pch architects, l.l.p.

ADDENDUM NUMBER 1

To the Contract Documents
For the Construction of

Parking Lot & Site Work
@ Professional Development Center

For
SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT
Bid No F16-02

August 19, 2015

NOTICE TO BIDDERS

It is intended that all work affected by the following provisions shall conform to the original plans and specifications. Delete or modify each of the following items wherever appearing on Drawings, and/or Specifications. Acknowledge receipt of Addendum No. 1 in the space provided on the Contractor's Proposal. Failure to do so may subject bidder to disqualification.

GENERAL:

Item Number 1; In addition to the planting shown on the Landscape drawings, the Contractor shall provide, plant and maintain for the maintenance period, 30 - Rhaphiolepis (indian hawthorn), size – 5 gallon ea. at locations to be provided by the owner during construction.

Item Number 2; Crack fill and seal coat all existing asphalt pavement on the site and restripe entire lot per attached drawing AR-02

Item Number 3; The contractor is responsible for incorporation into this project the Storm Water Pollution Prevention Plan (SWPPP) attached to this addendum.

SPECIFICATIONS:

Item Number 4; Reference: Bid Form; Replace the Bid Form with the attached Bid Form.

The new Bid Form addresses the Alternate Bid added by this addendum.

30 South Center Street
Redlands, California 92373
Telephone: 909/792-7397
Fax: 909/793-7873
www.pcharchitects.com

Item Number 4; Reference: Notice Inviting Bids; Replace this section with the attached Notice Inviting Bids. *Note the following date changes:*

IMPORTANT DATES:

First Publication	*THURSDAY, JULY 30, 2015*
Second Publication	*WEDNESDAY, AUGUST 6, 2015*
Pre Bid Conference and Job Walk	*AUGUST 10, 2015 AT 9:00AM*
RFI Due	*FRIDAY, AUGUST 14, 2015*
Addendum Due	*THURSDAY, AUGUST 19, 2015*
Bid Opening	*10:00AM ON TUESDAY, AUGUST 25, 2015*
Bid Posting on Facilities Website	*WEDNESDAY, AUGUST 26, 2015*
Tentative Board Meeting	*TUESDAY, OCTOBER 6, 2015*
NOA Issued (Tentative)	*WEDNESDAY, OCTOBER 7, 2015*

DRAWINGS:

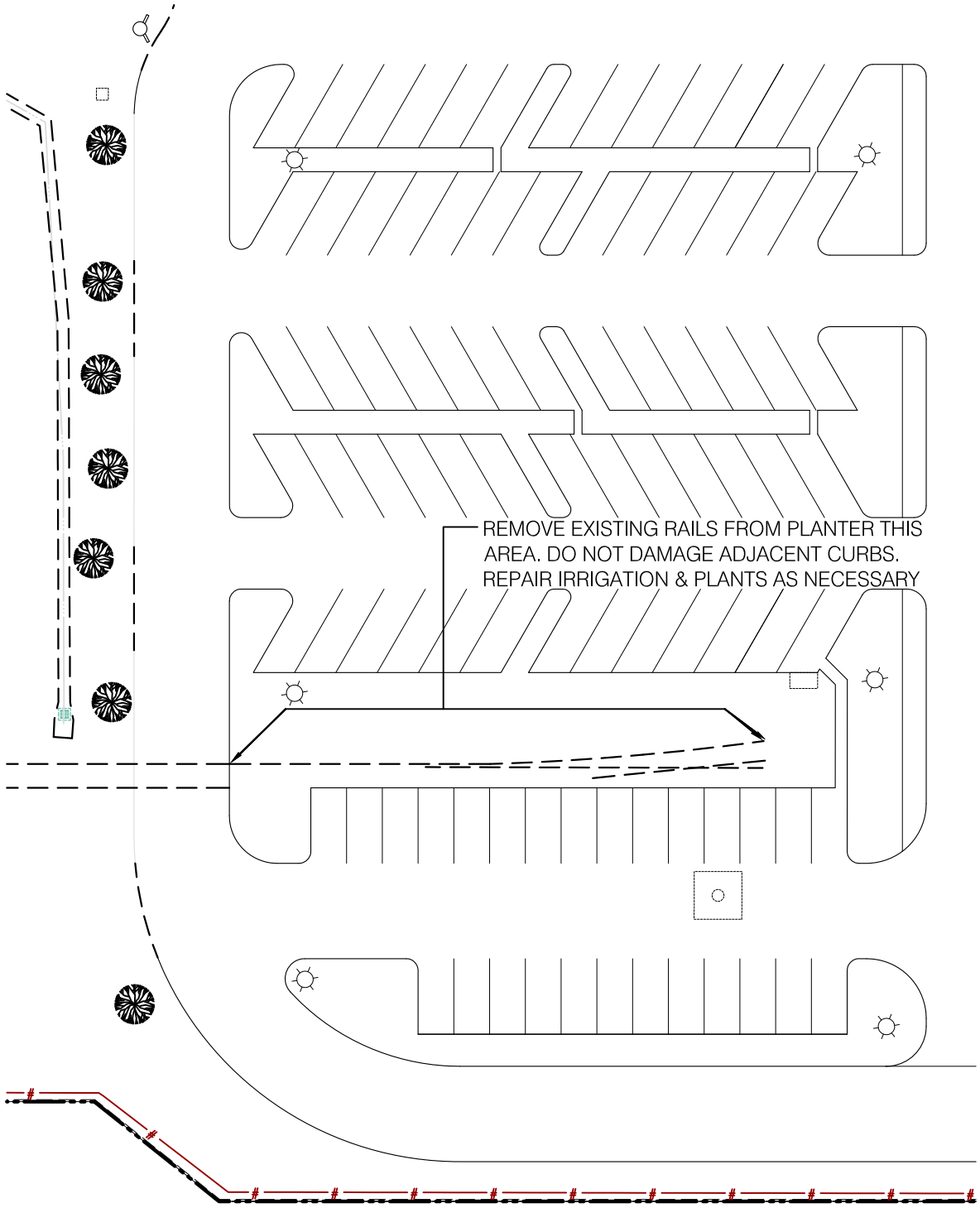
Item Number 5; Reference: Sheet A-1, Demolition Site Plan; Remove rails and cross ties from planter in existing parking lot per attached drawing AR-01.

Item Number 6; Reference: Sheet ES1, Site Plan, existing pole mounted parking lot lights; Add **Bid Alternate No.1** as follows:

> "Contractor to replace existing parking lot luminaire fixture heads (16) with new 19" square LED type light fixture heads to match the new light fixtures provided on this contract. Lights shall utilize existing pole bases and existing 30' poles. Price shall include all replacement parts, installation, labor and cleanup."

End of Addendum 1

Ralph Pacini,
PCH ARCHITECTS, LLP



PARTIAL SITE DEMOLITION PLAN

N

APPL. #

pdh architects, llp
30 South Center Street,
Redlands California 92373
Telephone: 909.792.7397
Fax: 909.793.7873

TITLE

ADDITIONAL RAIL REMOVAL

PCH # 10963

SCALE 1"=40'

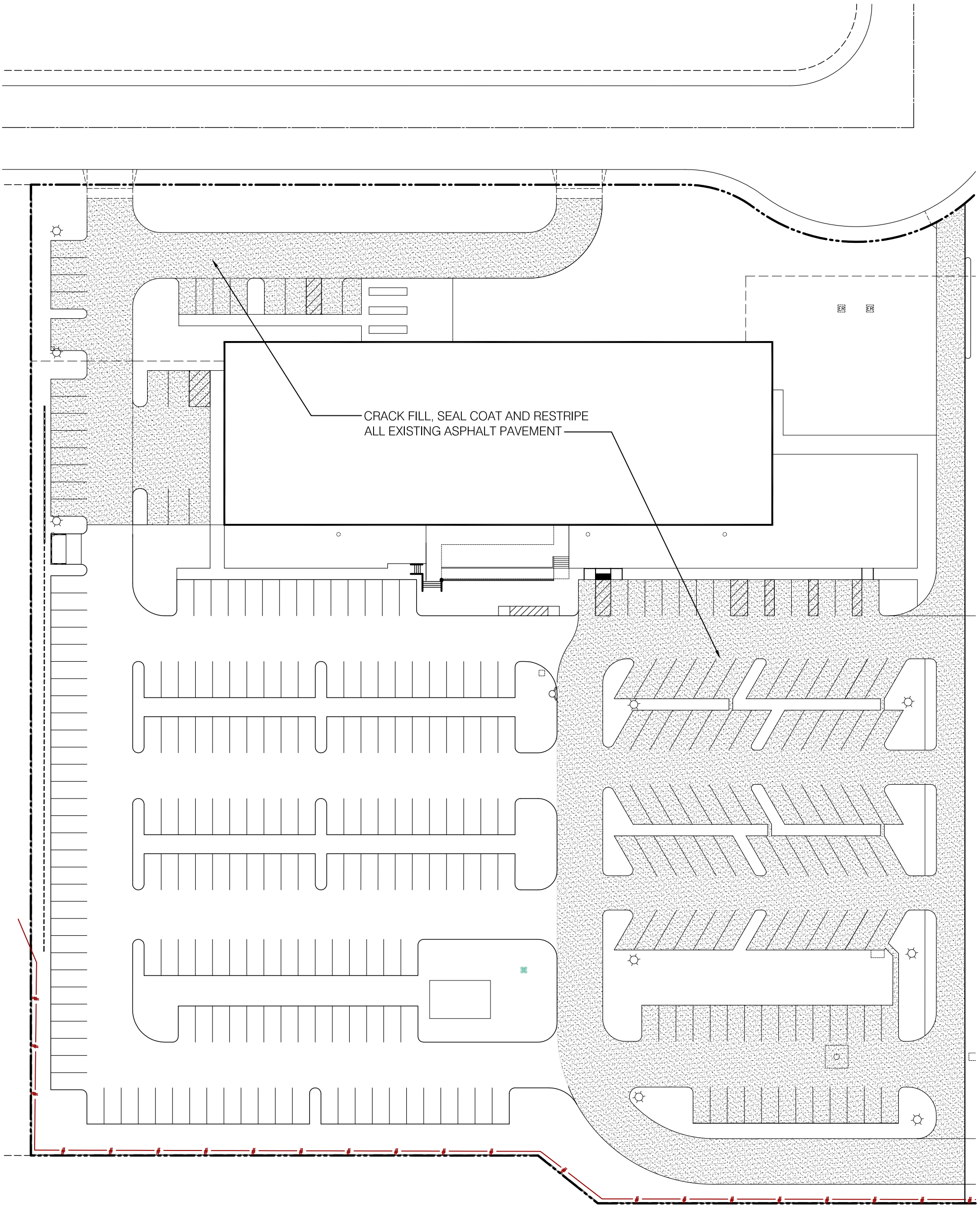
DATE 8/19/15

PROJECT

PARKING LOT & SITE WORK
@ PROFESSIONAL DEVELOPMENT CENTER

SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

SHEET # **AR-01**



SITE PLAN

N

APPL. #

architects, llp
30 South Center Street,
Redlands California 92373
Telephone: 909.792.7397
Fax: 909.793.7873

TITLE

EXISTING LOT REPAIR & SEAL COAT

PROJECT

PARKING LOT & SITE WORK
@ PROFESSIONAL DEVELOPMENT CENTER
SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

PCH # 10963

SCALE 1"=50'

DATE 8/19/15

SHEET # **AR-02**

NOTICE INVITING BIDS

NOTICE IS HEREBY GIVEN that the San Bernardino City Unified School District ("DISTRICT") invites sealed bids for **Bid No. F16-02 Parking Lot and Sitework at Professional Development Center**.

SUBMITTAL OF BIDS: All bids shall be made on the Bid Forms furnished by the District. Bid Forms, together with all required attachments to the Bid Forms, shall be delivered to the DISTRICT in a sealed envelope with a copy of the completed required bid cover sheet affixed to the outside of the envelope and placed in the Bid Box in the Lobby of the San Bernardino City Unified School District Board of Education Administration Building ("BOE"). The Bids are due at 10:00am on Tuesday, August 25, 2015.

Bid forms received by the stipulated times will be promptly opened in public and read aloud immediately after sealed envelopes are collected at the time, date, and location stated above in the Community Room. Bid Forms or Attachments thereto received after the stipulated time will be rejected and returned to Bidders unopened. Each Bid shall be accompanied by a cashier's check made payable to the San Bernardino City Unified School District, or a satisfactory bid bond in favor of the DISTRICT, executed by the Bidder as principal and a California admitted surety company as Surety, in an amount not less than ten percent (10%) of the Base Bid submitted by the Bidder.

BID AND CONTRACT DOCUMENTS: The full notice inviting Bids, Bid documents and contract documents may be viewed and ordered through C2 Reprographics PlanWell Service online by clicking on 'PUBLIC PLANROOM' at www.c2repro.com after Thursday, July 30, 2015. There is a refundable deposit of Fifty dollars ($50.00) for each set of specifications, upon payment by cashier's or company check made payable to San Bernardino City Unified School District. Prospective Bidders may secure up to two bid sets. Eligible deposits will be refunded upon return of said documents to C2 Reprographics in good acceptable condition within five (5) business days after bids are opened. Bidders in need of more than two sets of bid documents may purchase at their own cost based on C2's current rates at that time.

C2 Reprographics
3180 Pullman Street
Costa Mesa, CA 92626
Phone: (866) 632-8329
Public Plan Room: www.c2repro.com

Bid documents will be available at C2 Reprographics for viewing after Thursday, July 30, 2015. Bid documents will also be available at the following public plan rooms:

F.W. Dodge McGraw-Hill, Inc.
Public Plan Room; www.construction.com
4300 Beltway Place Suite 180
Arlington TX 76081
Diana Boyles
Dodge document we@mhfl.com
Phone: 1-800-393-6343
Fax: 1-877-836-7711

The Blue Book Building & Construction Network
Public Plan Room: www.thebluebook.com
800 E. Main St.
P.O. Box 500
Jefferson Valley, NY 10535
TJ Downey
tdowney@thebluebook.com
Phone: (800) 431-2584 Ext. 3177
Fax: (914) 243-4936

CMD GROUP
Public Plan Room: www.cmdgroup.com
30 Technology Pkwy S, Ste 100
Norcross, GA 30092
Michael Lunan mike.lunan@cmdgroup.com
Architectural Source Relations Specialist
Reed Construction Data
(770) 209-3414

REQUESTS FOR BID INFORMATION, CLARIFICATIONS, and ADDENDA: Questions in writing (only) may be directed to the District's Business Outreach Coordinator, Ms. Jennifer Wilhelm via email at jennifer.wilhelm@sbcusd.k12.ca.us or fax, (909) 885-9991. The deadline to submit Requests for Bid Information ("RFBI") is 12:00PM on Tuesday, August 11, 2015. All Responses to Requests for Bid Information, clarifications and/or addenda will be issued no later than Thursday, August 13, 2015 and will be issued to plan holders or registered plan reviewers only. Such responses will be posted at the C2 reprographics public plan room website at www.c2repro.com. Digital copies are considered an accepted form of Addenda delivery method.

PROJECT DELIVERY METHOD AND REQUIRED LICENSES: The work under these bids will be a unit price bid and all bidders to be considered responsive shall have a current California A and/or B License.

