# UNIVERSITY OF CALIFORNIA, SANTA BARBARA

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SANTA BARBARA • SANTA CRUZ

OFFICE OF DESIGN & CONSTRUCTION SERVICES and PHYSICAL FACILITIES

CONTRACTING SERVICES Building 439 Santa Barbara, California 93106-1030 Telephone (805) 893-3356 Fax (805) 893-8592



FAX ON THIS DATE HAND DELIVERY ON THIS DATE FEDERAL EXPRESS ON THIS DATE UNITED PARCEL SERVICE ON THIS DATE

HOLDERS OF PLANS AND SPECIFICATIONS:

San Miguel & San Nicolas Landscape Improvements Project No. FM120247S/077-78 <u>Addendum No. 3</u>

January 13, 2012

Enclosed is ADDENDUM NO. 3 to the Construction Documents on the above-captioned project.

Bid date is Thursday, January 19, 2012 at 2:30 PM to be held at:

CONTRACTING SERVICES Facilities Management, Bldg. 439 Door #E, Reception Counter University of California, Santa Barbara Santa Barbara, CA 93106-1030.

Late arrivals shall be disqualified. Please allow time for unforeseen traffic delays, securing a parking permit and potential parking problems.

Greg Moore Associate Director, Contracting Services

# ADDENDUM NO. 3

## to the

# CONSTRUCTION DOCUMENTS

January 13, 2012

# **GENERAL**

The following changes, additions or deletions shall be made to the following document(s) as Indicated; all other conditions shall remain the same.

# I. SPECIFICATIONS

# Item No.

1.	Table of Contents: Replace in its entirety with Revised Table of Contents, Revised per		
	Addendum No. 3, 2 pages, attached.		
Item No.			
2.	Section 01560 – Temporary Stormwater Pollution Prevention – Replace in its entirety		
	with Section 01560 Temporary Stormwater Pollution Prevention, 16 pages, attached.		
Item No.			
3.	Section 01561 – Erosion and Sediment Control – Delete in its entirety.		
Item No.			
4.	Section 02765 – Pavement Repair – Add Section 02765 Pavement Repair, 4 pages,		
	attached.		
Item No.			
5.	Section 01570 – Traffic Control, Part 1 – General, 1.03 Submittals, A.1. – Replace in		
	its entirety:		
	A.1. Traffic control plans prepared by a qualified person. Person shall be familiar		
	with and knowledgeable with applicable CALTRANS safety requirements. Plans		
	shall show sequence of construction, provisions for providing access over excavations,		
	barricading, signing, and temporary striping, all as necessary for maintaining		
	pedestrian, bicycle, and vehicular traffic in the immediate Work area.		

## II. SKETCHES

# Item No.

6. **Add** the attached Architect Sketches, 2 sketches, dated 1/12/12.

Sketch SK-1.0Layout PlanSketch SK-1.1Layout Plan

See attached detail SK-1.0 and SK-1.1 for extent of AC road patch and re-seal. Road patch and re-seal shall be in Base Bid only.

# III. **DRAWINGS**

### Item No.

7. <u>Sheet L2-00, Tree Preservation & Demo Plan:</u> – Add note adjacent to electrical

disconnect at trash compactor:

"The contractor shall bring power to the trash compactor disconnect. The electrical room is behind the transformer, labeled on SK-1.0. Contractor shall pull power from existing panel (Panel SML -3 ph circuits 19, 21, 23). Install appropriate size conduit out the wall of the electrical room, then down the outside wall. Install conduit and wires in 20" deep trench to the disconnect at the trash compactor."

#### Item No.

8. <u>Sheet L6-00, Construction Details, Detail #9:</u> – **Replace** note ".5-1mm Granite Sand-

Ref Specs" and replace with:

Premium Beach Volleyball Sand (available from United Volleyball Supply, LLC., 727 Kirkland Ave., Kirkland, WA 98033, PH: 800-494-3933 or 425-576-8835, FX: 425-827-2230):

(-30BMDSA) -30 Blend Marine Deposit Subangular: Light Tan, Soft, Low Dust Beach Volleyball Sand Triple washed to be free of silt and clay.



(-30BMDSA) -30 Blend Marine Deposit Subangular: Light Tan, Soft, Low Dust Beach Volleyball Sand

Sieve Analysis Report

Sieve N.	Cum Ret.	% Ret.	% Cum Ret.	% Passing
30	40.7	11.2	11.2	88.8
40	131.1	24.9	36.2	63.8
50	230.6	27.4	63.6	36.4
70	318.6	24.3	87.9	12.1
100	350.7	8.9	96.7	3.3
140	359.1	2.3	99.0	1.0
200	351.5	0.7	99.7	0
270	352.8	0.3	100.1	D
Р	382.8	-0.1	100.0	0.0

Item No.

9. <u>Sheet L6-00, Construction Details, Detail #8:</u> – **Replace** pit dimensions for the Subgrade Greenwaste Dumpster Frame to 3'4" deep, 4'4" wide, 6'9" length.

# Item No. 10. Sheet L6-00, Construction Details, Detail #5: – Add note: "All metal (except fasteners) on the Recycled Wood Bench shall be powder coated with black powder coat." Item No. 11. Sheet L6-00, Construction Details, Detail #1: – Delete note "Contact University

Representative for boulders" and replace in its entirety with "Sandstone boulders shall be supplied by contractor and approved by "University Representative".

# Item No.

 <u>Sheet L1-01, Tree Preservation & Demo Plan:</u> – **Delete** in its entirety Demolition Plan Key Note #9. Cobbles have already been removed.

