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**Scope of Services Exhibit A**

From: The WLB Group, Inc.  
 4444 E. Broadway Boulevard  
 Tucson, AZ 85711

Work Order No.: 4  
 Date: 9/23/2019  
 Project No.: 119000-A-256  
 Location: 75C Okay Street Retaing Wall Failure  
 and Concept Design - Bisbee, AZ

To: Jesus Haro, MPA  
 Director of Public Works  
 1415 Melody Lane, Bldg G  
 Bisbee, AZ 85603  
 (520) 432-6262

Approved\*  
 Client: City of Bisbee  
 By:  Date: 10/16/19  
 \*Signature on faxed copies of this Scope of Services are acceptable to both parties.

Mr. Haro:

Professional Services will comply with Professional Services Agreement between the City of Bisbee Public Works Department and the WLB Group, dated December 21, 2016.

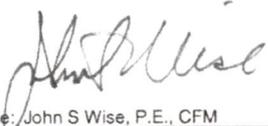
This Scope of Services includes Professional Services necessary to complete the following:

**DESCRIPTION:**

The WLB Group and Cannon Consultants will conduct a site specific reconnaissance and inspection/assessment of the failed retaining wall and associated damaged residential wall (75C Okay St). Refer to the attached location exhibit. We will evaluate concept solutions which would be feasible from a construction, as well as estimated construction cost, perspective. We will prepare a summary letter identifying our findings and concept solution(s), along with a scope and budget to complete an applicable design for the recommended solution.

1. Structural Assessment (Cannon Consultants , LLC) - see attached	\$6,500
2. Survey and CAD	\$2,300
3. Drainage Assessment and Concept Design/Final Design	\$3,650
4. Sub-consultant Coordination/Administration	\$975
 TOTAL	 \$13,425

Schedule – 4 to 6 weeks after receiving notice to proceed for concept design; 3 weeks for final design

  
 Name: John S Wise, P.E., CFM  
 Title: Senior Drainage Engineer

Date: 09/23/19



**CANNON CONSULTANTS, LLC**

417 S. 4TH AVENUE • TUCSON, ARIZONA 85701

PHONE: (602) 738-3983

EMAIL: jerryacannon@gmail.com

September 20, 2019

John Wise, P.E., CFM  
The WLB Group  
4444 E. Broadway Blvd.  
Tucson, AZ 85711

**RE: Bisbee 75C OK Street Retaining Wall Failure – Structural Engineering Services Proposal**

Dear Mr. Wise:

We are pleased to submit a proposal to provide structural engineering services for the Bisbee 75 OK Street retaining wall failure based on our site visit, on Sept. 5, 2019, to the wall located behind the residence.

Our estimated consultant fee for these services is \$6,500.

If you need additional information, let me know.

Sincerely,

Jerry A. Cannon, P.E., S.E.  
Structural Engineer



**SCOPE OF WORK**

**GENERAL**

On Sept. 5, 2019 we visited several projects in Bisbee, AZ. This proposal is for repairs to the existing concrete retaining wall at 75C OK Street, Bisbee, AZ.

The existing retaining wall is very close to a wood frame residential building and a hole in the wall lets water flow into the residence causing damage to the wood frame building. Plans for the concrete wall are not available and it is difficult to determine the structural adequacy of the wall only that there is a hole on the one side that lets water flow into the adjacent residence. We are recommending the following two repairs:

**Option No. 1: Concept Design for Repairing Retaining Wall and Providing a Drainage System on Top of the Walls**

We propose to seal off the hole in the retaining wall and then develop positive drainage for the wall providing a concrete ditch along the top of the wall to direct surface water away from the residence below. Also, the wood frame wall of the residential unit that was damaged by water would need to be rebuilt.

**Option No. 2: Concept Design for Repairing Retaining Wall and Providing a Drainage System on Top and Bottom of the Walls**

This option would require that the earthfill behind the wall be replaced with a porous material and drainage pipes be provided to get the water away from the wall. This option also would enable us to inspect the wall on both sides to better prevent failure of the wall. All of the same work would be done to this wall as listed in Option No. 1. This option includes all of the work listed above in Option No. 1.