PREVAILING WAGE: Department of Industrial Relations (DIR) compliance, Effective January 1, 2015:

No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

PREQUALIFICATION OF BIDDERS: NOT APPLICABLE FOR THIS PROJECT

SCOPE OF WORK: Refer to project site's specific summary of work contained in Sections 01 11 00 of the Project Manual. The contractor is responsible for the performance and completion of all items according to plans, specifications and any addenda including but not necessarily limited to the work listed below:

Site demolition; grading and compaction; storm drainage including WQMP work; asphalt pavement; concrete walks, curbs and gutters; landscaping and irrigation; fire hydrant relocation; parking lot lighting and ADA parking upgrades.

BUSINESS ENTERPRISE (DVBE) PARTICIPATION GOAL AND REQUIREMENTS: Bidders must adhere to the District's Disabled Veteran Business Enterprise (DVBE) participation goal, prevailing wages and labor compliance program, and license requirements; information regarding prevailing wage rates is available at http://www.pd.dgs.ca.gov/smbus/default.htm, http://search.cadvbe.org/dvbes/search and http://www.bidsync.com/DPXBisCASB.

PRE-BID CONFERENCES AND JOB WALKS: A non-mandatory pre-bid conference and job walk will be held at the sites on August 10, 2015 at 9:00AM.

Site addresses:
4030 Georgia Blvd., San Bernardino, CA 92407

IMPORTANT DATES:

First Publication	THURSDAY, JULY 30, 2015
Second Publication	THURSDAY, AUGUST 6, 2015
Pre Bid Conference and Job Walk	AUGUST 10, 2015 AT 9:00AM
RFI Due	FRIDAY, AUGUST 14, 2015
Addendum Due	WEDNESDAY, AUGUST 19, 2015
Bid Opening	10:00AM ON TUESDAY, AUGUST 25, 2015
Bid Posting on Facilities Website	WEDNESDAY, AUGUST 26, 2015
Tentative Board Meeting	TUESDAY, OCTOBER 6, 2015
NOA Issued (Tentative)	WEDNESDAY, OCTOBER 7, 2015

END of NOTICE INVITING BID

BID FORM

SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

PARKING LOT AND SITEWORK

PROFESSIONAL DEVELOPMENT CTR

4030 Georgia Blvd., San Bernardino, CA 92407

Bid No. F16-02R

CONTRACTOR NAME: _____

ADDRESS: _____

_____

TELEPHONE: ( ) _____

FAX: ( ) _____

EMAIL: _____

TO: SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT, acting by and through its Governing Board, herein called "DISTRICT".

Pursuant to and in compliance with your Notice Inviting Bids and other documents relating thereto, the undersigned bidder, having familiarized himself with the terms of the contract, the local conditions affecting the performance of the contract, the cost of the work at the place where the work is to be done, with the drawings and specifications, and other contract documents, hereby proposes and agrees to perform within the time stipulated, the contract, including all of its component parts, and everything required to be performed, including its acceptance by the DISTRICT, and to provide and furnish any and all labor, materials, tools, expendable equipment, and utility and transportation services necessary to perform the contract and complete all of the work in a workmanlike manner required in connection with the construction of:

BID NO. F16-02

Parking Lot and Sitework at Professional Development Center

in the DISTRICT described above, all in strict conformance with the drawings and other contract documents on file at the Purchasing Office of said DISTRICT for amounts set forth herein.

Bidder acknowledges the following Addendum:

Number	Number	Number	Number	Number	Number	Number	Number
_____	_____	_____	_____	_____	_____	_____	_____

Acknowledge the inclusion of all addenda issued prior to bid in the blanks provided above. Your failure to do so may render your bid non-responsive.

TOTAL PRICE – ENTIRE JOB

TOTAL CASH PURCHASE PRICE IN WORDS & NUMBERS:

_____ DOLLARS

($_____)

[OPTIONAL] ALTERNATE BIDS: The following amounts shall be added to or deducted from the Base Bid at the DISTRICT's option. Alternates are fully described in Addendum No. 1.

Alternate No. 1: ADD/DEDUCT _____ Dollars ($_____)
(Replace existing parking lot light fixtures)

TIME FOR COMPLETION: The DISTRICT may give a notice to proceed within ninety (90) days of the award of the bid by the DISTRICT. Once the CONTRACTOR has received the notice to proceed, the CONTRACTOR shall complete the work in the time specified in the Agreement. By submitting this bid, CONTRACTOR has thoroughly studied this Project and agrees that the time period for this Project was adequate for the timely and proper completion of the Project. Further, CONTRACTOR has included in the analysis of the time required for this Project, Rain Days, Governmental Delays, and the requisite time to complete Punch List.

In the event that the DISTRICT desires to postpone giving the notice to proceed beyond this ninety (90) day period, it is expressly understood that with reasonable notice to the CONTRACTOR, giving the notice to proceed may be postponed by the DISTRICT. It is further expressly understood by the CONTRACTOR, that the CONTRACTOR shall not be entitled to any claim of additional compensation as a result of the postponement of giving the notice to proceed.

If the CONTRACTOR believes that a postponement will cause a hardship to it, the CONTRACTOR may terminate the contract with written notice to the DISTRICT within ten (10) days after receipt by the CONTRACTOR of the DISTRICT's notice of postponement. Should the CONTRACTOR terminate the contract as a result of a notice of postponement, the DISTRICT shall have the authority to award the contract to the next lowest responsible bidder, if applicable.

It is understood that the DISTRICT reserves the right to reject any or all bids and/or waive any irregularities or informalities in this bid or in the bid process. The CONTRACTOR understands that it may not withdraw this bid for a period of ninety (90) days after the date set for the opening of bids.

Attached is bid security in the amount of not less than ten percent (10%) of the total bid:

Bid bond (10% of the Bid), certified check, or cashier's check (circle one)

It is understood and agreed that if written notice of the acceptance of this bid is mailed, telegraphed, or delivered to the undersigned after the opening of the bid, and within the time this bid is required to remain open, or at any time thereafter before this bid is withdrawn, the undersigned will execute and deliver to the DISTRICT a contract in the form attached hereto in accordance with the bid as accepted, and that he will also furnish and deliver to the DISTRICT the Performance Bond and Payment Bond, all within **five (5) calendar days** after award of contract, and that the work under the contract shall be commenced by the undersigned bidder, if awarded the contract, by the start date provided in the DISTRICT's Notice to Proceed, and shall be completed by the CONTRACTOR in the time specified in the contract documents.

All notices or other correspondence should be addressed to the undersigned at the address stated below.

The names of all persons interested in the foregoing proposal as principals are as follows:

_____

_____

_____

_____

_____

_____

(IMPORTANT NOTICE: If bidder or other interested person is a corporation, state the legal name of such corporation, as well as the names of the president, secretary, treasurer, and manager thereof; if a co-partnership, state the true names of the firm, as well as the names of all individual co-partners comprising the firm; if bidder or other interested person is an individual, state the first and last names in full.)

PROTEST PROCEDURES. If there is a bid protest, the grounds shall be submitted within 3 working days as set forth at Paragraph 12 of the Instructions to Bidders.

The undersigned bidder shall be licensed and shall provide the following California Contractor's license information:

License Number: _____

License expiration date: _____

Name on License: _____

Class of License: _____

If the bidder is a joint venture, each member of the joint venture must include the above information.

Time is of the essence regarding this contract, therefore, in the event the bidder to whom the Notice of Intent to Award Contract is given fails or refuses to post the required bonds and return executed copies of the Agreement form within **five (5) calendar days** from the date of receiving the Notice of Intent to Award Contract, the DISTRICT may declare the bidder's bid deposit or bond forfeited as damages.

Pursuant to Government Code Section 4552, in submitting a bid to the DISTRICT, the bidder offers and agrees that if the bid is accepted, it will assign to the DISTRICT all rights, title, and interest in, and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. § 15) or under the Cartwright Act (Business and Professions Code Sections 16700, et. seq.,), arising from the purchase of goods, materials, or services by the bidder for sale to the DISTRICT pursuant to the bid. Such assignment shall be made and become effective at the time the DISTRICT tenders final payment to the bidder.

The bidder declares that he/she has carefully examined the location of the proposed work, that he/she has examined the Plans, General Conditions of the contract, Special Conditions of the Contract, and Specifications, and read the accompanying instructions to bidders, and hereby proposes and agrees, if this proposal is accepted, to furnish all materials and do all work required to complete the said work in accordance with the Plans, General Conditions of the contract, Special Conditions of the contract, and Specifications, in the time and manner therein prescribed for the unit cost and lump sum amounts set forth in this Bid Form.

Debarment. In addition to seeking remedies for False Claims under Government Code Section 12650 et seq. and Penal Code Section 72, the District may debar a Contractor pursuant to Article 15 of the General Conditions if the Board, or the Board's representative, in its discretion, finds the Contractor has done any of the following:

1. Intentionally or with reckless disregard, violated any term of a contract with the District
2. Committed an act or omission which reflects on the Contractor's quality, fitness or capacity to perform work for the District;
3. Committed an act or offense which indicates a lack of business integrity or business honesty; or,
4. Made or submitted a false claim against the District or any other public entity(See Government Code Sections 12650, et. seq., and Penal Code Section 72)

Designation of Subcontractors: In compliance with the Subletting and Subcontracting Fair Practices Act (California Public Contract Code Sections 4100 et. seq.) and any amendments thereof, each bidder shall list subcontractors on the District's form Subcontractor list. This subcontractor list shall be submitted with the bid and is a required form.

I, the below-indicated bidder, declare under penalty of perjury that the information provided and representations made in this bid are true and correct.

Proper Name of Company

Name of Bidder Representative

Street Address

City, State, and Zip

( )
Phone Number

( )
Fax Number

E-Mail

By: Date:
Signature of Bidder Representative

***NOTE**: If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of authorized officers or agents and the document shall bear the corporate seal; if bidder is a partnership, the true name of the firm shall be set forth above, together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; and if bidder is an individual, his signature shall be placed above.*

All signatures must be made in permanent blue ink.

Storm Water Pollution Prevention Plan
San Bernardino City Unified School District
Parking Lot for Professional Development Building
San Bernardino, California

August 2015

Submitted to:

State Water Resources Control Board
Division of Water Quality, Construction Storm Water
1001 I Street
Sacramento, CA 95814
Mailing: P.O. Box 100
Sacramento, CA 95812-0100

Prepared for:

San Bernardino City Unified School District
Facilities Management
956 West 9th Street
San Bernardino, CA 92411

Prepared by:

Tetra Tech, Inc.
5383 Hollister Drive, Suite 130
Santa Barbara, CA 93111

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APPENDICES

LIST OF TABLES

LIST OF FIGURES

1.0 STORM WATER POLLUTION PREVENTION PLAN CERTIFICATION

Project Name: Parking Lot for Professional Development Building

WDID[1] Number: To Be Obtained

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Qualified SWPPP Developer (QSD): Anne Power, QSD # 517, CPESC # 3615, CPSWQ #642

Phone: (805) 478-5672

_____

Signature Date

Role	Name/Title	Phone
Legally Responsible Person:	Samer Alzubaidi, Facilities Management Director, San Bernardino City Unified School District	(909) 388-3100
San Bernardino USD Project Manager	Tim Deland, Facilities Officer, San Bernardino City Unified School District	(909) 388-3100
Qualified SWPPP Developer:	Anne Power, QSD #517 Tetra Tech, Inc.	(805) 478-5672

For after-hour emergencies, contact the San Bernardino City Unified School District Police Department at (909) 388-6130 or (909) 889-6933.

[1] A Waste Discharge Identification (WDID) number or, facility identification number, is provided by the State Water Resources Control Board upon receipt of all Permit Registration Documents.

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2.0 AMENDMENTS

This Storm Water Pollution Prevention Plan (SWPPP) will be amended whenever there is a change in construction or operations that may affect the discharge of pollutants to surface waters, groundwater(s), or to a municipal separate storm sewer system (MS4). The SWPPP amendments will be listed in Table 1 and signed (certified) by a Qualified SWPPP Developer (QSD). The following items will be included in each amendment:

- The date of the amendment;
- A description of the amendment;
- Page numbers of the amendment; and
- Signature certifying the amendment by a QSD.

Table 1
Amendment Log

Amendment No.	Date	Amendment Description	Page Number(s)	QSD Signature
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

This page intentionally left blank.

3.0 STORM WATER POLLUTION PREVENTION PLAN

This SWPPP was developed in accordance with the *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Water Quality Order 2009-0009-DWQ, General Permit No. CAS000002* (General Permit) and its amendments adopted by the State Water Resources Control Board (SWRCB) (Appendix A). The Santa Ana Regional Water Quality Control Board (RWQCB) Region 8 is the local regulatory agency responsible for enforcing the General Permit with respect to construction activities associated with the San Bernardino City Unified School District Parking Lot Project site (Site).

3.1 OBJECTIVES

The main objectives of the SWPPP are:

- To identify all pollutant sources that may affect the quality of storm water discharges from the site associated with construction activities;
- To identify non-storm water discharges and eliminate unauthorized non-storm water discharges, illicit connections, and dumping;
- To establish, construct, implement, and maintain best management practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized non–storm water discharges from the construction site;
- To develop a maintenance schedule for BMPs installed during construction and after construction is completed (post-construction BMPs);
- To develop an inspection program to determine the effectiveness of site BMPs; and
- To create a sampling and analysis strategy to detect and eliminate pollutants in storm water runoff associated with construction activities.

3.2 PERMIT REGISTRATION DOCUMENTS

Required Permit Registration Documents (PRDs) will be submitted to the SWRCB via the *Stormwater Multi Application and Report Tracking System* (SMARTS) by the Legally Responsible Person (LRP) or authorized personnel (i.e., Approved Signatory) under the direction of the LRP. The project-specific PRDs include:

- Notice of Intent (NOI);
- Risk Assessment (Construction Site Sediment and Receiving Water Risk Determination);
- Site Map;
- SWPPP;
- Annual Fee; and

- Signed Certification Statement (electronically with SMARTS PRD submittal).

- Post-Construction Water Balance Calculator (this applies to sites not covered under an adopted Phase I or II Municipal General Permit with post-construction standards and that are not linear projects);

PRDs not applicable to the Site are:

- Active Treatment System (ATS) Plan; and

- Soil particle size analysis for dischargers proposing an alternate Risk Justification.

3.3 SWPPP AVAILABILITY AND IMPLEMENTATION

The SWPPP will remain on-site at all times during working hours when construction is occurring and will be implemented concurrently with the start of ground-disturbing activities. The SWPPP will be available for review by the U.S. Environmental Protection Agency (EPA), SWRCB, Santa Ana RWQCB, and all operating personnel for the duration of the project. When the SWPPP is retained by a crewmember in a construction vehicle and is not currently at the construction site, current copies of the BMPs and map/drawing will be left with the field crew, and the SWPPP will be made available via request by radio or telephone.

