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<http://eng.lacity.org>

February 3, 2012

**White Point Landslide Status Report**



February 3, 2012

Bureau of Engineering  
1149 South Broadway Street, Suite 120  
Los Angeles, California 90015

Attn: Mr. Mark Osborne

**RE: STATUS REPORT FOR 1/13/12 THROUGH 2/2/12  
WHITE POINT LANDSLIDE INVESTIGATION  
CITY OF LOS ANGELES W.O. E1907483, TOS 11-087  
SHANNON & WILSON PROJECT NO. 51-1-10052-012**

We are providing this letter outlining the subtask status for the period ending February 2, 2012. Shannon & Wilson is performing a subsurface investigation of the White Point Landslide following significant movement of the landslide on November 20, 2011. During the course of our services, we have not observed new surface cracks outside of the fenced perimeter of the landslide. We recorded groundwater depths in the inclinometer borings and wells that were installed (Table 1) along the landslide perimeter at depths ranging from approximately 50 to 99 feet below ground surface. Groundwater levels measured within the completed borings appear to be relatively stable with only minor fluctuations (Table 2). We believe the projected landslide failure plane is about 100 feet deep in the area of the active landslide.

As previously reported, ground cracks immediately adjacent to the landslide widened a few inches after the initial landslide movement. Visual observation of the existing cracks adjacent to the main head scarp suggests that the material immediately adjacent to the scarp is moving or rotating into the graben area. We expect to see periodic calving of this material throughout the upcoming winter months. It is also likely that the main landslide mass will continue to move ocean-ward and likely accelerate during periods of heavy precipitation. No new significant ground cracks have been observed in the area between the fence and main landslide mass. These conclusions are preliminary and are subject to change as our studies develop.

### SUBTASK STATUS

The status of each subtask is listed below:

Subtask	Status
1. Health and Safety Plan	Complete
2. Geologic Mapping	Complete
3. Preliminary Report	Complete
4. Subsurface Exploration	Complete
5. Waste Handling and Management	Ongoing - 75% Complete
6. Geophysical Downhole Logging	Complete
7. Laboratory Testing of Samples	Ongoing - 25% Complete
8. Geologic Cross Sections	Complete
9. Stability Analysis	Ongoing - 5% Complete
10. Meetings	Ongoing - 45% Complete
11. Geotechnical Report	Ongoing - 10% Complete

### TASKS COMPLETED FOR THIS PERIOD

For this work period, tasks completed include:

- Geologic Mapping.
- Soil and drill cutting disposal analyses.
- Instrumentation reading dates shown in Tables 1 and 2. Instrumentation will be read on monthly basis for the subsequent months to monitor the landslide area for groundwater elevations and possible subsurface movement.
- Site observations for landslide movement during the weeks of 1/9/12, 1/16/12, and 1/23/12. Based on visual observations, no ground fractures have appeared at the fenced perimeter of the landslide area.
- Project Team Meetings with the City of Los Angeles BOE at the downtown office, and field meetings on site.
- Observations inside of fenced area for ground crack growth.

Mr. Mark Osborne  
City of Los Angeles  
February 3, 2012  
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SHANNON & WILSON, INC.

### TASKS IN PROGRESS

The following tasks are currently in progress:

- Reading of instrumentation installation in borings B-1, B-5, B-7, and B-9.
- Well sounding in borings B-3, B-6, and B-8.
- Laboratory Testing.
- Preliminary Slope Stability Analyses

### TASKS REMAINING

The following are the anticipated tasks remaining on the project as outlined in our proposal:

- Submit next status report.
- Slope Stability Analyses.
- Geotechnical Report Preparation.
- Weekly Meetings.

Respectfully,

SHANNON & WILSON, INC.



Dean G. Francuch, P.G., C.E.G.  
Associate

- Enc: Table 1 – Summary of Explorations and Instrumentation  
Table 2 – Groundwater Data  
Figure 1 – Site and Exploration Plan
- c: Mr. Christopher Johnson, City of Los Angeles (electronic copy only)  
Mr. Robert Hancock, City of Los Angeles

