

**AMENDMENT NUMBER 02 TO THE AGREEMENT BETWEEN  
THE CLIENT AND KIMLEY-HORN AND ASSOCIATES, INC.**

AMENDMENT NUMBER 02 DATED August 12, 2015 to the agreement between City of Boerne ("Client") and Kimley-Horn and Associates, Inc., ("Consultant") dated April 1, 2015 ("the Agreement") concerning the General Consulting Services (the "Project").

The Consultant has entered into the Agreement with Client for the furnishing of professional services, and the parties now desire to amend the Agreement.

Therefore, it is mutually agreed that the Agreement is amended to include Additional Services to be performed by Consultant and provisions for additional compensation by the Client to the Consultant, all as set forth in Exhibit A hereto. The parties ratify the terms and conditions of the Agreement not inconsistent with this Amendment, all of which are incorporated by reference.

CLIENT:

CITY OF BOERNE

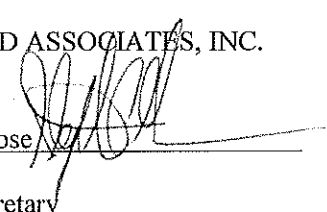
By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

CONSULTANT:

KIMLEY-HORN AND ASSOCIATES, INC.

By: Stephen C. Gose 

Title: Assistant Secretary

Date: August 12, 2015

Consultant shall perform the following Additional Services:

**Task 2 - Menger Creek Flood Study & Detention Analysis**

Kimley-Horn understands that the project consists of drainage studies for Menger and Suggs Creek, within the City of Boerne, Kendall County, Texas. Our understandings and assumptions which this Agreement is based include:

**a. Partial Topographic Survey**

Kimley-Horn will prepare a partial Topographic Survey for the purpose of preparing the hydraulic model. The survey will include existing roadway/drainage structure locations and tied to existing control points and FEMA bench mark system. This task assumes that Kimley-Horn will have legal access/right of entry onto the site to conduct this work. Surveying fees do not include: (i) state sales tax, (ii) locating underground utilities and utility lines by way of digging or uncovering, (iii) extraneous revisions or additions to the survey as requested by the Client, (iv) city or county fees or (v) special monuments requested by the Client or governing bodies.

**b. Drainage Analysis**

Kimley-Horn will use topographic information obtained under Task 2a and previous reports from Klotz and Godsey Engineering (to be provided by City) to prepare hydrologic and hydraulic models for Menger Creek and Suggs Creek. Kimley-Horn will use these models to determine the floodplain location for the proposed development based on the existing hydraulic condition of the channel and overbank areas. This analysis will be performed based on the 100-year storm event (as determined by the Federal Emergency Management Agency (FEMA)) and will be analyzed along a channel reach extending to the nearest downstream confluence on the eastern side of Old San Antonio Road and upstream to the IH-10 Bridge..

**c. Endangered Species – Habitat Assessment**

As required for the FEMA CLOMR submittal, an assessment will be conducted to provide information regarding the potential for existence of threatened or endangered species at or adjacent to the subject site. This task includes the following:

- A site visit to perform visual reconnaissance at the project and neighboring sites.
- Review of recent and historic aerial photography
- Documentation and photographing of site conditions observed at time of site visit.
- Review of Texas Biological Conservation Data System (BCD) and quadrangle maps for the Texas Parks and Wildlife Diversity Branch.
- Contact with United States Fish and Wildlife Service (USFWS) requesting comment and formal statement to report

**d. Reclamation/Floodway Analysis**

Kimley-Horn will perform a floodway analysis, per latest FEMA guidelines, CFR-44. This floodway analysis will be done using the developed HEC-RAS Hydraulic Model developed under this contract. This analysis will identify the location, by cross section of overbank encroachments, on both sides of the creek that generate a maximum of 1 foot rise in water surface elevation along the modeled stream. The locations of these encroachments will identify the reclamation potential for the modeled streams.

Kimley-Horn will provide the Client with a series of maps and cross sectional views showing an updated floodplain with its identified floodway or reclamation limit. This map will illustrate the amount of land that can potentially be reclaimed as well as the area to be reclaimed in square-feet and acres. These maps will show the horizontal limits, amount of encroachment as well as the elevation needed to elevate and reclaim land.

#### **e. Schematic Grading Plan**

Per the limits of reclamation determined in Task 2d, Kimley-Horn will prepare a set of schematic grading plans showing limits of fill and proposed wall locations for the proposed floodplain reclamation along the banks of Menger Creek. Final grading and wall structural plans are not included in this Scope of Services. Kimley-Horn will provide these services if requested under a separate agreement when requested.