3.4 RESPONSIBILITY FOR SWPPP DEVELOPMENT AND IMPLEMENTATION

This SWPPP has been written and certified by a QSD. A QSD will also be responsible for amending this SWPPP (Table 1). The Qualified SWPPP Practitioner (QSP) is responsible for General Permit compliance and SWPPP implementation. Specific duties of the QSP and persons delegated by the QSP are:

- Coordinating with the appropriate San Bernardino City Unified School District., (SBCUSD) representatives to ensure the project complies with the SWPPP, the General Permit, and approved plans at all times;

- Implementing all elements of the SWPPP, including prompt and effective erosion, sediment, tracking, and wind erosion control measures and management of non-storm water discharges, and construction materials and liquid, solid, and hazardous wastes;

- Assigning authority to mobilize crews in order to conduct immediate and complete BMP repairs and providing storm water pollution prevention training;

- Performing weekly, pre-storm, extended storm event, and post-storm event inspections and non-storm water visual observations;

- Collecting storm water samples and storm water and non-storm water visual observations;

- Informing the proper SBCUSD project representatives of General Permit non-compliance, such as unauthorized discharges, illicit connections, or dumping activities, and overseeing corrective actions;

- Overseeing site stabilization for General Permit closure; and
- Ensuring SWPPP availability and records retention in accordance with the General Permit.

3.5 TRAINING REQUIREMENTS

In accordance with Section 1.F of the General Permit, this SWPPP was written and certified by a QSD. A QSD must also write any amendments to the SWPPP. The QSP must implement all BMPs required by the General Permit or may designate staff to implement BMPs, given they have received appropriate training to do so. Training records, including formal and informal training related to storm water and BMP implementation for all personnel implementing this SWPPP and/or complying with the General Permit, will be included in Appendix B.

3.6 ANNUAL REPORTING

By September 1 of each year and prior to submitting the Notice of Termination (NOT), the LRP identified in Section 1.0 of this SWPPP will electronically submit and certify an Annual Report via SMARTS and mail the appropriate fees to the SWRCB. The following are to be included in the Annual Report:

- Confirmation that:
    - The SWPPP was certified by a QSD, contains a Construction Site Monitoring Program element, and is retained on-site;
    - Good housekeeping measures, non-storm water discharge controls, erosion controls, sediment controls, and run-on/runoff controls were fully implemented;
    - All elements of the Construction Site Monitoring Program were implemented;
    - BMPs were inspected, maintained, and fully implemented;
    - A QSP was in reasonable charge of SWPPP implantation;
    - Individuals conducting BMP installation, inspection, maintenance, and repairs were trained properly; and
    - Records were retained, as per the General Permit.
- A summary of:
    - Authorized and unauthorized discharges;
    - BMP deficiencies;
    - Non-visible pollutant discharges;
    - Sampling and analysis results, including copies of laboratory reports; and

- Exceedances of General Permit limits and corrective actions taken during the compliance year.

3.7 CHANGES TO PERMIT COVERAGE

The General Permit allows for the reduction or increase of the total acreage covered under the General Permit when a portion of the project is complete and/or conditions for termination of coverage have been met, ownership of a portion of the project is purchased by a different entity, or new acreage is added to the project. Modified PRDs need to be filed electronically within 30 days of a reduction or increase in total disturbed area if a change in General Permit covered acreage is to be sought. The SWPPP will be appropriately modified and the changes will be recorded in Table 1. Updated PRDs must be submitted electronically via SMARTS.

3.8 REQUIRED NON-COMPLANCE REPORTING

Authorized representatives from the U.S. EPA, SWRCB, or Santa Ana RWQCB will be permitted entry to the Site for reviewing this SWPPP, inspecting the site, and/or collecting storm water samples. If a General Permit discharge violation occurs, the QSP will immediately notify the LRP. The LRP will include details of the violation in the Annual Report. Corrective measures will be implemented immediately following identification of the discharge or written notice of non-compliance from the Santa Ana RWQCB. Discharges and corrective actions must be documented and include the following items:

- The date, time, location, nature of operation, and type of unauthorized discharge;
- The cause or nature of the notice or order;
- The control measures deployed before the discharge event or prior to receiving notice or order; and
- The date of deployment and type of control measures deployed after the discharge event or after receiving the notice or order, including additional measures installed or planned to reduce or prevent re-occurrence.

3.9 RECORDS RETENTION

All records, including the NOI, this SWPPP and its amendments, NOT, monitoring information, sampling results, completed forms, copies of Annual Reports, training logs, and records of all data used to complete the NOI will be retained by SBCUSD or Tetra Tech personnel for at least three years from the date generated. This period may be extended by request of the SWRCB and/or Santa Ana RWQCB.

3.10 PERMIT CLOSURE

Within 90 days of the completion of construction, a NOT will be submitted to the SWRCB through SMARTS. Filing the NOT certifies that all General Permit requirements have been met. A final site map and photographs of the completed site will be submitted with the NOT.

For a construction project to be considered complete, all of the following conditions must be met:

- The Site will not pose any additional sediment discharge risk than it did prior to the commencement of construction activity.
- There is no potential for construction-related storm water pollutants to be discharged into Site runoff.
- Final stabilization has been reached by one of the following:
    - Attaining 70% uniform vegetative cover or equivalent stabilization measures[2], such as erosion control blankets, reinforced channel liners, and geotextiles;
    - Calculating annual average soil loss with the Revised Universal Soil Loss Equation (RUSLE) or RUSLE2 for pre- and post-construction to demonstrate that the Site will not yield more sediment than it did prior to construction; or
    - Otherwise demonstrating that final stabilization has been achieved.
- Construction materials and wastes have been disposed of properly.
- Post-construction BMPs have been effectively implemented.
- A long-term (5-year) maintenance plan has been established.
- All construction-related equipment, materials, and any temporary BMPs no longer needed have been removed from the Site.

[2] Where background native vegetation covers less than 100% of the surface, the 70% coverage criteria is adjusted as follows: if the native vegetation covers 50% of the ground surface, 70% of 50% (0.70 X 0.50 = 0.35) would require 35% total uniform surface coverage.

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4.0 PROJECT DESCRIPTION

The project site is located at 4030 Georgia Avenue adjacent to the SBCUSD Professional Development Building in San Bernardino, CA. The geographic coordinates for the site are 34.163075, -117.339369.

The project includes the construction of a 1.5-acre parking lot with curbed landscaped areas, concrete masonry wall, minor concrete pads, landscaped areas, and associated utilities. Figure 1 shows the project location, construction site perimeter, surface water boundaries, geographic features, and surrounding natural features. The new parking lot will tie into the layout of the existing building to the northeast and parking lot to the southeast. The new parking lot has been graded to drain to the east into four new storm inlets and one existing storm inlet where all flows from the site will be conveyed to the City of San Bernardino MS4.

The new parking lot use will include daily, light vehicle traffic and parking. The total project area is approximately 2.0 acres. The existing site is lightly vegetated open space with the exception of a 640-square foot utility area and 3-foot wide, 400-foot concrete drainage v-ditch draining into an existing 24-inch inlet. The proposed site will add 1.4 acres of new impervious area and 0.6 acres of landscaped area. The project will remove the existing v-ditch, but preserve the existing storm water inlet and utility area.

The project will consist of the following phases:

- Perform initial surveys and secure site perimeter.
- Delineate stockpiling areas, staging areas, and stabilize entrance/exits for hauling.
- Mobilize equipment on-site.
- Install temporary BMPs.
- Perform sit preparation/earthwork.
- Conduct over excavation, and grading operations.
- Backfill over-excavated area with fill (as necessary).
- Perform paving operations
- Perform planting and landscaping operations.
- Remove temporary BMPs and all construction-related equipment, materials and wastes.

The site is adjacent to commercial and undeveloped areas. No wetland or riparian habitat occurs within the site boundaries.

Legend

☆ Project Location

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community
Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

San Bernardino City Unified School District

Project Vicinity Map

Construction Storm Water Pollution Prevention Plan
Parking Lot for Professional Development Building

N W E S

0 0.2 0.4 0.8 Miles

TETRA TECH
3201 Airpark Drive, Suite 108
Santa Maria, CA 93455

TC NO.	DATE	DRAWN BY	MAP NO.	FIGURE
SBA-T29378 .0010	06/30/2015	GILLESPIE	SMX-1030	1

4.1 PROJECT SCHEDULE

The project is anticipated to start September 14, 2015 and be completed by November 12, 2015. It is anticipated that final stabilization will be achieved and all construction materials and wastes will be removed from the site by November 12, 2015.

4.2 CLIMATE

The climate in the San Bernardino, California area is generally warm with an average maximum temperature of 79.9 degrees Fahrenheit and an average minimum temperature of 48.2 degrees Fahrenheit (Western Regional Climate Center [WRCC] 2015). The majority of precipitation falls between October and April. The average total precipitation is 16.12 inches and the average snowfall is 0.2 inches (WRCC 2015)[3].

4.3 SOIL DESCRIPTION AND FILL MATERIAL

Topographically, the existing site is mostly level with minimal slopes. The main soil type in the project area is Tujunga gravelly loamy sand (TvC) with 0 to 9 percent slopes. The soil drainage class for this site describe the soil as somewhat excessively drained with a hydrological soil group classification of A, for soils having high infiltration rate and low runoff potential when thoroughly wet. These soils also tend to have a high rate of water transmission. The soil profiles were obtained from the Natural Resources Conservation Service (NRCS) Soil Survey.

A geotechnical study was performed by Converse Consultants to study site soil conditions and percolation rates for the design and construction of the parking lot and associated utilities (2015). The geotechnical study analyzed soil borings from four hand auger locations to a depth of three feet distributed across the site and found that site soils are uniformly silt sands with a 4–6 inch layer of gravel on top. The geotechnical study also performed percolation testing at each boring location. The average percolation rates varied between 4.4 and 14.7 inches per hour with the lowest rates ranging between 2.4 and 4.1 inches per hour.

4.4 STORM WATER CONVEYANCE FEATURES AND RECEIVING WATER

The site on which the parking lot will be built is currently an undeveloped property located parallel to Cajon Boulevard in San Bernardino, California. The ground condition is a combination of native and engineered soil with limited vegetation. In the event of a rainstorm, water that falls onto the site primarily infiltrates into the on-site soils. The site is bordered to the northwest, north, and northeast by parking lots and two existing buildings including the SBCUSD Professional Development building. The property is bordered to the east/southeast by a preexisting parking lot, to the south by a set of railroad tracks that parallel Cajon Boulevard, and to the southwest/west by undeveloped land.

The proposed parking lot is designed to manage storm water runoff on-site. There is a preexisting storm drain located near the southeast perimeter of the site, next to the SBCUSD Professional Development building parking lot. Additional storm water catch basins, pipes, and inlets will be installed during construction such that in the event of a rainstorm, storm water will sheet flow across

[3] Climate observations were recorded from the weather station at San Bernardino F S 226, California (047723) from 01/01/1893 through 09/24/2004.

paved areas to drain inlets that will direct water to on-site infiltration structures. Storm water runoff leaving the site would be conveyed by the MS4 system and eventually drain into the Santa Ana River Watershed and Pacific Ocean.

The water bodies located nearest the site are the Cajon Wash and Lytle Creek floodways which are located approximately 1.5 miles west of the site. Lytle Creek was listed in 2006 as an impaired water body on the Environmental Protection Agency's 303(d) list for pathogens (2010 Integrated Report [Clean Water Act Section 303(d) List / 305(b) Report] – Statewide, accessed online May 11, 2015). Best management practices will be implemented across the site to prevent nonvisible pollutants, as well as project-related sediment or construction materials from leaving the site.

4.5 STORM WATER RUN-ON

The Site is not anticipated to receive significant storm water run-on from the surrounding properties. On-site flows from the adjacent parking lot will be diverted around or passed safely through the disturbed areas of the Project site.

4.6 RISK LEVEL DETERMINATION

The General Permit requires that a site's tendency to erode (the Site Sediment Risk) and impact a receiving water (the Site Receiving Water Risk) be assessed to ensure that applicable BMPs are selected and implemented and that adequate monitoring is performed. The methodology in Appendix 1 of the General Permit was used for performing the risk assessment and determining a Combined Risk Level, which directly corresponds to General Permit specified BMP and monitoring requirements.

The Site Sediment Risk Level was determined utilizing the RUSLE equation[4]. This equation provides an estimate of annual soil loss by erosion from a site. The General Permit assumes C and P values are 1.0; therefore, only R, K, and LS values were obtained.

The RUSLE R factor was determined to be 4.99 using the Construction Erosivity Waiver Fact Sheet provided by the U.S. EPA's website, *Rainfall Erosivity Factor Calculator for Small Construction Sites* at the following web address: http://water.epa.gov/polwaste/npdes/stormwater/LEW-Results.cfm (U.S. EPA 2014). The R factor was based on estimated construction dates of September 14, 2015 through November 12, 2015.

The Site is eligible for an Erosivity Waiver based on the calculated R factor for the planned construction period and the site acreage being under 5 acres in size. If the construction period is extended beyond November 12, 2015 the erosivity waiver will no longer apply to the project.

The Site K and LS factors were determined using the GIS Map Method provided in Appendix 1 of the General Permit. Utilizing the GIS maps and the Site location, the K and LS factors were found to be 0.24 and 1.98, respectively. The site is not located within a "Sediment Sensitive Watershed"; therefore, the Site's Receiving Water Risk is low. Based on the information presented above, if the construction period is extended beyond November 12, 2015 the Combined Risk Level for this project will be 1.

[4] The RUSLE equation is A=R*K*LS*C*P, where R is the rainfall-runoff erosivity factor, K is the soil erodibility factor, L is the slope length, S is the slope steepness, C is the cover-management factor, and P is the support practice factor.

Figures supporting the GIS Map Method and the Rainfall Erosivity Calculator Results are included as Appendix C.

4.7 POTENTIAL STORM WATER POLLUTANTS AND THEIR SOURCES

Potential pollutant sources have been identified in order to develop BMPs for their control. Historical, current, and future pollution sources were reviewed and are discussed in the following subsections.

4.7.1 Potential Historical Pollutants

No water quality pollutants or historical pollutants are known to exist at this site.

4.7.2 Potential Pollutants from Construction Activities

The General Permit requires developing a list of all construction materials used on-site that are not designed to be outdoors and exposed to environmental conditions (i.e., are used in the process of construction, but are not the final product). An assessment of direct or indirect pathways that pollutants may be exposed to storm water or authorized non-storm water discharges is also required. Construction materials have the potential to come into contact with storm water when stored or used outdoors on the Site. A summary of the potential pollution source and/or activity and the associated pollutant is provided in Table 2.

Table 2
Potential Pollution Sources and Associated Pollutants

Pollution Source/Activity	Potential Pollutant
Excavating, trenching, grading, tracking from construction site entrance/exit, and stockpiling activities.	Sediment, dust
Vehicle and equipment use, service, and storage	Vehicle and equipment fluids (gasoline, diesel, oil, grease, coolant); battery acid*
Asphalt paving	Asphalt emulsions, aggregate
Curbing and walkway installation	Portland cement, aggregate, concrete wash water
Site landscaping installation	Topsoil, mulch, plant waste, plant containers, irrigation adhesive compounds*
Presence of daily personnel	General litter and scrap
Use and cleaning of portable restrooms	Septic waste

Note: * May contain non-visible pollutants.

A complete list of potential pollutants to be used on-site, their physical properties; storage, handling, and disposal locations; and potential storm water exposure rating is included in Table 3. Materials will be added to the list if necessary as construction progresses.

