SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

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October 9, 2012

City of Los Angeles
Department of Public Works
Bureau of Engineering, Geotechnical Engineering Group
1149 S. Broadway, Suite 120
Los Angeles, California 90015

Attn: Mr. Christopher F. Johnson

RE: GEOTECHNICAL DESIGN REPORT, INTERIM GRADING PLAN, WHITE POINT LANDSLIDE, W.O. E1907483, TASK ORDER SOLICITATION 11-087 SAN PEDRO DISTRICT, LOS ANGELES, CALIFORNIA

This letter presents our geotechnical engineering recommendations for the interim grading at the White Point Landslide. Major movement occurred on the White Point Landslide between June and November 2011. The White Point Landslide and surrounding area is shown on the Vicinity Map, Figure 1. We issued our final geotechnical report (Final Report) for the landslide, dated August 15, 2012, which includes the site surface and subsurface conditions, the landslide chronology and structure, results of analyses, and recommendations for repairs.

The Final Report presented immediate improvements and conceptual long-term repair options for the landslide area. The immediate improvements included:

- Dewatering by installing drains;
- Cleaning and shaping of the landslide area, and;
- Installing a slope anchor system.

The interim grading presented herein is part of the cleaning and shaping recommendations of the landslide area. We recommend that the steep headscarp on the perimeter of the landslide and on the north side of the landslide mass "island" be shaped to reduce the occurrence of scarp failures. Additionally, we recommend removing debris such as pavement and pipe sections, cleaning and shaping to eliminate depressions in the graben of the landslide to expedite surface water runoff.

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From our meeting with City representatives (City) on September 12, 2012, the City requested an interim shaping and grading plan of the landslide scarp and graben areas. Because of permitting constraints, the City has elected to complete selected cleaning and shaping as part of the interim grading plan described below. We incorporated responses to comments generated by perspective grading contractors during a pre-proposal meeting with City representatives on October 3 and 9, 2012.

Our services are being provided under to the City task order solicitation (TOS) dated September 21, 2012. The immediate improvements are described in our proposal addendum No. 1 (Proposal) response to the TOS dated September 26, 2012. We retained Wagner Engineering & Survey, Inc. of Los Angeles (Wagner) to provide civil and survey support.

PROJECT DESCRIPTION

Wagner provided the following interim grading plan (Plan) sheets on October 9, 2012:

- Sheet C-0.0 – General Notes and Stations;
- Sheet C-1.0 – Best Management Practices;
- Sheet C-2.0 – Shaping and Drainage Plan;
- Sheet C-3.0 – Temporary Storm Drain Pipe Profile; and
- Sheet C-4.0 – Erosion Control Plan.

The Plan sheets describe the proposed grading consisting of:

- Constructing an access road down to the graben from an existing access road west of the landslide area;
- Removing asphalt paving, concrete pavement sections, utility piping and debris from the landslide area, and storm drain pipe sections from the beach area below the landslide;
- Regrading or shaping of the graben and head scarp of the landslide area;
- Constructing a temporary drain system in the landslide area to collect surface water runoff and direct it to the beach below, and;
- Installing a temporary sand bag barrier around the headscarp of the landslide area, and the inlet to the drainage structure.

SUBSURFACE CONDITIONS

General

The soil and bedrock materials likely to be encountered at the site consist of artificial fill, landslide deposits, terrace deposits, and bedrock of the Upper Monterey Formation. Detailed descriptions of each geologic unit are provided in Section 5.3 of our Final Report and are shown on the Site Plan, Plate 1. A brief description of the relevant geologic units likely to be encountered during the interim grading and their probable behavior during grading are presented below. Recommendations for grading are provided in the subsequent "Recommendations" section.

Artificial Fill (af)

Fill was observed during geologic mapping within the headscarp and graben of the landslide. A thin layer of aggregate base fill underlies Paseo del Mar. Fill is also present in the backfill material for utility trenches and as retaining wall backfill at the east end of the landslide area. The fill in the former drainage behind the retaining wall is composed of silty to gravelly sand, with shale clasts in a silty sand matrix.

The fill was generated as a result of past grading operations and, to our knowledge, was not compacted under the observation of a geotechnical engineer. Therefore, fill exposed during the interim grading is likely to be weak and will ravel and/or fail where exposed in steep cuts or temporary excavations. Excavation of the existing fill is should be achievable using standard grading equipment and likely can be reused as new fill.