**MAN HOUR ESTIMATE**

Description	Structural Engineer	CAD Drafting	Admin.	TOTALS
Task 1: Concept Plans & Details for Options 1 and 2	10	--	--	10
Task 2: Preparation of Repair Plans & Details using either Option 1 or Option 2	20	20	2	42
<b>TOTAL</b>	<b>30</b>	<b>20</b>	<b>2</b>	<b>52</b>

**COST PROPOSAL**

Staff	Hours	\$ Rate/Per Hr	TOTAL
Structural Engineer	30	160.00	\$4,800.00
CAD Drafting	20	80.00	\$1,600.00
Admin	2	50.00	\$100.00
<b>TOTAL ESTIMATED FEE</b>			<b>\$6,500.00</b>

**Services not included:**

- Field measuring to obtain as-built information
- Hydraulic analysis and geotech

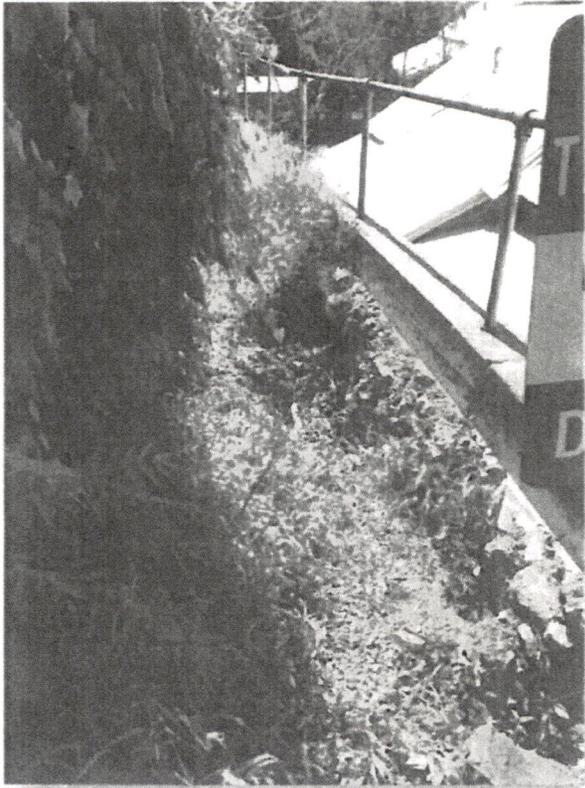


PHOTO 1: Concrete retaining wall adjacent to wood frame residence

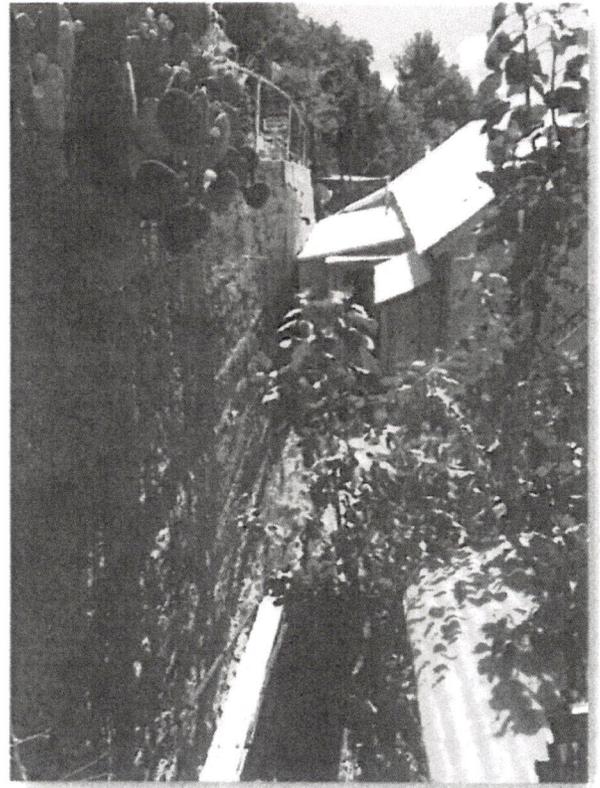


PHOTO 2: Showing hole adjacent to the wall which allows water to flow into the residence.

PHOTO 3: Shows hole in wall and damage to residence