Table 3
Potential Pollutant Properties, Handling, Storage, Disposal Locations, and Exposure Rating

Material	Liquid (L), Powder (P), or Solid (S)?	Hazardous? (Yes/No)	Storage Location	Area to be Handled	Disposal Location	Potential Storm Water Exposure (Rate 1-5)*
Sediment, dust	P, S	N	Not applicable	Throughout Site	Off-site	5
Vehicle and equipment fluids	L	Y	Entire Site	Entire Site	No waste anticipated	2
Asphalt emulsions	L	Y	Entire Site	Entire Site	Off-site	4
Portland cement and aggregate	L, P, S	N	Staging area, concrete washout	Entire Site	Off-site	4
General litter, scrap	S	N	Staging area	Throughout Site	Dumpster and off-site	3
Septic waste	L	Y	Septic waste management area	Septic waste management area	Off-site	1

Note: * A rating of 1 indicates a low potential for the material to contact storm water or authorized non-storm water discharges; 5 indicates a high potential.

4.8 NON-STORM WATER DISCHARGES

The General Permit prohibits discharging anything other than storm water and authorized non-storm water discharges to Waters of the State or an MS4. Authorized non-storm water discharges include de-chlorinated potable water sources, such as fire hydrant flushing, irrigation of vegetative erosion control measures, pipe flushing and testing, water used for dust control, uncontaminated groundwater dewatering, and other discharges not subject to a separate general NPDES permit, provided that these discharges:

- Cannot be eliminated;
- Comply with BMPs described within this document;
- Are filtered or treated if they consist of dewatering discharges from sedimentation basins; and
- Do not contain pollutants that would create an exceedance of water quality standards in receiving waters.

BMPs have been identified in this SWPPP to control spills, leaks, and to prevent illicit connections and discharges during the project (see Section 5.0).

5.0 BEST MANAGEMENT PRACTICES

Best management practices have been selected to control potential pollutants listed in Table 2. The General Permit-required BMPs are provided in the following BMP tables. Several publications are available that describe detailed methods for controlling construction site pollutant discharges, including the following:

- California Department of Transportation (Caltrans) Division of Construction (please refer to the website at: http:po/www.dot.ca.gov/hq/construc/stormwater/manuals.htm); and
- California Stormwater Quality Association (CASQA) (please refer to the website at: http://www.casqa.org/).

The above documents contain BMP Fact Sheets (also known as Water Pollution Control Drawings) that provide implementation details. The General Permit requires including a description of BMPs that were considered for the Site in this SWPPP. Table 4 presents a compilation of BMPs described in the Caltrans and CASQA BMP handbooks that were considered for use at the Site; the applicability of each BMP for the project is indicated.

Table 4
Best Management Practices Considered for Implementation

Best Management Practice	CASQA Abbreviation	Applicable for Site: Yes (Y), No (N)
Scheduling/Phasing Construction	EC-1	Y
Preserving Existing Vegetation	EC-2	N
Hydraulic Mulch	EC-3	N
Hydroseeding	EC-4	Y
Soil Binders	EC-5	N
Straw Mulch	EC-6	N
Geotextiles and Mats	EC-7	N
Wood Mulching	EC-8	N
Earth Dikes and Drainage Swales	EC-9	N
Velocity Dissipation Devices	EC-10	N
Slope Drains	EC-11	N
Streambank Stabilization	EC-12	N
Compost Blankets	EC-14	N
Soil Preparation/Roughening	EC-15	N
Non-Vegetative Stabilization	EC-16	N
Silt Fence	SE-1	Y
Sediment Basin	SE-2	N

Table 4, Page 1 of 3

Table 4 (Continued)
Best Management Practices Considered for Implementation

Best Management Practice	CASQA Abbreviation	Applicable for Site: Yes (Y) or No (N)?
Sediment Trap	SE-3	N
Check Dam	SE-4	N
Fiber Rolls	SE-5	Y
Gravel Bag Berm	SE-6	Y
Street Sweeping and Vacuuming	SE-7	Y
Sandbag Barrier	SE-8	N
Straw Bale Barrier	SE-9	N
Storm Drain Inlet Protection	SE-10	Y
Active Treatment System	SE-11	N
Temporary Silt Dike	SE-12	N
Compost Socks and Berms	SE-13	N
Biofilter Bags	SE-14	N
Stabilized Construction Entrance/Exit	TC-1	Y
Stabilized Construction Roadway	TC-2	Y
Entrance/Outlet Tire Wash	TC-3	N
Wind Erosion Control	WE-1	Y
Water Conservation Practices	NS-1	Y
Dewatering Operations	NS-2	N
Paving and Grinding Operations	NS-3	Y
Temporary Stream Crossing	NS-4	N
Clear Water Diversion	NS-5	N
Illicit Connection/Discharge	NS-6	Y
Potable Water/Irrigation	NS-7	Y
Vehicle and Equipment Cleaning	NS-8	Y
Vehicle and Equipment Fueling	NS-9	Y
Vehicle and Equipment Maintenance	NS-10	Y
Pile Driving Operations	NS-11	N
Concrete Curing	NS-12	Y
Concrete Finishing	NS-13	Y
Material Over Water	NS-14	N
Demolition Adjacent to Water	NS-15	N
Temporary Batch Plants	NS-16	N
Material Delivery and Storage	WM-1	Y

Table 4, Page 2 of 3

Table 4 (Continued)
Best Management Practices Considered for Implementation

Best Management Practice	CASQA Abbreviation	Applicable for Site: Yes (Y) or No (N)?
Material Use	WM-2	Y
Stockpile Management	WM-3	Y
Spill Prevention and Control	WM-4	Y
Solid Waste Management	WM-5	Y
Hazardous Waste Management	WM-6	N
Contaminated Soil Management	WM-7	N
Concrete Waste Management	WM-8	Y
Sanitary/Septic Waste Management	WM-9	Y
Liquid Waste Management	WM-10	Y

Table 4, Page 3 of 3

The BMPs listed in this SWPPP will be implemented on a year-round basis, throughout the project duration, not solely during seasons in which the probability of a rain event is high. All areas not in active use prior to rain events and/or for 14 days will be stabilized (i.e., exposed soil will be covered or stabilized with soil binder). Sufficient BMP materials will be maintained on-site to allow implementation in conformance with the General Permit requirements, this SWPPP, and emergency installation in the event of a breach or BMP failure. Regular inspection and maintenance of BMPs is necessary to ensure their effectiveness.

In accordance with the General Permit, BMP inspection and maintenance requirements are described in the BMPs tables in the following sections. Figure 2, *Site Map*, shows the Site layout, and construction boundaries; adjacent roads; anticipated sampling/discharge locations; areas of soil disturbance; locations of runoff, sediment, and erosion control BMPs; the planned storm water conveyance system; location of storage areas for waste, vehicles, service, loading/unloading, access (entrance/exit) points; and location for fueling, water storage, and water for dust control and compaction practices.

5.1 RUN-ON CONTROL

The General Permit requires directing run-on to the Site and within the Site away from disturbed areas. The site does not currently receive any storm water run-on. No storm water run-on is anticipated during construction.

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Legend

- Discharge/Sampling Location
- Entrance/Exit
- Sampling Location
- Site Boundary, Perimeter Control
- Silt Fencing
- Equipment Staging/Storage
- Soil Disturbance

N W E S

0 40 80 160 Feet

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

San Bernardino City Unified School District

Best Management Practices Site Map

Construction Storm Water Pollution Prevention Plan
Parking Lot for Professional Development Building

TETRA TECH
3201 Airpark Drive, Suite 108
Santa Maria, CA 93455

TC NO.	DATE	DRAWN BY	MAP NO.	FIGURE
SBA-T29378 .0010	7/31/2015	GILLESPIE	SMX-1034	2

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5.2 GOOD HOUSEKEEPING

Good housekeeping practices are the primary means by which construction-related pollutants will be controlled at the Site. These practices include properly managing construction materials and wastes to ensure that they do not come into contact with storm water, as described in the following subsections.

The General Permit requires specific construction material control, stockpile management, landscaping material controls, and waste management BMPs for Risk Level 1 sites. Those that will be implemented on-site are described in Table 5.

Table 5
Construction Materials and Waste Management BMPs

CASQA Reference	BMP	Details	Maintenance and Repair	Inspection Frequency
WM-1, WM-2	Material Delivery, Storage, and Use	Keep an inventory of construction materials that will be used outdoors and exposed to precipitation, other than those designed for this purpose. Loading, unloading, and storage of materials should occur in the equipment staging area (see Figure 2). Maintain stock of spill control and clean up materials at this location. Provide overhead coverage for materials that may come into contact with storm water or store indoors. Store chemicals in watertight containers in a storage container. Do not perform activities (loading/unloading, etc.) that may contribute to storm water pollution during a rain event.	Store ample supplies of spill cleanup materials on-site; clean and organize storage areas; repair perimeter controls, containment structures, covers, and liners; spot check materials use throughout the construction period to ensure proper practices are utilized.	Weekly; before, during, and after rain events; during non-storm water observations
WM-3, SE-6	Stockpile Management	Contain temporary soil stockpile perimeters with fiber rolls or silt fencing. Plastic cover may be used to cover temporary stockpiles. Plastic sheeting must be weighted with gravel bags to prevent removal by wind or rain. Limit all stockpile contact with precipitation.	Store ample supplies of cover material and fiber rolls on-site. Minimize disturbance of stockpiled soils.	Weekly; before, during, and after rain events; during non-storm water observations

Table 5, Page 1 of 3

Table 5 (Continued)
Construction Materials and Waste Management BMPs

CASQA Reference	BMP	Details	Maintenance and Repair	Inspection Frequency
WM-1, WM-2, WM-3	Landscape Materials Management	Fully contain landscape materials when not in use. Discontinue the application of any erodible landscape materials within two days before a forecasted rain event or during periods of precipitation. Apply landscape materials according to the manufacturer or experienced personnel.	Implement throughout landscaping and final stabilization phase of project.	Weekly; before, during, and after rain events; during non-storm water observations
WM-4	Spill Prevention and Control	Take precautionary measures to avoid spills. Ensure all on-site staff receives spill prevention and control training. Immediately contain spills with spill control materials, such as absorbents, pillows, etc. Clean up as soon as possible and properly dispose of spilled material and clean up materials.	Store ample supplies of spill cleanup materials on-site and within vehicles and equipment.	Weekly; before, during, and after rain events; during non-storm water observations
WM-5, WM-10	Liquid and Solid Waste Management	Properly dispose of construction waste materials in covered receptacles. Locate waste bins away from the storm water conveyance system. Cover or close receptacles at the end of each workday, prior to a rain event, and during high winds. Provide timely removal of construction wastes from the Site. Inspect waste areas frequently for waste container leaks and clean up leaks as soon as possible.	Inspect waste storage area; arrange for waste collection as necessary; inspect and repair waste containment structures as needed.	Weekly; before, during, and after rain events; during non-storm water observations

Table 5, Page 2 of 3

Table 5 (Continued)
Construction Materials and Waste Management BMPs

CASQA Reference	BMP	Details	Maintenance and Repair	Inspection Frequency
WM-8, NS-12, NS-13	Concrete Curing, Concrete Finishing, Concrete Waste Management	Store unused concrete curing and finishing materials (powders/liquids) under cover where they will not be exposed to storm water. Verify that personnel implement appropriate measures for storage, handling, and use of concrete and curing compounds. Inspect containers and spraying equipment for leaks. Designate, with signage, an impermeable above-ground concrete washout area. Ensure the washout area is maintained and that leaks and spills are cleaned up and disposed of properly.	Remove and dispose of hardened concrete as needed. Concrete waste facilities must be cleaned, or new facilities must be constructed and ready for use once facilities are 75% full. Inspect concrete waste facilities for damage (e.g., torn liner, evidence of leaks, signage, etc.).	Weekly; before, during, and after rain events; during non-storm water observations
WM-9	Septic Waste Management	Place portable restrooms on a level surface located away from vehicle and equipment traffic. Ensure that portable restrooms are secured and equipped with secondary containment pans. Contract with a company to have the restrooms cleaned frequently. Ensure wash water used to clean restrooms is fully contained and disposed of properly.	Regularly service and clean. Inspect secondary containment structure and replace if needed.	Weekly

Table 5, Page 3 of 3

5.2.1 Non–Storm Water Discharge Management

All non-storm water discharges will be controlled by implementing water conservation practices, good housekeeping techniques, and a program to detect and eliminate illicit discharges. Although non-storm water discharges are not expected to occur, preventative measures will be taken. Non-storm water discharge BMPs, including BMPs required by the General Permit, are described in Table 6.

Table 6
Non-Storm Water Discharge BMPs

CASQA Reference	BMP	Details	Maintenance and Repair	Inspection Frequency
NS-1, NS-7	Water Conservation and Runoff Prevention	Utilize minimal volumes of water when performing construction activities. Sweep surfaces as opposed to washing down. Minimize water volumes utilized for dust control, and utilize soil binder where practical.	Not applicable	Weekly
NS-3	Paving and Grinding Operations	Avoid paving during wet weather. Contain and cover all asphalt emulsion and materials on site. Ensure proper disposal of waste materials and slurries. Protect new and existing storm water conveyances during all paving operations	Arrange for regular collection of paving wastes. Inspect storm drains prior to paving to ensure their cover.	Weekly
NS-6	Illicit Connection/ Discharge Detection and Reporting	Investigate illicit connections and potential waste discharge at site perimeter during regular inspections and eliminate the source. Perform cleanup response if necessary. Report discharges as soon as possible to SBCUSD. See non-compliance reporting details, Section 6.3.	Inspect for illegal dumping or discharge. Prohibit employees and subcontractors from disposing of debris on-site.	Weekly
NS-7	Potable Water/Irrigation	Inspect irrigation lines for leaks and breaks. Eliminate runoff from irrigation overspray.	Implement inspections throughout final stabilization phase of the Project.	Weekly

Table 6, Page 1 of 2

Table 6 (Continued)
Non-Storm Water Discharge BMPs

CASQA Reference	BMP	Details	Maintenance and Repair	Inspection Frequency
NS-8, NS-9, NS-10	Vehicle and Equipment Fueling, Cleaning, and Maintenance	Vehicle and equipment washing and major maintenance should be performed off-site. If minor maintenance is deemed necessary, perform within a contained area (i.e., soil/pavement covered and bermed). Park powered equipment over impervious containment during non-working hours. All trucks and equipment will be inspected regularly for fuel or oil leaks. If leaking vehicles or equipment are observed, drip pans should be used and the leaking vehicle/ equipment removed from the Site or repaired as soon as practicable. Properly clean up and dispose of leaked material. Ensure that the equipment fueling operations are contained and spill cleanup materials are present during fueling. Do not leave fueling operations unattended.	Resupply on-site spill cleanup materials; prohibit washing vehicles and equipment on-site.	Daily

Table 6, Page 2 of 2

5.2.2 Erosion Control

Erosion control, also referred to as soil stabilization, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in storm water runoff. Erosion control BMPs protect the soil surface by covering and/or binding soil particles and many have the secondary effect of increasing water infiltration. Erosion control BMPs, including General Permit-required BMPs, BMP implementation details, maintenance and repair program, and inspection frequency are listed in Table 7. The locations where erosion controls (reducing soil exposure, preserving existing vegetation, and installing geotextiles) will be implemented are shown in Figure 2.