Landslide Deposits (Qls)

Landslide deposits on site are composed of the disturbed fill, terrace deposits, and bedrock within the landslide mass. The landslide deposits are characterized as a heterogeneous mixture of silt, sand, gravel, and boulders comprised principally of material derived from the Altamira Shale of the Monterey Formation (described below). Blocks of intact Altamira Shale and terrace deposit soil are present within the main body of the landslide mass (e.g., the "island.") The Altamira Shale blocks observed within the landslide debris are characterized by numerous, dilated, orthogonal fractures. The landslide deposits in most cases have been disturbed and

excavation using standard grading equipment is likely practical. Increasing resistance to excavation is possible for the more intact blocks within the landslide mass, depending on bedrock fracturing. Excavation of the intact, less fractured bedrock within the landslide mass could require a bucket with teeth. Most landslide deposits should readily breakdown for use as fill; however, the more intact, less fractured Altamira Shale could require additional mechanical effort. Refer to the Altamira Shale section below for additional grading characteristics on the relatively intact shale, sandstone and siliceous beds material units within the landslide mass.

Terrace Deposits (Qt)

The terrace deposits encountered in the explorations and exposed at the top of the scarp range in thickness between 4.5 and 9.0 feet. The deposits consist of medium stiff to very stiff, dark olive-brown to brownish-black, slightly gravelly to gravelly, slightly sandy to sandy, silty clay with brownish-yellow angular siltstone clasts to 6-inch-diameter that increase in abundance with depth. Scattered clayey silt and silty sand zones also exist within the terrace deposits.

Excavation of the terrace deposits is likely achievable using standard equipment. The terrace deposits are also suitable for placement as fill with some processing.

Altamira Shale Member-Monterey Formation (Tma)

The Altamira Shale member of the Monterey Formation underlies the terrace deposits within the exposed scarp. Where encountered by our borings, the Altamira Shale comprises clayey siltstone, silty sandstone, silty claystone, limey to silicified siltstone, sandstone, and bentonite beds. The rock is typically thinly bedded to laminated, and contains some tar along fractures and in brecciated zones. Gypsum, caliche, and minor sulfur deposits exist along fractures within the upper oxidized zone. The upper, exposed shale is highly weathered and the weathering decreases with depth. Siliceous layers are present at depths mostly 50 feet below the road surface grades or deeper.

Excavating fractured and/or highly weathered Altamira Shale should be practical using standard grading equipment. Harder siliceous layers within the bedrock could require additional effort to excavate, including buckets with teeth or bulldozers with rippers. Where encountered in our nearby borings, the siliceous layers are typically less than 5 feet thick. In our opinion, the

siliceous layers encountered within the scarp and relatively intact landslide deposits (described above) should break off under repeated impacts with an excavation bucket. Additional mechanical effort, such as using an impact hammer, may be necessary for siliceous units exposed in the landslide graben.

The non-siliceous, highly weathered sandstone and claystone beds and fractured/ brecciated units should breakdown for use as fill. The harder siliceous and less weathered beds will likely require processing for use as fill with an appropriate gradation, e.g., removing or crushing large cobbles and boulders. Bentonite beds and tar zones should not be used as fill.

Groundwater

Borings B-1, B-2, B-3, B-5, and B-7 are located between 50 and 120 feet upslope of the scarp as shown in our Final Report. We installed monitoring wells and/or vibrating wire piezometers (VWPs) in all borings except Boring B-2. We have taken measurements of the groundwater wells and/or VWPs starting in January 2012. We do not have subsurface explorations or groundwater measurements within the landslide mass (e.g., graben area).

Table 1 below summarizes the highest groundwater elevations recorded in these borings through September 28, 2012. The intent of the table is to illustrate the potential for encountering groundwater while excavating within the graben area. The site hydrogeology is complex, with multiple confined aquifers. These aquifers have been disrupted by the landsliding; therefore, groundwater levels in the graben area are unpredictable. Groundwater levels will fluctuate in response to recent rainfall, seasonal variations, and other factors. Refer to the Final Report for additional details about the groundwater monitoring program at the site.

TABLE 1
GROUNDWATER ELEVATIONS FROM BORINGS
ADJACENT TO THE LANDSLIDE AREA

Boring	Highest Groundwater Elevation	
	Measurement	Date
B-1	+77.6 feet	07/15/12
B-2[1]	+68 feet	12/02/11
B-3	+26.4 feet	05/29/12
B-5	+71.8 feet	07/24/12
B-7	+25.0 feet	07/20/12

Note: 1) Groundwater measurement taken immediately after drilling. No wells or VWPs installed at this boring.

