

Exhibit C to Mutual Permit
North Slope Surface Drainage Monitoring and Inspection Plan
San Francisco Veterans Affairs Medical Center

Introduction

A Stormwater System Monitoring and Inspection Plan of a newly installed storm drainage system associated with the North Slope Stabilization Project will be implemented by the San Francisco Veterans Affairs Medical Center ("SF VAMC") after the completion of construction of the North Slope Stabilization Project. This Stormwater System Monitoring and Inspection Plan shall be applied to the four surface-mounted drainage piping systems and outfall structures installed as part of the North Slope Stabilization Project down slope of the new retaining walls (See attached Improvement Plan).

5-year Monitoring Plan

The Stormwater System Monitoring and Inspection Plan shall be performed four times a year in February, May, September, and one inspection shall occur during a major late fall storm event, approximately early or mid December (to be confirmed mutually by SF VAMC Engineering staff and National Park Service, Golden Gate National Recreation Area ("NPS or GGNRA") Park Hydrologist. The plan includes slope, pipe, and energy dissipater monitoring and inspection. The Architect and Engineering (A/E) firm contracted by SF VAMC to develop and oversee the 5-Year Monitoring Plan shall provide written reports for each visit as well as a yearly report. The following includes the detailed tasks:

Monitoring

1. Place indelible marks on each side of each slip joint (detailed in Detail 8/C9.2.) Drawing detail will be provided by the VA COTR. Photograph the marks and record the distance between marks on a suitable form.
2. Photograph the outfall piping at the invert of each manhole, the outfall structures and the area immediately down slope within 50 feet including inspection of El Camino del Mar trail, the Coastal Trail, and connecting trails below the outfalls as shown on the attached trail map. Label and date each photograph. Inspect the areas most susceptible to erosion.
3. Storm System Labeling-
Using either the maps provided by the SF VAMC, or a schematic created by the contracted A/E firm, prepare a map which provides nomenclature for each of the storm system elements to be monitored (Manhole #1, 2, 3; Outfall 1-Joint #a, etc). SF VAMC will review and approve map before the first monitoring session. SF VAMC will provide NPS with the approved map.

Inspection

1. Open each manhole and inspect the condition of the outfall piping where it exits the manhole. Compare the condition of the outfall piping with the baseline photographs.

2. Measure and record the distance between the monitoring points at each slip joint.
3. Inspect the condition of soil at each slip joint for any signs of leakage from the joint and evidence of surface erosion.
4. Inspect the condition of each outfall structure for any cracking or other signs of ground deformation.
5. Inspect the condition of the area fifty (50) feet down slope or to and including the Coastal Trail, whichever is greater of the outfall structures for signs of surface erosion.
6. Prior to leaving the inspection site, the inspector shall briefly meet with the SF VAMC Engineering Service and debrief them as to the results of the inspection.

Reporting

1. Report the results of each inspection. Include date of inspection, name of inspector, identification of each element of the system inspected, and conditions noted. Include measurements of the monitoring points, detailed descriptions of any changed conditions noted, labeled photographs of changed conditions, and any repairs recommended in accordance with the above requirements. The report will also include a statement regarding observations that may be indicative of a site condition that could exacerbate destabilization of down slope slide masses off site. The report shall be submitted to the SF VAMC Engineering Service within three (3) weeks of the date of the inspection.
2. Inspections that result in discovery of imminent slope destabilization will be reported immediately to the SF VAMC Engineering Service, who will then notify NPS Park Hydrologist and General Superintendent as soon as possible. SF VAMC will separately report to NPS and provide 5 to 10 business days for NPS to review and approve proposed repairs prior to implementation. SF VAMC will provide confirmation on any recommended repairs that have been completed.
3. Prepare a yearly report that summarizes the results of the seasonal February, May, September, and December inspections. Include in the yearly report each seasonal inspection report and a summary of conditions. If any issues are identified, include proposed recommendations with estimated costs to repair. The yearly report shall be due within thirty (30) calendar days following the May inspection. The yearly report will be forwarded to the NPS no later than June 30th each year by the SF VAMC Engineering Service.

Professional Licensing

1. The A/E who prepares the submissions shall be a CA Geotechnical Engineer or Engineering Geologist licensed in the State. A/E firm shall maintain all professional engineering licensing, certifications, and accreditation information, along with any other credentials and qualifications for all workers involved in this project, and provide copy of such to the SF VAMC and NPS upon request.