#### **f. Conditional Letter of Map Revision (CLOMR)**

Kimley-Horn will prepare a Conditional Letter of Map Revision (CLOMR) request for submittal to the floodplain administrator for technical review. The CLOMR request will consist of the following elements:

- Report text, including information sources, assumptions, and conclusions
- FEMA duplicate effective hydraulic modeling – multiple-profile
- Pre-project condition hydraulic modeling – multiple-profile
- Proposed condition hydraulic modeling – multiple-profile
- Floodplain delineation workmaps
- Completed FEMA CLOMR request forms and supporting documentation
- Electronic modeling files

#### **g. CLOMR Submittal**

After the floodplain administrator's technical review is complete, the CLOMR request will be prepared for endorsement by the floodplain administrator and submittal to FEMA for conditional acceptance of the floodplain mapping revision. This submittal will require review and approval by the floodplain administrator and an accompanying \$6,750 review fee payable to FEMA. This fee will be paid directly by the Client. The Client should anticipate a minimum of 6 months from submittal to FEMA until a CLOMR is issued.

The Kimley-Horn analysis and design will be based on City and FEMA published criteria as of the signed date of this contract. Kimley-Horn's fees under this task include addressing two (2) rounds of comments for the submittal of each deliverable from each agency (City and FEMA). Addressing additional rounds of comments from the City and/or FEMA will be considered additional services. Revisions due to changes or additions to design criteria established after the signed date of this contract will be considered additional services. This fee does not include preparation of construction documents for the proposed floodplain improvements. These construction documents will be prepared and submitted to the City at a later date as part of the final civil engineering plans for the site.

While every effort will be made by Kimley-Horn to obtain approval, the proposed floodplain encroachments and mapping revision are not guaranteed approval by floodplain administrator or FEMA.

After construction of the floodplain improvements has been completed, a second submittal (Letter of Map Revision (LOMR)) to FEMA will be required in order to revise the floodplain mapping adjacent to the site. The LOMR submittal is not included in this task and will be prepared under a future agreement.

#### **h. Timing Study**

Kimley-Horn will perform a timing study for the Calder and Harpole properties. Using the City's latest Zoning map and any planned commercial development information available, Kimley-Horn will estimate future development and develop existing and future hydrology calculation for these sites. The timing study will compare the time for these site to peak, or generate the maximum amount of runoff and compare that time with the time that Menger Creek, the receiving stream, peaks. This study will identify potential stream impacts to the area as both runoff sources are compared.

Kimley-Horn will provide the Client with maps and a report discussion identify any potential impact to the stream and local infrastructure. These will be shown on a series of hydrographs identifying the time of Menger Creek and the adjacent developments and their associated drainage area maps.

#### **i. Downstream Drainage Assessment**

Kimley-Horn will use the Drainage Analysis completed in Task 2b to prepare a downstream drainage assessment from the outfall of the subdivision to a point downstream, as per the City of Boerne requirements. The Downstream Drainage Assessment will determine if the proposed site would require on-site detention to mitigate any increase in stormwater due to the increase in impervious cover.

The Downstream Drainage Assessment will be required for any future subdivision plat submittals to the City of Boerne.

#### **j. Mitigation Schematic**

Kimley-Horn will perform a feasibility level study to identify potential Flood Mitigation as needed, should the timing study identify adverse impacts to Menger Creek. This study will identify potential solutions to the adverse impact. These solutions may include, but not limited to the addition of, or modifications to existing public infrastructure, such as adding additional culverts or elevating roadway. Mitigation solutions may also include improvements to private property such as channel widening or local detention ponds, or combination of both private and public improvements. Kimley-Horn will perform limited analyze on these various options and present these potential schematics in a report. This analysis will be at a feasibility level.

#### **k. Project Coordination and Meetings**

Kimley-Horn will coordinate with and attend meetings as requested by Client and/or Agency Staff. We will also attend project meetings as requested by Client, City, or members of the project team. Based on our previous experience we believe this task will include project team meetings, City public hearings, submittal coordination, and expediting meetings. Because the extent of the review comments required by the city for plan approval, permit expediting, public meeting and project team meeting attendance is unknown at this time, we have projected our effort at twenty (20) hours. If additional effort is requested by Client, City, or other members of the project team, it will be billed as an additional service, in excess of the budget amount estimated above.

For the Additional Services set forth above, Client shall pay Consultant the following additional compensation:

Task 2	Menger Creek Flood Study & Detention Analysis		
	a. Partial Topographic Survey	\$3,600	LS
	b. Drainage Analysis	\$15,300	LS
	c. Endangered Species – Habitat Assessment	\$3,400	LS
	d. Reclamation/Floodway Analysis	\$2,200	LS
	e. Schematic Grading Plan	\$1,800	LS
	f. Conditional Letter of Map Revision (CLOMR)	\$3,500	LS
	g. CLOMR Submittal/Approval	\$7,800	HR
	h. Timing Study	\$2,200	LS
	i. Downstream Drainage Assessment	\$2,500	LS
	j. Mitigation Schematic	\$3,200	LS
	k. Coordination/Meetings	\$5,000	HR

<i>Estimated Labor Total</i>	<b>\$50,500</b>
<i>Estimated Reimbursable Expense</i>	<b>\$1,000</b>

Kimley-Horn will perform the tasks labeled LS on a lump sum basis. Kimley-Horn will perform tasks labeled HR on a labor fee plus expense basis