RECOMMENDATIONS

General

The following sections present our review of the Plan and construction recommendations for the proposed grading. The Plans have the following geotechnical-related construction elements:

- Constructing a temporary access road;
- Removing unsuitable materials and debris from the landslide area;
- Regrading the bottom of the graben area of the landslide;
- Installing drainage structures and piping;
- Regrading the upper portion of the headscarp area; and
- Establishing a temporary sand bag barrier.

Grading

Temporary and Long Term Excavations

Proposed temporary excavations include a construction access road. Proposed long term excavations will include shaping within the graben to promote drainage and removing unstable soil in the upper 10 feet of the scarp.

Plan sheet C-2.0 and Plate 1 shows the proposed construction access road entering on the west side of the landslide from an existing access path. A temporary excavation through the scarp to access the graben includes cut slopes at 0.5Horizontal:1Vertical (0.5H:1V). Grading work should be avoided on the slope located south of the existing access road.

Graben

Excavation in the graben will be necessary to promote surface drainage, which should reduce infiltration and increase stability. The excavated material will be used to fill the depressions within the graben. The intent of the graben grading is to create a surface drainage slope towards the pipe inlet near the temporary access road. Grading within the graben should be balanced such that mass import or export of the landslide deposits within the graben should not be necessary.

Scarp and Access Road

Re-sloping of the scarp should be completed from above the scarp if possible, to reduce the potential for unstable scarp material falling onto equipment or personnel. The scarp slope is proposed at 1H:1V. Where the scarp intersects Paseo del Mar, the existing asphalt paving will need to be cut and removed prior to grading. The vertical slopes adjacent to the scarp faces and within the landslide should not be considered stable where heavy equipment is immediately adjacent.

The access road and scarp excavations will likely be within the terrace deposits and upper weathered Altamira Shale. Landslide deposits will be encountered in the graben. Temporary excavation slopes for the access road should be the responsibility of the Contractor. The Contractor is present at the site continuously and is best able to observe changes in site and soil conditions and to monitor the performance of excavations. The temporary slopes for the access road should conform to applicable local, state, and federal safety regulations. The long term scarp and graben excavation slopes will be completed to improve safety by removing potentially unstable ground near the top of the existing near-vertical slopes and facilitate surface drainage, respectively.

For the temporary access road, steeper slopes may be achievable depending on site conditions and construction time. Flatter slopes or slope protection could be required where seepage is present or during wet weather conditions. Plastic sheeting could be necessary to protect the slopes from erosion and raveling in wet weather. It should be expected that the cut face could experience some sloughing and raveling. The ground surface above the scarp area could be disturbed from the landslide movement. While we do not anticipate failures above the temporary access road excavation, additional measures to stabilize the slope could be required should movement be observed on the slope face, City survey marks on Paseo del Mar, and/or detected at the inclinometer at Boring B-1. We recommend a contingency for additional grading be considered for the temporary slopes at the access road.

Debris Removal

During site grading, asphalt paving, concrete debris, concrete piping, utility piping, and debris shall be removed from the graben area and "island" area of the landslide as noted on the Plans. The material identified includes storm drain pipe sections (54 to 84 inches in diameter), steel water pipe, an 8-inch vitrified sewer line, and copper electrical wire. We have not verified if the pipes contain asbestos wrapping or coatings.

Concrete storm drain piping will need to be removed from the beach area below the landslide. Because of permitting constraints, we understand no heavy equipment will be allowed on the beach area. The concrete piping should be removed using equipment (such as cables) worked by equipment from the landslide graben, the access road, or Paseo del Mar. All removed asphalt, concrete, piping and other debris will need to be disposed of off-site.

Utility pipes below Paseo del Mar overhang the scarp. We recommend removing the utility pipes during the scarp excavation. The exposed pipes at the sloped scarp face should be backfilled or filled with cement grout to prevent entry. For exposed utility pipes on the island, we recommend that these pipes be removed or filled with grout.

On the east side of the landslide, the existing retaining wall debris should be removed. The intact portion of the retaining wall should remain with the western limits at the first intact soldier pile.

Fill Material

Fill consisting largely of landslide deposits will be needed for positive surface drainage in the graben as noted on the Plans. Because of potential stability issues with the "island," we recommend spoils generated from the scarp excavation not be placed as fill within the graben. Wagner estimates approximately 1,100 cubic yards of spoils will be exported from the site.