Table 7
Erosion Control BMPs

CASQA Reference	BMP	Details	Maintenance and Repair	Inspection Frequency
EC-1	Scheduling/Phasing	Minimize the area of soil exposed at one time. Stabilize disturbed soil with temporary or permanent erosion control measures whenever an area is inactive longer than 14 days. Ground-disturbing project activities will be minimized during rain events or within 24 hours of any predicted rain event.	Not applicable	Not applicable
EC-4, EC-5	Stabilizing Exposed Soil – Hydroseeding, Soil Binder, and Jute Netting	Keep disturbed areas and stockpiles to a size that can be covered with plastic sheeting, filter fabric, or soil binder prior to predicted rain. Stabilize or cover disturbed soil with soil binder or secured filter fabric whenever active construction is not occurring on a portion of the Site for 14 days or longer and on slopes prior to rain events.	Replace damaged or missing cover as needed. Store ample supplies of cover material on-site.	Weekly
EC-4	Final Stabilization	Install and maintain landscaping once final grade is achieved. Fully biodegradable fiber rolls may be left in place at the conclusion of construction.	Replace damaged or missing landscaping materials as needed. Irrigate as necessary until full cover is established.	Weekly

5.2.3 Sediment and Tracking Control

Sediment and tracking controls are structural measures intended to complement and enhance the selected erosion control measures and reduce sediment discharges from active construction areas. Sediment and tracking controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water. Sediment and tracking control BMPs, including General Permit-required BMPs, are listed in Table 8 and their implementation locations are shown in Figure 2.

Table 8
Sediment and Tracking Control BMPs

CASQA Reference	BMP	Details	Maintenance and Repair	Inspection Frequency
SE-1, SE-5, SE-6	Perimeter Control	Install silt fence in conjunction with Site perimeter fencing. Utilize fiber rolls and silt fence for perimeter control around any temporary stockpiling areas and around areas of active construction. Use gravel bags to weigh down fiber rolls placed on paved surfaces or highly compacted soils.	Remove accumulated sediment when it reaches 1/3 the height of the fence/roll. Replace missing or damaged rolls. Install prior to construction initiation and maintain as needed to ensure effectiveness.	Weekly
SE-7	Street Sweeping and Vacuuming	Coordinate with a local street sweeping contactor to provide service as needed. Sweep immediately if tracking off site is observed.	Implement as soon as possible upon sediment deposition.	Daily
SE-10	Storm Drain Inlet Protection	Protect all existing storm drains in the project vicinity with filter fabric weighted in place with gravel bags.	Remove sediment from storm drain inlet protection. Replace torn or missing filter fabric	Weekly
TC-1, TC-2	Stabilized Construction Entrance/Exit	Ensure all construction traffic uses the designated entrance/exits, which will consist of shaker plates and 3–6" angular rock to minimize tracking. Observe entrance/exit daily to determine whether maintenance is necessary.	Replace rock when surface voids are filled with sediment; clear shaker plates of sediment regularly; ensure wash water from equipment decontamination is contained and does not discharge from the Site.	Daily

Table 9, Page 1 of 2

5.2.4 Wind Erosion Control

Wind erosion control BMPs are implemented to prevent the aerial transport of materials during construction operations. Such particulates can include sediment, nutrients, trash, metals, bacteria, and organics.

In order to satisfy the requirements of the General Permit, wind erosion control BMP details, maintenance and repair program, and inspection frequency are listed in Table 9. Wind erosion control should be implemented Site-wide on exposed soils, including haul and access roads.

Table 9
Wind Erosion Control BMP

CASQA Reference	BMP	Details	Maintenance and Repair	Inspection Frequency
WE-1, EC-5	Wind Erosion Control	Spray exposed soils with water or soil binder as needed to control dust. Increase frequency of water application when wind speed is greater than 15 miles per hour. Utilize water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust. Limit vehicle speeds on-site to avoid dust generation.	Apply water or soil binder as needed. Ensure truck water filling stations are appropriately stabilized.	Daily

5.3 POST-CONSTRUCTION STORM WATER MANAGEMENT

The required storage post-construction runoff volume for the site is 5,227 cubic feet. The project will utilize bioretention BMPs within the curbed median landscaped areas to meet post-construction treatment and storage requirements. Bioretention will be incorporated into the existing landscaped areas, require minimal maintenance, and provide high pollutant removal. All proposed impervious surfaces will be captured and treated by the proposed bioretention areas. The plan and profile of the bioretention areas are shown in Figure 3.

Rain falling on the site will collect pollutants as runoff sheet flows across the parking lot surface. These flows will be diverted into the bioretention areas through the use of curb cuts at selected locations. The contractor shall make adjustments to final curb cut locations to eliminate any ponding storm water at curb lines. Runoff entering the bioretention areas will infiltrate into the planting soil mixture and into the native subsoil beneath the BMP. Any flows exceeding the capacity of the BMP will enter storm water inlets at the downstream (eastern) end of the bioretention areas. The bioretention areas will be planted with native, drought-resistant plants that can also tolerate short periods of inundation.

5.3.1 Final Stabilization Measures

The Site designs include landscaped areas throughout the parking lot, as shown in Figure 3.

5.4 BEST MANAGEMENT PRACTICE MAINTENANCE RESPONSIBILITY

Best management practice maintenance and repair requirements are listed in Tables 5 through 9. Site inspections will be performed as part of the *Construction Site Monitoring Program* (see Section 6.0) to assess maintenance and repair requirements.

Upon completion of construction, SBCUSD will operate the site and will conduct periodic maintenance of the parking lot and bioretention areas (see Water Quality Management Plan [Tetra Tech 2015] for details).

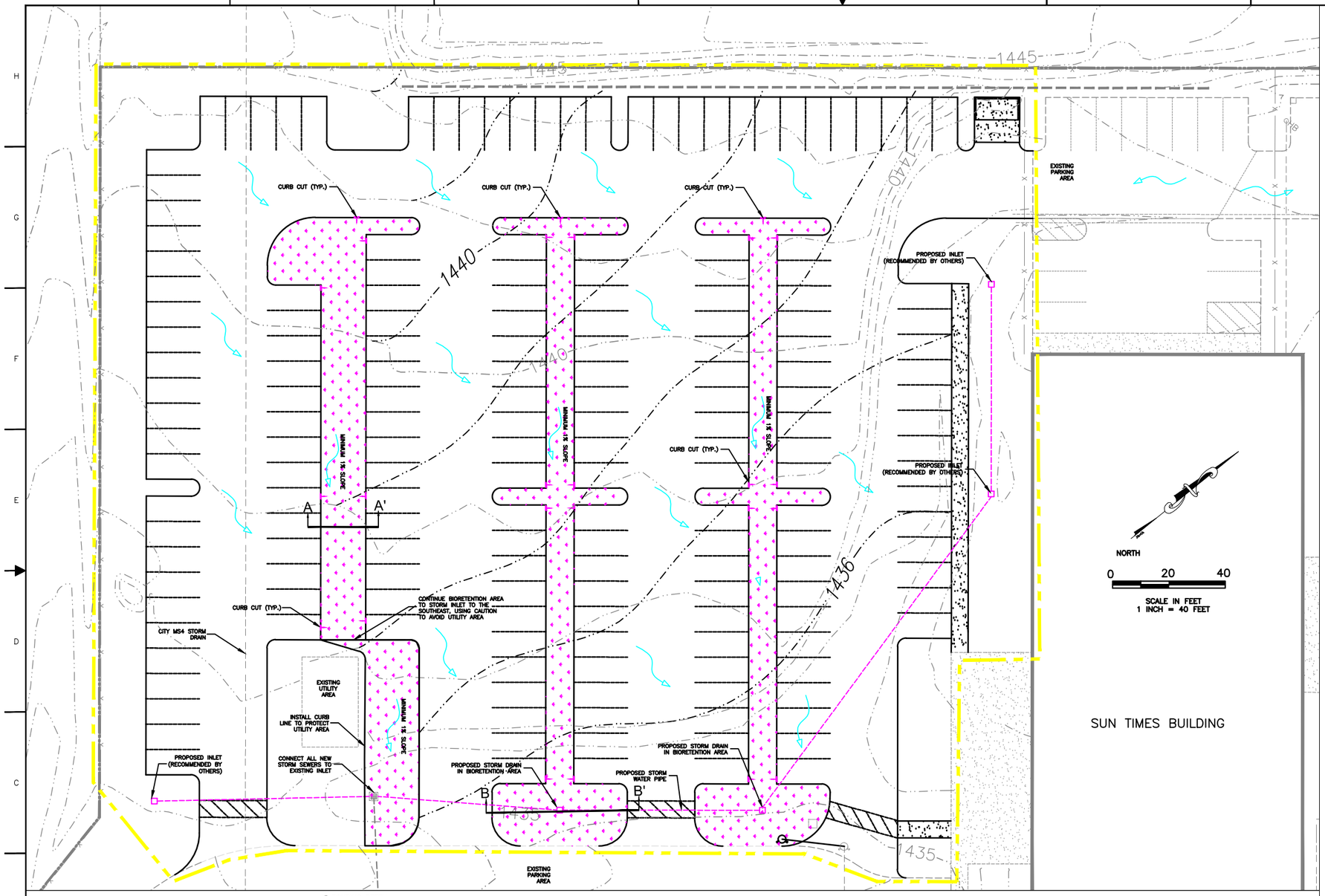
5.4.1 QSP-Delegated Persons

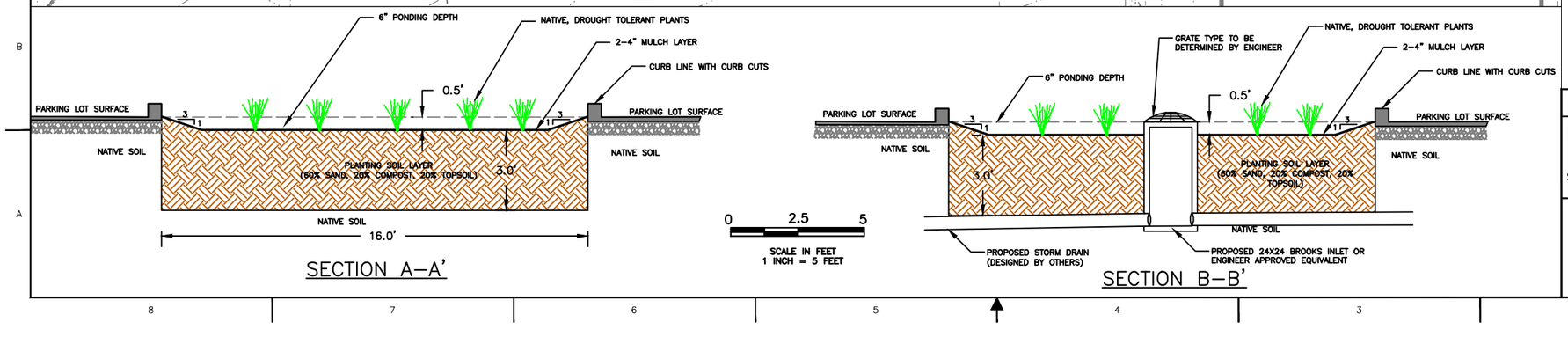
All inspection, maintenance, and repair activities at the Site will be performed or supervised by the QSP listed in Table 10. The QSP may delegate any or all of these activities to personnel trained to perform these tasks, but will ensure adequate deployment.

Table 10
Qualified SWPPP Practitioner Contact Information

Name	Company and Contact Information
Anne Power	Tetra Tech 3201 Airpark Drive, Suite 108 Santa Maria, CA 93455 Email: anne.power@tetratech.com Cell: (805) 478-5672 Office: (805) 739-2650

The General Permit requires that the names of all contractors, subcontractors, and individuals who will be directed by the QSP be included in this SWPPP, including telephone numbers, work addresses, specific areas of responsibility, and emergency contact numbers. QSP delegates, to be directed by the Qualified SWPPP Practitioner, are listed in Table 11.





LEGEND:

- PROJECT BOUNDARY
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED PARKING LOT, CURBING OR CONCRETE PAD
- EXISTING BUILDING
- EXISTING CONCRETE
- PROPOSED CONCRETE
- EXISTING PARKING LOT STRIPING
- PROPOSED PARKING LOT STRIPING
- PROPOSED CMU WALL
- TREE OR VEGETATION
- EXISTING STORM DRAIN & PIPING
- PROPOSED STORM DRAIN & PIPING
- EXISTING FENCING
- SURFACE FLOW DIRECTION
- PROPOSED BIORETENTION AREA

NOTES:

1. EXACT LOCATION OF CURB CUTS SHALL BE DETERMINED BY GRADING ENGINEER AND DESIGNED TO MAXIMIZE FLOW INTO BIORETENTION AREAS.
2. PROPOSED STORM WATER INLETS AND PIPING SHALL BE PROPERLY DESIGNED AND CONSTRUCTED TO MAXIMIZE POSITIVE SHEET FLOW TOWARDS THE INLETS AND POSITIVE PIPE FLOW AWAY FROM THE SITE.
3. PROJECT CIVIL ENGINEER IS RESPONSIBLE FOR ENSURING PROPER DRAINAGE OF SITE STORM WATER INFRASTRUCTURE.

SITE PLAN

BEST MANAGEMENT PRACTICE PLAN AND PROFILE

SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

PREPARED BY:
TETRA TECH, INC

PROFESSIONAL DEVELOPMENT CENTER PARKING LOT

SAN BERNARDINO, CA

JOB NO.:	
DESIGNED BY:	
DRAWN BY:	
PROJECT MGR.:	
CHECKED BY:	
CHECKED BY:	AWK
APPROVED BY:	
APPROVED BY:	
DATE:	6-8-15
DRAWING NO.	1
SHEET	1 of 1
SET SHEET	of

CADD NO.: WQMP DRAWING SITE PLAN.DWG

Table 11
Contractors and Individuals to be Directed by the Qualified SWPPP Practitioner

Name	Company and Contact Information	Area of Responsibility	Emergency Contact
Heidi Yavornicky	Tetra Tech 301 East Vanderbilt Way, Suite 450 San Bernardino, CA 92408 Email: heidi.yavornicky@tetratech.com Cell: (909) 499-0772 Office: (909) 382-5137	Alternate SWPPP inspector	Cell phone (provided)
Maxx Wlodarczyk	Tetra Tech 301 East Vanderbilt Way, Suite 450 San Bernardino, CA 92408 Email: maxx.wlodarczyk@tetratech.com Cell: (909) 381-1674 Office: (909) 382-5127	Alternate SWPPP inspector	Cell phone (provided)
Annie Gillespie	Tetra Tech 3201 Airpark Drive, Suite 108 Santa Maria, CA 93455 Email: annie.gillespie@tetratech.com Cell: (805) 717-9482 Office: (805) 739-2643	Alternate SWPPP inspector	Cell phone (provided)
TBD	Contractor Address Email: Office:	Excavation contractor; directs BMP implementation on-site	Office phone (provided)

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6.0 CONSTRUCTION SITE MONITORING PROGRAM

The objective of the Construction Site Monitoring Program (CSMP) is to:

- Demonstrate the Site is in compliance with the Discharge Prohibitions of the General Permit;
- Determine whether non-visible pollutants are present at the Site and are causing or contributing to exceedances of water quality objectives;
- Determine whether immediate corrective actions, additional BMPs, or SWPPP revisions are necessary to reduce pollutants in storm water discharges and authorized non-storm water discharges; and
- Determine whether BMPs included in the SWPPP are effective in preventing or reducing pollutants in storm water discharges and authorized non-storm water discharges.

