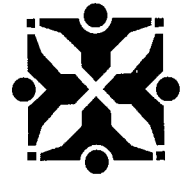


# City of Columbia

701 East Broadway, Columbia, Missouri 65201



**Agenda Item Number:** R 209-14

**Department Source:** Public Works

**To:** City Council

**From:** City Manager & Staff

**Council Meeting Date:** November 3, 2014

**Re:** Providence Road Improvements - Amendment No. 1 with URS Corporation

## Documents Included With This Agenda Item

Council memo, Resolution/Ordinance, Exhibits to Resolution/Ordinance

**Supporting documentation includes:** Maps

## Executive Summary

Authorizing the City Manager to execute Amendment No. 1 to the engineering services agreement with URS Corporation (URS) for additional engineering design work on the Providence Road Improvements project. The amendment is necessary in order to complete final design plans and extend the date that the design project will be approved by MoDOT for construction bidding.

## Discussion

The Providence Road Improvement project includes portions of existing Providence Road/Route 163 from the intersection with Stadium Boulevard/Route 740, northward approximately 1/2-mile to south of Stewart Road. At the June 3, 2013 public hearing, Council approved an amended version of Option VIII-A (8A).

Additional design services are necessary in order to coordinate with changes in land use along the north side of Turner Avenue, reconfiguration at the intersection of Providence Road and Burnam, and unanticipated drainage improvements near Providence Road and Brandon. The need for the additional work at Burnam and Brandon were identified following completion of the topographic and utility surveys. This amendment will make the final Plans, Specifications and Engineering (PS&E) approval by MoDOT on or before July 15, 2015. The preliminary total cost for this project including engineering design, easement acquisition and utility relocation is approximately \$2.2M.

## Fiscal Impact

**Short-Term Impact:** Amendment No. 1 is for a not to exceed amount of \$87,464.00, bringing the total contract amount with URS to \$463,764.

**Long-Term Impact:** The total estimated cost of the Providence Road Improvements project, including engineering design, easement acquisition and utility relocation is \$2.2 M, and is funded from 1/4% capital improvements sales tax and STP funds. All funding has been appropriated to the project.

# City of Columbia

701 East Broadway, Columbia, Missouri 65201



## Vision, Strategic & Comprehensive Plan Impact

Vision Impact: Transportation

Strategic Plan Impact: Health, Safety and Wellbeing, Infrastructure

Comprehensive Plan Impact: Infrastructure, Mobility, Connectivity, and Accessibility

## Suggested Council Action

Authorize the City Manager to execute Amendment No. 1 to the engineering services agreement with URS Corporation for design of the Providence Road Improvements project.

## Legislative History

**10/07/13** - (R 207-13) Authorizing engineering services agreement with URS Corporation for street improvements on Providence Road, from Stadium Boulevard to Stewart Road.

**06/03/13** - (R 82-13) Public Hearing for construction of street improvements on Providence Road from Stadium Boulevard to Stewart Road

**03/20/13** - Interested Parties meeting

**03/18/13** - (R 54-13A) Public hearing to consider the rescission of Resolution 188-12 relating to construction of street improvements on Providence Road from Turner Avenue to Stadium Boulevard and providing direction to the City Manager on how to proceed with the project.

**12/17/12** - (B 367-12) Authorizing a cost share agreement with MHTC

**11/19/12** - (R 188-12) Public Hearing for construction of improvements on Providence Rd from Turner Ave to Stadium Blvd, reconfiguration & construction of signalized intersections on Providence Rd, & construction of new residential street in Grasslands Subdivision

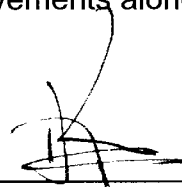
**04/20/10** - Interested Parties meeting

**12/15/08** - (R 290-08) Authorizing engineering services agreement with HDR Engineering for a conceptual alternatives study for infrastructure improvements along the Providence Road corridor.

**04/24/08** - Interested Parties meeting



Department Approved



City Manager Approved

Introduced by \_\_\_\_\_ Council Bill No. R 209-14

**A RESOLUTION**

authorizing Amendment No. 1 to the agreement with URS Corporation for engineering services for construction of street improvements on Providence Road, from Stadium Boulevard to Stewart Road.