The landslide deposits are suitable for fill material with the exceptions of bentonite and tar beds in the Altamira Shale fragments described previously. We do not anticipate significant quantities of these potentially unsuitable materials to be generated from the excavations. Heavy ripping may be needed when excavating the siliceous materials that could be present in the excavation, particularly at the access road. Where siliceous beds are encountered and cannot be readily broken down, we recommend they be removed from site, buried in deeper fill areas, or used as armoring/check dams for an energy dissipater. The fill materials should be placed in nominal 1-foot thick lifts and tracked into place with a dozer or other suitable heavy-equipment to adequately compact the material. Water should be applied to minimize dust during the grading operations. The graben area of the landslide should be leveled and graded at a minimum 2 percent gradient to drain to the sedimentation basin and pipe outlet per the Plans.

Slope Planting

We recommend vegetation be established for all cut and fill slopes with drought resistant, deep-rooting, native vegetation. In our opinion, the proposed 1H:1V cut slopes may perform in a satisfactory manner if they are hydro-seeded with a native on-site vegetation mix and covered with jute netting. We suggest a landscape architect be consulted to provide recommendations for plant selection, installation procedures, and plant care requirements.

Drainage

We recommend constructing a temporary drainage system installed at the west edge of the graben area to collect surface water runoff and direct it to a discharge point with an energy dissipation system. The drainage system may consist of a sedimentation basin, catch basin inlet structure, and high-density polyethylene (HDPE) discharge pipe. The locations of these features are shown on the Plan.

A sedimentation basin should be constructed at the inlet of the pipe to collect silt generated from the newly-graded graben and scarp areas. The purpose of sedimentation basin is to reduce the potential for clogging of the HDPE pipe and sediment discharge at the beach.

The HDPE pipe should be placed on the existing ground surface. We recommend restraining the HDPE pipe to prevent the joints from opening up if ground movement occurs, and from the weight of the pipe and stormwater runoff. Because of the potential for ground movement, we recommend that the pipe not be buried. Restraints could consist of cables that parallel the HDPE pipe with pipe clamps below each joint. The cables should be attached to anchors above the inlet that have sufficient capacity for the anticipated loads along the HDPE pipe. The drain pipe should consist of 15-inch diameter PVC or HDPE piping and should be installed in accordance with the manufacturer's specifications. A minimum 2 percent gradient should be maintained in the drain pipes. All drains should be surveyed by the Project Engineer to establish line and grade during grading, and for future location reference.
We understand no equipment will be allowed onto the slope south of the existing access road in the landslide area; therefore, the drainage pipe and restraints will need to be installed by hand. An energy dissipater will need to be constructed at the drainage outlet at the beach above high tide levels. The energy dissipater should consist of rock rip-rap of sufficient size to not be dislodged from the drain runoff and storm surges from the ocean.

GEOTECHNICAL OBSERVATION

We should observe the grading operations. Our representative should be on site at any time construction or grading activities are occurring in the landslide graben or on the landslide scarp. Our representative should have at least the following duties:

- Observe the removal of the asphalt paving, concrete and debris;
- Observe excavations so that any necessary engineering modifications based on variations in the soil/rock conditions encountered can be made;
- Observe the exposed subgrade in areas to receive fill and in areas where excavation has resulted in the desired finished subgrade;
- Observe cut slopes and geologic exposures during grading to ascertain that conditions conform to those anticipated in the report;

- Observe the drain installation.

LIMITATIONS

The analyses, conclusions, and recommendations presented in this report are based on the site conditions as observed during our reconnaissance and explorations. We assume that the soil and rock conditions observed in the explorations are representative of the subsurface conditions in all areas of the site; i.e., the subsurface conditions everywhere are not significantly different from those observed in the borings. If, during construction or additional explorations, subsurface conditions different from those described in our letter report are observed or appear to be present, we should be advised at once so that we can review these conditions and reconsider our recommendations where necessary. If there is a substantial lapse of time between the submission of this report and the start of construction, or if conditions have changed due to natural events or construction operations at or near the site, we recommend that this report be reviewed to determine the applicability of the conclusions and recommendations considering the changed conditions and time lapse.