2. The professional seal indicating such license by the State shall appear on the final yearly report submission. The Engineer whose seal is shown will be known as the Engineer of Record and agrees to certify compliance with their contracted Scope of Work and all applicable codes.

5-10 year Plan

After the first five (5) years of implementing the monitoring plan, the SF VAMC will revisit continuing or modifying the Monitoring Plan based on the results of the first five (5) years. The SF VAMC will work with its neighbors, including the NPS/GGNRA to evaluate the effectiveness of the monitoring plan, ensure that there is no threat to slope stability, and determine whether a second five-year period monitoring program is necessary.

Alternatives

The SF VAMC will continue to investigate other alternatives to reroute the storm drainage away from the northern slope. If the SF VAMC finds an alternative that is economically feasible and meets patient care objectives, the SF VAMC will coordinate with GGNRA/NPS to implement the plan.

Points of Contact

For NPS:

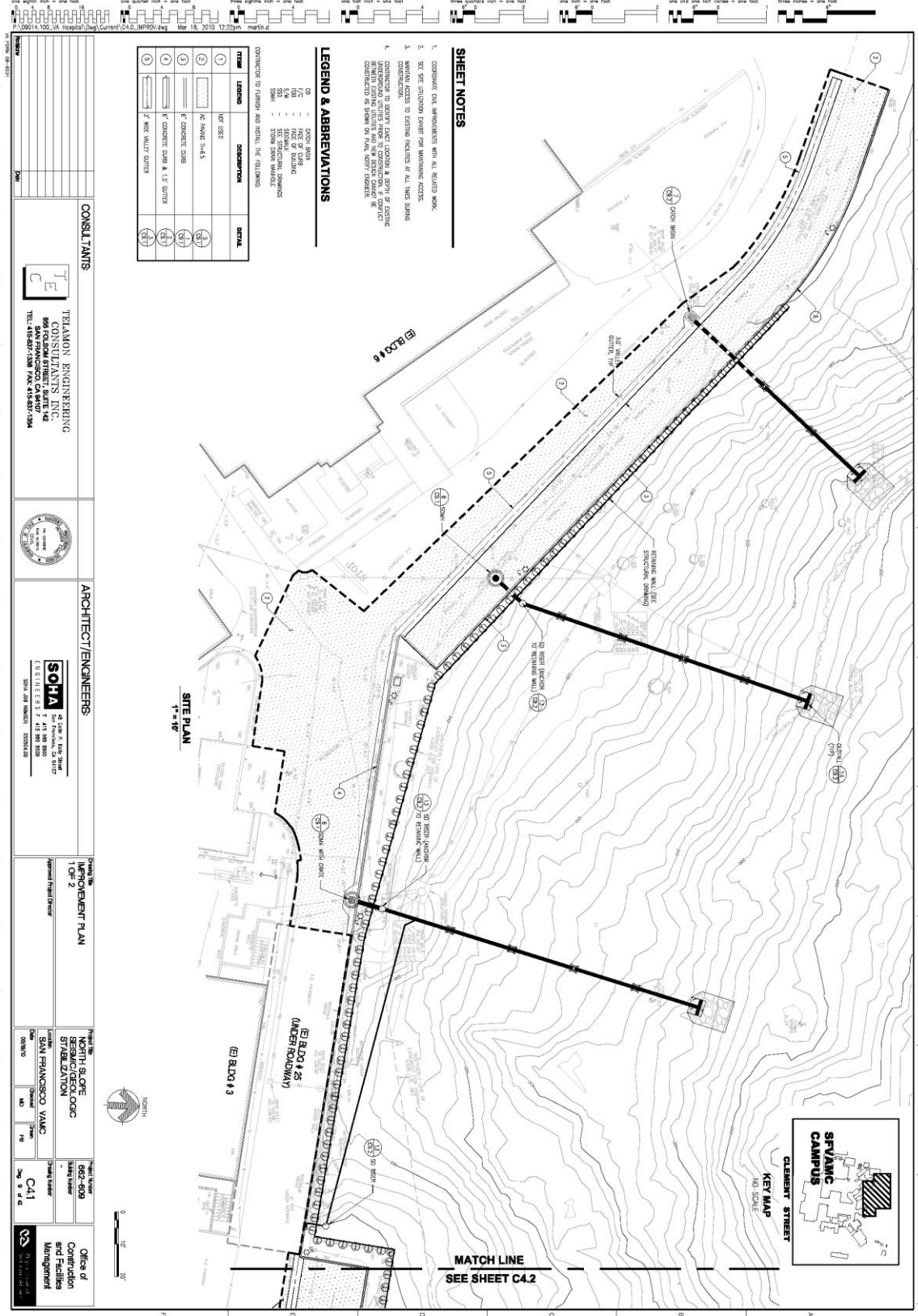
Katharine Arrow, Business Management Analyst
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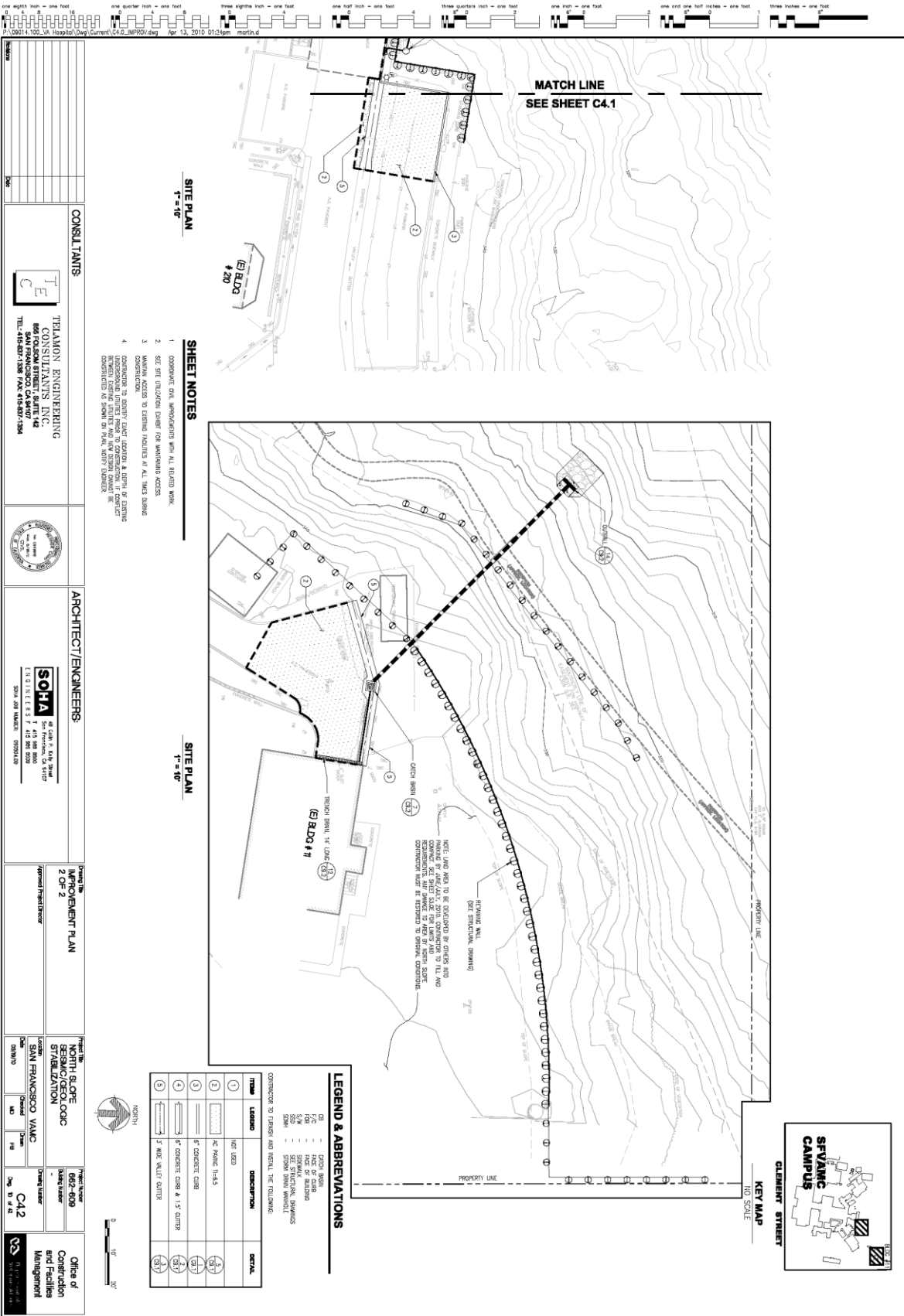
Emergency notifications 24/7, Park Dispatch (415) 561-5656.