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. The City Manager is hereby authorized to execute Amendment No. 1 to the agreement with URS Corporation for engineering services for construction of street improvements on Providence Road, from Stadium Boulevard to Stewart Road. The form and content of the agreement shall be substantially as set forth in "Exhibit A" attached hereto and made a part hereof.

ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_, 2014.

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor and Presiding Officer

APPROVED AS TO FORM:

\_\_\_\_\_  
City Counselor

**AMENDMENT NO. 1**  
**to**  
**ENGINEERING SERVICES CONTRACT**  
**Between**  
**THE CITY OF COLUMBIA, MISSOURI**  
**And**  
**URS CORPORATION**

On this \_\_\_\_\_ day of \_\_\_\_\_, 2014, the City of Columbia, Missouri, hereinafter called the CITY, and URS Corporation hereinafter called the Consultant, amend their agreement of October 7, 2013, for the survey and design of the STP-2101 (506) Providence Road Improvements project. The purpose of this Amended Agreement is to complete final design plans and extend the approved Plans, Specifications and Estimates (PS&E) date to be submitted and approved by MoDOT.

The amended services are outlined further in the Attachment A Scope of Services. These amended services shall be in an amount not to exceed \$87,464.00 without further authorization. Attachment B outlines the cost breakdown for this Amended Agreement.

This amendment will also make the final PS&E approval by MoDOT on or before July 15, 2016.

IN WITNESS WHEREOF, the parties have caused this amendment to be executed by their duly authorized agents on the day and year first above written.

**CITY OF COLUMBIA, MISSOURI**

By: \_\_\_\_\_  
Mike Matthes, City Manager

ATTEST:

\_\_\_\_\_  
Sheela Amin, City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
Nancy Thompson, City Counselor

I hereby certify that the above expenditure is within the purpose of the appropriation to which it is charged, Account No. \_\_\_\_\_, and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor.

*1140-8800-528.40-23, C00290*

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John Blattell, Director of Finance

**URS Corporation**

  
\_\_\_\_\_  
Jennifer Obertino, Vice President

## Attachment A



Mr. Cliff Jarvis  
City of Columbia  
Engineering Supervisor/Design-CIP  
PO Box 6015  
Columbia, MO 65205

Re: Providence Road (Route 163) Improvements  
Additional Services

October 17, 2014

Dear Cliff,

As we have discussed, URS has been requested to complete services that are outside of our original scope. When we scoped this project in August 2013, we based our level of effort on the direction that the City had previously reviewed multiple alternatives and that developing and reviewing additional alternatives would not be required. The agreement between URS and the City of Columbia covered Engineering Services associated with the design of the proposed improvements to Providence Road (Route 163) from Stadium Boulevard to just south of Stewart Road. The concept (lane configuration, widening and signal locations) was Option VIIIA as approved by the Council on June 3, 2013. Following are the items which were not included in our scope:

### **Task A: Additional Survey of Curb Ramps along Providence**

As part of a recently completed resurfacing project, MoDOT has replaced the majority of the curb ramps along Providence within our project scope. We will need to survey the new curb ramps that are included within our design limits. Based on previous discussions with MoDOT, the elevation of the existing pavement has not been changed since our field surveys were complete. Our project will not require the reconstruction of a non-ADA compliant sidewalk outside of our immediate area of improvements.

### **Task B: East Approach at Turner**

#### **Develop Multiple Alternatives for the East Approach of Turner at Providence**

We have been requested to provide multiple alternatives for the east Turner approach. These alternatives include shifting of the proposed street widening and right-of-way to both the north and the south side of Turner, review of multiple lane configurations and lane widths, and the development of anticipated right-of-way and easements required for multiple scenarios. At this time, it is expected that no further alternatives will be developed. The improvements will be as shown on the July 9, 2014 sketch prepared by URS for the City. These include a shift to the north side of Turner and providing a right turn lane from 4<sup>th</sup> Street to Providence. The transition for the right turn lane will continue to just east of 4th Street. The URS plans will be designed to meet existing conditions on the ACC property. If the road reconstruction on the north side of

# URS

Turner is completed before the property is redeveloped, the developer will be responsible for meeting the URS grades just behind the sidewalk on the north side. A barrier will be constructed on Turner providing only right-in/right-out access for 4<sup>th</sup> Street, which will be vacated by the City and overtaken by the developer. The barrier will end before the University parking lot entrance/exit on the south side, providing full access. The entire extent from Providence to the end of the right turn lane transition east of 4<sup>th</sup> Street will be full-depth reconstruction. Only widening, not reconstruction, was included in the original scope. This work will require additional field surveys and design for URS.

## Coordination with Crockett Engineering for the East Approach of Turner at Providence

Crockett Engineering is the engineer for the proposed ACC development on the north side of Turner. At the City's request, URS will act as the primary coordinator with Crockett related to the schedule of construction, location and grades of their improvements. It is anticipated that construction of the development will begin in 2016 for a 2017 opening.

## Improvements to Turner between 4<sup>th</sup> Street and 5<sup>th</sup> Street

Discussed above, full-depth reconstruction is slated for Turner from Providence to the end of the right turn lane transition east of 4<sup>th</sup> Street. From the end of this transition eastward to 5<sup>th</sup> Street, mill and overlay will be included in the construction plans.

## Improvements to Storm Sewer along North Side of Turner

The storm sewer along Turner is located along the north side of the roadway and would not have been impacted by the original alignment. With this shift to the north, we will need to evaluate the drainage coming into this system, and size and construct new storm sewer from Providence to the end of the right turn lane taper east of 4<sup>th</sup> Street along the new curb line. Additional topographic and property surveys will be required. Based on direction from the City, URS will assume the existing drainage from 5<sup>th</sup> Street headed west on Turner is sufficiently handled with the existing sewer system. URS' sewer improvements will be limited to the additional impervious area from the widening.

## Improvements to Culverts at the Northeast Corner of Turner and Providence

At the northeast corner of Providence and Turner, there are three culverts extending under Turner which drain into one large culvert under Providence. The original alignment had all of the improvements on the south side of Turner which would have minimized any impact to these culverts. As we move the improvements to the north side we are getting much closer to these culverts. Depending upon the final improvements at Turner, these culverts may need to be reconstructed, extended or combined, requiring a new junction chamber structure.

The URS team will provide for a structure to connect the three culverts under Turner with the culvert under Providence. This connection will be required to provide for the proposed widening, especially with the shifting of the improvements to the north. This task will only include the connection of the existing culverts and does not include hydraulic analyses.



### **Task C: West Approach at Turner**

URS has been asked to develop alternatives that shift the existing western Turner approach to Providence to the south to provide a more defined left turn path from northbound Providence. This shift will require modifications to an existing wall and stairs located on the south side. A new block wall is anticipated in this corner. Since there is alternative ADA access provided, the steps can be replaced with new steps to provide better access to the proposed improvements. Additional topographic, property and geotechnical surveys and structural design will be required.

### **Task D: West Approach at Burnam**

The City has requested URS provide alternatives to the configuration of the western approach of Burnam at the Providence intersection. We have also been requested to provide concepts that compare wall and fill slope options for the northwest corner. It is anticipated that a low-height (approximately 4 feet) CIP wall, approximately 130 feet long, will be provided. This wall was not included in our original scope. This wall will require additional field surveys, geotechnical surveys and structural design.

### **Task E: Providence Near Stadium**

#### **Alternatives for the Providence Widening at Stadium**

The City has requested URS provide alternatives for the proposed southbound right turn lane at Stadium. These include both wall and fill slope options, and potential right-of-way and easements required for multiple alternatives.

#### **Providence Driveway Design Modifications**

On the west side of Providence between Brandon and Stadium, an existing driveway was slated for removal in the original scope of work. URS has since been requested to accommodate the existing access per request from the City. URS will perform design services to keep this access intact with a new driveway at this location.

#### **Culvert Modifications at Brandon and Providence**

In our original scope, URS had included only minor modifications to the existing storm sewer. We had not anticipated the impact to the 8-foot by 4-foot box culvert that runs under Providence on the south side of Brandon. As we developed alternatives for the southbound right turn lane, we determined the need to extend and possibly realign the culvert and channel along Brandon. This will require additional drainage and structural analysis. Additional topographic and property surveys will be required. We have not included any additional hydraulic analyses for this drainage area but will assume the original size of the culvert is sufficient for the drainage area. If existing culvert plans are available, we will analyze the existing culvert under the proposed additional right turn lane, and extend the culvert as required. If culvert plans are not available, we will design a new culvert section under the proposed additional right turn lane, and extend the culvert as required.





### **Additional Fee Requested**

The estimated man-hours and fee per task are summarized on Attachment A. The anticipated additional fee is \$87,464.

### **Schedule Impacts on Design Efforts**

When we scoped this project, URS anticipated being able to move quickly into the preliminary design since the City had already explored numerous alternatives. Due to the ongoing development of multiple alternatives, we have not been able to progress with the preparation of preliminary plans. This has adversely impacted our anticipated schedule. Please see the revised schedule below. Where possible, we will try to expedite deliverables.

#### **Proposed Schedule:**

Notice to Proceed on Additional Services	Oct. 17, 2014
Additional Surveys Complete	Nov. 14, 2014
Preliminary Plan Submittal to City	Dec. 12, 2014
Preliminary Plan Review by City	Dec. 19, 2014
Preliminary Plans to MoDOT	Jan. 5, 2015
MoDOT review comments	Feb. 2, 2015
Preliminary Plan final submittal to MoDOT	Feb. 25, 2015
ROW/Easement Plans to City	May 20, 2015
ROW Review by City	May 27, 2015
ROW Plans to MoDOT	June 17, 2015
MoDOT ROW Plan review comments	July 17, 2015
ROW final submittal to MoDOT	July 31, 2015
ROW approval from MoDOT	Aug. 31, 2015
ROW Acquisition (estimated at 6 months)	Feb. 29, 2015
PS&E Submittal to City	Mar. 31, 2016
PS&E Review by City	April 7, 2016
PS&E Submittal to MoDOT	April 29, 2016
MoDOT review comments	May 27, 2016
Final PS&E submittal to MoDOT	June 15, 2016
PS&E Approval	July 15, 2016



We look forward to continuing to work with the City on this important project. URS understands the need to assist the City in developing and evaluating alternatives and modifying the design as the City reacts to unanticipated changes by the University, potential developers and other stakeholders. Because the changes were unanticipated, we were not able to predict the level of modifications that have been discussed, and need to request additional fees to address the items noted above.

Please do not hesitate to contact me if you have any questions or wish to discuss further.

Thank you,

A handwritten signature in black ink, reading "Josephine L. Emerick". The signature is written in a cursive style with a large, stylized "J" and "E".

Josephine L. Emerick, PE  
Senior Project Manager

ATTACHMENT

rev 10-16-2014  
URS Corporation

## Providence Road Additional Services

## Man-hour Breakdown

Attachment B

URS

Task Description	Classification										Cost
	PM	Senior Engr	Struct Engr	Sr Geotech Engr	Geotech Engr	Road Engr	Engineer	Tech	Clerical	Total	
<b>A: Additional Survey of Curb Ramps along Providence</b>											
Surveying Coordination						8				8	\$ 821.71
Field Check Survey							8	8		16	\$ 1,014.03
Subcontract Administration	2					4			4	10	\$ 904.76
Subtotal Man-hours	2	0	0	0	0	12	8	8	4	34	
Subtotal Fee	\$ 282.84	\$ -	\$ -	\$ -	\$ -	\$ 1,232.57	\$ 402.11	\$ 611.91	\$ 201.06		\$ 2,740.49
<b>B: East Approach at Turner</b>											
Develop Multiple Alternatives	8					24				32	\$ 3,636.51
Cross Sections						4	16	4		24	\$ 1,521.04
Coordination with Crockett Engineering	8					16				24	\$ 2,814.80
Provide Reconstruction of Turner between 4th Street and Providence	4					16	32	24		76	\$ 5,673.30
Provide New Storm Sewer between 4th Street and Providence	4					8	16	8		36	\$ 2,823.54
Connection of Culverts, NE Corner of Prov and Turner-Civil	4					4	8	8		24	\$ 2,010.57
Connection of Culverts, NE Corner of Prov and Turner-Structural	4	12	16					24		56	\$ 4,991.45
QA / QC	4	12				8			2	26	\$ 3,028.96
Subtotal Man-hours	36	24	16	0	0	60	72	68	2	298	
Subtotal Fee	\$ 5,271.18	\$ 3,042.08	\$ 1,048.99	\$ -	\$ -	\$ 8,217.10	\$ 3,619.02	\$ 5,201.25	\$ 100.53		\$ 26,500.16
<b>C: West Approach at Turner</b>											
Geotechnical Survey and Analysis				8	28					36	\$ 3,393.05
Develop Multiple Alternatives	4					16	4			24	\$ 2,430.16
Cross Sections	4					8	16	4		32	\$ 2,517.58
Design of Block Wall		4	8					4		16	\$ 1,337.46
Reconstruction of Stairs	4					4	8	8		24	\$ 2,010.57
QA / QC	2	8				4			2	16	\$ 1,818.25
Subtotal Man-hours	14	12	8	8	28	32	28	16	2	148	
Subtotal Fee	\$ 2,049.91	\$ 1,521.04	\$ 524.50	\$ 979.06	\$ 2,413.99	\$ 3,286.84	\$ 1,407.40	\$ 1,223.82	\$ 100.53		\$ 13,597.08
<b>D: West Approach at Burnam</b>											
Geotechnical Survey and Analysis				8	28					36	\$ 3,393.05
Alternative Cross Sections	4	14	30			8	12	4		60	\$ 5,244.96
CIP wall design	4							12		16	\$ 1,337.46
QA / QC	12	8				8			2	22	\$ 2,521.95
Subtotal Man-hours	12	22	30	8	28	16	12	16	2	146	
Subtotal Fee	\$ 1,757.06	\$ 2,788.57	\$ 1,866.86	\$ 979.06	\$ 2,413.99	\$ 1,643.42	\$ 603.17	\$ 1,223.82	\$ 100.53		\$ 13,476.49
<b>E: Providence Near Stadium</b>											
Alternative Cross Sections	8					8	8	4		28	\$ 2,701.15
Design Modifications to Maintain Driveway onto Providence	2					4	8	4		18	\$ 1,411.77
Culvert Modifications at Brandon-Civil	4					8	8			20	\$ 1,809.51
Culvert Modifications at Brandon-Structural		12	18					12		42	\$ 3,619.02
QA / QC	4	4				8				16	\$ 1,914.41
Subtotal Man-hours	18	16	18	0	0	28	24	20	0	124	
Subtotal Fee	\$ 2,635.59	\$ 2,028.05	\$ 1,180.12	\$ -	\$ -	\$ 2,875.99	\$ 1,206.34	\$ 1,529.76	\$ -		\$ 11,455.87
<b>Subtotal Man-hours</b>	0	0	0	0	0	0	0	0	0	0	\$ -
<b>Subtotal Fee</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Man-hours</b>	82	74	72	16	56	166	144	128	10	750	
<b>Hourly Fee (Raw)</b>	\$67	\$58	\$30	\$58	\$39	\$47	\$23	\$35	\$23		
<b>MoDOT Audited Rate (Raw * 2.1854)</b>	\$146.42	\$126.75	\$65.56	\$122.36	\$86.21	\$102.71	\$50.26	\$76.49	\$50.26		
<b>Project Subtotal Fee</b>	\$ 12,006.59	\$ 9,379.74	\$ 4,720.46	\$ 1,958.12	\$ 4,827.99	\$ 17,255.92	\$ 7,238.04	\$ 9,790.59	\$ 502.64		\$ 67,680.09
<b>12% Profit</b>											\$ 8,121.61
<b>Trekk</b>											\$ 9,275.00
<b>Additional Plats</b>											\$ 1,800.00
<b>Geotechnical testing</b>											\$ 587.00
<b>Travel</b>											\$ -

TOTAL (Design Phase)

\$ 87,464

TOTAL ESTIMATED CONTRACT

\$ 87,464



## SUPPORTING DOCUMENTS INCLUDED WITH THIS AGENDA ITEM ARE AS FOLLOWS:

Maps