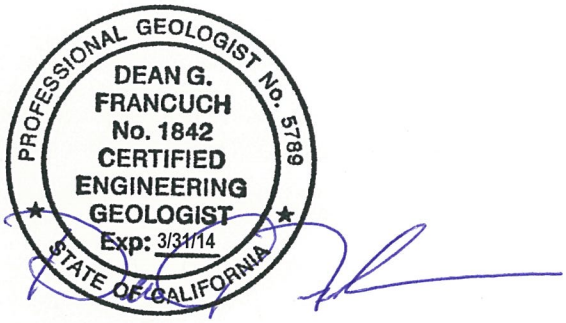
This report was prepared for the exclusive use of the City Engineer in the design of the interim grading. It should be made available to prospective contractors for information on factual data only and not as a warranty of subsurface conditions. Unanticipated conditions are commonly encountered and cannot be fully determined by reconnaissance and subsurface explorations. Such unexpected conditions frequently require that additional expenditures be made to achieve a properly constructed project. Some contingency fund is recommended to accommodate such potential extra costs.

We also suggest a meeting with you and your contractor to discuss earthwork, drainage requirements, and other aspects of the roadway construction.

SHANNON & WILSON, INC.

Shannon & Wilson, Inc. has prepared the document, "Important Information About Your Geotechnical/Environmental Report," in the Appendix to assist you and others in understanding the use and limitations of this report.

SHANNON & WILSON, INC.



R. Travis Deane, P.E., G.E.
Senior Associate

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

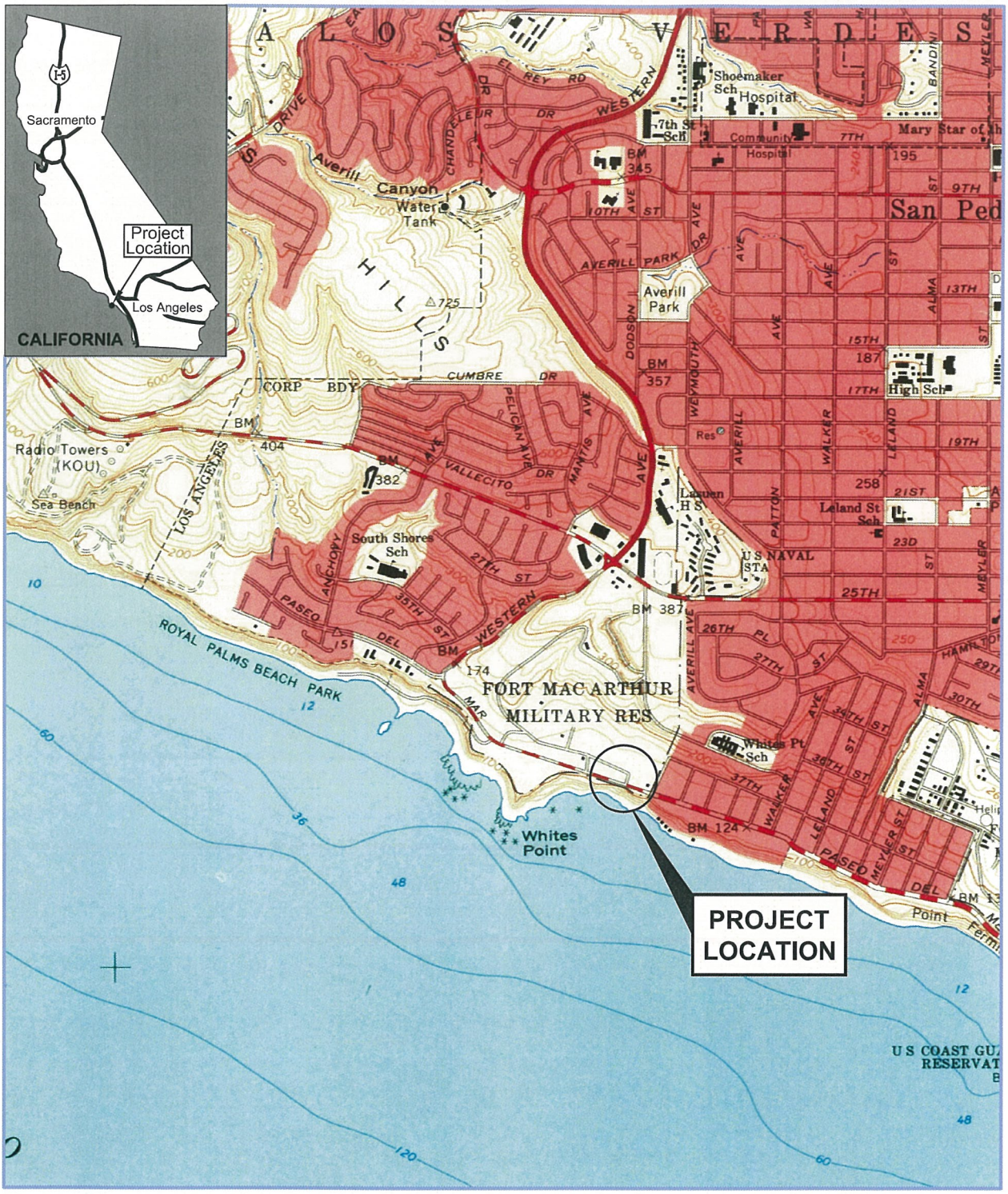
DO:DGF:RTD/dgf

Geologic items related to geology, geologic setting, stratigraphy, and groundwater were prepared by or prepared under the direct supervision of Dean G. Francuch, P.G., C.E.G.