# END OF ADDENDUM NO. 3

PROJECT No. FM120247S/077-78

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	Not Used	

#### PROJECT No. FM120247S/077-78

- DIVISION 6 WOOD AND PLASTICS Not Used
- DIVISION 7 THERMAL AND MOISTURE PROTECTION Not Used
- DIVISION 8 DOORS & WINDOWS Not Used
- DIVISION 9 FINISHES Not Used
- DIVISION 10 SPECIALTIES Not Used
- DIVISION 11 EQUIPMENT Not Used
- DIVISION 12 FURNISHINGS Not Used
- DIVISION 13 SPECIAL CONSTRUCTION Not Used
- DIVISION 14 CONVEYING SYSTEMS Not Used
- DIVISION 15 MECHANICAL Not Used
- DIVISION 16 ELECTRICAL Not Used

## SECTION 01560

## TEMPORARY STORMWATER POLLUTION PREVENTION

### PART 1 - GENERAL

#### 1.01 GENERAL

- A. Stormdrains at the University of California Santa Barbara Campus discharge directly to creeks, the Goleta Slough, the Campus Lagoon, and the Pacific Ocean without treatment. Discharge of Pollutants or Contaminants (any substance, material, or waste other than uncontaminated stormwater) from this Project into the stormdrain system is strictly prohibited by the State Water Resources Control Board (SWRCB) and the Central Coast Regional Water Quality Control Board (RWQCB).
- B. The Contractor is responsible for stormwater quality within the Project site (which includes the staging area, material storage, waste management areas, construction areas, on-site parking, site entrances and exists, and anywhere Project construction disturbs soil) and the quality of stormwater leaving the Project site.
- C. The Contractor is required to prevent erosion of disturbed areas during construction and ensure pollutants, including sediment, do not leave the Project site, either water-borne, air-borne, on the tires of vehicles, or by spillage from offsite hauling of soils.
- D. The Contractor is responsible for properly managing all construction debris, solid and construction waste materials including litter, liquid waste including fluids from vehicles, construction materials, hazardous materials and waste, and sanitary and septic waste.
- E. The requirements in this section are intended to be implemented on a year-round basis, not just during the part of year when there is a high probability of a rain event which results in stormwater runoff. The requirements and practices discussed in this Section should be implemented at the appropriate level and in a proactive manner during all seasons while construction is ongoing.
- F. The following terms and their definitions will be used throughout this Section.
  - 1. Best Management Practices (BMPs) The term BMP is used to describe the controls and activities used to prevent stormwater pollution.
  - BMP Site Map A map typically 11"x17" including, but not limited to, the following: entire construction site, site perimeter, adjacent roadways, all existing and proposed stormdrains on and near the site, site entrances/exits, building footprint, construction trailer, topography including slope, all current BMPs, NOI, and the location of the Questionnaire or Stormwater Pollution Prevention Plan (SWPPP).
  - 3. Contaminants or Pollutants Any substance, material, or waste other than uncontaminated stormwater, including, but not limited to materials such as acids, adhesives, asphalts, concrete compounds, curing compounds, detergents, fertilizers, glues, lime, paints, pesticides and herbicides, petroleum products, plaster, roofing tar, solvents, wood preservatives, soil and any materials that may be detrimental if released to the environment.

- 4. Contractor The term "Contractor" refers to the person or firm responsible for performing the work and is identified as such in the Agreement. The Contractor may use subcontractors, and the subcontractors may use subsubcontractors to perform parts of the work. However, the Agreement is between the University and the Contractor, and the Contractor alone is responsible for completing the Project.
- 5. Final Stabilization Final stabilization is achieved when all construction activities are complete, all disturbed soil areas have been properly stabilized, all stormwater regulations have been achieved, and a uniform vegetative cover with 70 percent coverage has been established.
- 6. General Permit National Pollutant Discharge Elimination System (NPDES) General Permit For Storm Water Discharges Associated with Construction Activity Water Quality Order 00-08-DWQ, Waste Discharge Requirements Order No. 99-08 DWQ (National Pollution Discharge Elimination System (NPDES) Permit No. CAS000002), Resolution No. 2001-046, Modification of Water Quality Order 99-08, State Water Resources Control Board, and any amendments or revisions of these permits or orders.
- 7. Hazardous Materials Materials such as paints, solvents, petroleum products, pesticides, wood preservatives, treated wood, acids, roofing tar, batteries, Fluorescent lights, light ballasts, etc.
- Maximum Extent Practicable (MEP) Less-effective treatment or activities may not be substituted when it is practicable to provide more effective treatment or activities.
- Notice of Intent (NOI) Document that must be submitted to the State of California to obtain coverage under the General Permit and be permitted to develop property one acre or larger.
- 10. Notice of Termination (NOT) Document that must be submitted to the State of California once the Project is complete and has achieved Final Stabilization, which certifies that all State and local requirements have been met in accordance with Special Provisions for Construction Activity, C.7, of the General Permit.
- 11. Post-Construction BMPs Permanent features designed to minimize pollutant discharges, including sediment, from the site after construction has been completed. These features; such as bioswales, rain gardens, roof drains connected to landscaping, permeable pavement, etc.; will be installed and maintained by the Contractor during the construction of the Project until the Project has achieved Final Stabilization.
- 12. Project or Project site All areas including the staging area, material storage, waste management areas, construction areas, on-site parking, site entrances and exits, and anywhere Project construction disturbs soil.
- 13. Questionnaire UCSB Construction Stormwater Quality Questionnaire for Site Less than 1 Acre.
- 14. Storm drain System Stormwater conduits, stormdrain inlets and other stormdrain structures, street gutters, channels, watercourses, creeks, the Goleta Slough, the Campus Lagoon, and the Pacific Ocean.
- 15. Stormwater Pollution Prevention Plan (SWPPP) Sites greater than or equal to one acre A living document that is site specific and created by the

Contractor that specifies Best Management Practices that will prevent construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off site into receiving waters. The SWPPP will be written to comply with all requirements of the State Water Resources Control Board (SWRCB) National Pollution Discharge Elimination System (NPDES) General Permit for Construction Stormwater Discharges (General Permit), and will be modified throughout the life of the Project, as needed, to maintain compliance with the General Permit.

## 1.02 RELATED SECTIONS

- A. Section 01010, "Summary of Work".
- B. Section 01150, "Environmental Protection Requirements".
- C. Section 01500, "Construction Facilities and Temporary Controls".
- D. Section 01565 Hazardous Materials Procedures
- E. Section 01710 Cleanup & Disposal
- F. Section 02210, "Earthwork".

## 1.03 GENERAL CONTRACTOR SCOPE

- A. Provide all material, labor, and equipment, for installation, implementation, and maintenance of all stormwater quality control measures. This work includes the following:
  - 1. Complying with applicable standards and regulations per Paragraph 1.04 REGULATIONS AND STANDARDS.
  - 2. Furnishing, placing, and installing effective measures for preventing erosion and runoff of soil, silts, gravel, hazardous chemicals, all construction materials including wastes, or other materials prohibited by the Central Coast RWQCB from leaving the site and/or entering the stormwater drainage system.
  - 3. Management of onsite construction materials and waste in such a manner as to prevent said materials and waste from contacting stormwater or wash water and running off site and/or into the stormdrain system.
- B. Contractor shall have stormdrain pollution prevention measures in place and follow this Specification at all times. It is the responsibility of the Contractor to be prepared for a rain event, and to be aware of weather predictions. The University is not responsible for informing the Contractor of rain predictions.
- C. Contractor shall not allow any unauthorized non-stormwater to enter the stormdrain system or leave the construction site. Non-stormwater includes domestic supply water used onsite to wash painting and drywall equipment, tools, equipment, or vehicles.
- D. Sanitary sewer discharge regulations are intended to provide protection of the sanitary sewer system and Goleta Sanitary District (GSD) and Goleta West Sanitary District's (GWSD) wastewater treatment plants. In this Section, "sanitary sewer" shall include any sanitary sewer manhole, clean-out, side sewer or other connection to the GSD and GWSD wastewater treatment plants.
- E. Sanitary sewer blockage will likely result in a back-up and overflow to the stormdrain system. The Contractor shall immediately notify the University's Representative if there is a clogged sanitary sewer.

### 1.04 REGULATIONS AND STANDARDS

- A. Contractor shall comply with the following applicable regulations:
  - 1. Clean Water Act, United States Environmental Protection Agency.
  - 2. The Porter-Cologne Clean Water Act, State of California.
  - 3. Central Coast Basin (Region 3) Water Quality Control Plan (Basin Plan).
  - 4. National Pollutant Discharge Elimination System (NPDES) General Permit For Storm Water Discharges Associated with Construction Activity And Land Disturbance Activities Order No. 2009-0009-DWQ NPDES NO. CAS000002, and any amendments or revisions of these permits or orders. These orders are referred to as the General Permit.
- B. Contractor shall comply with the following standards and guidelines on stormwater pollution prevention:
  - 1. <u>University of California, Santa Barbara BMP Handbook</u>
  - California Stormwater Quality Association Handbooks Construction, Municipal, Industrial and Commercial, and New Development and Redevelopment. These documents can be viewed and downloaded from the UCSB Environmental Health & Safety website, or at <u>http://www.cabmphandbooks.com/</u>.
  - 3. Caltrans Storm Water Quality Handbooks This document can be viewed and downloaded from the UCSB Environmental Health & Safety website, or at <a href="http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm">http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm</a>.
- 1.05 SUBMITTALS [Select either A or B based on the size of the construction project.]
  - A. If the entire construction Project, including the staging area, material storage, waste management areas, construction areas, onsite parking, site entrances and exists, and anywhere Project construction disturbs soil, is less than 1 acre and is not part of a common plan of development, the Contractor shall comply with UCSB Construction Stormwater Quality Questionnaire for Site Less than 1 Acre (Questionnaire) which is available as Information available to bidders.
    - 1. Submit the Questionnaire to the University's Representative for review 14 calendar days prior to scheduled implementation. At the completion of the review, a meeting will be conducted by the University's Representative and the Contractor to discuss and agree upon the implementation of the Questionnaire.
    - 2. No work shall begin until the Questionnaire has been approved by the University's Representative and the Questionnaire has been implemented.
    - 3. The Contractor shall bear all cost of design, installation, and maintenance of all stormwater quality control measures.
    - 4. The Contractor shall submit written reports of inspections and maintenance. Submit all completed inspection sheets from the previous week, to the University's Representative on the first day of each week. Written reports include:
      - a. Pre-rain event inspections.
      - b. Post-rain event inspections.

- c. Weekly inspections.
- d. Maintenance inspections.
- B. If the entire construction Project, including the staging area, material storage, waste management areas, construction areas, onsite parking, site entrances and exists, and anywhere Project construction disturbs soil, is 1 acre or larger or is part of a common plan of development, the Contractor shall comply with all State Construction Stormwater Program Requirements identified in the General Permit. These requirements include the development of a Storm Water Pollution Prevention Plan (SWPPP) and preparation for submittal by the University, a Notice of Intent (NOI) to obtain coverage under the General Permit, which will be signed by the University's Representative.
  - 1. The Contractor is required to develop and implement a site specific SWPPP using UCSB's SWPPP Template, provided on the UCSB Environmental Health & Safety website, which emphasizes the use of appropriately selected, correctly installed and maintained pollution reduction Best Management Practices (BMPs) that will prevent construction pollutants from contacting stormwater and leaving the Project site. The SWPPP shall be inclusive of all stormwater requirements in this and all Specifications in Division 1, the UCSB SWPPP Template, the General Permit, and the requirements set by the SWRCB and the RWQCB. The SWPPP shall be completed and signed by a registered civil engineer or Certified Professional in Erosion and Sediment Control. The SWPPP shall remain on the Project site while the site is under construction, commencing with the initial mobilization and ending with the termination of coverage under the permit.
  - 2. Individuals responsible for SWPPP preparation, implementation, and permit compliance shall be appropriately trained, and all training and qualifications shall be documented in the SWPPP. This includes those personnel responsible for installation, inspection, maintenance, and repair of BMPs. Those responsible for overseeing, revising, and amending the SWPPP shall also document their training. Training should be both formal and informal, occur on an ongoing basis when it is appropriate and convenient, and should include training/workshops offered by the SWRCB, RWQCB, and other locally recognized agencies or professional organizations.
  - 3. Submit the site-specific SWPPP and the completed Notice of Intent (NOI) form to the University's Representative for review and approval prior to implementation of storm water best management practices. At the completion of the review, a meeting will be conducted by the University's Representative with the Contractor to discuss and agree upon the implementation of the SWPPP. The NOI will be signed by the University's Representative and submitted by the Contractor.
  - 4. No work shall begin until the SWPPP has been approved, the NOI has been approved by the SWRCB, and the SWPPP has been implemented.
  - 5. Post a laminated copy of the SWRCB approved NOI in a visible location near the entrances/exits of the site. Include a copy of the NOI in the appropriate section of the SWPPP.
  - 6. The SWPPP shall be developed and revised as necessary to meet the following objectives:
    - a. To identify Pollutant sources associated with construction activity that

may affect the quality of stormwater discharges.

- b. To identify and prevent non-stormwater discharges.
- c. To identify, construct, and implement stormwater pollution prevention measures (BMPs) to reduce or eliminate pollutants in stormwater discharges from the construction site, both during construction and after construction is completed.
- d. Contractor shall amend the SWPPP whenever there is a change in construction or operations that may affect the discharge of pollutants to surface waters. The SWPPP should also be amended if it is in violation of any condition of the General Permit or has not achieved the general objective of reducing pollutants in stormwater. All amendments should be dated, signed, included in the SWPPP, and a summary sent to the University's Representative. Amendments include, but are not limited to, the following:
  - Pollutant sources including sources of sediment that may affect the quality of stormwater discharges.
  - Authorized non-stormwater discharges.
  - Change in BMPs used on the Project site.
  - Schedule of activities that may affect the quality of stormwater discharges.
  - Maintenance schedule for BMPs installed during construction designed to reduce or eliminate pollutants.
  - Contractor's stormwater personnel contact information.
  - Contractor's stormwater personnel training information.
- e. The SWPPP shall include a BMP Site Map that illustrates pollution sources for construction activities and the methods that will be used for erosion and sediment control, hazardous materials management, and any other construction activities that are sources of stormwater pollution. The BMP Site Map is a map typically 11"x17" including, but not limited to, the following: entire construction site, site perimeter, adjacent roadways, all existing and proposed stormdrains on and near the site, site entrances/exits, building footprint, construction trailer, topography including slope, all current BMPs, NOI, and the location of the Stormwater Pollution Prevention Plan (SWPPP).Refer to the UCSB BMP Handbook for a list of UCSB recommended BMPs. Refer to 3.02 IMPLEMENTATION for a list of the minimum BMPs that are required to be installed and maintained throughout the life of the Project.
- f. The Contractor is required to retain records of all monitoring information, copies of all reports required by the General Permit, and records of all data used to complete the NOI for all construction activities to be covered by the General Permit. Submit all said documents and the complete SWPPP to the University's Representative once the Project has achieved Final Stabilization and the SWRCB has approved the NOT.
- 7. Throughout the construction period, a qualified person appointed by the Contractor is required to conduct and document inspections and evaluations as detailed in the SWPPP, including: weekly site inspections, pre-rain event inspections within 24 hours prior to a rain event, post-rain event inspections

within 24 hours after a rain event, every 24 hours during an extended rain event (lasting longer than one day), and maintenance inspections.

- a. Report the results of the inspections in writing using the UCSB Construction Stormwater Inspection Form and place a copy of the report in the SWPPP. Each report needs to be signed off by the University's Representative. Once the corrective actions identified in the report have been completed the completed action items need to be signed off by the University's Representative. Every weekly inspection will be performed on the same day or close to the same day of the week. Submit all completed inspection sheets and SWPPP amendments from the previous week, to the University's Representative on the first day of each week. The name(s) and contact number(s) of the assigned inspection personnel shall be listed in the SWPPP.
- b. Major observations to be made during inspections include the locations of discharges of sediment or other pollutants from the site, evaluating whether measures to reduce pollutant loadings identified in the SWPPP are adequate and properly installed and functioning in accordance with the terms of the General Permit, and whether additional control practices or corrective maintenance activities are needed.
- c. Authorized representatives of the SWRCB and the RWQCB and the University's Representative shall be allowed to enter the Project site as needed to conduct onsite inspections throughout the life of the Project.
- 8. The Contractor is required to certify annually that the construction activities are in compliance with the requirements of the General Permit. Complete the annual certification form and submit for review to the University's Representative 14 days prior to the deadline. After review and approval, the Contractor shall submit the annual certification form and fees to the SWRCB before the deadline. Include a copy of the annual certification in the SWPPP.
- 9. When construction is complete, the Project site has achieved Final Stabilization, all construction materials and waste have been disposed of properly, the Project site is in compliance with all stormwater regulations, and the Project is deemed complete by the University's Representative, submit the completed Notice of Termination (NOT) form to the University's Representative for review and approval. Once the NOT is approved and signed by the University's Representative, the Contractor shall submit the NOT and fees to the SWRCB. Include a copy of the State approved NOT in the SWPPP.
- 10. When construction is complete, the Project site has achieved Final Stabilization, all construction materials and waste have been disposed of properly, the site is in compliance with all stormwater regulations, and the Project is deemed complete by the University's Representative, submit the completed SWPPP with all necessary documents including but not limited to inspections, annual certifications, SWPPP amendments, training certificates, schedules, qualifications, BMP Site Maps, NOI, and NOT to the University's Representative.
- 11. The Contractor shall bear all costs associated with the development of the SWPPP, NOI, NOT, annual certification, installation of all SWPPP measures, and the maintenance of said control measures as outlined in the Contractor's

SWPPP.

### 1.06 Environmental Enforcement

The SWRCB and the RWQCB have the authority to enforce, through codified regulations, any portions of this Section that if not implemented may violate applicable regulations. Agency enforcement may include but is not limited to: citations, orders to abate, bills for cleanup costs and administration, civil suits, and/or criminal charges. Regulating agencies will cite UCSB for all violations which will be the Contractor's responsibility to correct, pay any fines issued, and remedy all violations as needed. The University's Representative may stop all construction activities as deemed necessary until such violations are remedied.

### PART 2 - PRODUCTS

### 2.01 GENERAL

- A. Provide products and materials as indicated in the Questionnaire/SWPPP, including Activity and Best Management Practice sheets and Drawings.
- B. Where product or material requirements are not specified in the Questionnaire/SWPPP, comply with other applicable sections of the Specifications and obtain approval of the University's Representative.

### PART 3 - EXECUTION

#### 3.01 GENERAL

- A. The Contractor will write and implement the Questionnaire/SWPPP and include a BMP Site Map and written description of pollution prevention methods. The intent of this requirement is to ensure Contractor compliance with applicable regulations for the discharge of stormwater from the Project. The Contractor will choose the best available performance-based technology and methods to prevent stormwater pollution from construction activities to the Maximum Extent Practicable (MEP). The method(s) chosen shall be appropriate for each specific site condition.
- B. The Contractor will implement the Questionnaire/SWPPP once it has been reviewed and approved by the University's Representative. Construction activities including clearing and grading will not begin until the Questionnaire/SWPPP has been implemented.
- C. The University's Representative and the Contractor will meet to discuss and agree upon implementation of the Questionnaire/SWPPP.
- D. The Contractor is required to maintain a standby crew for emergency work at all times during the rainy season, October 1 through May 1. Necessary materials shall be available on the Project site and stockpiled at convenient locations to facilitate rapid construction of temporary devices or to repair any damaged stormwater quality control measures when rain is imminent.

## 3.02 IMPLEMENTATION

A. Stormwater Quality Control Measures

Comply with all requirements and stormwater quality control measures of the Questionnaire/SWPPP including, but not limited to, the following approved BMPs

referenced in the UCSB BMP Handbook. This list is not all inclusive and the Contractor should refer to the resources listed in Paragraph 1.04 REGULATIONS AND STANDARDS of this Section for additional information. The Contractor will consult the University's Representative before implementing a BMP that is not included in the UCSB BMP Handbook. The Contractor is required to, at a minimum, implement the following applicable BMPs. The Contractor may implement equivalent BMPs as long as the University's Representative approves. The Contractor is required to include BMP specification sheets for all BMPs that are not currently listed in the UCSB BMP Handbook.

- 1. Best Management Practices
  - a. Erosion Control (EC)

Provide a description of erosion control measures, including a time schedule, to be implemented during construction to minimize erosion on disturbed areas of the Project site, and identify the controls on the BMP Site Map. Areas requiring erosion control measures are exposed soil, such as soil piles, bare soil, sloped soil, and any area of disturbed soil. All inactive soil disturbed areas on the Project site and some active areas that are not experiencing high traffic, including relatively flat areas, must be protected from erosion. Both erosion and sediment control practices are designed to be implemented as an integrated system of pollution control. Without erosion controls, sediment controls are easily overwhelmed and will not prevent pollution. Preserve existing vegetation where feasible, limit disturbance of existing vegetation, and stabilize and revegetate disturbed areas as soon as possible after grading or construction. Stabilize exposed soil to the Maximum Extent Practicable (MEP) throughout the duration of the Project.

- 1. The Contractor is required to implement the following applicable BMPs, or equivalent BMPs with the approval of the University's Representative:
  - EC 1 Scheduling of Activities
  - EC 2 Preserving Existing Vegetation
  - EC 3 Temporary Soil Stabilization: Erosion Control Blanket
- b. Temporary Sediment Control (TSC)

Provide a description of temporary sediment control measures that will be used on the Project site, and identify the controls on the BMP Site Map. Temporary sediment control measures generally involve intercepting sediment laden runoff, slow the flow of stormwater, and cause suspended sediment particles to drop out of suspension to ensure contaminants do not leave the Project site and enter the waters of the United States. An example of temporary sediment control measures include stormdrain inlet protection and site perimeter controls. Do not use sand bags near the Project site perimeter or near stormdrain inlets. Install sediment control BMPs at appropriate locations along the site perimeter and at all operational inlets to the stormdrain system. All new and existing roadways, curbs, and gutters must be protected from sediment-laden runoff, are considered as perimeters of the site, and will need perimeter Sediment control BMPs should be installed and controls installed. maintained according to specifications. Ensure that adequate erosion control, sediment control, and soil stabilization BMPs are available onsite throughout the life of the Project.

- 1. The Contractor is required to implement, at a minimum, at least one of the following applicable perimeter control BMPs, or equivalent BMPs with the approval of the University's Representative:
  - TSC 1 Cut Back Curb (Perimeter Control)
  - TSC 2 Fiber Roll (Perimeter Control)
  - TSC 3 Gravel Bag Berm (Perimeter Control)
- 2. The Contractor is required to implement the following applicable BMPs, or equivalent BMPs with the approval of the University's Representative:
  - TSC 4 Stormdrain Inlet Protection (Secondary Control)
  - TSC 5 Slope BMP: Fiber Roll or Gravel Bag
- c. Tracking Control (TC)

All new and existing roadways, curbs, and gutters must be protected from sediment-laden runoff, are considered as perimeters of the site, and will need to be swept and vacuumed daily to ensure sediment and pollutants from construction activities are not leaving the site and potentially entering the stormdrain system. Identify and clearly mark one or two locations where vehicles will enter and exit the construction site and focus stabilizing measures at these locations. Install and maintain a stabilized entrance at all Project site entrances and exits to prevent tracking of mud and sediment off site. Vacuum and sweep sidewalks, roadways, site entrance/exit, curb, and gutter daily. Do not use kick brooms or sweeper attachments. Dispose of sweeper waste at an approved disposal facility. If construction parking is permitted on the Project site, then the area needs to be properly maintained and free of tracking and trash.

- 1. The Contractor is required to implement the following applicable BMPs, or equivalent BMPs with the approval of the University's Representative:
  - TC 1 Stabilized Construction Entrance: Rumble Strips

TC – 2 Sweeping and Vacuuming

d. Wind Erosion Control (WEC)

Contractor shall use best available dust suppression equipment and methods to control dust so that the dust does not cause discomfort or nuisance to occupants of the Project site neighboring property. Contractor shall control dust suppression water so that it is effective in controlling dust, but does not leave the Project site or enter the stormdrain system. Contractor shall describe their dust suppression water management methods in the Questionnaire/SWPPP

- 1. The Contractor is required to implement the following applicable BMP, or equivalent BMPs with the approval of the University's Representative:
  - WEC 1 Dust Control
- e. Non-Stormwater Management (NSM)

Non-stormwater discharges include a wide variety of sources, including

improper dumping, spills, or leakage from storage tanks or transfer areas. Eliminate all unauthorized non-stormwater discharges to the Maximum Extent Practicable. Assign a qualified person the responsibility for ensuring that no materials other than stormwater, free of all contaminants, are discharged. Include the name, contact information, and qualifications of said person in the Questionnaire/SWPPP.

All workers on the Project site must be adequately trained on nonstormwater management procedures and be in compliance with procedures such as the following at all times:

- Washing in designated, contained areas only.
- Eliminating discharges to the stormdrain system by infiltrating the wash water on site.
- All washing activities must be approved by the University's Representative if there is a potential to discharge to the stormdrain system or for discharge to leave the Project site.
- Do not wash paved areas.
- Route water line flushing and water from water line repair to landscaped areas.
- Avoid dewatering discharges by using water for dust control or allow to infiltrate onsite.
- Unauthorized non-stormwater cannot be discharged without obtaining a permit from the Central Coast RWQCB.
- Send vehicles/equipment offsite to be cleaned, fuelled, and repaired as much as possible. If it cannot be avoided, the Contractor is required to follow the practices described in NSM-3 Vehicle and Equipment Practices.
- Inspect the site regularly for evidence of illicit connections, illegal dumping, or discharges.
- Discharges of stormwater and non-stormwater exposed to concrete during curing and finishing may have a high pH and may contain chemicals, metals, and fines. Properly maintain all chemicals and wastes related to concrete curing and finishing as outlined in NSM-5 Concrete Curing and NSM-6 Concrete Finishing.
- Prevent the discharge of pollutants from paving operations by following the practices described in NSM-7 Paving and Grinding Operations.
- Minimize use of hazardous materials onsite. Store and dispose of all materials properly. Do not allow hazardous materials to come in contact with stormwater which could run off site and pollute the stormdrain system.
- 1. The Contractor is required to implement the following applicable BMPs, or equivalent BMPs with the approval of the University's Representative:
  - NSM 1 Water Conservation
  - NSM 2 Dewatering Operations
  - NSM 3 Vehicle and Equipment Practices

- NSM 4 Illicit Connection/Illegal Discharge Detection
- NSM 5 Concrete Curing
- NSM 6 Concrete Finishing
- NSM 7 Paving and Grinding
- NSM 8 Potable Water/Irrigation
- NSM 9 Material Use
- f. Waste Management (WM)

The Contractor is required to prevent the discharge of pollutants to stormwater from solid or liquid wastes that will be generated at the Project Dumpsters or disposal containers of sufficient size, number, site. complete with no holes or damage where waste could leak out, are watertight, and have proper covering will be provided and properly maintained by the Contractor. Littering on the Project site is prohibited. If necessary, the Contractor may provide and maintain trash receptacles at locations where workers congregate for lunch and breaks, as long as the trash receptacles have no holes or breaks where waste could leak out. are watertight, are properly covered, and are properly maintained. Construction debris and litter from work areas within the construction limits of the Project site shall be collected and placed in watertight dumpster at the end of every work day. Provide convenient, wellmaintained, and properly located toilet facilities. All workers on the Project site must be adequately trained on proper material use, storage, and waste disposal. The Contractor is required to implement a comprehensive set of waste-management practices for hazardous or toxic materials including storage, handling, inventory, and clean-up procedures.

All workers on the Project site must be adequately trained on waster management procedures and be in compliance with procedures such as the following at all times:

- Temporary material storage should be covered, have secondary containment, and be located away from vehicular traffic, the Project perimeter, and stormdrains.
- The Contractor shall provide and properly maintain an adequate number of watertight, crack free, covered containers for all trash and waste related to the construction Project. Collect construction trash daily throughout the Project and from around the perimeter of the site.
- Store dry and wet concrete materials under cover, in secondary containment, away from drainage areas and the Project perimeter. Concrete washout is only permitted in a designated and properly maintained concrete washout bin. Concrete is not allowed to be dumped or spilled anywhere onsite except in the concrete washout bin.
- Temporary sanitary facilities should be located away from watercourses, stormdrain inlets, the Project site perimeter, and traffic circulation. If there is a risk of tipping over or being blown over, the temporary sanitary facility should be secured by stakes or ties to prevent overturning. Wastewater should never be discharged or

buried within or anywhere around the Project site.

- Locate stockpiles on a permeable surface a minimum of 50 feet away from concentrated flows of stormwater, stormdrain inlets, and the Project site perimeter. Do not place stockpiles on an impermeable surface. Completely cover all stockpiles with a tarp or some type of cover; anchor the cover to ensure the stockpile is completely covered at all times.
- Spills of oil, petroleum products, substances listed under 40 CFR Parts 11, 117, and 302, and sanitary wastes should be contained and cleaned up immediately. Practice spill prevention procedures at all times including proper material handling and storage. Provide stockpiles of cleanup materials at key locations throughout the Project site.
- 1. The Contractor is required to implement the following applicable BMPs, or equivalent BMPs with the approval of the University's Representative:
  - WM 1 Material Delivery and Storage
  - WM 2 Trash Containment
  - WM 3 Temporary Concrete Washout and Waste Management
  - WM 4 Sanitary Waste Management
  - WM 5 Stockpile Management
  - WM 6 Spill Prevention and Control
  - WM 7 Hazardous Waste Management
  - WM 8 Contaminated Soil Management
- B. Monitoring and Maintenance

Throughout the life of the Project and especially during the rainy season, all protective devices shall be in place at the end of each working day including those protective devices removed during the day's activities. Please note: no protective devices shall be removed during a rain event.

- 1. Do not move or modify stormwater quality control devices without the approval of the University's Representative.
- 2. All removable protective devices indicated on the Questionnaire/SWPPP shall be in place at the end of each day and especially any time rain is predicted in the Santa Barbara area.
- 3. After a rain event, manage and repair all stormwater quality control devices to ensure they are in good working condition. Equipment, materials, and workers must be available for rapid response to failures and emergencies. All corrective maintenance to BMPs shall be performed as soon as possible, depending upon worker safety.
- C. Water Main and Sanitary Sewer Line Break Contingency Plan

If working on or near a water main line or sanitary sewer line, the Contractor shall have a written emergency response plan that states procedures for responding to a break and release of supply water or waste water to the stormdrain system. The Contractor shall meet the following requirements:

1. Water Main Work

- a. Determine the direction of water flow if the main were to break.
- b. Divert water from entering the storm drain system and contain when possible.
- c. If there is a water main break, pump the water that is collected or diverted to a sanitary sewer, based on the approval of the University Representative.
- d. Put in place, before digging, sediment control structures upstream of drain inlets and at drain inlets.
- e. If a break occurs contact the University's Representative or inspector of record immediately. Include in the Plan the phone number of the University's Representative.
- 2. Sanitary Sewer Line Work
  - a. Determine where the sewage will flow if the work could cause a blockage.
  - b. Contain any sewage spill from entering the storm drain system.
  - c. If a sewage blockage occurs, pump it to a sanitary sewer, and do not allow it to flow into the stormdrain system.
  - d. If a sewage blockage or spill occurs contact the University's Representative or inspector of record immediately. Include in the Plan the phone number of the University's Representative contact.
- 3. Excavation Work

This Paragraph applies to Contractors that excavate in the vicinity of sanitary sewer lines and cause or discover a sewage spill, leak or blockage.

- a. Immediately notify the University's Representative. Include in the Plan the phone number of the University's Representative.
- D. Good Housekeeping Practices

The Contractor shall implement the following applicable good housekeeping practices:

- 1. Store materials that have the potential to be transported to the stormdrain system by stormwater runoff or spillage away from areas of heavy traffic and under cover in a contained area or in sealed waterproof containers.
- 2. Use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution.
- 3. Secure opened bags of powdered materials (if any) that could contribute to stormwater pollution and visible dust emissions.
- 4. Pick up litter, construction debris, and other waste generated by Project activities daily from the Project site and adjacent areas, including the sidewalk area, gutter, street pavement, and stormdrains impacted by the Project. All wastes shall be stored in watertight covered containers, disposed of, or recycled immediately.
- 5. Clean sidewalks, driveways, or other paved areas within and around the construction site to eliminate or prevent mud-tracking conditions. Dispose of sweepings in a place that will not pollute the stormdrain system. If washwater is used in the interior of the site ensure it does not leave the site perimeter or enter a stormdrain inlet. The discharge of wash-water to the stormdrain system is prohibited.

- 6. Inspect vehicles and equipment arriving on-site for leaking fluids, and promptly repair leaking vehicles and equipment. Use drip pans to catch leaks until repairs are made.
- 7. Avoid spills by handling materials carefully. Keep a stockpile of appropriate spill clean-up materials, such as rags or absorbent materials, readily accessible on site. Clean up all spills of materials brought on site for Project activities.
- 8. Train employees regularly on good housekeeping practices and procedures. Assign responsibility to specific employees for inspecting good housekeeping and responding to spills.
- E. Post-Construction Stormwater Run-Off Control Measures
  - All permanent structural and nonstructural control measures that are planned for the Project to control pollutants in stormwater discharges after construction is completed shall be delineated on a post-construction BMP Site Map. Post-construction BMPs include, but are not limited to:
    - a. Minimization of land disturbance.
    - b. Minimization of impervious surfaces.
    - c. Treatment of stormwater run-off using infiltration.
    - d. Water detention/retention, bioswales, or rain gardens.
    - e. Bio-filter BMPs.
    - f. Efficient irrigation systems.
    - g. Ensuring that interior building drains and trash enclosures are tied to the sanitary sewer system, and not the stormdrain system.
    - h. Appropriately designed and constructed energy dissipation devices.
    - i. Ensuring that roof drains are directed to rain gardens or landscaped areas, not the stormdrain system.
    - j. Use permeable pavement and permeable surfaces where possible.
  - 2. Post construction BMPs must be consistent with all University's and local post-construction stormwater management requirements, policies, and guidelines.
  - 3. Contractor shall refer to construction drawings for post-construction BMPs and include them in the SWPPP and on the post-construction BMP Site Map.
- F. Personnel Training
  - 1. The Contractor shall train its employees working on the site on the requirements contained in this Section. Training should be both formal and informal, occur on an ongoing basis when it is appropriate and convenient, and should include training/workshops offered by the SWRCB, RWQCB, and other locally recognized agencies or professional organizations.
  - 2. The Contractor shall document this training in writing. The University's Representative for the site will request to see the training materials and records at the onset of work. All training records will be included in the SWPPP.
  - 3. The Contractor shall inform all subcontractors (if any) of the water pollution prevention requirements contained in this specification and include appropriate subcontract provisions to ensure that these requirements are

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met.

- 3.03 Final Stabilization
  - A. All disturbed areas of the construction site must be stabilized before the Project is deemed complete. Final Stabilization for the purposes of submitting a NOT is satisfied when all disturbing soil activities are completed, all construction materials and waste have been disposed of properly, the site is in compliance with all stormwater regulations, and a uniform vegetative cover with 70 percent coverage has been established.
  - B. When construction is complete, the Project site has achieved Final Stabilization, all construction materials and waste have been disposed of properly, the site is in compliance with all stormwater regulations, and the Project is deemed complete by the University's Representative, submit the completed Notice of Termination (NOT) form to the University's Representative. The NOT will be signed by the University's Representative.
  - C. When construction is complete, the Project site has achieved Final Stabilization, all construction materials and waste have been disposed of properly, the site is in compliance with all stormwater regulations, and the Project is deemed complete by the University's Representative, submit the completed SWPPP with all necessary documents including but not limited to inspections, annual certifications, SWPPP amendments, training certificates, schedules, qualifications, BMP Site Maps, NOI, and NOT to the University's Representative.
  - D. When construction is complete, the Project site has achieved Final Stabilization, all construction materials and waste have been disposed of properly, the site is in compliance with all stormwater regulations, and the Project is deemed complete by the University's Representative, if the stormwater protections are no longer required and upon obtaining approval from the University's Representative and the University's Representative, remove the protections and restore the site or structure to the required condition.

# END OF SECTION 01560

#### SECTION 02765

#### PAVEMENT REPAIR

#### PART I - GENERAL

- 1.01 SUMMARY
  - A. Provisions of Division 01 apply to this section.
  - B. Section Includes:
    - 1. Bituminous Surfacing Repair: Areas removed for utility trenches, heaved by tree roots, cracked areas, protruding areas where pavement meets hard surfaces, depressed areas, holes and areas around new structures, and raveled bituminous pavement.

2. Concrete Pavement Repair: Areas heaved by tree roots, cracked areas, holes and trenches, and areas around new structures.

- C. Related Sections:
  - 1. Section 02743: Asphalt Paving
  - 2. Section 02787: Rolled Slurry Seal
- 1.02 SUBMITTALS
  - A. Product Data: Submit manufacturer's technical data for materials and products.
- 1.02 QUALITY ASSURANCES
  - A. Comply with Section 01400 Quality Control.

### PART II- PRODUCTS

#### 2.01 MATERIALS

- A. Materials specified in Section 02743: Asphalt Concrete Paving.
- B. Materials specified in Section 02787: Rolled Slurry Seal.

#### 2.02 BITUMINOUS MATERIALS

A. Provide materials and products of the class, grade or type indicated on the drawings.

## 2.03 HEADERS AND STAKES

- A. Headers: Redwood, Construction Heart Grade, size 2 x 6, unless otherwise indicated on Drawings.
- B. Stakes: 2 x 4 redwood or 2 x 3 Douglas fir, Construction Grade.
- C. Nails: Common, galvanized, 12d minimum.

### 2.04 SLURRY

A. Cement-sand slurry; minimum one sack of cement per cubic yard of mixture.

### PART 3 - EXECUTION

### 3.01 PAVEMENT REMOVAL

- A. Remove bituminous and concrete pavement as noted on drawings.
- B. Pavement Heaved By Roots: Remove pavement to limits of distortion and expose roots. Trim roots to provide at least 12 inches clearance to pavement.
- C. Remove protruding bituminous surfaces flush with the surrounding grade using a suitable tool or equipment so that adjacent finishes are not blackened.
- D. Remove raveled and depressed bituminous pavement to limits indicated or required.
- E. Saw cut existing improvements, trim holes and trenches in bituminous and concrete pavement to permit mechanical hand tampers to compact the fill.
- F. Remove broken concrete by saw cutting. If the required cut line is within 30 inches of a score or joint line or edge, cut and remove to the score, joint line, or edge.

### 3.02 EXCAVATING, BACKFILLING AND COMPACTING

A. Where subgrade or base is deemed to be unstable or otherwise unsuitable, excavate such materials to firm earth, and replace with a required material. Install and compact fill materials in accordance with the requirements of related Specification sections.

### 3.03 HEADERS

A. Install headers along edge of bituminous surfacing abutting turf, earth, or planting area, unless indicated otherwise.

B. Install headers so the bottom surface has continuous bearing on solid grade. Where excavation for headers is undercut, thoroughly tamp soil under the header. Compact backfill on both sides of header to the density of the adjacent undisturbed grade.

C. Fasten headers in place with redwood or Douglas fir stakes of length necessary to extend into solid earth a minimum of 12 inches. Stakes shall be of sound material, neatly pointed, driven vertically, and securely nailed to headers. Space stakes, not to exceed 4 feet on centers with top of stakes set one inch below top of header. Provide a minimum of 2-12d galvanized common nails through each stake.

D. Remove existing headers where new surfacing is installed adjacent to existing surfacing.

E. Install temporary headers at transverse joints of paving where continuous paving operations are not maintained.

F. Provide additional stakes and devices as required to fasten headers.

#### 3.04 BASE COURSE

A. Unless otherwise indicated, base course shall be crushed aggregate base, fine grade, 3 inches thick or equal to thickness of the existing base, whichever is greater.

B. Fill grade and compact.

#### 3.5 RESURFACING

A. Holes and Trenches: Remove loose dirt and backfill with cement-sand slurry allowing for surfacing one inch thicker than existing. Unless otherwise indicated on Drawings, resurface flush with existing adjoining pavement installing the same type of materials and section provided in existing improvements.

B. Other Areas: Other surface improvements damaged or removed shall be cut to a neat even line and excavated one inch below the bottom of the existing pavement. Resurface by following the original grades and installing the same type of materials provided in existing improvements.

C. Where bituminous surfacing abuts concrete, masonry, walks or paving, tamp joint smooth, if necessary, as described above to obtain a uniformly even joint, true to line and grade. Tamp and smooth materials before asphalt cools.

#### 3.06 REPAIRING AND RESEALING EXISTING SURFACES

A. Preparation of Surfaces: Prior to filling cracks, clean existing bituminous surfacing of loose and foreign materials and coat with a film of asphalt emulsion.

#### B. Repair of Existing Surfacing:

1. Fill cracks 1/2 inch wide and less with RS-1 emulsion and silica sand or other required material. Cracks larger than 1/2 inch wide shall be filled with Type C2 Asphalt Concrete as specified. Cracks shall be filled to the level of adjacent surfacing.

2. Where low areas, holes, or depressions occur in existing surfacing, repair with

emulsified asphalt. Install material, strike off the emulsified asphalt with a straightedge flush with adjoining surfacing. Finish with a steel trowel, and after dehydration, compact by rolling or tamping.

C. Testing: Flood test entire area in presence of the IOR. Entire area tested shall be free of standing water or puddles.

D. Surface Seal: After surface has been repaired and tested, install seal coat over entire area indicated.

3.07 CLEANING

A. Remove all stains on the Project site and adjacent properties caused by or attributed to the Work of this section.

B. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

#### 3.08 PROTECTION

A. Protect the Work of this section until Substantial Completion:

END OF SECTION