Included in the CSMP are: visual monitoring, sampling and analysis, and reporting requirements, which are further discussed in the following sections.

6.1 VISUAL MONITORING

Visual monitoring (BMP and rain event-triggered inspections) will be performed by a QSP or person appropriately trained by a QSP. Inspections will only be performed during business hours and documented on the *Construction Site Inspection Form* (Appendix D). If any failures or deficiencies are identified, repairs or design changes will be implemented within 72 hours and noted on the *Construction Site Inspection Form*. Table 12 presents a summary of all required inspections; these inspections are more thoroughly discussed in the following sections.

Table 12
Summary of Visual Monitoring Requirements

Type of Inspection	Frequency
Routine Inspections	
BMP Observations – Tracking Control	Daily
BMP Inspections	Weekly
Non-storm Water Discharge Observations	Quarterly, during daylight hours and dry weather
Rain Event-triggered Inspections	
Pre-rain Event Inspections	Within 48 hours of a qualifying rain event (50% chance or greater of precipitation)
Extended Rain Event Inspections	Every 24-hour period of a rain event
Post-rain Event Inspections	Within 48 hours of a qualifying rain event (greater than 0.5 inches of rainfall)[1]

Inspections are not required under the following conditions:

- During dangerous weather conditions, such as flooding and electrical storms.

- Outside of scheduled business hours.

If required sampling or inspections are not performed due to these exceptions, an explanation will be included in this SWPPP and in the Annual Report, documenting why the sampling or inspection was not performed.

6.1.1 Weekly Inspections

During weekly BMP inspections, the inspector will identify and record BMPs that are in need of maintenance to operate effectively, have failed, or could fail to operate as intended and if additional BMPs are needed.

The QSP or the QSP designees will record the time, date, and total rainfall of all qualifying rain events (predicted at 50% or greater probability of precipitation, as reported on the National Weather Service Forecast's website [http://www.srh.noaa.gov]). A copy of the National Oceanic and Atmospheric Administration (NOAA) forecast will be retained with or on the *Construction Site Inspection Form*. Visual monitoring will be performed prior to (pre-rain event inspections), every 24 hours during extended periods of rain (extended rain event inspections), and after qualifying storm events (post-rain event inspections).

Within 2 business days (48 hours) prior to every qualifying rain event, the following will be visually observed (inspected):

- All storm water drainage areas to identify any spills, leaks, or uncontrolled pollutant sources.
- All BMPs to identify whether they have been properly implemented in accordance with the SWPPP.
- Any storm water storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.

During extended storm event inspections, BMPs will be evaluated to determine if maintenance is needed to operate effectively, have failed, or could fail to operate as intended, as well as:

- The presence or absence of floating and suspended materials, an oily sheen on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants in storm water discharges.
- Stored or contained storm water that will likely discharge after operating hours due to anticipated precipitation will be observed prior to the discharge during operating hours.

Following a qualified storm event, all discharge locations will be visually monitored within 2 business days (48 hours). Post-rain event inspections will be performed to identify whether BMPs were adequately designed, implemented, and effective. If additional BMPs are necessary, they will be implemented and the SWPPP will be revised accordingly.

6.1.2 Non-storm Water Discharge Observations

The General Permit requires non-storm water discharge visual monitoring on a quarterly basis during dry weather and daylight hours. The inspector will visually observe all drainage areas for the presence of (or indications of prior) unauthorized and authorized non-storm water discharges and their sources.

The presence or evidence of any non-storm water discharge, whether it is authorized or unauthorized, as described in Section 4.8 pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.), and source will be documented utilizing the *Construction Site Inspection Form* (Appendix D). Completed forms will indicate the personnel performing the visual observation, the dates and approximate time each drainage area and non-storm water discharge was observed, and the response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges.

6.2 SAMPLING AND ANALYSIS

The following sections provide the information required for non-visible pollutant discharge sampling and analysis. All sampling, sample preservation, and analyses must be conducted according to procedures under 40 CFR Part 136, General Permit Risk Level 1 requirements, and the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). Samples will be analyzed by the laboratory listed in Table 13 or another State-accredited laboratory.

Table 13
Laboratory Contact Information

Laboratory Name	Address	Phone Number	Web Address
Eurofins/Calscience Laboratories	7440 Lincoln Way Garden Grove, CA 92614	(714) 895-5494	www.eurofinsus.com

Sampling bottles will be retained on-site in a cooler within the construction trailer or equivalent location and made readily available to the QSP or trained sampler. The sampling cooler must include a minimum number of bottles sets required to collect and analyze three discharge samples and three uncontaminated samples. The cooler will include:

- Sample bottle sets and labels for discharge samples;
- Sample bottle sets and labels for uncontaminated storm water samples;
- Polyethylene scoop and funnel for collecting the storm water runoff and transferring it to the sample bottles;
- Plastic bubble wrap and Ziploc bags for containing the sample bottles after collection;
- Chain of Custody (COC) form (Appendix E) to be filled out and delivered to the lab with the sample bottles; and

- Nitrile gloves and protective eyewear.

6.2.1 Storm Water Monitoring Personnel

Samples will be collected by the QSP or person(s) designated by the QSP and that have received storm water and non-storm water sample collection training, as documented in Appendix B of this SWPPP. Alternate storm water monitoring personnel will be identified to ensure samples will be collected in accordance with the sampling requirements.

The storm water monitoring personnel for this project are:

- Primary Monitor: Heidi Yavornicky (Tetra Tech)
- Monitor Alternate (1): Maxx Wlodarczyk (Tetra Tech)

Prior to the rainy season, all sampling personnel will review this SWPPP and the monitoring protocol provided herein. Sampling personnel will be available to collect samples in the event of a breach or spill that may release non-visible pollutants.

6.2.2 Sample Collection and Analysis Procedures

The QSP and/or personnel trained by the QSP in water quality sampling procedures and Risk Level 1 requirements will collect samples. The sampler will first put on the nitrile gloves and protective eye wear and then collect the samples. To maintain sample integrity and prevent cross-contamination, sampling collection personnel will:

- Avoid contaminating the inside of the sample bottle by not allowing it to come into contact with any material other than the water sample.
- Discard contaminated or defective sample bottles or sample lids.
- Close the cooler lid immediately once samples are placed inside.
- Avoid sampling near a running vehicle, as exhaust fumes may contaminate the sample.
- Avoid allowing rainwater to drip from rain gear or other surfaces into sample bottles.
- Minimize the exposure of the samples to direct sunlight, as sunlight may cause biochemical transformation of the sample.

Storm water, non-storm water, and non-visible pollutant discharge sample collection procedures are summarized in the following subsections.

6.2.3 Non-storm Water and Non-visible Pollutant Discharge Sampling

One or more samples will be collected where any breach, malfunction, leakage, or spill was observed during a visual inspection and which could result in the discharge of non-visible pollutants to surface waters. Additionally, non-storm water effluent will be sampled at all points of discharge off-site. Samples must be large enough to characterize the Site conditions and analyzed for all parameters

potentially indicating the presence of pollutants identified in the pollutant source assessment (refer to Section 4.7.2). If there is reason to believe that the observed runoff may lead to an exceedance of NALs, corrective action must immediately be taken to control the pollutant source.

Samples must be analyzed for all applicable parameters potentially indicating the presence of pollutants identified in the pollutant source assessment (refer to Section 4.7.2). Guidance for non-storm water and non-visible pollutant sampling, including approved analytical methods, is provided in Appendix E.

For non-visible pollutant samples, an uncontaminated (control) storm water sample must be collected for comparison with the contaminant sample. The control sample must not have come into contact with the disturbed soils or the materials stored or used on-site. The samples of both the uncontaminated (control) and the contaminant sample must be collected during the first 2 hours of discharge from rain events that occur during business hours and which generate runoff. If any pollutants are identified, the CSMP will be modified to include these additional parameters. Additional guidance for non-storm water and non-visible pollutant sampling, including approved analytical methods, is provided in Appendix E.

6.2.4 Sample Documentation Procedures

The COC forms (Appendix E) will be completed carefully at the time of sample collection and at the end of the day, signed and delivered to the laboratory with the samples.

Visual observations and sampling activities will be documented using the following:

- Sample Bottle Identification Labels. Sampling personnel will attach an identification label to each sample bottle. At a minimum, the following information will be recorded on each label:

    1. Project name;
    2. Project number;
    3. Unique sample identification number and location;
    4. Collection date/time; and
    5. Analysis constituent.

- *Construction Site Inspection Form* (Appendix D) and *Non-Visible Pollutant Sampling Form* (Appendix E). A log of sampling events will identify:

    1. Sampling date and time;
    2. Unique sample identification number and location;
    3. Analysis to be performed;
    4. Names of sampling personnel;

5. Weather conditions (including precipitation amount and storm duration);

6. Field analysis results; and

7. Other pertinent data.

- Chain of Custody. All samples to be analyzed by a laboratory will be accompanied by a COC form and will be signed by the individual collecting the sample.

Waterproof ink will be used for writing on sample bottle labels. The COC forms and appropriate monitoring/sampling forms will be considered accountable documents. If an error is made on an accountable document, sampling personnel will make corrections by lining through the error and entering the correct information. All corrections will be initialed and dated. All field and/or analytical data will be kept on-site.

6.2.5 Quality Assurance/Quality Control Procedures

Quality Assurance/Quality Control (QA/QC) procedures will be utilized in both sample collection and chemical analyses. The purpose of the QA/QC procedures will be to ensure the reliability and compatibility of all data generated during the sampling program.

Field QA/QC procedures will be performed for any sampling events and will consist of the following measures:

- Samples intended for laboratory analysis will be capped immediately after collection, labeled, documented on a COC form provided by the analytical laboratory, sealed in a re-sealable storage bag, placed in an ice-chilled cooler that is as near to 4 degrees Celsius as practicable, and delivered to a California state-certified laboratory with the applicable holding time requirements.

- Daily information regarding sample collection will be recorded on field data sheets or field logbooks. Sample types, sample identification numbers, and sample times will be collected and recorded on field data sheets and/or field logbooks.

- COC records will be utilized to document sample collection and submittal to the laboratory for analysis. A COC record will accompany all samples submitted for chemical analyses.

Laboratory QA/QC procedures include the following:

- The laboratory will be accredited by the California Department of Health Services;

- The laboratory will conduct the required analysis;

- Sample analyses will be performed within the required holding time for all samples; and

The laboratory will provide the following information for each sample:

- Method blank data; and

- Surrogate recovery, instrument tuning, and calibration data;

Signed laboratory reports including the sample designation, date of sample collection, date of sample analysis, laboratory analytical method employed, sample volume, and the minimum reporting limit.

6.2.6 Change of Conditions

If a change in Site conditions occurs that may affect the appropriateness of sampling locations or introduce additional non-visible pollutants of concern, monitoring/sampling protocols will be revised accordingly. All such revisions will be recorded as amendments to the SWPPP.

6.3 NON-COMPLIANCE

If any planned construction activity has the potential to discharge pollutants off-site, the Santa Ana RWQCB will be notified in advance. If a discharge occurs or if a written notice of non-compliance is received from the Santa Ana RWQCB, the contractor will (1) immediately notify the LRP; (2) file a written report with the LRP within 7 days of the discharge or notice; (3) and file a written report to the Santa Ana RWQCB within 30 days of identifying the areas of non-compliance. Corrective measures will be implemented immediately following the discharge, notice, or order.

Details of all unauthorized discharges will be documented on the *Construction Site Inspection Form* provided in Appendix D, and reported immediately to the LRP, along with remedial actions. The Discharge Report provided to the LRP and to the Santa Ana RWQCB will contain the following items:

- The date, time, location, nature of operation, and type of unauthorized discharge, including the cause or nature of the notice or order;
- The BMPs deployed before the discharge event, or prior to receiving notice or order;
- The date of deployment and type of BMPs deployed after the discharge event, or after receiving the notice or order, including additional measures installed or planned to reduce or prevent re-occurrence; and
- An implementation and maintenance schedule for any affected BMPs.
- The records of any corrective actions and follow-up activities that resulted from analytical results, visual observation (inspections), or inspections.

6.4 MONITORING RECORDS AND REPORTING

6.4.1 Monitoring Records

All monitoring records, compliance certifications, non-compliance reporting, and Annual Reports will be physically retained for a period of at least 3 years.

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7.0 REFERENCES

California Stormwater Quality Association
2010 *Construction Stormwater BMP Handbook*. January.

Converse Consultants
Geotechnical Study Report for Proposed Sun Building Parking Lot Expansion, San Bernardino City Unified School District. June 2015.

State Water Resources Control Board
2009 *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Water Quality Order 2009-0009-DWQ, General Permit No. CAS000002, as amended by Order No. 2010-0014-DWQ.2015.*

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Tetra Tech, Inc.
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2015 Natural Resources Conservation Service. *Web Soil Survey.* Available online at: http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed May 2015.

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2010 *Integrated Report* (Clean Water Act Section 303(d) List / 305(b) Report).

2015 *Rainfall Erosivity Factor Calculator*. Available online at: http://water.epa.gov/polwaste/npdes/stormwater/Welcome-to-the-Rainfall-Erosivity-Factor-Calculator.cfm. Accessed February 2015.

Western Regional Climate Center
2015 Western U.S. Climate Historical Summaries. *San Bernardino, California (*047723*).* Available online at: http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7723 Accessed May 11, 2015.