Geotechnical items related to the geotechnical laboratory testing, stability analyses, and conceptual engineering recommendations were prepared by or prepared under the direct supervision of R. Travis Deane, P.E., G.E.

c: Mr. Mark Oborne

Enc: Figure 1 – Vicinity Map
Plate 1– Site Plan
Appendix – Important Information About Your Geotechnical/Environmental Report



0 1000 2000 4000

SCALE: 1"=2000'

NOTE

Map adapted from 1:24,000 USGS topographic map of San Pedro, CA quadrangle, dated 1964.

White Point Landslide
San Pedro District
Los Angeles, California

VICINITY MAP

October 2012 51-1-10052-041

SHANNON & WILSON, INC. GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

FIG. 1

Filename: I:\PROJECTS\10052 San Pedro Landslide\041 Interim Grading\Graphics\FIG 1 - VICININTY MAP.dwg Date: 10-09-2012 Login: Louis Larios

PIPE SPECIFICATION:

INSTALL TEMPORARY 15" HIGH DENSITY POLYETHYLENE (HDPE) CORRUGATED PIPE, ADS 15" N-12 WT PIPE OR EQUAL

LINETYPE LEGEND

- ACCESS PATH
- CENTERLINE
- EXISTING CONTOURS
- GRADE BREAK
- PROPOSED CONTOURS MAJOR
- PROPOSED CONTOUR MINOR
- RIGHT OF WAY LINE
- STORM DRAIN PIPE
- SLOPE

LEGEND:

ELEVATION	EL
STATION	STA
GROUND	GRD
FLOWLINE	FL
LOW POINT	LP
FINISH SURFACE	FS
INVERT	INV
GRADE BREAK	GB
STORM DRAIN	SD
BASE LINE	BL
OFFSET LEFT	O/L
OFFSET RIGTH	O/R

CONSTRUCTION NOTES:

1. CONSTRUCT TEMPORARY ACCESS.
2. CUT AND SHAPE TO 1H:1.5V SLOPE.
3. REMOVE EXISTING ASPHALT AND CONCRETE DEBRIS.
4. SHAPE GROUND UNDER DEBRIS REMOVAL AREA.
5. SHAPE TO 1H:1V SLOPE, VARIABLE HORIZONTAL LENGTH.
6. EXISTING CONCRETE PIPE IN ISLAND SLOPE TO REMAIN. CAP PIPE END.
7. REMOVE AND HAULAWAY EXISTING UTILITIES AND CONCRETE PIPES
8. JOIN EXISTING.
9. INSTALL TEMPORARY FIBER FILTRATION TUBE
10. INSTALL TEMPORARY 15" STORM DRAIN HIGH DENSITY POLYETHYLENE (HDPE) CORRUGATED PIPE, SEE PROFILE ON SHEET C-3.0
11. INSTALL TEMPORARY ENERGY DISSIPATOR, PROVIDE RIP-RAP, 36" STONE, (D50) SIZE.
12. EXISTING PALM TREE TO REMAIN. PROTECT IN PLACE
13. REMOVE EXISTING PALM TREE.
14. REMOVE EXISTING CONCRETE PIPE DEBRIS. NO HEAVY EQUIPMENT ON BEACH. CONTRACTOR TO REMOVE VIA CABLE SYSTEM OR SIMILAR.
15. CLEAR VEGETATION 8 FEET WIDTH ADJACENT TO THE 1:1 SLOPE.
16. CUT VEGETATION 6" TO 8" HEIGHT FOR A WIDTH OF 17 FEET ADJACENT TO THE 8 FEET SPECIFIED IN NOTE 15 FOR EQUIPMENT ACCESS PATH
17. REMOVE POWER POLE.
18. CONSTRUCT CONCRETE COLLAR, SEE DETAIL 1, SHEET C-3.0
19. REMOVE EXISTING DAMAGED PORTION OF RETAINING WALL.
20. REMOVE CONCRETE PIPE DEBRIS.
21. DESTABILIZED CONSTRUCTION ENTRANCE