TABLE 1  
Summary of Explorations  
and Instrumentation

Boring Name	Exploration Information			Instrumentation		Inclinometer Cumulative Displacement								
	Drill Type	Status	Depth (feet)	Completion	Type (2)	Well/WVP	Install Date	Date Installed	Baseline Reading	12/28/11 Reading	1/4/12 Reading	1/11/12 Reading	1/18/12 Reading	1/25/12 Reading
B-1	Rotary Core (1)	Complete	130	11/29/11	VWP	11/29/11	11/29/11 (4)	11/29/2011 (4)	0.0	<0.1 in.	<0.1 in.	<0.1 in.	<0.1 in.	<0.1 in.
B-2	Bucket Auger	Complete	120	12/2/11	Drilling	-	-	-	-	-	-	-	-	-
B-3	Bucket Auger	Complete	120	12/6/11	Well (3)	12/22/11	-	-	-	-	-	-	-	-
B-4	Bucket Auger	Complete	100	12/8/11	Drilling	-	-	-	-	-	-	-	-	-
B-5	Bucket Auger (1)	Complete	121	12/15/11	VWP	12/16/11	12/16/11	12/16/11	0.0	<0.1 in.	<0.1 in.	<0.1 in.	<0.1 in.	<0.1 in.
B-6	Sonic Core	Complete	110	12/16/11	Well	12/16/11	12/16/11	12/16/11	-	-	-	-	-	-
B-7	Rotary Core (1)	Complete	118	12/14/11	VWP	12/16/11	12/16/11	12/16/11	0.0	<0.1 in.	<0.1 in.	<0.1 in.	<0.1 in.	<0.1 in.
B-8	Sonic Core	Complete	110	12/18/11	Well	12/18/11	12/18/11	12/18/11	-	-	-	-	-	-
B-9	Rotary Core (1)	Complete	120	12/20/11	VWP	12/21/11	12/21/11	12/21/11	0.0	<0.1 in.	<0.1 in.	<0.1 in.	<0.1 in.	<0.1 in.

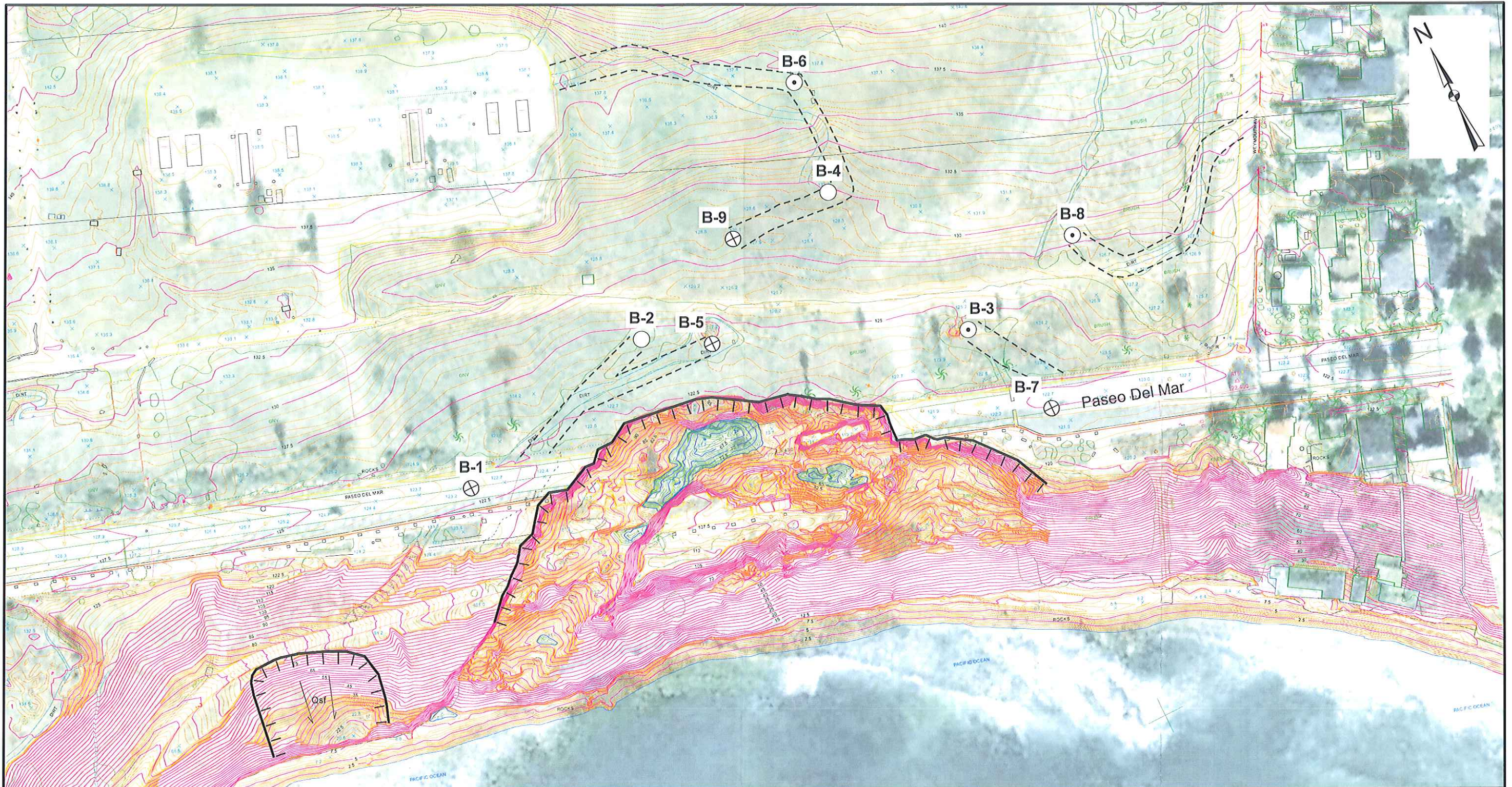
Notes:

- (1) Inclinometer installed in boring (Total of 4)
- (2) VWP = Vibrating Wire Piezometer
- (3) 8-inch diameter well installed
- (4) Baseline re-established 12/28/11

Well/ VWP	B-1		B-2		B-3		B-4		B-5		B-6		B-7		B-8		B-9	
	Elev. ~123 ft. VWP Elev. = 1.8		Elev. ~124.5 ft.		Elev. ~124.5 ft. Screened Elev. = 84.5 to 14.5		Elev. ~130 ft.		Elev. ~124 ft. VWP Elev. = 6.5		Elev. ~137 ft. Screened Elev. = 101.1 to 27		Elev. ~122.5 ft. VWP Elev. = 7.2		Elev. ~128 ft. Screened Elev. = 99 to 18		Elev. ~129 ft. VWP Elev. = 14.9	
Reading Date	Water Depth <sup>1</sup> (ft.)	Water Elevation (ft.)	Water Depth <sup>3</sup> (ft.)	Water Elevation (ft.)	Water Depth <sup>2</sup> (ft.)	Water Elevation (ft.)	Water Depth <sup>3</sup> (ft.)	Water Elevation (ft.)	Water Depth <sup>1</sup> (ft.)	Water Elevation (ft.)	Water Depth <sup>2</sup> (ft.)	Water Elevation (ft.)	Water Depth <sup>1</sup> (ft.)	Water Elevation (ft.)	Water Depth <sup>2</sup> (ft.)	Water Elevation (ft.)	Water Depth <sup>1</sup> (ft.)	Water Elevation (ft.)
11/29/2011	60.0 *	63.0																
12/2/2011			88.0 *	36.5														
12/8/2011					98.0 *	26.5	55.0 *	75.0										
12/16/2011									68.0 *	56.0								
12/30/2011					99.1	25.4					50.5	86.5			76.0	52.0		
1/4/2012	63.6	59.4							63.8	60.2			95.4	27.1			86.5 (4)	42.5
1/11/2012	63.8	59.2			98.9	25.6			64.0	60.0	50.3	86.7	95.5	27.0	76.1	51.9	92.4	36.6
1/18/2012	63.5	59.5			99.4	25.1			63.8	60.2	51.0	86.0	95.3	27.2	76.1	51.9	93.0	36.0
1/25/2012	63.7	59.3			99.1	25.5			64.0	60.0	51.4	85.6	95.3	27.2	76.6	51.4	93.2	35.8

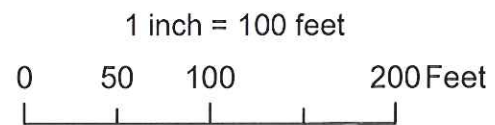
Notes:

1. Measured using vibrating wire piezometer.
2. Measured using electronic well sounder.
3. (\*) Measured during drilling.
4. Suspected Instrument Error



**LEGEND**

- Boring
- ⊙ Groundwater Well
- ⊕ Inclinometer
- ▬ Head Scarp
- - - - - Approximate Access Routes



White Point Landslide  
San Pedro District  
Los Angeles, California

**SITE AND EXPLORATION PLAN**

January 2012

51-1-10052-012

**SHANNON & WILSON, INC.**  
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

FIG. 1