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A *NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES, WATER QUALITY ORDER 2009-0009-DWQ*, GENERAL PERMIT NO. CAS000002, AS AMENDED

B TRAINING RECORDS

CERTIFICATE OF TRAINING

CALIFORNIA CONSTRUCTION GENERAL PERMIT

QUALIFIED SWPPP DEVELOPER (QSD)
AND
QUALIFIED SWPPP PRACTITIONER (QSP)

Anne Power

Jan 30, 2015 - Apr 21, 2017

Certificate # 00517

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION®

California Stormwater Quality Association and
California Construction General Permit Training Team

CERTIFICATE OF TRAINING

CALIFORNIA CONSTRUCTION GENERAL PERMIT

QUALIFIED SWPPP DEVELOPER (QSD)
AND
QUALIFIED SWPPP PRACTITIONER (QSP)

Annie Gillespie

Oct 20, 2014 - Oct 20, 2016

Certificate # 25230

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION®

California Stormwater Quality Association and
California Construction General Permit Training Team

C RISK LEVEL DETERMINATION SUPPORTING DOCUMENTATION

http://water.epa.gov/polwaste/npdes/stormwater/LEW-Results.cfm

Water: Stormwater

You are here: Water » Pollution Prevention & Control » Permitting (NPDES) » Stormwater » LEW Results

LEW Results

Rainfall Erosivity Factor Calculator for Small Construction Sites

Facility Information

Start Date:	09/14/2015
End Date:	11/12/2015
Latitude:	34.1630
Longitude:	-117.3393

Erosivity Index Calculator Results

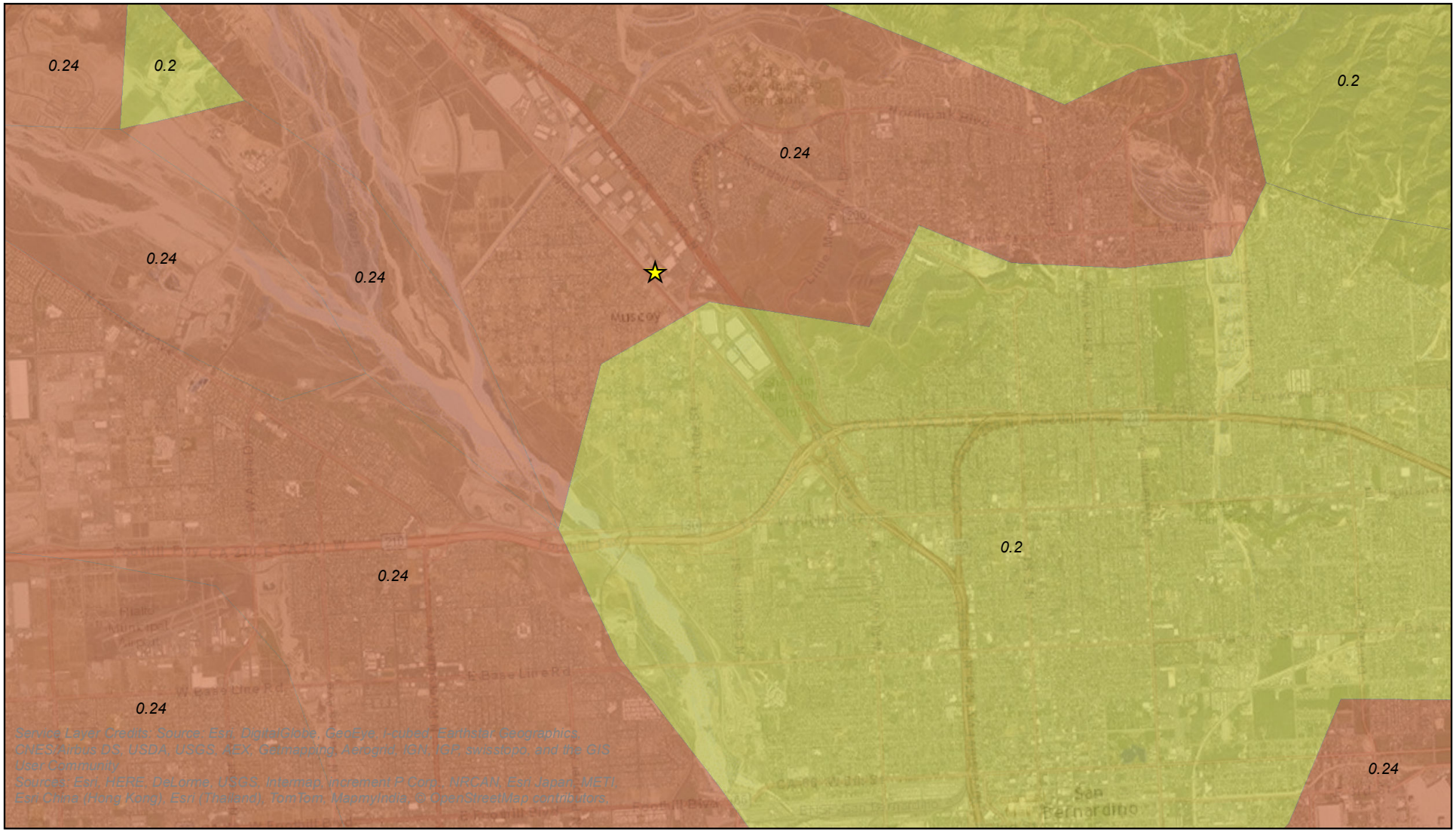
AN EROSIVITY INDEX VALUE OF **4.99** HAS BEEN DETERMINED FOR THE CONSTRUCTION PERIOD OF **09/14/2015** - **11/12/2015**.

A rainfall erosivity factor of less than 5.0 has been calculated for your site and period of construction. Contact your permitting authority to determine if you are eligible for a waiver from NPDES permitting requirements. If you are covered under EPA's construction general permit then you can use eNOI to submit your low erosivity waiver certification.

If your construction activity extends past the project completion date you specified above, you must recalculate the R factor using the original start date and a new project completion date. If the recalculated R factor is still less than 5.0, a new waiver certification form must be submitted before the end of the original construction period. If the new R factor is 5.0 or greater, the operator must submit a Notice of Intent to be covered by the Construction General Permit before the original project completion date.

Start Over

Last updated on Monday, July 28, 2014



Legend

- Project Location
- 0.2
- 0.24

San Bernardino City Unified School District

K Factor Map

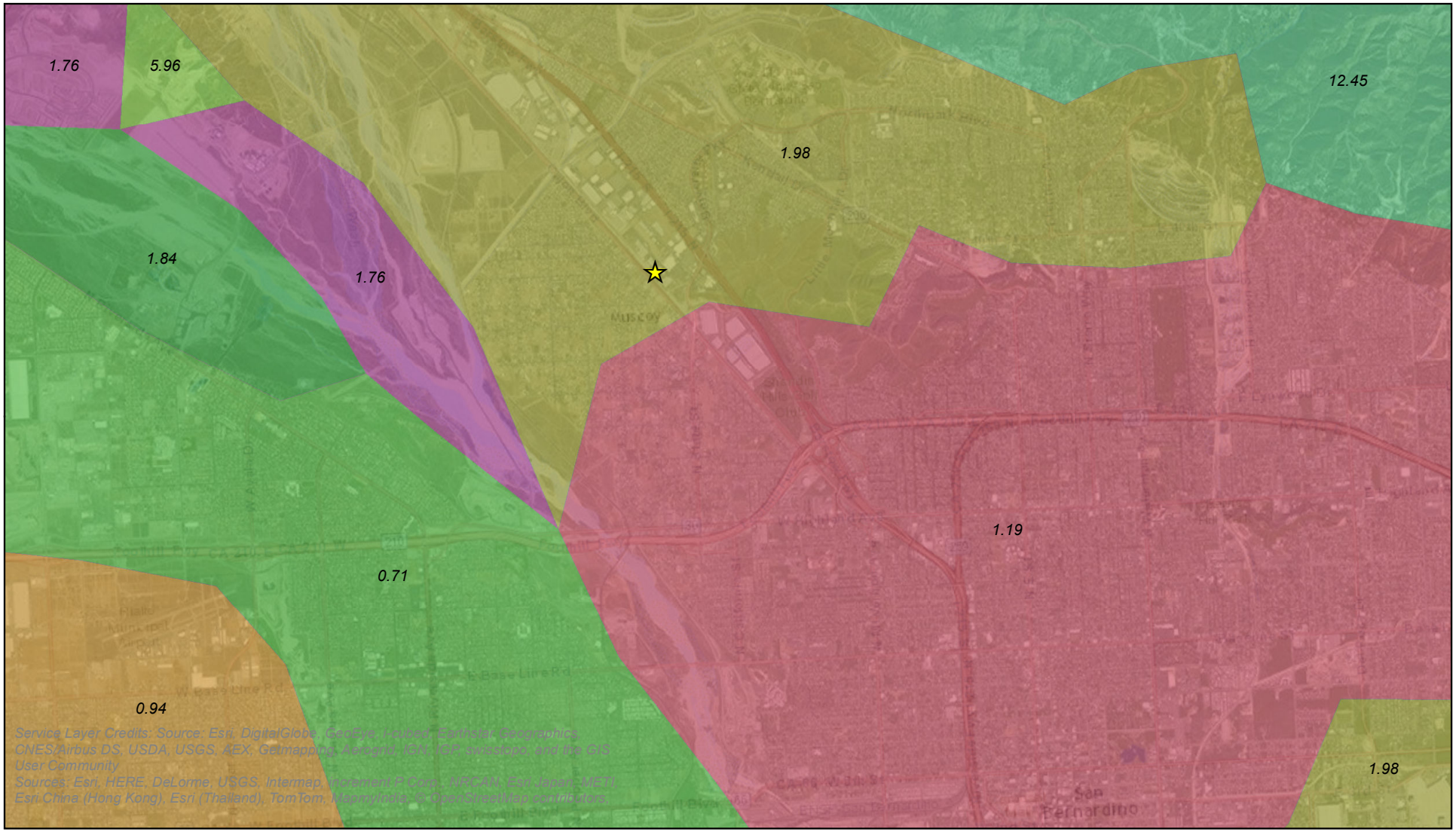
Construction Storm Water Pollution Prevention Plan
Parking Lot for Professional Development Building

N
W E
S

0 0.5 1 2 Miles

TETRA TECH
3201 Airpark Drive, Suite 108
Santa Maria, CA 93455

TC NO.	DATE	DRAWN BY	MAP NO.	FIGURE
SBA-T29378 .0010	06/03/2015	GILLESPIE	SMX-1030	**C-2**



Legend

- Project Location
- 0.71
- 0.94
- 1.19
- 1.76
- 1.84
- 1.98
- 5.96
- 12.45

San Bernardino City Unified School District

LS Value Map

Construction Storm Water Pollution Prevention Plan
Parking Lot for Professional Development Building

N W E S

0 0.5 1 2 Miles

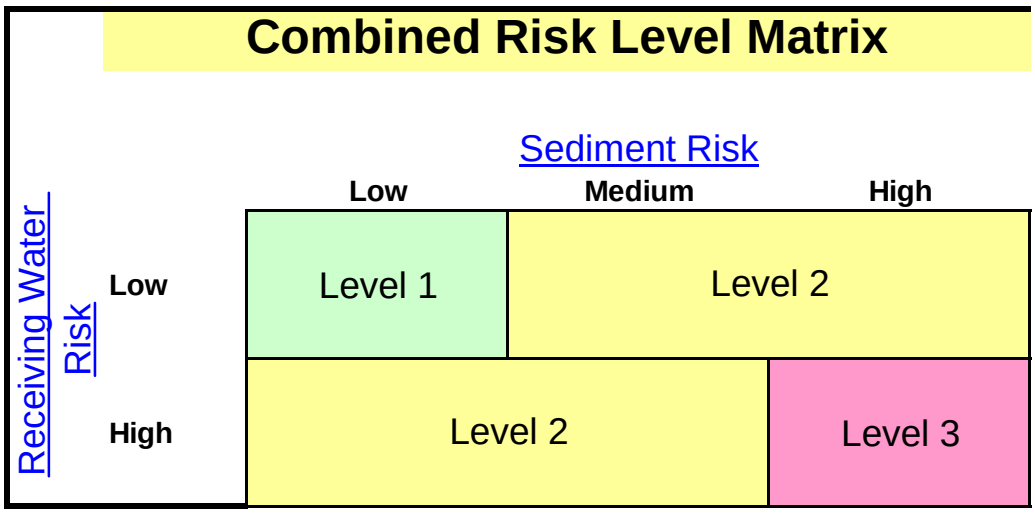
TETRA TECH
3201 Airpark Drive, Suite 108
Santa Maria, CA 93455

TC NO.	DATE	DRAWN BY	MAP NO.	FIGURE
SBA-T29378 .0010	06/03/2015	GILLESPIE	SMX-1030	C-1

	A	B	C
1	**Sediment Risk Factor Worksheet**		**Entry**
2	**A) R Factor**		
3	Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.		
4	http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm		
5	**R Factor Value**		4.99
6	**B) K Factor (weighted average, by area, for all site soils)**		
7	The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.		
8	Site-specific K factor guidance		
9	**K Factor Value**		0.24
10	**C) LS Factor (weighted average, by area, for all slopes)**		
11	The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.		
12	LS Table		
13	**LS Factor Value**		1.98
14			
15	**Watershed Erosion Estimate (=RxKxLS) in tons/acre**		2.371248
16	**Site Sediment Risk Factor**		**Low**
17	Low Sediment Risk: < 15 tons/acre		
18	Medium Sediment Risk: >=15 and <75 tons/acre		
19	High Sediment Risk: >= 75 tons/acre		
20			

Receiving Water (RW) Risk Factor Worksheet	Entry	Score
A. Watershed Characteristics	**yes/no**	
A.1. Does the disturbed area discharge (either directly or indirectly) to a **303(d)-listed waterbody impaired by sediment** (For help with impaired waterbodies please visit the link below) or has a **USEPA approved TMDL implementation plan for sediment**?:	**no**	**Low**
http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml		
OR		
A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY? (For help please review the appropriate Regional Board Basin Plan)		
http://www.waterboards.ca.gov/waterboards_map.shtml		
Region 1 Basin Plan		
Region 2 Basin Plan		
Region 3 Basin Plan		
Region 4 Basin Plan		
Region 5 Basin Plan		
Region 6 Basin Plan		
Region 7 Basin Plan		
Region 8 Basin Plan		
Region 9 Basin Plan		

Combined Risk Level Matrix



Project Sediment Risk:	**Low**
Project RW Risk:	**Low**
Project Combined Risk:	**Level 1**

D CONSTRUCTION SITE INSPECTION FORM

Construction Site Inspection Checklist *San Bernardino City Unified School District Parking Lot for Professional Development Building, San Bernardino, CA* *WDID# To be determined*					
Inspection Date and Time: Report Date:			Inspector Name and Title:		
Inspection Type:	☐ Weekly ☐ Non-storm water	☐ Pre- rain *(greater than 50% chance forecast)*	☐ Extended Rain	☐ Post-rain *(Qualifying Event >0.50" rain)*	☐ Contained storm water release

Site Information			
Risk Level: 1	Construction Stage:	☐ Grading/ Land Development ☐ Streets and Utilities	☐ Vertical Construction ☐ Post-Construction ☐ Inactive Construction Site
Approximate area of exposed site: _____ acres			
Completed Activities:			
Current Construction Activities:			

Non-Storm Water (Dry Weather) Discharge Observations		
Non-storm water discharges?	Yes ☐ No ☐	Pollutants Observed (list):
Unauthorized?	Yes ☐ No ☐	
Corrective action(s):		

Storm Water Discharge Observations						
Weather During Inspection: (*Complete weather observations below if inspection performed during rain event.*)						
Date Rain Predicted to Occur:	Qualifying Event: Yes ☐ No ☐		Predicted % chance of rain:			
Storm Beginning: (Date and Time)	Discharge Beginning: (Date and Time)	Storm Ending: (Date and Time)	Storm Duration: (Hours or Days)	Estimate time since last storm: (Hours or Days)	NOAA-reported Rainfall: (Inches)	Rain gauge: (Inches)
Discharge Observation Location(s):						

Odors	Yes ☐	No ☐	Floating material	Yes ☐	No ☐
Suspended Material	Yes ☐	No ☐	Sheen	Yes ☐	No ☐
Discolorations	Yes ☐	No ☐	Turbidity	Yes ☐	No ☐

CASQA Best Management Practice	Site Specifications	Deficiencies Noted (Y/N)	Corrective Action and Implementation Date
(EC-1) Scheduling/Phasing Construction	Minimize the area of soil exposed at one time. Stabilize disturbed soil with temporary or permanent erosion control measures whenever an area is inactive longer than 14 days. Minimize ground disturbance during rain events or within 24 hours of any predicted rain event.		
(EC-4) Hydroseeding	Install and maintain landscaping once final grade is achieved. . Fully biodegradable fiber rolls may be left in place at the conclusion of construction.		
(SE-1, SE-5, SE-6) Silt Fence, Fiber Rolls, Gravel Bag Berm	Install silt fence in conjunction with Site perimeter fencing. Utilize fiber rolls and silt fence for perimeter control around any temporary stockpiling areas and around areas of active construction. Use gravel bags to weigh down fiber rolls placed on paved surfaces or highly compacted soils.		
(SE-7) Street Sweeping and Vacuuming	Coordinate with a local street sweeping contactor to provide service as needed. Sweep immediately if tracking off site is observed.		
(SE-10) Storm Drain Inlet Protection	Protect all existing storm drains in the project vicinity with filter fabric weighted in place with gravel bags.		
(TC-1, TC-2) Stabilized Construction Entrance/Exit and Roadway	Ensure all construction traffic uses the designated entrance/exits, which will consist of shaker plates and 3–6" angular rock to minimize tracking. Observe entrance/exit daily to determine whether maintenance is necessary.		
(WE-1)Wind Erosion Control	Spray exposed soils with water or soil binder as needed to control dust. Increase frequency of water application when wind speed is greater than 15 miles per hour. Utilize water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust. Limit vehicle speeds on-site to avoid dust generation.		
(NS-1)Water Conservation Practices	Utilize minimal volumes of water when performing construction activities. Sweep surfaces as opposed to washing down. Minimize water volumes utilized for dust control, and utilize soil binder where practical.		