EXPLANATION

- af — Artificial Fill
- Qb — Beach Deposits
- Qal — Alluvium
- Qt — Terrace Deposits
- Tma — Monterey Formation, Alta Mira Shale
- Minor Fold Hinge Line
- Bedding; Data From City of Los Angeles; Buried where Dotted
- Bedding
- Fault; Data From City of Los Angeles; Buried Where Dotted
- Fault
- Joint
- Shear
- Slide Plane
- ? Geologic Contact;Approximate Where Dashed, Inferred Where Queried
- Approximate Head Scarp of Landslide Dotted where Buried
- ? Fault Trace; Approximate Where Dashed, Inferred Where Queried,
- Seep,
- Axial Trace of Synclinal Fold, Arrow on Trace Indicates Direction of Plunge; Dotted Where Concealed by Surficial Sediments
- Boring; S&W
- Groundwater Well;S&W
- Inclinometer & Vibrating Wire Piezometer; S&W
- Approximate Location of Previous Explorations, I.T., 1996

CURVE TABLE ALIGNMENT			
CURVE #	RADIUS	LENGTH	DELTA
C1	50.00'	15.93'	18°14'56"
C2	50.00'	37.25'	42°40'54"
C3	80.00'	29.21'	20°55'00"
C4	80.00'	49.59'	35°31'03"
C5	50.00'	15.57'	17°50'12"
C6	50.00'	15.57'	17°50'12"

PLAN VIEW

SCALE: 1" = 20'

White Point Landslide
San Pedro District
Los Angeles, CA

SITE PLAN

October 2012 — 51-1-10052-041

SHANNON & WILSON, INC. GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS — PLATE 1

WES WAGNER ENGINEERING & SURVEY, INC.
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818.892.6565 • FAX 818.892.6401 • mail@wesinc.org • www.wesinc.org

CITY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

GARY LEE MOORE, P.E. CITY ENGINEER

DESIGN GROUP	
ENGINEER:	STEPHANIE WAGNER
DESIGNED BY:	FELIX MIRANDA/DAVID BEJARANO
DRAWN BY:	DAVID BEJARANO
CHECKED BY:	FELIX MIRANDA
APPROVED BY:	

LIC. NO. C-046979 — DATE: 10-08-12

THIS PLAN WAS ELECTRONICALLY SIGNED AND STAMPED.

REGISTERED PROFESSIONAL ENGINEER — MATTHEW A. BAXTER — No. 024679 — CIVIL — STATE OF CALIFORNIA

NO.	REVISIONS:	DATE:	BY:
1			

STRUCTURE NO.

INDEX NO.

SHEET TITLE: SHAPING AND DRAINAGE PLAN

PROJECT: WHITE POINT LAND SLIDE

ADDRESS: PASEO DEL MAR BETWEEN S. WEYMOUTH AVENUE AND PACIFIC AVENUE, S. WEYMOUTH AVENUE, LOS ANGELES, CA 90732

VERTICAL CONTROL: FB 40731 PG 277-281, NGVD1929, 1985 ADJ
HORIZONTAL CONTROL: FB 40731 PG 277-281

WORK ORDER NO. E1907483

DRAWING NO. C-2.0

SHEET 3 OF 5 SHEETS

REVISION DATES (DESIGN STAGE ONLY)

THE CITY OF LOS ANGELES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

Sheet Version 3.0

APPENDIX

IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL/ENVIRONMENTAL REPORT

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

Attachment to and part of Report 51-1-10052-041

Date: October 9, 2012
To: City of Los Angeles
Department of Public Works
Bureau of Engineering
Attn: Mr. Christopher F. Johnson

Important Information About Your Geotechnical/Environmental Report

CONSULTING SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.

Consultants prepare reports to meet the specific needs of specific individuals. A report prepared for a civil engineer may not be adequate for a construction contractor or even another civil engineer. Unless indicated otherwise, your consultant prepared your report expressly for you and expressly for the purposes you indicated. No one other than you should apply this report for its intended purpose without first conferring with the consultant. No party should apply this report for any purpose other than that originally contemplated without first conferring with the consultant.

THE CONSULTANT'S REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.

A geotechnical/environmental report is based on a subsurface exploration plan designed to consider a unique set of project-specific factors. Depending on the project, these may include the general nature of the structure and property involved; its size and configuration; its historical use and practice; the location of the structure on the site and its orientation; other improvements such as access roads, parking lots, and underground utilities; and the additional risk created by scope-of-service limitations imposed by the client. To help avoid costly problems, ask the consultant to evaluate how any factors that change subsequent to the date of the report may affect the recommendations. Unless your consultant indicates otherwise, your report should not be used: (1) when the nature of the proposed project is changed (for example, if an office building will be erected instead of a parking garage, or if a refrigerated warehouse will be built instead of an unrefrigerated one, or chemicals are discovered on or near the site); (2) when the size, elevation, or configuration of the proposed project is altered; (3) when the location or orientation of the proposed project is modified; (4) when there is a change of ownership; or (5) for application to an adjacent site. Consultants cannot accept responsibility for problems that may occur if they are not consulted after factors, which were considered in the development of the report, have changed.

SUBSURFACE CONDITIONS CAN CHANGE.

Subsurface conditions may be affected as a result of natural processes or human activity. Because a geotechnical/environmental report is based on conditions that existed at the time of subsurface exploration, construction decisions should not be based on a report whose adequacy may have been affected by time. Ask the consultant to advise if additional tests are desirable before construction starts; for example, groundwater conditions commonly vary seasonally.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or groundwater fluctuations may also affect subsurface conditions and, thus, the continuing adequacy of a geotechnical/environmental report. The consultant should be kept apprised of any such events, and should be consulted to determine if additional tests are necessary.

MOST RECOMMENDATIONS ARE PROFESSIONAL JUDGMENTS.

Site exploration and testing identifies actual surface and subsurface conditions only at those points where samples are taken. The data were extrapolated by your consultant, who then applied judgment to render an opinion about overall subsurface conditions. The actual interface between materials may be far more gradual or abrupt than your report indicates. Actual conditions in areas not sampled may differ from those predicted in your report. While nothing can be done to prevent such situations, you and your consultant can work together to help reduce their impacts. Retaining your consultant to observe subsurface construction operations can be particularly beneficial in this respect.

A REPORT'S CONCLUSIONS ARE PRELIMINARY.

The conclusions contained in your consultant's report are preliminary because they must be based on the assumption that conditions revealed through selective exploratory sampling are indicative of actual conditions throughout a site. Actual subsurface conditions can be discerned only during earthwork; therefore, you should retain your consultant to observe actual conditions and to provide conclusions. Only the consultant who prepared the report is fully familiar with the background information needed to determine whether or not the report's recommendations based on those conclusions are valid and whether or not the contractor is abiding by applicable recommendations. The consultant who developed your report cannot assume responsibility or liability for the adequacy of the report's recommendations if another party is retained to observe construction.

THE CONSULTANT'S REPORT IS SUBJECT TO MISINTERPRETATION.

Costly problems can occur when other design professionals develop their plans based on misinterpretation of a geotechnical/environmental report. To help avoid these problems, the consultant should be retained to work with other project design professionals to explain relevant geotechnical, geological, hydrogeological, and environmental findings, and to review the adequacy of their plans and specifications relative to these issues.

BORING LOGS AND/OR MONITORING WELL DATA SHOULD NOT BE SEPARATED FROM THE REPORT.

Final boring logs developed by the consultant are based on interpretation of field logs (assembled by site personnel), field test results, and laboratory and/or office evaluation of field samples and data. Only final boring logs and data are customarily included in geotechnical/environmental reports. These final logs should not, under any circumstances, be redrawn for inclusion in architectural or other design drawings, because drafters may commit errors or omissions in the transfer process.

To reduce the likelihood of boring log or monitoring well misinterpretation, contractors should be given ready access to the complete geotechnical engineering/environmental report prepared or authorized for their use. If access is provided only to the report prepared for you, you should advise contractors of the report's limitations, assuming that a contractor was not one of the specific persons for whom the report was prepared, and that developing construction cost estimates was not one of the specific purposes for which it was prepared. While a contractor may gain important knowledge from a report prepared for another party, the contractor should discuss the report with your consultant and perform the additional or alternative work believed necessary to obtain the data specifically appropriate for construction cost estimating purposes. Some clients hold the mistaken impression that simply disclaiming responsibility for the accuracy of subsurface information always insulates them from attendant liability. Providing the best available information to contractors helps prevent costly construction problems and the adversarial attitudes that aggravate them to a disproportionate scale.

READ RESPONSIBILITY CLAUSES CLOSELY.

Because geotechnical/environmental engineering is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, consultants have developed a number of clauses for use in their contracts, reports and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where the consultant's responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

The preceding paragraphs are based on information provided by the
ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland

1/2010