For SF VAMC:

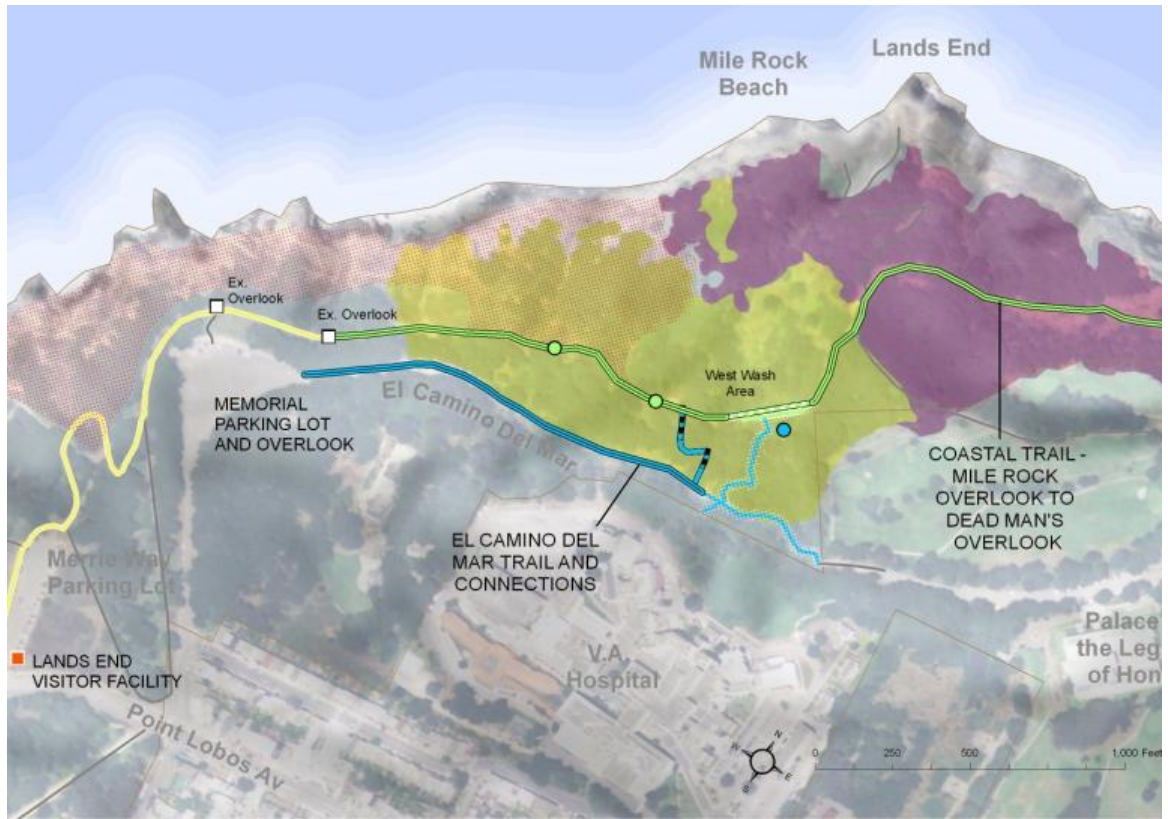
Robin Flanagan, Administrative Officer to the AMCD
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Improvement Plan





Trail Map



EL CAMINO DEL MAR TRAIL & CONNECTIONS	COASTAL TRAIL - MILE ROCK TO DEAD MAN'S OVERLOOK	COASTAL TRAIL - DEAD MAN'S TO EAGLE'S POINT OVERLOOK
<p>● West Wash Slope Stabilization</p> <p>■ El Camino Del Mar Trail Rehabilitation</p> <p>■ New Bird Interpretive Trail</p> <p>■ New Bird Interpretive Trail Stairs</p> <p>■ Decommission Old El Camino Del Mar Trail and Coastal Trail Linkage</p>	<p>● Stabilization Sites along the Coastal Trail</p> <p>■ East Wash Reroute</p> <p>■ Mile Rock to Dead Man's Overlook Trail Rehabilitation</p> <p>■ New Coastal Trail Suspension Bridge</p> <p>■ Decommission Old Coastal Trail</p>	<p>■ Trail Stabilization between Dead Man's Cove & Eagle's Point</p> <p>■ Social Trail Decommissioning</p> <p>□ Existing Overlooks</p> <p>■ Coastal Trail</p>