CASQA Best Management Practice	Site Specifications	Deficiencies Noted (Y/N)	Corrective Action and Implementation Date
(NS-6) Illicit Connection/Discharge	Investigate illicit connections and potential waste discharge at site perimeter during regular inspections and eliminate the source. Perform cleanup response if necessary. Report discharges as soon as possible to SBCUSD.		
(NS-3) Paving and Grinding Operations	Avoid paving during wet weather. Contain and cover all asphalt emulsion and materials on site. Ensure proper disposal of waste materials and slurries. Protect new and existing storm water conveyances during all paving operations		
(NS-7) Potable Water/Irrigation	Inspect irrigation lines for leaks and breaks. Eliminate runoff from irrigation or dust control overspray.		
(NS-8, NS-9, NS-10) Vehicle and Equipment Cleaning, Fueling and Maintenance	Vehicle and equipment washing and major maintenance should be performed off-site. If minor maintenance is deemed necessary, perform within a contained area (i.e., soil/pavement covered and bermed). Park powered equipment over impervious containment during non-working hours. All trucks and equipment will be inspected regularly for fuel or oil leaks. If leaking vehicles or equipment are observed, drip pans should be used and the leaking vehicle/ equipment removed from the Site or repaired as soon as practicable. Properly clean up and dispose of leaked material. Ensure that the equipment fueling operations are contained and spill cleanup materials are present during fueling. Do not leave fueling operations unattended.		
(NS-12, NS-13, WM-8) Concrete Curing, Finishing, and Waste Management	Store unused concrete curing and finishing materials (powders/liquids) under cover where they will not be exposed to storm water. Verify that personnel implement appropriate measures for storage, handling, and use of concrete and curing compounds. Inspect containers and spraying equipment for leaks. Designate, with signage, an impermeable above-ground concrete washout area. Ensure the washout area is maintained and that leaks and spills are cleaned up and disposed of properly.		

CASQA Best Management Practice	Site Specifications	Deficiencies Noted (Y/N)	Corrective Action and Implementation Date
(WM-1) Material Delivery and Storage	Fully contain landscape materials when not in use. Discontinue the application of any erodible landscape materials within two days before a forecasted rain event or during periods of precipitation. Apply landscape materials according to the manufacturer or experienced personnel.		
(WM-2) Material Use	Keep an inventory of construction materials that will be used outdoors and exposed to precipitation, other than those designed for this purpose. Loading, unloading, and storage of materials should occur in the equipment staging area. Maintain stock of spill control and clean up materials at this location. Provide overhead coverage for materials that may come into contact with storm water or store indoors. Store chemicals in watertight containers in a storage container. Do not perform activities (loading/unloading, etc.) that may contribute to storm water pollution during a rain event.		
(WM-3) Stockpile Management	Contain temporary soil stockpile perimeters with fiber rolls or silt fencing. Plastic cover may be used to cover temporary stockpiles. Plastic sheeting must be weighted with gravel bags to prevent removal by wind or rain. Limit all stockpile contact with precipitation.		
(WM-4) Spill Prevention and Control	Take precautionary measures to avoid spills. Ensure all on-site staff receives spill prevention and control training. Immediately contain spills with spill control materials, such as absorbents, pillows, etc. Clean up as soon as possible and properly dispose of spilled material and clean up materials.		
(WM-5, WM-10) Liquid and Solid Waste Management	Properly dispose of construction waste materials in covered receptacles. Locate waste bins away from the storm water conveyance system. Cover or close receptacles at the end of each workday, prior to a rain event, and during high winds. Provide timely removal of construction wastes from the Site. Inspect waste areas frequently for waste container leaks and clean up leaks as soon as possible.		

CASQA Best Management Practice	Site Specifications	Deficiencies Noted (Y/N)	Corrective Action and Implementation Date
WM-9) Sanitary/Septic Waste Management	Place portable restrooms on a level surface located away from vehicle and equipment traffic. Ensure that portable restrooms are secured and equipped with secondary containment pans. Contract with a company to have the restrooms cleaned frequently. Ensure wash water used to clean restrooms is fully contained and disposed of properly.		

Photos Taken: Yes ☐ No ☐ **Photo Reference(s):**

Records and Compliance Task Performance

		Notes/Comments
SWPPP Retained Onsite:	Yes ☐ No ☐	
SWPPP Current:	Yes ☐ No ☐	
Records, Weather Reports, Sampling Results Retained Onsite:	Yes ☐ No ☐	
Weekly Inspections and Non-storm Water Discharge Observations Performed:	Yes ☐ No ☐	
Non-visible Pollutant Sampling Performed:	Yes ☐ No ☐	

Summary of Corrective Actions

SWPPP Changes Needed

Inspector Information

Inspector Name:	Inspector Title:
Signature:	Date:

Inspection Reviewer:

Photo: 1 **Description:**	
Photo: 3 **Description:**	

Photo: 2 **Description:**	
Photo: 4 **Description:**	

E NON-VISIBLE POLLUTANT SAMPLING FORM AND CHAIN OF CUSTODY FORM

Appendix E
Non-Visible Pollutant Sampling Form

Rain Event General Information			
Project Name	San Bernardino City Unified School District Parking Lot for Professional Development Building, San Bernardino, CA		
Contractor			
Sampler			
Signature			
Title			
Season	(Check) ☐ Rainy (Oct. 1—May 31)		☐ Dry (June 1—Sept. 30)
Storm Data	**Storm Start Date & Time:**		**Storm Duration (hrs):**
	Time since last storm (Circle Units)	Min. Hr. Days	**Approximate Rainfall (inches)**

Sample Log

Sample Identification	Sample Location	Laboratory Method	Sample Collection Date and Time

Field Analysis

☐ Yes ☐ No

Sample Identification	Laboratory Method	Result	Remedial Action Taken

Appendix E (Continued)
Non-Visible Pollutants Construction Material and Pollutant Testing Guidance

Category	Construction Site Material	Visually Observable?	Pollutant Indicators	Suggested Field Analyses	Laboratory
Asphalt Products	Hot asphalt Asphalt emulsion Liquid asphalt (tack coat) Cold mix	Yes– rainbow surface or brown suspension	Visually observable– no testing required		
	Crumb Rubber	Yes– black, solid material	Visually observable– no testing required		
	Asphalt concrete (any type)	Yes– rainbow surface or brown suspension	Visually observable– no testing required		
Cleaning Products	Acids	No	pH Acidity Anions (acetic acid, phosphoric acid, sulfuric acid, nitric acid, hydrogen chloride)	pH meter Acidity test kit	EPA 150.1 (pH) SM 2310B (Acidity) EPA 300.0 (Anion)
	Bleaches	No	Residual chlorine	Chlorine test kit	SM 4500-CL G (res. chlorine)
	Detergents	Yes– Foam	Visually observable– no testing required		
	TSP	No	Phosphate	Phosphate test kit	EPA 365.3 (Phosphate)
	Solvents	No	VOC SVOC	None None	EPA 601/602 or EPA 624 (VOC) EPA 625 (SVOC)

Appendix E (Continued)
Non-Visible Pollutants Construction Material and Pollutant Testing Guidance

Category	Construction Site Material	Visually Observable?	Pollutant Indicators	Suggested Field Analyses	Laboratory
Portland Concrete Cement and Masonry Products	Portland cement (PCC)	Yes– milky liquid	Visually observable– no testing required		
	Masonry products	No	pH	pH Meter	EPA 150.1 (pH)
			Alkalinity	Alkalinity or acidity test kit	SM 2320 (alkalinity)
	Sealant (Methyl methacrylate - MMA)	No	Methyl methacrylate	None	EPA 625 (SVOC)
			Cobalt Zinc		EPA 200.8 (Metal)
	Incinerator Bottom ash Bottom ash Steel slag Foundry sand Fly ash Municipal solid waste	No	Aluminum Calcium Vanadium Zinc	Calcium test kit	EPA 200.8 (metal) EPA 200.7 (calcium)
	Mortar	Yes– milky liquid	Visually observable– no testing required		
	Concrete rinse water	Yes– milky liquid	Visually observable– no testing required		
	Non-pigmented curing compounds	No	Acidity	pH meter	SM 2310B (acidity)
			Alkalinity	Alkalinity or acidity test kit	SM 2320 (alkalinity)
			pH	pH meter	EPA 150.1 (pH)
			VOC		EPA 601/602 or EPA 624 (VOC)
			SVOC		EPA 625 (SVOC)

Appendix E (Continued)
Non-Visible Pollutants Construction Material and Pollutant Testing Guidance

Category	Construction Site Material	Visually Observable?	Pollutant Indicators	Suggested Field Analyses	Laboratory
Painting Products	Paint	Yes	Visually observable– no testing required		
	Paint strippers	No	VOC	None	EPA 601/602 or EPA 624 (VOC)
			SVOC	None	EPA 625 (SVOC)
	Resins	No	COD	None	EPA 410.4 (COD)
			SVOC		EPA 625 (SVOC)
	Sealants	No	COD	None	EPA 410.4 (COD)
	Solvents	No	COD	None	EPA 410.4 (COD)
			VOC		EPA 601/602 or EPA 624 (VOC)
			SVOC		EPA 625 (SVOC)
	Lacquers, varnish, enamels, and turpentine	No	COD	None	EPA 410.4 (COD)
			VOC		EPA 601/602 or EPA 624 (VOC)
			SVOC		EPA 625 (SVOC)
	Thinners	No	VOC	None	EPA 601/602 or EPA 624 (VOC)
			COD		EPA 410.4 (COD)
Portable Toilet Waste Products	Portable toilet waste	Yes	Visually observable– no testing required		

Appendix E (Continued)
Non-Visible Pollutants Construction Material and Pollutant Testing Guidance

Category	Construction Site Material	Visually Observable?	Pollutant Indicators	Suggested Field Analyses	Laboratory
Contaminated Soil	Aerially deposited lead	No	Lead	None	EPA 200.8 (metal)
	Petroleum	Yes– rainbow surface sheen and odor	Visually observable– no testing required		
	Mining or industrial waste, etc.	No	Contaminant specific	Check with laboratory	Check with laboratory
Line Flushing Products	Chlorinated water	No	Total chlorine	Chlorine test kit	SM 4500-CL G (res. chlorine)
Adhesives	Adhesives	No	COD Phenols SVOC	None Phenol test kit None	EPA 410.4 (COD) EPA 420.1 (phenol) EPA 625 (SVOC)
Dust Palliative Products	Salts (magnesium chloride, calcium chloride, and natural brines)	No	Chloride TDS Sodium, magnesium, calcium, etc.	Chloride test kit TDS meter None	EPA 300.0 (chloride) EPA 160.1 (TDS) EPA 200.7 (cations)
Vehicle and Equipment Fluids	Antifreeze and other vehicle fluids	Yes– colored liquid	Visually observable– no testing required		
	Batteries	No	Sulfuric acid Lead pH	None None pH meter Alkalinity or acidity test kit	EPA 300.0 (sulfate) EPA 200.8 (metal) EPA 150.1 (pH)
	Fuels, oils, lubricants	Yes– rainbow surface sheen and odor	Visually observable– no testing required		

Appendix E (Continued)
Non-Visible Pollutants Construction Material and Pollutant Testing Guidance

Category	Construction Site Material	Visually Observable?	Pollutant Indicators	Suggested Field Analyses	Laboratory
Contaminated Soil	Aerially deposited lead	No	Lead	None	EPA 200.8 (metal)
Soil Amendment/ Stabilization Products	Polymer/ copolymer	No	Organic nitrogen	None	EPA 351.3 (TKN)
			BOD	None	EPA 405.1 (BOD)
			COD	None	EPA 410.4 (COD)
			DOC	None	EPA 415.1 (DOC)
			Nitrate	Nitrate test kit	EPA 300.0 (Nitrate)
			Sulfate	Sulfate test kit	EPA 300.0 (Sulfate)
			Nickel	None	EPA 200.8 (Metal)
	Straw/mulch	Yes– solids	Visually observable– no testing required		
	Lignin sulfonate	No	Alkalinity	Alkalinity test kit	SM 2320 (alkalinity)
			TDS	TDS meter	EPA 160.1 (TDS)
	Psyllium	No	COD	None	EPA 410.4 (COD)
			TOC		EPA 415.1 (TOC)
	Guar/plant gums	No	COD TOC Nickel	None	EPA 410.4 (COD) EPA 415.1 (TOC) EPA 200.8 (metal)
	Gypsum	No	pH	pH meter Alkalinity or acidity test kit	EPA 150.1 (pH)
			Calcium	Calcium test kit	EPA 200.7 (calcium)
			Sulfate	Sulfate test kit	EPA 300.0 (sulfate)
			Aluminum	None	EPA 200.8 (metal)

CHAIN OF CUSTODY RECORD

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

WO # / LAB USE ONLY

DATE:

PAGE: 1 OF

LABORATORY CLIENT:
Tetra Tech, Inc.

ADDRESS: 3201 Airpark Drive, Suite 108

CITY: Santa Maria STATE: CA ZIP: 93455

TEL: (805) 739-2650

E-MAIL: anne.power@tetratech.com

CLIENT PROJECT NAME / NUMBER:
San Bernardino City Unified School District
SBA-T29378.0010

P.O. NO.:

PROJECT CONTACT: Anne Power

SAMPLER(S): (PRINT)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS **X** STANDARD

☐ COELT EDF

GLOBAL ID:

LOG CODE:

SPECIAL INSTRUCTIONS:

Email Results to: Anne.Power@tetratech.com and Annie.Gillespie@tetratech.com
Non-visible pollutant sampling to be conducted in the event of a breach, malfunciton, or spill.

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	VOCs (8260) *(3x 40ml VOA, HCL)*	SVOCs (8270) *(1L Amber Glass)*																	
				SW	4		X																				
				SW	4		X																				

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time: