPoint Presentation	LS	1	0	0	
3.1.9	Public Meeting Preparations	LS	1	0	0	
3.1.10	Public Meeting Attendance/Followup	LS	1	0	0	
3.1.11	Other Agency Meetings	LS	1	0	0	
3.1.12	Web Site	LS	1	0	0	
3.1 Public Involvement Subtotal					0	
3.2	Joint Project Agreements	EA	0	0	0	
3.3	Specifications Package Preparation	LS	1	0	0	
3.4	Contract Maintenance and EDMS	LS	1	0	0	
3.5	Value Engineering (Multi-Discipline Team) Review	LS	1	0	0	
3.6	Prime Consultant Project Manager Meetings	LS	1	8	8	See listing below
3.7	Plans Update	LS	1	0	0	

Project Activity 3: General Tasks

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
3.8	Post Design Services	LS	1	0	0	
3.9	Electronic/Digital Delivery	LS	1	0	0	
3.10	Risk Assessment Workshop	LS	1	0	0	
3.11	Railroad, Transit, and/or Airport Coordination	LS	1	0	0	
3.12	Other Project General Tasks	LS	1	0	0	
3. Project Common and Project General Tasks Total					8	

3.6 - List of Project Manager Meetings

Roadway Analysis	EA	1	4	4
Drainage	EA	0	0	0
Utilities	EA	1	4	4
Environmental	EA	0	0	0
Structures	EA	0	0	0
Signing & Pavement Marking	EA	0	2	0
Signalization	EA	0	2	0
Lighting	EA	0	0	0
Landscape Architecture	EA	0	0	0
Survey	EA	0	0	0
Photogrammetry	EA	0	0	0
ROW & Mapping	EA	0	0	0
Terrestrial Mobile LiDAR	EA	0	0	0
Architecture	EA	0	0	0
Noise Barriers	EA	0	0	0
ITS Analysis	EA	0	0	0
Geotechnical	EA	0	0	0
Progress Meetings	EA	0	0	0
Phase Reviews	EA	0	0	0
Field Reviews	EA	0	0	0

Total Project Manager Meetings		2		8
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Carries to 3.6

Notes:

1. If the hours per meeting vary in length (hours) enter the average in the hour/unit column.
2. Do not double count agency meetings between permitting agencies.
3. Project manager meetings are calculated in each discipline sheet and brought forward to column D except for Photogrammetry.

Project Activity 7: Utilities

Estimator:

FIU Pedestrian Bridge Change Order No.6
434688-1-58-01

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
7.1	Kickoff Meeting	LS	1	0	0	
7.2	Identify Existing UAO(s)	LS	1	0	0	
7.3	Make Utility Contacts	LS	1	0	0	
7.4	Exception Processing	LS	1	0	0	
7.5	Preliminary Utility Meeting	LS	1	0	0	
7.6	Individual/Field Meetings	LS	1	0	0	
7.7	Collect and Review Plans and Data from UAO(s)	LS	1	0	0	
7.8	Subordination of Easements Coordination	LS	1	0	0	
7.9	Utility Design Meeting	LS	1	0	0	
7.10	Review Utility Markups & Work Schedules, and Processing of Schedules & Agreements	LS	1	0	0	
7.11	Utility Coordination/Followup	LS	1	16	16	
7.12	Utility Constructability Review	LS	1	0	0	
7.13	Additional Utility Services	LS	1	0	0	
7.14	Processing Utility Work by Highway Contractor (UWHC)	LS	1	0	0	
7.15	Contract Plans to UAO(s)	LS	1	0	0	
7.16	Certification/Close-Out	LS	1	0	0	
7.17	Water & Sewer Main Relocation Plans @ North Plaza	LS	1	0	0	
7. Utilities Total					16	

Project Activity 7: Utilities

Project Activity 7: Utilities

Technical Meetings				
Kickoff	EA	0	0	0
Preliminary Meeting	EA	0	0	0
Individual UAO Meetings	EA	1	2	2
Field Meetings	EA	0	0	0
Design Meeting	EA	0	0	0
Other Meetings	EA	0	0	0
Total Technical Meetings		1		2

no