

**SUBMITTAL TO THE BOARD OF SUPERVISORS  
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**



**ITEM**  
3.56  
(ID # 4850)

**MEETING DATE:**

Tuesday, August 29, 2017

**FROM :** ECONOMIC DEVELOPMENT AGENCY (EDA) AND SHERIFF'S DEPARTMENT :

**SUBJECT:** ECONOMIC DEVELOPMENT AGENCY (EDA) AND SHERIFF'S DEPARTMENT:  
Larry D. Smith Correctional Facility Clinic Project – Approval to Reject All Bids for  
Phase I and Approval of Revised Plans and Specifications, District 5. [\$0]

**RECOMMENDED MOTION:** That the Board of Supervisors:

1. Find that bids received for Phase I of the Smith Correctional Facility (SCF) Clinic Project were over budget and it is in the best interest of the County of Riverside (County) to reject all bids received on April 20, 2017;
2. Approve the revised plans and specifications for construction of the SCF Clinic Project and authorize the Economic Development Agency (EDA) through Tilden Coil Constructors, Inc. (Tilden Coil) to release bid packages for all trades necessary to complete the project per the plans and specifications;

**ACTION: Policy**

Robert Field, Assistant County Executive Officer/EDA

8/3/2017

Stan Sniff

Sheriff-Coroner-PA

By Scot Collins, Chief Deputy

Scot Collins, Chief Deputy

8/3/2017

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**MINUTES OF THE BOARD OF SUPERVISORS**

On motion of Supervisor Ashley, seconded by Supervisor Perez and duly carried,  
IT WAS ORDERED that the above matter is approved as recommended.

**Ayes:** Jeffries, Washington, Perez and Ashley  
**Nays:** None  
**Absent:** Tavaglione  
**Date:** August 29, 2017  
**xc:** EDA, Sheriff

Kecia Harper-Ihem  
Clerk of the Board  
By:   
Deputy

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,  
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**RECOMMENDED MOTION:** That the Board of Supervisors:

3. Upon completion of the bid process for each trade, authorize the Assistant County Executive Officer/EDA to submit the contracts for award of the bid to the lowest responsive and responsible bidder for each bid package in a not-to-exceed combined amount of \$3,150,000 to the Chairman of the Board (Chairman) and authorize the Chairman to execute the contracts to commence construction on behalf of the Board provided that, if any of the following occur, the award will be submitted to the Board for action: there is a bid protest, the lowest bid exceeds the estimated construction budget, the low bidder is disqualified, two or more bids are the same and are the lowest, or a bidder requests relief from its bid due to an error; and
  
4. Authorize the Assistant County Executive Officer/EDA to administer the contracts for the awarded low bidders in accordance with applicable Board policies and set forth this Board action as the awarded date to the contracts and return to the Board to file the list of awarded contractors for the project.

<b>FINANCIAL DATA</b>	<b>Current Fiscal Year:</b>	<b>Next Fiscal Year:</b>	<b>Total Cost:</b>	<b>Ongoing Cost</b>
<b>COST</b>	\$ 0	\$ 0	\$ 0	\$ 0
<b>NET COUNTY COST</b>	\$ 0	\$ 0	\$ 0	\$ 0
<b>SOURCE OF FUNDS: N/A</b>			<b>Budget Adjustment: No</b>	
			<b>For Fiscal Year: 2017/18</b>	

**C.E.O. RECOMMENDATION:** Approve

**BACKGROUND:**

**Summary**

On March 14, 2017, Item 3.12, the Board of Supervisors (Board) approved the site work plans and specifications for Phase I of the SCF Clinic project and authorized Tilden Coil to release Phase I bid documents to complete site development for the project.

On March 28, 2017, a mandatory job walk was held and a total of 11 contractors attended the job walk. On April 20, 2017, a bid opening was conducted and EDA received a total of 11 bids; four bids were received for Excavation and Rough Grade (Bid Package 1), six bids were received for Site Utilities (Bid package 2), and one bid was received for Site Electrical (Bid Package 3). SJD&B, Inc. was determined to be the lowest responsive and responsible bidder for Bid Packages 1 and 2; and International Line Builders, Inc. was determined to be the lowest responsive and responsible bidder for Bid Package 3. All three bids exceeded the approved construction budget; therefore EDA recommends the Board formally reject all bids for the SCF Clinic project.

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After further review, EDA and Tilden Coil recommended not to phase the SCF Clinic project and bid the project as a whole to come within the budgeted construction amount of \$3,150,000. Therefore, EDA recommends the Board approve the revised plans and specifications and authorize EDA through Tilden Coil to release the bid packages for the SCF Clinic project.

**Impact on Residents and Businesses**

The new clinic space at SCF will improve the frequency and quality of medical and mental health treatment provided to inmates. Rebidding of bid packages is anticipated to provide significant savings to the County.

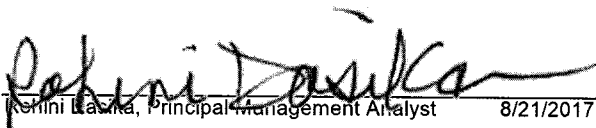
**Additional Fiscal Information**

There are no costs associated with this Board action. The project budget in the amount of \$7,528,400 was previously approved by the Board on November 1, 2016 (Item 3-7) and is 100% funded through Existing JJBDC Bond Proceeds.

Attachment:

Specifications - Revised

RF:JV:VC:SP:CW:FG:tv      FM08250007638      4850 - 13640  
S:\Project Management Office\FORM 11'S\FORM 11's in Process\4850 - 13640\_D5 - 007638 - LD SCF Clinic Project - Reject Bids  
Multi-Prime, Rev Plans and Specs Multi Prime\_082917.doc

  
Nehini Basika, Principal Management Analyst

8/21/2017

  
Gregory L. Priamos, Director County Counsel

8/4/2017

**BID AND CONTRACT  
DOCUMENTS**

**FOR**

**BID No. FM08250007638**

**Larry D. Smith Correctional Facility -  
Clinic Project**

July 26th, 2017



**3403 10th St – 4th Floor  
Riverside, CA 92501**

FORM APPROVED COUNTY COUNSEL

BY: Marsha R. Victor 7/26/17  
MARSHA L. VICTOR DATE

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**PROCUREMENT AND CONTRACTING REQUIREMENTS GROUP**

**DIVISION 00 – BIDDING REQUIREMENTS**

00 01 01	Project Title Page
00 01 10	Table of Contents
00 11 16	Notice to Bidders
00 21 13	Instruction to Bidders
00 31 32	Geo-Technical Data
00 41 13	Bid Form
00 43 13	Bid Bond
00 43 36	Designated Subcontractors List
00 45 01	Site Visit Certification
00 45 19	Non-Collusion Declaration
00 45 26	Workers' Compensation Certification
00 45 46.01	Prevailing Wage and Related Labor Requirements Certification
00 45 46.03	Drug-Free Workplace Certification
00 45 46.05	Hazardous Materials Certification
00 45 46.07	Imported Materials Certification
00 45 46.11	Iran Contracting Act Certification
00 45 46.13	Verification of Contractor and Subcontractors' DIR Registration
00 52 13	Agreement Form
00 56 00	Escrow Agreement for Security Deposits in Lieu of Retention
00 61 13.13	Performance Bond
00 61 13.16	Payment Bond
00 72 13	General Conditions
00 80 00	Supplemental Conditions

**SPECIFICATIONS GROUP**

**General Requirements Subgroup**

**DIVISION 01 – GENERAL REQUIREMENTS**

01 10 00	Summary of Work
01 21 00	Allowances
01 25 00	Substitution Procedures
01 26 00	Change Order Procedures
01 29 76	Application for Payment
01 31 13	Utility Coordination
01 31 19	Project Meetings
01 32 16	Construction Progress Documentation
	Appendix A – Project Baseline Schedule
	Appendix B – Deliverable Milestones
01 33 00	Submittal Procedures
01 33 33	Electronic Drawings
01 40 00	Quality Requirements
01 44 40	Site Safety Program

01 50 00	Construction Facilities Appendix C – Logistics’ Plan
01 50 10	Institutional Security Regulations
01 57 13	Storm Water Pollution Prevention Plan
01 60 00	Product Requirements
01 71 23	Field Engineering
01 73 29	Cutting and Patching
01 74 19	Construction Waste Management
01 77 00	Project Close-Out
01 78 36	Warranties and Bonds
01 91 13	General Commissioning Requirements
01 99 99	Forms Certificate of Stored Materials Change Order Request (COR) For Prime Contractor Change Order Request (COR) For Subcontractor Guarantee Form Safety Orientation Form Submittal Cover Sheet SWPPP Inspection Log Systems Shutdown / Off Hour Work Request Testing and Inspection Request Time & Materials Daily Reports for Added Work Closeout Documents Job-Site Safety Meetings-Inspection Report

**Facility Construction Subgroup**

**DIVISION 02 – EXISTING CONDITIONS**

024119 Selective Demolition

**DIVISION 03 – CONCRETE**

031000 Concrete Formwork  
032000 Concrete Reinforcement  
033000 Cast-In-Place Concrete

**DIVISION 04 – MASONRY**

040500 Mortar and Grout  
042200 Concrete Unit Masonry

**DIVISION 05 – METALS**

051200 Structural Steel Framing  
052100 Steel Joist Framing  
053100 Steel Decking  
054000 Cold-Formed Metal Framing  
055000 Metal Fabrications  
055213 Pipe and Tube Railings  
055963 Detention Enclosures

**DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES**

061053	Miscellaneous Rough Carpentry
064116	Plastic-Laminate-Faced Architectural Cabinets
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072100	Thermal Insulation
072620	Concrete Vapor Emission and Alkalinity Control
075419	Polyvinyl-Chloride (PVC) Roofing
076200	Sheet Metal Flashing and Trim
077200	Roof Accessories
078100	Applied Fireproofing
078413	Penetration Firestopping
078446	Fire-Resistive Joint Systems
079200	Joint Sealants

**DIVISION 08 – OPENINGS**

081113	Hollow Metal Door and Frames
083113	Access Doors and Frames
083113.53	Security Access Doors and Frames
083463	Detention Doors and Frames
087100	Door Hardware
087163	Detention Door Hardware
088853	Security Glazing
089119	Fixed Louvers

**DIVISION 09 – WOOD, PLASTICS, AND COMPOSITES**

092216	Non-Structural Metal Framing
092900	Gypsum Board
093013	Ceramic Tiling
095113	Acoustical Panel Ceilings
095753	Security Ceiling Assemblies
096513	Resilient Base and Accessories
096516	Resilient Sheet Flooring
096536	Static-Control Resilient Flooring
096813	Tile Carpeting
097720	Decorative Fiberglass Reinforced Wall Panels
099113	Exterior Painting
099123	Interior Painting
099601	High Performance Coatings for Interiors

**DIVISION 10 – SPECIALTIES**

101100	Visual Display Units
101400	Signage
102113.19	Plastic Toilet Compartments
102800	Toilet, Bath, and Laundry Accessories
102813.63	Detention Toilet Accessories
104413	Fire Extinguisher Cabinets
104416	Fire Extinguishers

**DIVISION 11 – EQUIPMENT**

111910	Security Screws
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**DIVISION 12 – FURNISHINGS**

123661.16 Solid Surfacing Countertops

**DIVISION 13 – SPECIAL CONSTRUCTION**

134900 Radiation Protection

**DIVISION 14 to 20 – NOT USED**

**DIVISION 21 – FIRE SUPPRESSION**

210517 Sleeves and Sleeve Seals for Fire Suppression Piping  
210518 Escutcheons for Fire Suppression Piping  
210553 Identification for Fire Suppression Piping and Equipment  
211313 Wet Pipe Sprinkler and Standpipe System

**DIVISION 22 – PLUMBING**

220513 Common Motor Requirements for Plumbing Piping Equipment  
220517 Sleeves and Sleeve Seals for Plumbing Piping  
220518 Escutcheons for Plumbing Piping  
220519 Meters and Gages for Plumbing Piping  
220523.12 Ball Valves for Plumbing Piping  
220523.14 Check Valves for Plumbing Piping  
220523.15 Gate Valves for Plumbing Piping  
220529 Hangers and Supports for Plumbing Piping and Equipment  
220719 Plumbing Piping Insulation  
221116 Domestic Water Piping  
221119 Domestic Water Piping Specialties  
221120 Site and Facility Natural-Gas Piping  
221123 Domestic Water Pumps  
221316 Sanitary Waste and Vent Piping  
221319 Sanitary Waste Piping Specialties  
221423 Storm Drainage Piping Specialties  
223400 Fuel-Fired, Domestic-Water Heaters  
224213.13 Commercial Water Closets  
224213.16 Commercial Urinals  
224216.13 Commercial Lavatories  
224216.16 Commercial Sinks  
224500 Emergency Plumbing Fixtures  
224600 Security Plumbing Fixtures  
226119 Compressed-Air Equipment for Laboratory and Healthcare Facilities  
226219 Vacuum Equipment for Laboratory and Healthcare Facilities

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230529 Hangers and Supports for HVAC Piping and Equipment  
230548 Vibration and Seismic Controls for HVAC  
230553 Identification for HVAC Piping and Equipment

230593	Testing, Adjusting, and Balancing for HVAC
230713	Duct Insulation
230719	HVAC Piping Insulation
230800	Commissioning of HVAC
230900	HVAC Instrumentation and Controls
232300	Refrigerant Piping
233113	Metal Ducts
233300	Air Duct Accessories
233423	HVAC Power Ventilators
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238113	Gas Heating Electric Cooling Rooftop Packaged Units
238126	Split-System Air-Conditioners

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**DIVISION 26 – ELECTRICAL**

260500	Common Work Results for Electrical
260519	Low-Voltage Electrical Power Conductors and Cables
260523	Control-Voltage Electrical Power Cables
260526	Grounding and Bonding for Electrical Systems
260529	Hangers and Supports for Electrical Systems
260533	Raceways and Boxes for Electrical Systems
260539	Underfloor Raceways for Electrical Systems
260543	Underground Ducts and Raceways for Electrical Systems
260544	Sleeves and Sleeve Seals for Electrical Raceways and Cabling
260548.16	Seismic Controls for Electrical Systems
260553	Identification for Electrical Systems
260572	Overcurrent Protective Device Short Circuit Study
260923	Lighting Control Devices
262413	Switchboards
262416	Panelboards
262713	Electric Metering
262726	Wiring Devices
262813	Fuses
262816	Enclosed Switches and Circuit Breakers
265119	LED Interior Lighting
265219	Emergency and Exit Lighting
265619	LED Exterior Lighting

**DIVISION 27 – NOT USED**

**DIVISION 28 – ELECTRONIC SAFETY AND SECURITY**

280500	Common Work Results for Electronic Safety and Security
280513	Conductors and Cables for Electronic Safety and Security
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281500	Intercom System
282300	Video Surveillance System

282600	Electronic Personal Protection System
283111	Digital, Addressable Fire-Alarm System
284600	Integrated Control System
284800	Integrated Sequences of Operation

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**Site and Infrastructure Subgroup**

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312213	Rough Grading
312317	Trenching
312323	Filling and Backfilling
312500	Erosion and Sedimentation Control

**DIVISION 32 – EXTERIOR IMPROVEMENTS**

320116	Flexible Paving and Rehabilitation
321123	Aggregate Base Courses
321216	Asphalt Paving
321313	Concrete Paving
321726	Tactile Warning Surfacing
323113.53	High-Security Chain Link Fences and Gates
323113.73	Detention Gate Hardware

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331100	Site Water Distribution Utilities
333100	Sanitary Utility Sewerage Piping

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**NOTICE TO BIDDERS**

The **County of Riverside** ("County") will receive sealed bids for the **Construction Management - Multi-Prime Bid No. FM0825007638, Larry D. Smith Correctional Facility – Clinic Project**

Larry D. Smith Correctional Facility – Clinic Project no later than **2:00 PM** on **Thursday, October 5<sup>th</sup>, 2017** (the "Bid Deadline")

at **Clerk of the Board located on the 1<sup>st</sup> Floor of the County Administrative Center, 4080 Lemon Street, Riverside, CA 92501**. The Project consists of Construction of one (1) new CMU Masonry single story building with site improvements as further described in the bid and contract documents ("County Documents"). The Pre-qualified Bidders shall review the County Documents for more complete information regarding the Project and submission of bids. The architect's/engineer's construction cost estimate for this Project, including alternates, is **\$3,800,000**.

Bid Documents are available via Smartbid by contacting Tilden-Coil Constructors at 951-684-5901. Bidders shall submit all documents for bidding as provided for in the Instruction to Bidders. **Bids will only be accepted from bidders who have previously pre-qualified with the County of Riverside. Bidders viewing plans online are responsible for contacting Amanda Apat at Tilden-Coil Constructors (951) 684-5901 and requesting to be included on the Plan holders List.** Bid sets are available for viewing in the Construction Manager's office. **Bidders are responsible for confirmation that they have viewed all addenda prior to the bid deadline and will be required to acknowledge addenda on their bid form.**

A **non-mandatory** pre-bid meeting and job walk for prime contractors will be held on

**Thursday, September 7<sup>th</sup>, 2017** (Phase 2) at **10:00 AM**

at **1627 S. Hargrave St. Banning, CA**. Though not mandatory it is highly encouraged that the following trades attend: **All Trades** (Due to Restricted Access into the Facility). The deadline to submit a request for information is **September 22, 2017**. RFI's may be submitted to [mgarcia@tilden-coil.com](mailto:mgarcia@tilden-coil.com).

Only Pre-qualified contractors are allowed to bid. Bids must be submitted to the County on the County's bid forms. **All bids must be addressed, sealed in an envelope, and received by the County no later than the Bid Deadline.** All bids will be publicly opened immediately after the Bid Deadline. Bids received after the Bid Deadline shall be rejected. County reserves the right to reject any or all bids and to waive any informality or irregularity in any bid received.

Bids shall be valid for **ninety (90) days** after the Bid Deadline. Bids must be accompanied by cash, a certified or cashier's check, or a bid bond in favor of the County in an amount not less than ten percent (10%) of the submitted total bid price. The successful bidder will be required to furnish a performance bond and a payment bond, each in the amount of one hundred percent (100%) of the total bid price in the manner described in the Contract Documents. Bidders shall comply with California Public Contract Code Section 4108 with respect to subcontractor bond requirements.

Bidders shall possess one or more of the following California Contractor's license(s) at the time of the bid opening in order to perform the work:

Category #	Description	License
	<b>Building and Site Work</b>	
04	Site Demo, Earthwork, and Grading	A
05	Concrete (Building and Site)	C8
06	Masonry	C29
07	Casework	C6
08	Roofing and Sheet Metal	C39
09	Metal Stud, Drywall, and Insulation	C9
10	Flooring	C15
11	Tile	C54
12	Acoustical Ceilings/Security Ceilings	C2
13	Painting	C33
14	Miscellaneous	B
15	Fire Protection	C16
16	Site Utilities and Plumbing	C36
17	HVAC	C20
18	Site and Building Electrical and Low Voltage	C10

Contractors wishing to bid on select trades **must** have been previously pre-qualified by the County prior to release of this Notice. Subcontractors must possess the appropriate licenses for each specialty subcontracted.

**Bid Form.** If Alternates are included in the Bidding Documents, then a Bid amount for each and every such Alternate shall be included in the spaces provided in the Bid Form for that purpose. If the Bidder determines that the Alternate does not affect the amount of its Base Bid, then the Bidder shall enter "No Change" in the Bid Form.

**Basis for Award.** Where the Bidding Documents include Allowances; the Lowest Bid Price is the Total Bid Amount identified on the Bid Form and shall include the Base Bid plus all Allowances. In the event of Alternate Bids, Alternate Bids shall not be included in the Total Bid Amount. If applicable the Alternate Bids shall be listed separately on the spaces provided on the Bid Form for Alternate Bids.

This Project is a public work for purposes of the California Labor Code, which requires payment of prevailing wages. County has obtained the general prevailing rates, which will be on file with the County's Construction Manager and will be available to any interested party.

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in the Labor Code, unless registered and qualified to perform public work pursuant to Labor Code section 1725.5.

The contractor and all subcontractors shall furnish certified payroll records as required pursuant Labor Code section 1776 directly to the Labor Commissioner in accordance with Labor Code section 1771.4 on at least on a monthly basis (or more frequently if required by the County or the Labor Commissioner) and in a format prescribed by the Labor Commissioner. Monitoring and enforcement of the prevailing wage laws and related requirements will be performed by the Labor Commissioner/Department of Labor Standards Enforcement (DLSE), and by the County.

**COUNTY OF RIVERSIDE**

By: Charles Waltman, Economic Development Agency, and County of Riverside

Published: Larry D. Smith Correctional Facility – Clinic Project – 8/30/17 and 9/6/17

**INSTRUCTIONS TO BIDDERS**

Bidders shall follow the instructions in this document, and shall submit all documents, forms, and information required for consideration of a Bid.

County of Riverside ("County") will evaluate information submitted by the apparent low bidder and, if incomplete or unsatisfactory to County, Bidder's bid may be rejected at the sole discretion of County.

1. Bids are requested for a prime construction contract, or work described in general, for the following project ("Project"):

**Bid No. FM08250007638 – Larry D. Smith Correctional Facility – Clinic Project**

2. County will receive sealed Bids from bidders as stipulated in the Notice to Bidders.
3. Bidders must submit Bids on the Bid Form and all other required County forms. Bids not submitted on the County's required forms shall be deemed non-responsive and shall not be considered. Additional sheets required to fully respond to requested information are permissible.
4. Bidders must supply all information required by each Bid Document. Bids must be full and complete. County reserves the right in its sole discretion to reject any Bid as non-responsive as a result of any error or omission in the Bid. Bidders must complete and submit all of the following documents with the Bid Form in the following order:
  - a. 00 41 13 Bid Form
  - b. 00 43 13 Bid Bond on the County's form or other security
  - c. 00 43 36 Designated Subcontractor's List
  - d. 00 45 01 Site-Visit Certification, if a site visit was required
  - e. 00 45 19 Non-Collusion Declaration
  - f. 00 45 46.11 Iran Contracting Act Certification
  - g. 00 45 46.13 Verification of Contractor and Subcontractors' DIR Registration
5. Bidders must submit with their Bids cash, a cashier's check or a certified check payable to County, or a Bid Bond by an admitted surety insurer of not less than ten percent (10%) of amount of base Bid, plus all additive alternates. If Bidder chooses to provide a Bid Bond as security, Bidder must use the required form of corporate surety provided by County (Document 004313 Bid Bond). The Surety on Bidder's Bid Bond must be an insurer admitted in the State of California and authorized to issue surety bonds in the State of California. Bids submitted without necessary bid security will be deemed non-responsive and will not be considered.
6. If Bidder to whom the Project is awarded fails or neglects to enter into a written agreement ("Agreement") and submit required bonds, insurance certificates, and all other required documents, within **TEN (10)** calendar days after the date of the Notice of Award, County may deposit Bid Bond, cash, cashier's check, or certified check for collection, and proceeds thereof may be retained by County as liquidated damages for failure of Bidder to enter into the Agreement, in the sole discretion of County. It is agreed that calculation of damages County may suffer as a result of Bidder's failure to enter into the Agreement would be extremely difficult and impractical to determine and that the amount of the Bidder's required bid security shall be the agreed and conclusively presumed amount of damages.

7. Bidders must submit with the Bid the Designated Subcontractors List for those subcontractors who will perform any portion of Work, including labor, rendering of service, or specially fabricating and installing a portion of the Work or improvement according to detailed drawings contained in the plans and specifications, in excess of one half of one percent (0.5%) of total Bid. Failure to submit this list when required by law shall result in the Bid being deemed non-responsive and the Bid will not be considered.
  - a. Bidder must designate the name, address, license number and trade of ALL listed Subcontractors with the Bid Proposal. The listed Subcontractors' DIR registration number and the value of their trades or portions of the work must be submitted to the County within 24 hours after the public opening and reading of the Bids. The failure of any Bid Proposal to include all information required by the Subcontractors List will result in rejection of the Bid Proposal for non-responsiveness. Pursuant to Labor Code section 1725.5, all subcontractors (of any tier) performing work on this Project must be properly registered with DIR.
8. If a mandatory pre-bid conference and site visit ("Site Visit") is requested as referenced in the Notice to Bidders, then Bidders must submit the Site-Visit Certification with their Bid. County will transmit to all prospective Bidders of record such Addenda as County in its discretion considers necessary in response to questions arising at the Site Visit. Oral statements shall not be relied upon and will not be binding or legally effective. Addenda issued by the County as a result of the Site Visit, if any, shall constitute the sole and exclusive record and statement of the results of the Site Visit.
9. Bidders shall submit the Non-collusion Declaration with their Bids. Bids submitted without the Non-collusion Declaration shall be deemed non-responsive and will not be considered.
10. County reserves the right to reject any Bid containing Erasures, Deletions, Inconsistent or Illegible Bids. The bid submitted must not contain any erasures, interlineations, or other corrections unless each such correction creates no inconsistency and is suitably authenticated by affixing in the margin immediately opposite the correction the signature or signatures of the person or persons signing the bid. In the event of inconsistency between words and figures in the bid price, words shall control figures. In the event that the County determines that any bid is unintelligible, inconsistent, or ambiguous, the County may reject such bid as not being responsive to the Notice Inviting Bids.
11. Bidders shall not modify the Bid Form or qualify their Bids. Bidders shall not submit to the County a scanned, re-typed, word-processed, or otherwise recreated version of the Bid Form or other County-provided document.
12. The Bidder and all Subcontractors under the Bidder shall pay all workers on all work performed pursuant to the Agreement not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the County, pursuant to sections 1770 et seq. of the California Labor Code. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Agreement, as determined by Director of the State of California Department of Industrial Relations, are available upon request at the County's principal office. Prevailing wage rates are also available on the internet at <http://www.dir.ca.gov>.
13. **[Reserved]**



14. In accordance with the provisions of California Public Contract Code §3300, the County requires that Bidders possess, at the time of submission of a Bid Proposal, at the time of award of a Contract for a Bid Package and at all times during the Work, the following classification(s) of California Contractors License for each Bid Package, as set forth below. No payment shall be made for work, labor, materials or services provided under the Contract for the Work unless and until the Registrar of Contractors verifies to the County that the Bidder awarded the Contract is properly and duly licensed to perform the Work. Any Bidder not so duly and properly licensed shall be subject to all penalties imposed by law.

Prequalification: The following Bid Categories as noted below have been pre-approved through a prequalification process as approved by the Board of Supervisors. Owner is not accepting any more prequalification for this bid.

Category #	Description	License
	<b>Building and Site Work</b>	
04	Site Demo, Earthwork, and Grading	A
05	Concrete (Building and Site)	C8
06	Masonry	C29
07	Casework	C6
08	Roofing and Sheet Metal	C39
09	Metal Stud, Drywall, and Insulation	C9
10	Flooring	C15
11	Tile	C54
12	Acoustical Ceilings/Security Ceilings	C2
13	Painting	C33
14	Miscellaneous	B
15	Fire Protection	C16
16	Site Utilities and Plumbing	C36
17	HVAC	C20
18	Site and Building Electrical and Low Voltage	C10

Prime Contractors may contract with second tier subcontractors and/or vendors of their choice. Second tier subcontractors and/or vendors are not subject to prequalification with the County of Riverside. Only trade contractors submitting bids directly to the County of Riverside for any of the trade categories stated above are subject to the pre-qualification requirements.

15. Submission of Bid signifies careful examination of Contract Documents and complete understanding of the nature, extent, and location of Work to be performed. Bidders must complete the tasks listed below as a condition to bidding, and submission of a Bid shall constitute the Bidder's express representation to County that Bidder has fully completed the following:
- a. Bidder has visited the Site, and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Site, locality, actual conditions, as-built conditions, and all local conditions and federal, state and local laws, and regulations that in any manner may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto;
  - b. Bidder has conducted or obtained and has understood all examinations, investigations, explorations, tests, reports, and studies that pertain to the subsurface conditions, as-built conditions, underground facilities, and all other physical conditions at or contiguous to the Site or otherwise that may affect the cost, progress, performance, or furnishing of Work, as Bidder considers necessary for the performance or furnishing of Work at the Contract Sum, within the Contract Time, and in accordance with the other terms and conditions of Contract Documents, including specifically the provisions of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies, or similar information or data are or will be required by Bidder for such purposes;
  - c. Bidder has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports, and studies with the terms and conditions of the Contract Documents;
  - d. Bidder has given the County prompt written notice of all conflicts, errors, ambiguities, or discrepancies that it has discovered in or among the Contract Documents and the actual conditions, and the written resolution thereof by the County is acceptable to Bidder;
  - e. Bidder has made a complete disclosure in writing to the County of all facts bearing upon any possible interest, direct or indirect, that Bidder believes any representative of the County or other officer or employee of the County presently has or will have in the Agreement or in the performance thereof or in any portion of the profits thereof;
  - f. Bidder must, prior to bidding, perform the work, investigations, research, and analysis required by this document and that Bidder represented in its Bid Form and the Agreement that it performed prior to bidding. Bidder under the Agreement is charged with all information and knowledge that a reasonable bidder would ascertain from having performed this required work, investigation, research, and analysis. Bid prices must include entire cost of all work "incidental" to completion of the Work.
  - g. Conditions Shown on the Contract Documents: Information as to underground conditions, as-built conditions, or other conditions or obstructions, indicated in the Contract Documents, e.g., on Drawings or in Specifications, has been obtained with reasonable care, and has been recorded in good faith. However, County only warrants, and Bidder may only rely, on the accuracy of limited types of information.

- (1) As to above-ground conditions or as-built conditions shown or indicated in the Contract Documents, there is no warranty, expressed or implied, or any representation express or implied, that such information is correctly shown or indicated. This information is verifiable by independent investigation and Bidder is required to make such verification as a condition to bidding. In submitting its Bid, Bidder shall rely on the results of its own independent investigation. In submitting its Bid, Bidder shall not rely on County-supplied information regarding above-ground conditions or as-built conditions.
  - (2) As to any subsurface condition shown or indicated in the Contract Documents, Bidder may rely only upon the general accuracy of actual reported depths, actual reported character of materials, actual reported soil types, actual reported water conditions, or actual obstructions shown or indicated. County is not responsible for the completeness of such information for bidding or construction; nor is County responsible in any way for any conclusions or opinions of Bidder drawn from such information; nor is the County responsible for subsurface conditions that are not specifically shown (for example, County is not responsible for soil conditions in areas contiguous to areas where a subsurface condition is shown).
- h. Conditions Shown in Reports and Drawings Supplied for Informational Purposes: Reference is made to the document entitled Geotechnical Data, and the document entitled Existing Conditions, for identification of:
- (1) Subsurface Conditions: Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that have been utilized by Architect in preparing the Contract Documents; and
  - (2) Physical Conditions: Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that has been utilized by Architect in preparing the Contract Documents.
  - (3) These reports and drawings are **not** Contract Documents and, except for any "technical" data regarding subsurface conditions specifically identified in Geotechnical Data and Existing Conditions, and underground facilities data, Bidder may not in any manner rely on the information in these reports and drawings. Subject to the foregoing, Bidder must make its own independent investigation of all conditions affecting the Work and must not rely on information provided by County.
16. Bidders may examine any available "as-built" drawings of previous work by giving County reasonable advance notice. County will not be responsible for accuracy of "as-built" drawings. The document entitled Existing Conditions applies to all supplied "as-built" drawings.
17. All questions about the meaning or intent of the Contract Documents are to be directed in writing through the Construction Manager. Interpretations or clarifications considered necessary by the County in response to such questions will be issued in writing by Addenda emailed, faxed, mailed, or delivered to all parties recorded by the County as having received the Contract Documents. Questions received less than **SEVEN (7)** calendar days prior to the date for opening Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

18. Addenda may also be issued to modify other parts of the Contract Documents as deemed advisable by the County.
19. Each Bidder must acknowledge each Addendum in its Bid Form by number or its Bid shall be considered non-responsive. Each Addendum shall be part of the Contract Documents. A complete listing of Addenda may be secured from the County.
20. Bids shall be based on products and systems specified in Contract Documents or listed by name in Addenda. Whenever in the Specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name, or by name of manufacturer, that Specification shall be deemed to be followed by the words "or equal." Bidder may, unless otherwise stated, offer any material, process, or article that shall be substantially equal or better in every respect to that so indicated or specified. The County is not responsible and/or liable in any way for a Bidder's damages and/or claims related, in any way, to that Bidder's basing its bid on any requested substitution that the County has not approved. Bidders and materials suppliers who submit requests for substitutions prior to the award of the Project must do so in writing and in compliance with Public Contract Code section 3400. All requests must comply with the following:
  - a. County must receive any request for substitution a minimum of **TEN (10)** calendar days prior to bid opening.
  - b. Requests for substitutions shall contain sufficient information to assess acceptability of product or system and impact on Project, including, without limitation, the requirements specified in the Special Conditions and the Specifications. Insufficient information shall be grounds for rejection of substitution.
  - c. Approved substitutions shall be listed in Addenda. County reserves the right not to act upon submittals of substitutions until after bid opening.
  - d. Substitutions may be requested after Contract has been awarded only if indicated in and in accordance with requirements specified in the Special Conditions and the Specifications.
21. All Bids must be sealed, and marked with name and address of the Bidder and the Project Number, Bid number, Bid package, and time of bid opening. Bids will be received as indicated in the Notice to Bidders.
  - a. Mark envelopes with the name of the Project.
  - b. Bids must be submitted to the **Clerk of the Board located on the 1<sup>st</sup> Floor of the County Administrative Center, 4080 Lemon Street, Riverside, CA 92501** by date and time shown in the Notice to Bidders.
  - c. Bids must contain all documents as required herein.
22. Bids will be opened at or after the time indicated for receipt of bids.
23. The Agreement may include alternates. Alternates are defined as alternate products, materials, equipment, systems, methods, or major elements of the construction that may, at the County's option and under terms established in the Agreement and pursuant to section 20103.8 of the Public Contract Code, be selected for the Work.
24. The County shall award the Project, if it awards it at all, to the lowest responsive responsible bidder based on the criteria as indicated in the Notice to Bidders. In the event two or more responsible bidders submit identical bids, the County shall select the Bidder to whom to award the Project by lot.

25. Time for Completion: County may issue a Notice to Proceed within **THREE (3)** months from the date of the Notice of Award. Once Bidder has received the Notice to Proceed, Bidder shall complete the Work within the period of time indicated in the Contract Documents.
- a. In the event that the County desires to postpone issuing the Notice to Proceed beyond this three (3) month period, it is expressly understood that with reasonable notice to the Bidder, the County may postpone issuing the Notice to Proceed.
  - b. It is further expressly understood by Bidder that Bidder shall not be entitled to any claim of additional compensation as a result of the postponement of the issuance of the Notice to Proceed beyond a three (3) month period. If the Bidder believes that a postponement of issuance of the Notice to Proceed will cause a hardship to the Bidder, the Bidder may terminate the Agreement. Bidder's termination due to a postponement beyond this three (3) month period shall be by written notice to County within **TEN (10)** calendar days after receipt by Bidder of County's notice of postponement.
  - c. It is further understood by the Bidder that in the event that Bidder terminates the Agreement as a result of postponement by the County, the County shall only be obligated to pay Bidder for the Work that Bidder had performed at the time of notification of postponement and which the County had in writing authorized Bidder to perform prior to issuing a Notice to Proceed.
  - d. Should the Bidder terminate the Agreement as a result of a notice of postponement, County shall have the authority to award the Agreement to the next lowest responsive responsible bidder.
26. The Bidder to whom the Project is awarded shall execute and submit the following documents by 5:00 p.m. of the **TENTH (10<sup>TH</sup>)** calendar day following the date of the Notice of Award. Failure to properly and timely submit these documents entitles County to reject the bid as non-responsive.
- a. Agreement: To be executed by successful Bidder. Submit four (4) copies, each bearing an original signature.
  - b. Escrow of Bid Documentation: This must include all required documentation. See the document Escrow of Bid Documentation for more information.
  - c. Performance Bond (100%): On the form provided in the Contract Documents and fully executed as indicated on the form.
  - d. Payment Bond (100%) (Bidder's Labor and Material Bond): On the form provided in the Contract Documents and fully executed as indicated on the form.
  - e. Insurance Certificates and Endorsements as required.
  - f. Workers' Compensation Certification.
  - g. Prevailing Wage and Related Labor Requirements Certification. Disabled Veterans' Business Enterprise Participation Certification.
  - h. Drug-Free Workplace Certification.
  - i. **[RESERVED]**
  - j. Hazardous Materials Certification.
  - k. **[RESERVED]**
  - l. Imported Materials Certification.

27. Bid Protests: Any bid protest by any bidder regarding any other bid received must be submitted in writing to the County's Project Manager before 4:30 p.m. within three (3) business days following the Notice of Intent to Award, provided that each and all of the following are complied with:
- a. Only a bidder who has actually submitted a bid, and who could be awarded a contract if the bid protest is upheld, is eligible to submit a bid protest. Subcontractors are not eligible to submit bid protests. A bidder may not rely on the bid protest submitted by another bidder.
  - b. The written bid protest shall set forth, in detail, all grounds for the bid protest, including, without limitation, all facts, supporting documentation, legal authorities, and arguments in support of the grounds for the bid protest. Any matters not set forth in the written bid protest shall be deemed waived. All factual contentions must be supported by competent, admissible and credible evidence. Any bid protest not conforming with the foregoing shall be rejected by the County as invalid. Materials or information submitted after the bid protest deadline will not be considered.
  - c. The bidder's protest must refer to the specific portions of all documents that form the basis for the protest.
  - d. The bidder's protest must include the legal name, address, and license number of the company submitting the bid protest, as well as the telephone number, fax number, and email address of the person representing the protesting party.
  - e. The party filing the protest must concurrently transmit a copy of the protest and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the bidder's protest. Such parties shall include all other bidders or proposers who appear to have a reasonable prospect of receiving an award of contract depending upon the outcome of the protest.
  - f. Provided that a bid protest is filed in strict conformity with the foregoing, the Project Manager for the County or designee shall review and evaluate the basis of the bid protest. The Project Manager or designee shall provide the bidder submitting the bid protest with a written statement concurring with or denying the bid protest.
  - g. A bidder may appeal the decision of the Project Manager for the County or designee to the Project Manager for the County within three (3) business days of notification thereof. The bidder's appeal shall conform to the requirements as noted in Items a through e above. Any appeal not conforming with the foregoing shall be rejected by the County as invalid.
  - h. Provided that a bidder's appeal to the County's decision is filed in strict conformity with the foregoing, the County shall review and evaluate the basis for the bidder's appeal. The County shall provide the bidder submitting the appeal a written statement concurring with or rescinding the County's determination of the bidder's bid protest, which shall be a final determination of the County.
  - i. The procedure and time limits set forth in this procedure are mandatory and are each bidder's sole and exclusive remedy in the event of bid protest. Failure to comply with these procedures shall constitute a waiver of any right to further pursue a bid protest, including filing a Government Code claim or legal proceedings.

- j. The rendition of written statements by the County to adopt, modify, or reject the disposition of the bid protest or appeals reflected in such written statements shall be the expressed conditions precedent to the County of any legal or equitable proceedings relative to the bidding process, the County's award of a contract, the County's disposition of any bid protest, or the County's decision to reject all bids. In the event that any such legal or equitable proceedings are instituted and the County is named as a party thereto, the prevailing party(ies) shall recover from the other party(ies), as costs, all attorneys' fees and costs incurred in connection with any such proceeding, including any appeal arising therefrom.
28. County reserves the right to reject any or all bids, including without limitation the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional bids, to re-bid, and to reject the bid of any bidder if County believes that it would not be in the best interest of the County to make an award to that bidder, whether because the bid is not responsive or the bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by County. County also reserves the right to waive inconsequential deviations not involving price, time, or changes in the Work. For purposes of this paragraph, an "unbalanced bid" is one having nominal prices for some work items and/or enhanced prices for other work items.
29. Discrepancies between written words and figures, or words and numerals, will be resolved in favor of words over figures and/or numerals.
30. Prior to the award of the Project, County reserves the right to consider the responsibility of the Bidder. County may conduct investigations as County deems necessary to assist in the evaluation of any bid and to establish the responsibility, including, without limitation, qualifications and financial ability of Bidders, proposed subcontractors, suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to County's satisfaction within the prescribed time.
- 31. [RESERVED]**
32. DIR Registration of Contractor and Subcontractors. A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in the Labor Code, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

33. This Project is a public works project as defined in Labor Code section 1720. Each contractor bidding on this Project and all subcontractors (of any tier) performing any portion of the Work must comply with the Labor Code sections 1725.5 and 1771.1 and must be properly and currently registered with the California Department of Industrial Relations ("DIR") and qualified to perform public works pursuant to Labor Code section 1725.5 throughout the duration of the Project. For more information and up to date requirements, contractors are recommended to periodically review the DIR's website at [www.dir.ca.gov](http://www.dir.ca.gov). Contractor shall be solely responsible for ensuring compliance with Labor Code section 1725.5 as well as any requirements implemented by DIR applicable to its services or its subcontractors throughout the term of the Agreement and in no event shall contractor be granted increased payment from the County or any time extensions to complete the Project as a result of contractor's efforts to maintain compliance with the Labor Code or any requirements implemented by the DIR. Failure to comply with these requirements shall be deemed a material breach of this Agreement and grounds for termination for cause. The contractor and all subcontractors shall furnish certified payroll records as required pursuant to Labor Code section 1776 directly to the Labor Commissioner in accordance with Labor Code section 1771.4 on at least a monthly basis (or more frequently if required by the County or the Labor Commissioner) and in a format prescribed by the Labor Commissioner. The County reserves the right to withhold contract payments if the County is notified, or determines as the result of its own investigation, that contractor is in violation of any of the requirements set forth in Labor Code section 1720 et seq. at no penalty or cost to the County. Monitoring and enforcement of the prevailing wage laws and related requirements will be performed by the Labor Commissioner/Department of Labor Standards Enforcement (DLSE), and by the County.
34. Bidders shall submit the Verification of Contractor and Subcontractors' DIR Registration Form with their Bids. Bidder's submitting Bids without this Form shall be granted a 24 hour grace period to provide proof of DIR Registration. Failure to provide the DIR Registration Verification within the 24 hour grace period shall deem their bid as non-responsive.

END OF DOCUMENT



**GEOTECHNICAL DATA**

**1. Summary**

This document describes geotechnical data at or near the Project that is in the County's possession available for Contractor's review, and use of data resulting from various investigations. This document is **not** part of the Contract Documents. See General Conditions for definition(s) of terms used herein.

**2. Geotechnical Reports**

- a. Geotechnical reports may have been prepared for and around the Site by soil investigation engineers hired by County of Riverside ("County"), and its consultants, contractors, and tenants.
- b. Geotechnical reports may be inspected at the County offices or the Construction Manager's offices, if any, and copies may be obtained at cost of reproduction and handling upon Bidder's agreement to pay for such copies. These reports are **not** part of the Contract Documents.
- c. The reports and drawings of physical conditions that may relate to the Project are the following:
  1. Geotechnical Investigation Report (RMA Group Dated 9/23/16)

**3. Use of Data**

- a. Geotechnical data were obtained only for use of County and its consultants, contractors, and tenants for planning and design and are **not** a part of Contract Documents.
- b. Except as expressly set forth below, County does not warrant, and makes no representation regarding, the accuracy or thoroughness of any geotechnical data. Bidder represents and agrees that in submitting a Bid it is not relying on any geotechnical data supplied by County, except as specifically allowed below.
- c. Under no circumstances shall County be deemed to make a warranty or representation of existing above ground conditions, as-built conditions, or other actual conditions verifiable by independent investigation. These conditions are verifiable by Contractor by the performance of its own independent investigation that Contractor should perform as a condition to bidding and Contractor must not and shall not rely on information supplied by County.

**4. Limited Reliance Permitted on Certain Information**

- a. Reference is made herein for identification of:

Reports of explorations and tests of subsurface conditions at or contiguous to the Site that have been utilized by County in preparation of the Contract Documents;

Drawings of physical conditions in or relating to existing subsurface structures (except underground facilities) that are at or contiguous to the Site and have been utilized by County in preparation of the Contract Documents.

- b. Bidder may rely upon the general accuracy of the "technical data" contained in the reports and drawings identified above, but only insofar as it relates to subsurface conditions, provided Bidder has conducted the independent investigation required pursuant to Instructions to Bidders, and discrepancies are not apparent. The term "technical data" in the referenced reports and drawings shall be limited as follows:
  - (1) The term "technical data" shall include actual reported depths, reported quantities, reported soil types, reported soil conditions, and reported material, equipment or structures that were encountered during subsurface exploration. The term "technical data" does not include, and Bidder may not rely upon, any other data, interpretations, opinions or information shown or indicated in such drawings or reports that otherwise relate to subsurface conditions or described structures.
  - (2) The term "technical data" shall not include the location of underground facilities.
  - (3) Bidder may not rely on the completeness of reports and drawings for the purposes of bidding or construction. Bidder may rely upon the general accuracy of the "technical data" contained in such reports or drawings.
  - (4) Bidder is solely responsible for any interpretation or conclusion drawn from any "technical data" or any other data, interpretations, opinions, or information provided in the identified reports and drawings.

## **5. Investigations/Site Examinations**

- a. Before submitting a Bid, each Bidder is responsible for conducting or obtaining any additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the Site or otherwise, that may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or that Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of Contract Documents.
- b. On request, County will provide each Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies, as each Bidder deems necessary for submission of a Bid. Bidders must fill all holes and clean up and restore the Site to its former condition upon completion of its explorations, investigations, tests, and studies. Such investigations and Site examinations may be performed during any and all Site visits indicated in the Notice to Bidders and only under the provisions of the Contract Documents, including, but not limited to, proof of insurance and obligation to indemnify against claims arising from such work, and County's prior approval.

END OF DOCUMENT



## GEOTECHNICAL CONSULTANTS

**GEOTECHNICAL INVESTIGATION  
FOR  
PROPOSED MENTAL HEALTH - MEDICAL BUILDING  
LARRY D. SMITH CORRECTIONAL FACILITY  
1627 SOUTH HARGRAVE STREET  
BANNING, CA**

for

Riverside County Economic Development Agency  
Project Management Office  
3403 10<sup>th</sup> Street  
Riverside, CA 92501

September 23, 2016

16-212-01

September 23, 2016

Riverside County Economic Development Agency  
Project Management Office  
3403 10<sup>th</sup> Street  
Riverside, CA 92501

Attention: Mr. Charles Waltman

Subject: Geotechnical Investigation for  
Proposed Mental Health - Medical Building  
Larry D. Smith Correctional Facility  
1627 South Hargrave Street  
Banning, CA

Dear Waltman:

In accordance with your request, a geotechnical investigation has been completed for the above-referenced project. The report addresses both engineering geologic and geotechnical conditions. The results of the investigation are presented in the accompanying report, which includes a description of site conditions, results of our field exploration and laboratory testing, conclusions, and recommendations.

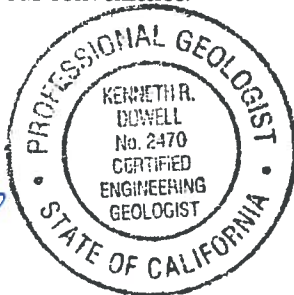
We appreciate this opportunity to be of continued service to you. If you have any questions regarding this report, please do not hesitate to contact us at your convenience.

Respectfully submitted,

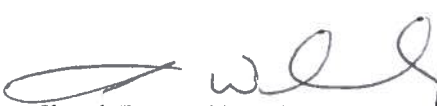
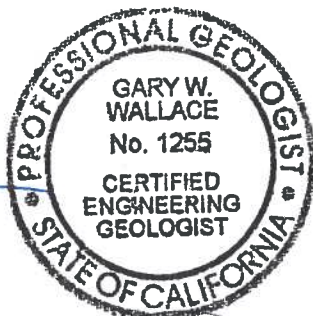
RMA Group



Ken Dowell, PG | CEG  
Project Geologist  
CEG 2470



Gary Wallace, PG | CEG  
Vice President - Geology  
CEG 1255



Slawek Dymerski, PE | GE  
Vice President - Engineering Services  
GE 2764



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## **1.00 INTRODUCTION**

### **1.01 Purpose**

A geotechnical investigation has been completed for the proposed Mental Health – Medical Building at the Larry D. Smith in Banning, California. The purpose of the investigation was to summarize geotechnical and geologic conditions at the site, to assess their potential impact on the proposed development, and to develop geotechnical and engineering geologic design parameters.

### **1.02 Scope of the Investigation**

The general scope of this investigation included the following:

- Review of published and unpublished geologic, seismic, groundwater and geotechnical literature.
- Examination of aerial photographs.
- Contacting of underground service alert to locate onsite utility lines.
- Logging, sampling and backfilling of 2 exploratory borings drilled with a CME-75 drill rig.
- Laboratory testing of representative soil samples.
- Geotechnical evaluation of the compiled data.
- Preparation of this report presenting our findings, conclusions and recommendations.

Our scope of work did not include a preliminary site assessment for the potential of hazardous materials onsite.

### **1.03 Site Location and Description**

The proposed Mental Health – Medical Building at the Larry D. Smith Correctional Facility at 1627 South Hargrave Street in Banning, California. The proposed building will be located in the western portion of the existing facility.

The facility is located at the Southern end of Hargrave Street and is located between residential properties to the north and by the dry Smith Creek drainage to the south (Figure 1). Its geographic position is 33.91032° latitude and -116.87152° longitude.

The overall gradient of the property is about 1% to the south. Elevation at the site is approximately 2,190 feet above mean sea level.

The south side of the building area is devoid of vegetation and the north site of the site is covered in a thin cover of grass.

A chain link fence bisects the site from east to west.

### **1.04 Current and Past Land Usage**

The proposed building site is located in the western portion of the Larry D. Smith Correctional Facility and the south side of the site currently used for vehicle parking and the north side is a park of a exercise yard.

Aerial photographs indicate that the proposed construction site was used for its current use since 2006. Aerial

## GEOTECHNICAL CONSULTANTS

photographs from 1996 to 2006 show the existing exercise yard extended to the south edge of the project site. Aerial photographs from 1967 to 1978 show that the site was part of an agricultural field.

### 1.05 Planned Usage

It is our understanding that the proposed construction will consist of a 7,400 square feet Mental Health – Medical Building.

Our investigation was performed prior to the preparation of grading or foundation plans. To aid in preparation of this report, we utilized the following assumptions:

- Maximum foundation loads of 2 to 3 kips per linear foot for continuous footings and 60 kips for isolated spread footings.
- Cuts and fills will be less than 5 feet.

### 1.06 Investigation Methods

Our investigation consisted of office research, field exploration, laboratory testing, review of the compiled data, and preparation of this report. It has been performed in a manner consistent with generally accepted engineering and geologic principles and practices, and has incorporated applicable requirements of California Building Code. Definitions of technical terms and symbols used in this report include those of the ASTM International, the California Building Code, and commonly used geologic nomenclature.

Technical supporting data are presented in the attached appendices. Appendix A presents a description of the methods and equipment used in performing the field exploration and logs of our subsurface exploration. Appendix B presents a description of our laboratory testing and the test results. Standard grading specifications and references are presented in Appendices C and D, respectively.

## 2.00 FINDINGS

### 2.01 Geologic Setting

The site is located in the San Gorgonio Pass, an elongate east-west trending valley situated between the San Bernardino and San Jacinto Mountains. This valley is part of the major drainage divide between the Pacific Ocean and Salton Trough and is filled with multiple generations of alluvial deposits that are mainly derived from the San Bernardino Mountains. The high part of the valley is to the west of the site. From there it slopes downward to the east until it merges with the alluvial filled Coachella Valley. To the west the valley merges with older alluvial soils of the Beaumont Plain.

Sedimentary deposits along the north side of the San Gorgonio Pass are folded and cut by north dipping low-angle thrust and wrench faults of the San Gorgonio Pass fault pass fault zone. Traversing the north side of the San Gorgonio Pass is the Banning fault, a segment of the San Andreas fault zone.

Regional geologic mapping by Dibblee (Figure 4) indicates that the site is underlain by Holocene and Pleistocene age alluvial soils.



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### 2.02 Earth Materials

Our subsurface investigation encountered artificial fill and alluvium. The artificial fill was encountered in Boring B-2a, consisting of light brown sandy silt utility trench backfill. The depth of the fill was about 5 feet.

The near surface alluvium consisted of light brown sandy silt. Deeper than 11, feet the alluvium consisted of gray sand and brown to light brown silty sand.

The subsurface soils encountered in the exploratory borings drilled at the site are described in greater detail on the logs contained in Appendix A.

### 2.03 Expansive Soils

Expansion testing performed in accordance with ASTM D4829 indicates that earth materials underlying the site have an expansion classification of very low.

Results of expansion test and other soil index tests are presented in Appendix B.

### 2.04 Surface and Groundwater Conditions

No areas of ponding or standing water were present at the time of our study. Further, no springs or areas of natural seepage were found.

Groundwater was not encountered during our subsurface exploration. According to the California Department of Water Resources State Groundwater Elevation Monitoring System, the depth to ground water in the vicinity of the site has ranged from approximately 240 to 560 feet below the ground surface. Data from nearby wells is summarized below:

Well No.	Approximate Distance from Site	Depth to Groundwater (ft)	Dates of Reported Groundwater Measurements
03S01E10N001S	0.74 miles to the northwest	500	2005
03S01E14A001S	1.63 miles to the northeast	436	2015

### 2.05 Faults

The site is not located within the boundaries of an Earthquake Fault Zone for fault-rupture hazard as defined by the Alquist-Priolo Earthquake Fault Zoning Act and no faults are known to pass through the property. The nearest Earthquake Fault Zone is located more than three miles to the northeast along the San Geronio Pass fault.

The nearest faults are an unnamed fault located approximately  $\frac{3}{4}$  of a mile to the southeast, within the bedrock of the San Jacinto Mountains, the McMullen fault located about  $\frac{3}{4}$  of a mile to the southwest, the Lawrence fault located about 1 mile to the southeast. The unnamed, McMullen and Lawrence faults are not included in an Alquist-Priolo or County of Riverside fault zone and they are not considered active by the State of California.

The accompanying Regional Fault Map (Figure 4) illustrates the location of the site with respect to major faults in the region. The distance to notable faults within 100 kilometers of the site is presented on Table 1.

## **2.06 Historic Seismicity**

Four historic strong earthquakes have been epicentered within about 20 miles of the site. The most recent of these events were the magnitude 5.6 North Palm Springs earthquake in 1986 and the magnitude 6.5 Big Bear earthquake in 1992, epicentered about 17 and 18 miles from the site, respectively. Large earthquakes also occurred in the San Jacinto region in 1899 and near Hemet in 1918. It is estimated that the San Jacinto earthquake had a magnitude of 6.7 and was epicentered about 11 miles from the site. It is estimated that the Hemet earthquake had a magnitude of 6.8 and was epicentered about 13 miles from the site. However, since the San Jacinto and Hemet earthquakes occurred prior to the development of seismic monitoring networks, and their locations and magnitudes are only approximate. Strong earthquakes that have occurred within the region in historic time and their approximate epicentral distances are summarized in Table 2.

Seismic design parameters relative to the requirements of the 2013 California Building Code are presented in Section 3.09.

## **2.07 Flooding Potential**

According to County of Riverside, Map My County website (2016), the site is not located within an area of flooding sensitivity.

Control of surface runoff originating from within and outside of the site should, of course, be included in design of the project.

## **2.08 Landslides**

Due to the low gradient of the site and surrounding area, landsliding is not a hazard at this property.

# **3.00 CONCLUSIONS AND RECOMMENDATIONS**

## **3.01 General Conclusion**

Based on specific data and information contained in this report, our understanding of the project and our general experience in engineering geology and geotechnical engineering, it is our professional judgment that the proposed development is geologically and geotechnically feasible. This is provided that the recommendations presented below are fully implemented during design, grading and construction.

## **3.02 General Earthwork and Grading**

All grading should be performed in accordance with the General Earthwork and Grading Specifications outlined in Appendix C, unless specifically revised or amended below. Recommendations contained in Appendix C are general specifications for typical grading projects and may not be entirely applicable to this project.

It is also recommended that all earthwork and grading be performed in accordance with Appendix J of the 2013 California Building Code and all applicable governmental agency requirements. In the event of conflicts between this report and Appendix J, this report shall govern.

## **3.03 Earthwork Shrinkage and Subsidence**

Shrinkage is the decrease in volume of soil upon removal and recompaction expressed as a percentage of the original in-place volume. Subsidence occurs as natural ground is densified to receive fill. These factors account for changes in earth volumes that will occur during grading. Our estimates are as follows:

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- Shrinkage factor = 10%-15% for soil removed and replaced as compacted fill.
- Subsidence factor = 0.1 foot.

The degree to which fill soils are compacted and variations in the insitu density of existing soils will influence earth volume changes. Consequently, some adjustments in grades near the completion of grading could be required to balance the earthwork.

### 3.04 Removals and Overexcavation

All vegetation, trash and debris should be cleared from the grading area and removed from the site. Prior to placement of compacted fills, all non-engineered fills and loose, porous, or compressible soils will need to be removed down to competent ground. Removal and requirements will also apply to cut areas, if the depth of cut is not sufficient to reach competent ground. Removed and/or overexcavated soils may be moisture-conditioned and recompacted as engineered fill, except for soils containing detrimental amounts of organic material. Estimated depths of removals are as follows:

- Non-engineered fill about 5 feet deep was encountered and observed within Boring B-2a consisting of utility trench backfill. Additional utilities were observed within the project boundaries. Removal of these utilities and their associated backfill will need to be performed within the limits of the building during grading. If other non-engineered fills are encountered during grading, they will also need to be removed along with any underlying compressible native soils.
- Loose, porous and compressible native soils were encountered to depths of about 5 feet below existing grades. The average depth of removal of these soils is expected to be 5 feet below the existing ground surface or the base of existing non-engineered fill.
- It is expected that competent native soils will be encountered in cuts deeper than approximately 5 feet below existing grade or the base of existing non-engineered fill. Provided competent soils are exposed, these cut surfaces should be scarified to a minimum depth of 12 inches, moisture conditioned and compacted to at least 90 percent of the maximum dry density, provided that footing overexcavation requirements are met.
- Soils disturbed by demolition of existing structures and utilities will need to be over-excavated to competent native ground and then scarified to a minimum depth of 12 inches, moisture conditioned and compacted to at least 90 percent of the maximum dry density
- The asphalt and concrete currently onsite may be either processed and placed in the compacted fill, or hauled off the site. If the asphalt and concrete is use as fill material, it must be broken down to approximately 4 to 8-inch particles and mixed thoroughly with on-site soils. No large and flat pieces are to be used for fill. If asphalt is processed by grinding, it cannot be used in fills and must be removed from the site.

In addition to the above requirements, overexcavation will also need to meet the following criteria for the building pads, concrete flatwork and pavement areas:

- All footing areas, both continuous and spread, shall be undercut, moistened, and compacted as necessary to produce soils compacted to a minimum of 90% relative compaction to a depth equal to the width of the footing below the bottom of the footing or to a depth of 3 feet below the bottom of the footing, whichever is less. Footing areas shall be defined as the area extending from the edge of the footing for a distance of 5 feet.
- All floor slabs, concrete flatwork and paved areas shall be underlain by a minimum of 12 inches of soil compacted to a minimum of 90% relative compaction.

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The exposed soils beneath all overexcavation should be scarified an additional 12 inches, moisture conditioned and compacted to a minimum of 90% relative compaction.

The above recommendations are based on the assumption that soils encountered during field exploration are representative of soils throughout the site. However, there can be unforeseen and unanticipated variations in soils between points of subsurface exploration. Hence, overexcavation depths must be verified, and adjusted if necessary, at the time of grading. The overexcavated materials may be moisture-conditioned and re-compacted as engineered fill.

### 3.05 Rippability and Rock Disposal

Our exploratory borings were advanced without difficulty and no oversize materials were encountered in our subsurface investigation. Accordingly we expect that all earth materials will be rippable with conventional heavy duty grading equipment and oversized materials are not expected.

### 3.06 Subdrains

Groundwater and surface water were not encountered during the course of our investigation, the proposed grading is will not fill any large canyons and the underlying soils are fairly permeable. Consequently, installation of canyon subdrains is not expected to be necessary.

### 3.07 Fill and Cut Slopes

Due to the low gradient of the property, it appears that construction of cut and fill slopes will not be required. If such slopes are proposed, they should be inclined no steeper than 2 horizontal to 1 vertical.

### 3.08 Faulting

Since the site is not located within the boundaries of an Earthquake Fault Zone and no faults are known to pass through the property, surface fault rupture within the site is considered unlikely.

### 3.09 Seismic Design Parameters

Seismic design parameters have been developed in accordance with Section 1613 of the 2013 California Building Code (CBC) using the online U.S. Geological Survey Seismic Design Maps Calculator (Version 3.1.0, ASCE 10 Standard) and a site location based on latitude and longitude. The calculator generates probabilistic and deterministic maximum considered earthquake spectral parameters represented by a 5-percent damped acceleration response spectrum having a 2-percent probability of exceedance in 50 years. The deterministic response accelerations are calculated as 150 percent of the largest median 5-percent damped spectral response acceleration computed on active faults within a region, where the deterministic values govern. The calculator does not, however, produce separate probabilistic and deterministic results. The parameters generated for the subject site are presented below:

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### 2013 California Building Code (CBC) Seismic Parameters

Parameter	Value
Site Location	Latitude = 33.91032 degrees Longitude = -116.87152 degrees
Site Class	Site Class = D Soil Profile Name = Stiff soil
Mapped Spectral Accelerations (Site Class B)	$S_s$ (0.2- second period) = 1.708g $S_1$ (1-second period) = 0.812g
Site Coefficients (Site Class D)	$F_a$ = 1.0 $F_v$ = 1.5
Maximum Considered Earthquake Spectral Accelerations (Site Class D)	$S_{MS}$ (0.2- second period) = 1.708g $S_{M1}$ (1-second period) = 1.217g
Design Earthquake Spectral Accelerations (Site Class D)	$S_{DS}$ (0.2- second period) = 1.139g $S_{D1}$ (1-second period) = 0.812g

The above table shows that the mapped spectral response acceleration parameter a 1-second period ( $S_1$ )  $\geq 0.75g$ . Therefore, for Risk Categories I, II and II the Seismic Design Category is E and for Risk Category IV the Seismic Design Category is F (CBC Table 1604.5 and Section 1613.3.5). Consequently, as required for Seismic Design Categories C through F by CBC Section 1803.5.11, slope instability, liquefaction, total and differential settlement, and surface displacement by faulting or seismically lateral spreading or lateral flow have been evaluated. Applicable portions of CBC Section 1803.5.12 have also been evaluated including dynamic lateral loading of retaining walls.

Peak earthquake ground acceleration adjusted for site class effects ( $PG_{AM}$ ) has been determine in accordance with ASCE 7-10 Section 11.8.3 as follows:  $PG_{AM} = F_{PGA} \times PGA = 1.000 \times 0.684 = 0.684g$ .

### 3.10 Liquefaction and Secondary Earthquake Hazards

Potential secondary seismic hazards that can affect land development projects include liquefaction, tsunamis, seiches, seismically induced settlement, seismically induced flooding and seismically induced landsliding.

#### Liquefaction

Liquefaction is a phenomenon where earthquake- induced ground vibrations increase the pore pressure in saturated, granular soils until it is equal to the confining, overburden pressure. When this occurs, the soil can completely loose its shear strength and enter a liquefied state. The possibility of liquefaction is dependent upon grain size, relative density, confining pressure, saturation of the soils, and intensity and duration of ground shaking. In order for liquefaction to occur, three criteria must be met: underlying loose, coarse-grained (sandy) soils, a groundwater depth of less than about 50 feet, and a potential for seismic shaking from nearby large-magnitude earthquake.

According to the County of Riverside, the site is located within an area susceptible to liquefaction. Since the depth of groundwater beneath the site is greater than 400 feet, the potential for liquefaction within the site is nil.

#### Tsunamis and Seiches

Tsunamis are sea waves that are generated in response to large-magnitude earthquakes. When these waves reach shorelines, they sometimes produce coastal flooding. Seiches are the oscillation of large bodies of standing water, such as lakes, that can occur in response to ground shaking. Tsunamis and seiches do not pose hazards due to the inland location of the site and lack of nearby bodies of standing water.

### Seismically Induced Settlement

Seismically induced settlement occurs most frequently in areas underlain by loose, granular sediments. Damage as a result of seismically induced settlement is most dramatic when differential settlement occurs in areas with large variations in the thickness of underlying sediments. Settlement caused by ground shaking is often non-uniformly distributed, which can result in differential settlement.

Since the site is predominately underlain by dense sandy silt, silty sand and sand, the potential occurrence of significant seismically induced settlement is unlikely.

### Seismically Induced Flooding

According to the County of Riverside Map My County website, Version 4, 2016 the site is not located within a potential dam inundation area. In addition, there are no up gradient water reservoirs or dams located in close proximity of the site. Consequently seismically induced flooding at the site is unlikely.

### Seismically Induced Landsliding

Due to the low gradient of the site, the potential for seismically induced landsliding is nil. This assumes that any slopes created during development of the site will be properly designed and constructed. It should be noted that the California Geological Survey has not yet prepared a Seismic Hazard Zone Map of potential earthquake-induced landslide hazards for the quadrangle in which the site is located.

## 3.11 Foundations

Isolated spread footings and/or continuous wall footings are recommended to support the proposed structures. If the recommendations in the section on grading are followed and footings are established in firm native soils or compacted fill materials, footings may be designed using the following allowable soil bearing values:

- Continuous Wall Footings:

Footings having a minimum width of 12 inches and a minimum depth of 12 inches below the lowest adjacent grade have allowable bearing capacity of 1,500 pounds per square foot (psf). This value may be increased by 20% for each additional foot of width and/or depth to a maximum value of 3,500 psf.

- Isolated Spread Footings:

Footings having a minimum width of 12 inches and a minimum depth of 18 inches below the lowest adjacent grade have allowable bearing capacity of 2,500 psf. This value may be increased by 20% for each additional foot of width or depth to a maximum value of 3,500 psf.

- Retaining Wall Footings:

Footings for retaining walls should be founded a minimum depth of 12 inches and have a minimum width of 12 inches. Footings may be designed using the allowable bearing capacity and lateral resistance values recommended for building footings. However, when calculating passive resistance, the upper 6 inches of the footings should be ignored in areas where the footings will not be covered with concrete flatwork. This value may also be increased by 20% for each additional foot of width or depth to a maximum value of 3,500 psf. Reinforcement should be provided for structural considerations as determined by the design engineer.

The above bearing capacities represent an allowable net increase in soil pressure over existing soil pressure and may be



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increased by one-third for short-term wind or seismic loads. The maximum expected settlement of footings designed with the recommended allowable bearing capacity is expected to be on the order of 1/2 inch with differential settlement on the order of 1/4 inch.

Soils at the site are generally granular, non-plastic and non-expansive in nature. Therefore, reinforcement of footings for expansive soil is not required. However, in view of the seismic setting, a nominal reinforcement consisting of one #4 bar placed within 3 inches of the top of footings and another placed within 3 inches of the bottom of footings is recommended. The structural engineer may require heavier reinforcement.

Due to the preliminary nature of the expansion tests performed for this study, we recommend additional testing be performed near the completion of rough grading to verify the test results and recommended foundation design criteria.

### 3.12 Foundation Setbacks from Slopes

Setbacks for footings adjacent to slopes should conform to the requirements of the California Building Code. Specifically, footings should maintain a horizontal distance or setback between any adjacent slope face and the bottom outer edge of the footing.

For slopes descending away from the foundation, the horizontal distance may be calculated by using  $h/3$ , where  $h$  is the height of the slope. The horizontal setback should not be less than 5 feet, nor need not be greater than 40 feet per the California Building Code. Where structures encroach within the zone of  $h/3$  from the top of the slope the setback may be maintained by deepening the foundations. Flatwork and utilities within the zone of  $h/3$  from the top of slope may be subject to lateral distortion caused by gradual downslope creep. Walls, fences and landscaping improvements constructed at the top of descending slopes should be designed with consideration of the potential for gradual downslope creep.

For ascending slopes, the horizontal setback required may be calculated by using  $h/2$  where  $h$  is the height of the slope. The horizontal setback need not be greater than 15 feet per the California Building Code.

### 3.13 Slabs on Grade

We recommend the use of unreinforced slabs on grade for structures. These floor slabs should have a minimum thickness of 4 inches and should be divided into squares or rectangles using weakened plane joints (contraction joints), each with maximum dimensions not exceeding 15 feet. Contraction joints should be made in accordance with American Concrete Institute (ACI) guidelines. If weakened plane joints are not used, then the slabs shall be reinforced with 6x6-10/10 welded wire fabric placed at mid-height of the slab.

Special care should be taken on floors slabs to be covered with thin-set tile or other inflexible coverings. These areas may be reinforced with 6x6-10/10 welded wire fabric placed at mid-height of the slab, to mitigate drying shrinkage cracks. Alternatively, inflexible flooring may be installed with unbonded fabric or liners to prevent reflection of slab cracks through the flooring.

A moisture vapor retarder/barrier is recommended beneath all slabs-on-grade that will be covered by moisture-sensitive flooring materials such as vinyl, linoleum, wood, carpet, rubber, rubber-backed carpet, tile, impermeable floor coatings, adhesives, or where moisture-sensitive equipment, products, or environments will exist. We recommend that design and construction of the vapor retarder or barrier conform to Section 1805 of the 2013 California Building Code (CBC) and pertinent sections of American Concrete Institute (ACI) guidance documents 302.1R-04, 302.2R-06 and 360R-10.

The moisture vapor retarder/barrier should consist of a minimum 10 mils thick polyethylene with a maximum perm rating of 0.3 in accordance with ASTM E 1745. Seams in the moisture vapor retarder/barrier should be overlapped no less than 6 inches or in accordance with the manufacturer's recommendations. Joints and penetrations should be

## GEOTECHNICAL CONSULTANTS

sealed with the manufacturer's recommended adhesives, pressure-sensitive tape, or both. The contractor must avoid damaging or puncturing the vapor retarder/barrier and repair any punctures with additional polyethylene properly lapped and sealed.

ACI guidelines allow for the placement of moisture vapor retarder/barriers either directly beneath floor slabs or below an intermediate granular soil layer.

Placing the moisture retarder/barrier directly beneath the floor slab will provide improved curing of the slab bottom and will eliminate potential problems caused by water being trapped in a granular fill layer. Concrete slabs poured directly on a vapor retarder/barrier can experience shrinkage cracking and curling due to differential rates of curing through the thickness of the slab. Therefore, for concrete placed directly on the vapor retarded, we recommend a maximum water cement ratio of 0.45 and the use of water-reducing admixtures to increase workability and decrease bleeding.

If granular soil is placed over the vapor retarder/barrier, we recommend that the layer be at least 2 inches thick in accordance with traditional practice in southern California. Granular fill should consist of clean fine graded materials with 10 to 30% passing the No. 100 sieve and free from clay or silt. The granular layer should be uniformly compacted and trimmed to provide the full design thickness of the proposed slab. The granular fill layer should not be left exposed to rain or other sources of water such as wet-grinding, power washing, pipe leaks or other processes, and should be dry at the time of concrete placement. Granular fill layers that become saturated should be removed and replaced prior to concrete placement.

An additional layer of sand may be placed beneath the vapor retarder/barrier at the developer's discretion to minimize the potential of the retarder/barrier being punctured by underlying soils.

### 3.14 Miscellaneous Concrete Flatwork

Miscellaneous concrete flatwork and walkways may be designed with a minimum thickness of 4 inches. Large slabs should be reinforced with a minimum of 6x6-10/10 welded wire mesh placed at mid-height in the slab. Control joints should be constructed to create squares or rectangles with a maximum spacing of 15 feet.

Walkways may be constructed without reinforcement. Walkways should be separated from foundations with a thick expansion joint filler. Control joints should be constructed into non-reinforced walkways at a maximum of 5 feet spacing.

The subgrade soils beneath all miscellaneous concrete flatwork should be compacted to a minimum of 90 percent relative compaction for a minimum depth of 12 inches. The geotechnical engineer should monitor the compaction of the subgrade soils and perform testing to verify that proper compaction has been obtained.

### 3.15 Footing Excavation and Slab Preparations

All footing excavations should be observed by the geotechnical consultant to verify that they have been excavated into competent soils. The foundation excavations should be observed prior to the placement of forms, reinforcement steel, or concrete. These excavations should be evenly trimmed and level. Prior to concrete placement, any loose or soft soils should be removed. Excavated soils should not be placed on slab or footing areas unless properly compacted.

Prior to the placement of the moisture barrier and sand, the subgrade soils underlying the slab should be observed by the geotechnical consultant to verify that all under-slab utility trenches have been properly backfilled and compacted, that no loose or soft soils are present, and that the slab subgrade has been properly compacted to a minimum of 90 percent relative compaction within the upper 12 inches.



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Footings may experience and overall loss in bearing capacity or an increased potential to settle where located in close proximity to existing or future utility trenches. Furthermore, stresses imposed by the footings on the utility lines may cause cracking, collapse and/or a loss of serviceability. To reduce this risk, footings should extend below a 1:1 plane projected upward from the closest bottom of the trench.

Slabs on grade and walkways should be brought to a minimum of 2% and a maximum of 6% above their optimum moisture content for a depth of 18 inches prior to the placement of concrete. The geotechnical consultant should perform insitu moisture tests to verify that the appropriate moisture content has been achieved a maximum of 24 hours prior to the placement of concrete or moisture barriers.

### 3.16 Lateral Load Resistance

Lateral loads may be resisted by soil friction and the passive resistance of the soil. The following parameters are recommended.

- Passive Earth Pressure = 282 pcf (equivalent fluid weight).
- Coefficient of Friction (soil to footing) = 0.29
- Retaining structures should be designed to resist the following lateral active earth pressures:

Surface Slope of Retained Materials (Horizontal:Vertical)	Equivalent Fluid Weight (pcf)
Level	50
5:1	54
4:1	57
3:1	65

These active earth pressures are only applicable if the retained earth is allowed to strain sufficiently to achieve the active state. The required minimum horizontal strain to achieve the active state is approximately 0.0025H. Retaining structures should be designed to resist an at-rest lateral earth pressure if this horizontal strain cannot be achieved.

- At-rest Lateral Earth Pressure = 65 pcf (equivalent fluid weight)

The Mononobe-Okabe method is commonly utilized for determining seismically induced active and passive lateral earth pressures and is based on the limit equilibrium Coulomb theory for static stress conditions. This method entails three fundamental assumptions (e.g., Seed and Whitman, 1970): Wall movement is sufficient to ensure either active or passive conditions, the driving soil wedge inducing the lateral earth pressures is formed by a planar failure surface starting at the heel of the wall and extending to the free surface of the backfill, and the driving soil wedge and the retaining structure act as rigid bodies, and therefore, experiences uniform accelerations throughout the respective bodies (U.S. Army Corps of Engineers, 2003, Engineering and Design - Stability Analysis of Concrete Structures).

- Seismic Lateral Earth Pressure = 20 pcf (equivalent fluid weight).

The seismic lateral earth pressure given above is an inverted triangle, and the resultant of this pressure is an increment of force which should be applied to the back of the wall in the upper 1/3 of the wall height and also applied as a reduction of force to the front of the wall in the upper 1/3 of the footing depth.

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Per CBC Section 1803.5.12 dynamic seismic lateral earth pressures shall be applied to foundation walls and retaining walls supporting more than 6 feet of backfill. Dynamic seismic lateral earth pressures may also be applied to shorter walls at the discretion of the structural engineer.

### 3.17 Drainage and Moisture Proofing

Surface drainage should be directed away from the proposed structure into suitable drainage devices. Neither excess irrigation nor rainwater should be allowed to collect or pond against building foundations or within low-lying or level areas of the lot. Surface waters should be diverted away from the tops of slopes and prevented from draining over the top of slopes and down the slope face.

Walls and portions thereof that retain soil and enclose interior spaces and floors below grade should be waterproofed and dampproofed in accordance with CBC Section 1805.

Retaining structures should be drained to prevent the accumulation of subsurface water behind the walls. Backdrains should be installed behind all retaining walls exceeding 3 feet in height. A typical detail for retaining wall back drains is presented in Appendix C. All backdrains should be outlet to suitable drainage devices. Retaining wall less than 3 feet in height should be provided with backdrains or weep holes. Dampproofing and/or waterproofing should also be provided on all retaining walls exceeding 3 feet in height.

### 3.18 Cement Type and Corrosion Potential

Soluble sulfate tests indicate that concrete at the subject site will have a negligible exposure to water-soluble sulfate in the soil. Our recommendations for concrete exposed to sulfate-containing soils are presented in the table below.

**Recommendations for Concrete exposed to Sulfate-containing Soils**

Sulfate Exposure	Water Soluble Sulfate (SO <sub>4</sub> ) in Soil (% by Weight)	Sulfate (SO <sub>4</sub> ) in Water (ppm)	Cement Type (ASTM C150)	Maximum Water-Cement Ratio (by Weight)	Minimum Compressive Strength (psi)
Negligible	0.00 - 0.10	0-150	--	--	2,500
Moderate	0.10 - 0.20	150-1,500	II	0.50	4,000
Severe	0.20 - 2.00	1,500-10,000	V	0.45	4,500
Very Severe	Over 2.00	Over 10,000	V plus pozzolan or slag	0.45	4,500

Use of alternate combinations of cementitious materials may be permitted if the combinations meet design recommendations contained in American Concrete Institute guideline ACI 318-11.

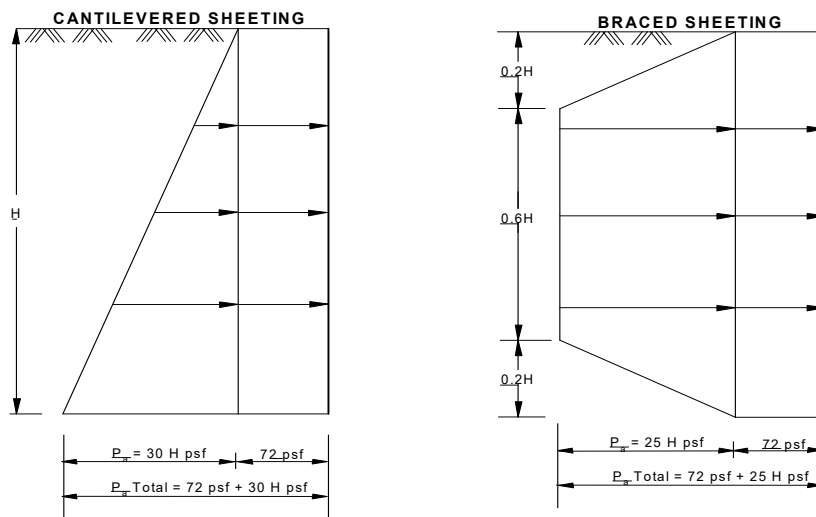
The soils were also tested for soil reactivity (pH), electrical resistivity (ohm-cm) and chloride content. The test results indicate that the on-site soils have a soil reactivity of 7.0, an electrical resistivity of 1,450 ohm-cm, and a chloride content of 139ppm. A neutral or non-corrosive soil has a value ranging from 5.5 to 8.4. Generally, soils that could be considered moderately corrosive to ferrous metals have resistivity values of about 3,000 ohm-cm to 10,000 ohm-cm. Soils with resistivity values less than 3,000 ohm-cm can be considered corrosive and soils with resistivity values less than 1,000 ohm-cm can be considered extremely corrosive. Soil with a chloride content of 500 ppm or greater are generally considered corrosive.

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Based on our analysis, it appears that the underlying onsite soils are corrosive to ferrous metals. Protection of buried pipes utilizing coatings on all underground pipes; clean backfills and a cathodic protection system can be effective in controlling corrosion. A qualified corrosion engineer should be consulted to further assess the corrosive properties of the soil.

### 3.19 Temporary Slopes

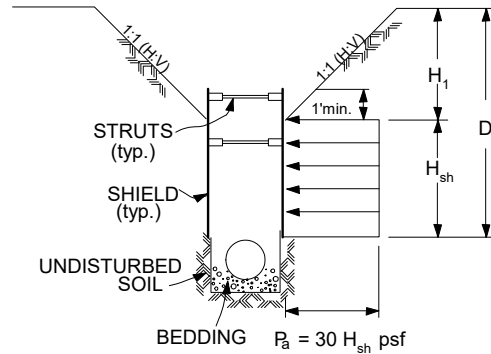
Excavation of utility trenches will require either temporary sloped excavations or shoring. Temporary excavations in existing alluvial soils may be safely made at an inclination of 1:1 or flatter. If vertical sidewalls are required in excavations greater than 5 feet in depth, the use of cantilevered or braced shoring is recommended. Excavations less than 5 feet in depth may be constructed with vertical sidewalls without shoring or shielding. Our recommendations for lateral earth pressures to be used in the design of cantilevered and/or braced shoring are presented below. These values incorporate a uniform lateral pressure of 72 psf to provide for the normal construction loads imposed by vehicles, equipment, materials, and workmen on the surface adjacent to the trench excavation. However, if vehicles, equipment, materials, etc., are kept a minimum distance equal to the height of the excavation away from the edge of the excavation, this surcharge load need not be applied.



SHORING DESIGN: LATERAL SHORING PRESSURES

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Design of the shield struts should be based on a value of 0.65 times the indicated pressure,  $P_a$ , for the approximate trench depth. The wales and sheeting can be designed for a value of 2/3 the design strut value.



$$\text{HEIGHT OF SHIELD, } H_{sh} = \text{DEPTH OF TRENCH, } D_t, \text{ MINUS DEPTH OF SLOPE, } H_1$$

### TYPICAL SHORING DETAIL

Placement of the shield may be made after the excavation is completed or driven down as the material is excavated from inside of the shield. If placed after the excavation, some overexcavation may be required to allow for the shield width and advancement of the shield. The shield may be placed at either the top or the bottom of the pipe zone. Due to the anticipated thinness of the shield walls, removal of the shield after construction should have negligible effects on the load factor of pipes. Shields may be successively placed with conventional trenching equipment.

Vehicles, equipment, materials, etc. should be set back away from the edge of temporary excavations a minimum distance of 15 feet from the top edge of the excavation. Surface waters should be diverted away from temporary excavations and prevented from draining over the top of the excavation and down the slope face. During periods of heavy rain, the slope face should be protected with sandbags to prevent drainage over the edge of the slope, and a visqueen liner placed on the slope face to prevent erosion of the slope face.

Periodic observations of the excavations should be made by the geotechnical consultant to verify that the soil conditions have not varied from those anticipated and to monitor the overall condition of the temporary excavations over time. If at any time during construction conditions are encountered which differ from those anticipated, the geotechnical consultant should be contacted and allowed to analyze the field conditions prior to commencing work within the excavation.

Cal/OSHA construction safety orders should be observed during all underground work.

### 3.20 Utility Trench Backfill

The onsite fill soils will not be suitable for use as pipe bedding for buried utilities. All pipes should be bedded in a sand, gravel or crushed aggregate imported material complying with the requirements of the Standard Specifications for Public Works Construction Section 306-1.2.1. Crushed rock products that do not contain appreciable fines should not be utilized as pipe bedding and/or backfill. Bedding materials should be densified to at least 90% relative compaction (ASTM D1557) by mechanical methods. The geotechnical consultant should review and approve of proposed bedding materials prior to use.

The on-site soils are expected to be suitable as trench backfill provided they are screened of organic matter and cobbles over 12 inches in diameter. Trench backfill should be densified to at least 90% relative compaction (ASTM D1557).

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On-site granular soils may be water densified initially. Supplemental mechanical compaction methods may be required in finer ground soils to attain the required 90% relative compaction.

All utility trench backfill within street right of way, utility easements, under or adjacent to sidewalks, driveways, or building pads should be observed and tested by the geotechnical consultant to verify proper compaction. Trenches excavated adjacent to foundations should not extend within the footing influence zone defined as the area within a line projected at a 1:1 drawn from the bottom edge of the footing. Trenches crossing perpendicular to foundations should be excavated and backfilled prior to the construction of the foundations. The excavations should be backfilled in the presence of the geotechnical engineer and tested to verify adequate compaction beneath the proposed footing.

Cal/OSHA construction safety orders should be observed during all underground work.

### 3.21 Plan Review

Once a formal grading and foundation plans are prepared for the subject property, this office should review the plans from a geotechnical viewpoint, comment on changes from the plan used during preparation of this report and revise the recommendations of this report where necessary.

### 3.22 Geotechnical Observation and Testing During Rough Grading

The geotechnical engineer should be contacted to provide observation and testing during the following stages of grading:

- During the clearing and grubbing of the site.
- During the demolition of any existing structures, buried utilities or other existing improvements.
- During excavation and overexcavation of compressible soils.
- During all phases of grading including ground preparation and filling operations.
- When any unusual conditions are encountered during grading.

A final geotechnical report summarizing conditions encountered during grading should be submitted upon completion of the rough grading operations.

### 3.23 Post-Grading Geotechnical Observation and Testing

After the completion of grading the geotechnical engineer should be contacted to provide additional observation and testing during the following construction activities:

- During trenching and backfilling operations of buried improvements and utilities to verify proper backfill and compaction of the utility trenches.
- After excavation and prior to placement of reinforcing steel or concrete within footing trenches to verify that footings are properly founded in competent materials.
- During fine or precise grading involving the placement of any fills underlying driveways, sidewalks, walkways, or other miscellaneous concrete flatwork to verify proper placement, mixing and compaction of fills.
- When any unusual conditions are encountered during construction.

## GEOTECHNICAL CONSULTANTS

### 4.00 CLOSURE

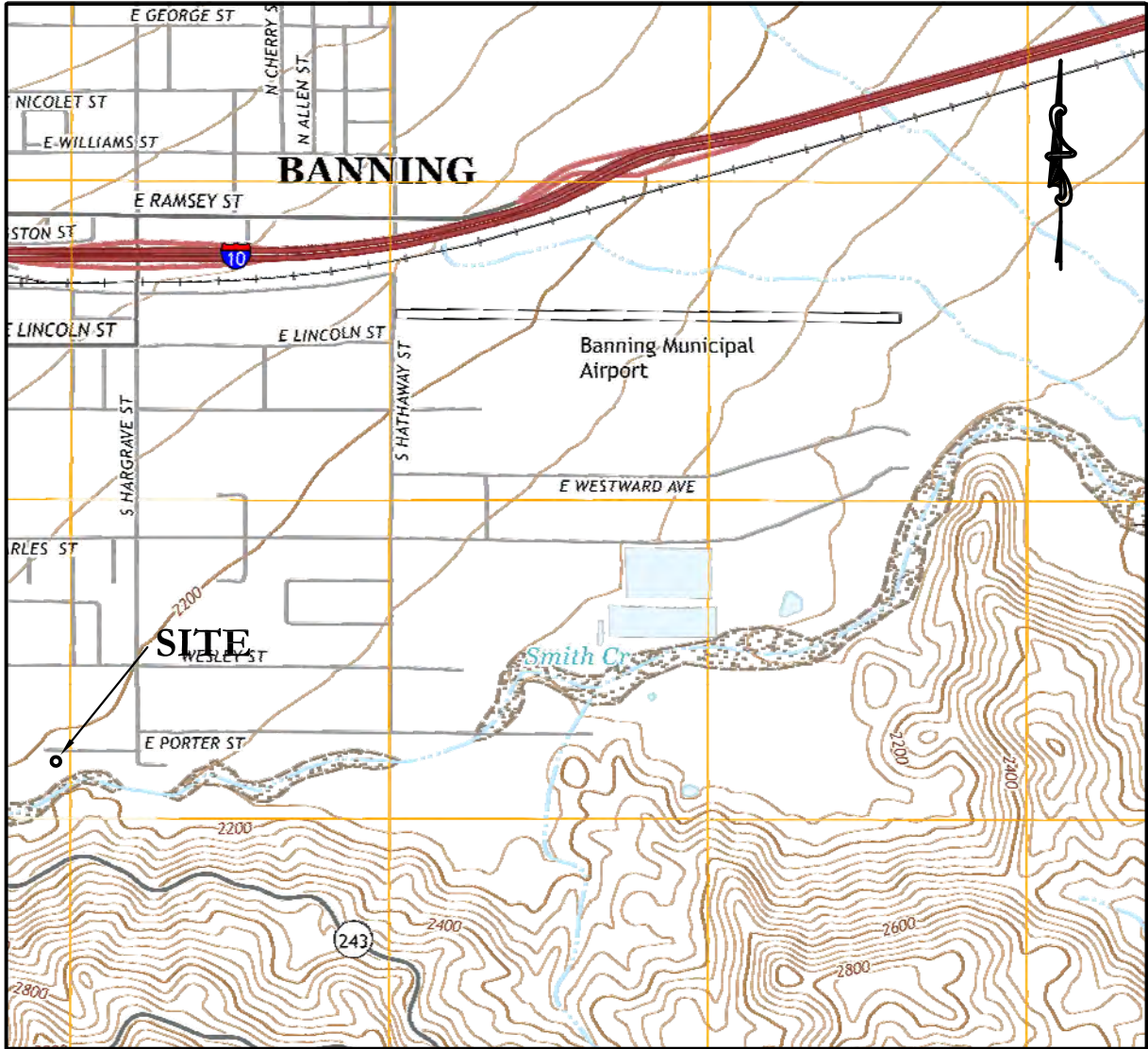
The findings, conclusions and recommendations in this report were prepared in accordance with generally accepted engineering and geologic principles and practices. No other warranty, either expressed or implied, is made. This report has been prepared for Riverside County Economic Development Agency to be used solely for design purposes. Anyone using this report for any other purpose must draw their own conclusions regarding required construction procedures and subsurface conditions.

The geotechnical and geologic consultant should be retained during the earthwork and foundation phases of construction to monitor compliance with the design concepts and recommendations and to provide additional recommendations as needed. Should subsurface conditions be encountered during construction that are different from those described in this report, this office should be notified immediately so that our recommendations may be re-evaluated.

## GEOTECHNICAL CONSULTANTS

## FIGURES AND TABLES



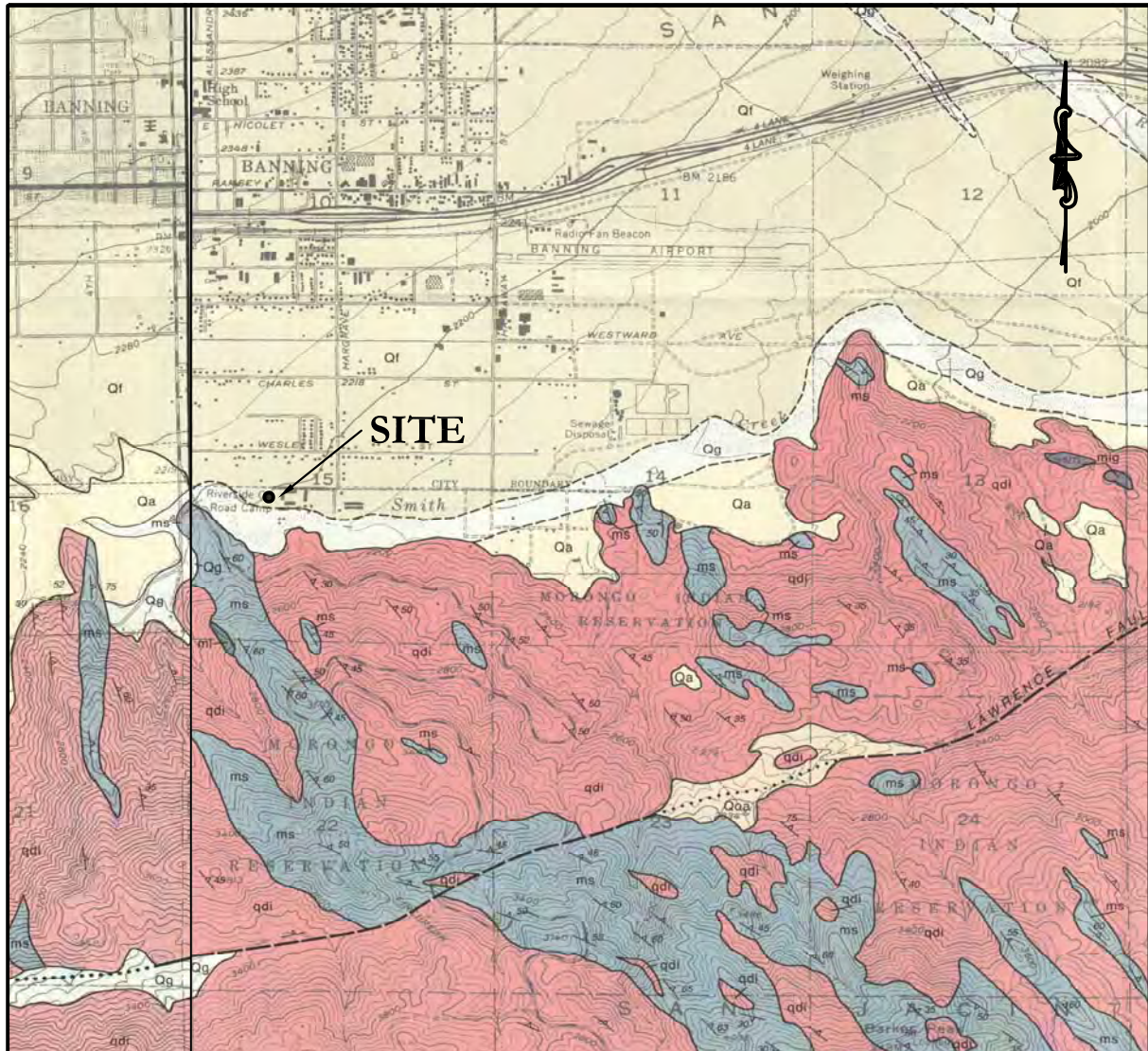


**SITE LOCATION MAP**

Scale: 1"  $\approx$  2,000'

Base Map: U.S. Geological Survey Cabazon 7.5' Quadrangle, 2015





**REGIONAL GEOLOGIC MAP**

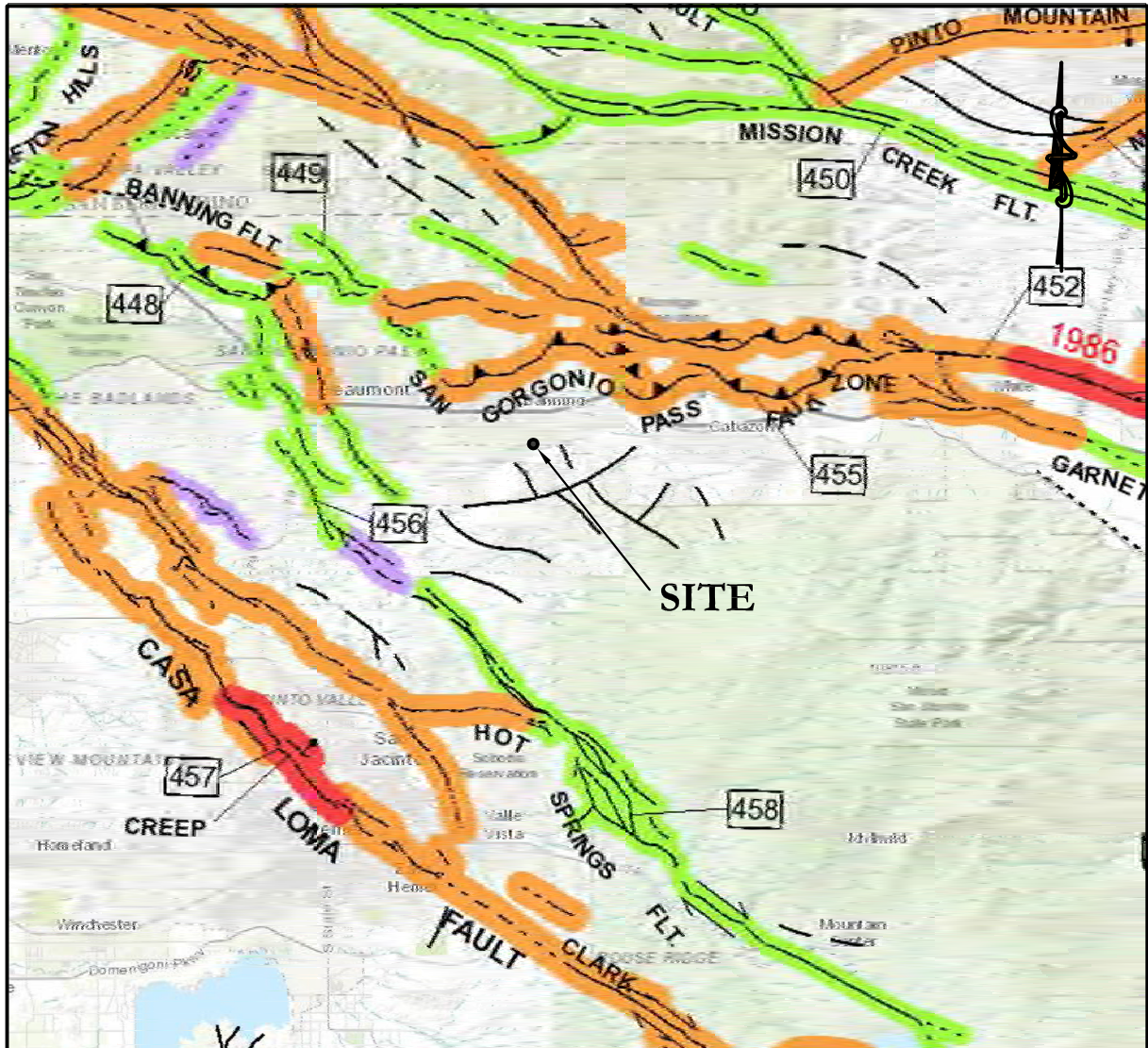
Scale: 1" ≈ 2,000'

Partial Legend

- Qg - Alluvial gravel and sand of stream deposits
- Qf - Alluvial fan deposits
- qd - Granitic bedrock
- ms - Metasedimentary bedrock

Source: Dibblee, T.W. and Minch, J.A., 2003 and 2004 Geologic Maps of the Beaumont and Cabazon 7.5 Minute Quadrangles





**REGIONAL FAULT MAP**

Scale: 1" ≈ 5 miles

Partial Legend

- Orange - Holocene fault displacement
- Green - Late Quaternary fault displacement
- Purple - Quaternary fault
- Black - Pre-Quaternary fault

Base Map: California Geological Survey Fault Activity Map of California, 2010

## GEOTECHNICAL CONSULTANTS

### NOTABLE FAULTS WITHIN 100 KILOMETERS AND SEISMIC DATA

Fault Zone & geometry	Distance (km)	Distance (mi.)	Maximum Moment Magnitude	Slip Rate (mm/yr)
Burnt Mountain (rl-ss)	45	28	6.5	0.6
Calico-Hidalgo (rl-ss)	75	47	7.3	0.6
Chino-Central Ave. (rl-r-o)	65	40	6.7	1.0
Clamshell-Sawpit (r)	97	60	6.5	0.5
Cleghorn (ll-ss)	52	32	6.5	3.0
Cucamonga (r)	61	38	6.9	5.0
Earthquake Valley (rl-ss)	85	53	6.5	2.0
Elsinore (rl-ss)	52	32	6.8	5.0
Emerson (rl-ss)	66	41	7.0	0.6
Eureka Peak (rl-ss)	49	30	6.4	0.6
Helendale - S Lockhart (rl-ss)	51	32	7.3	0.6
Johnson Valley (rl-ss)	59	37	6.7	0.6
Landers (rl-ss)	50	31	7.3	0.6
Lenwood-Lockhart (rl-ss)	54	34	7.5	0.6
Newport-Inglewood (rl-ss)	94	58	6.9	1.5
North Frontal - Western (r)	51	32	7.2	1.0
North Frontal - Eastern (r)	48	30	6.7	0.5
Pinto Mountain (ll-ss)	21	13	7.2	2.5
Pisgah-Bullion Mtn. (rl-ss)	81	50	7.3	0.6
Puente Hills Blind Thrust (r)	92	57	7.1	0.7
San Andreas (rl-ss)	12	7.5	7.5	24.0
San Jacinto (rl-ss)	16	10	6.7	12.0
San Joaquin Hills (r)	82	51	6.6	0.5
San Jose (ll-r-o)	79	49	6.4	0.5
Sierra Madre (r)	84	52	7.2	2.0
Whittier (rl-ss)	71	44	6.8	2.5

Notes:

Fault geometry - (ss) strike slip, (r) reverse, (n) normal, (rl) right lateral, (ll) left lateral, (o) oblique  
 Fault and Seismic Data - California Geological Survey (Cao), 2003

## GEOTECHNICAL CONSULTANTS

### HISTORIC STRONG EARTHQUAKES IN SOUTHERN CALIFORNIA SINCE 1812

Date	Event	Causitive Fault	Magnitude	Epicentral Distance (miles)
Dec. 12, 1812	Wrightwood	San Andreas?	7.3	66
Jan. 9, 1857	Fort Tejon	San Andreas	7.9	281
Dec. 16, 1858	San Bernardino Area	uncertain	6.0	26
Feb. 9, 1890	San Jacinto	uncertain	6.3	49
May 28, 1892	San Jacinto	uncertain	6.3	51
July 30, 1894	Lytle Creek	uncertain	6.0	51
July 22, 1899	Cajon Pass	uncertain	6.4	46
Dec. 25, 1899	San Jacinto	San Jacinto	6.7	11
Sept. 20, 1907	San Bernardino Area	uncertain	5.3	24
May 15, 1910	Elsinore	Elsinore	6.0	34
April 21, 1918	Hemet	San Jacinto	6.8	13
July 23, 1923	San Bernardino	San Jacinto	6.0	26
March 11, 1933	Long Beach	Newport-Inglewood	6.4	68
April 10, 1947	Manix	Manix	6.4	77
Dec. 4, 1948	Desert Hot Springs	San Andreas or Banning	6.5	29
July 21, 1952	Wheeler Ridge	White Wolf	7.3	148
Feb. 9, 1971	San Fernando	San Fernando	6.6	97
July 8, 1986	North Palm Springs	Banning or Garnet Hills	5.6	17
Oct. 1, 1987	Whittier Narrows	Puente Hills Thrust	6.0	72
Feb. 28, 1990	Upland	San Jose	5.5	51
June 28, 1991	Sierra Madre	Clamshell Sawpit	5.8	71
April 22, 1992	Joshua Tree	Eureka Peak	6.1	33
June 28, 1992	Landers	Johnson Valley & others	7.3	32
June 28, 1992	Big Bear	uncertain	6.5	18
Jan. 17, 1994	Northridge	Northridge Thrust	6.7	101
Oct. 16, 1999	Hector Mine	Lavic Lake	7.1	60

Notes:

Earthquake data: U.S. Geological Survey P.P. 1515 & online data, Southern California Earthquake Center  
California Geological Survey online data

Magnitudes prior to 1932 are estimated from intensity.

Magnitudes after 1932 are moment, local or surface wave magnitudes.

Attenuation relationship - Boore et al., 1997 (mean values), values at distances > 50 miles are approxima

Site Location:

Site Longitude: 116.87152

Site Latitude: 33.91032

**APPENDIX A**  
**FIELD INVESTIGATION**

**APPENDIX A**

**FIELD INVESTIGATION**

**A-1.00 FIELD EXPLORATION**

**A-1.01 Number of Borings**

Our subsurface investigation consisted of 2 borings drilled with a CME-75 drill rig.

**A-1.02 Location of Borings**

A Boring Location Map showing the approximate locations of the borings is presented as Figure 3.

**A-1.03 Boring Logging**

Logs of borings were prepared by one of our staff and are attached in this appendix. The logs contain factual information and interpretation of subsurface conditions between samples. The strata indicated on these logs represent the approximate boundary between earth units and the transition may be gradual. The logs show subsurface conditions at the dates and locations indicated, and may not be representative of subsurface conditions at other locations and times.

Identification of the soils encountered during the subsurface exploration was made using the field identification procedure of the Unified Soils Classification System (ASTM D2488). A legend indicating the symbols and definitions used in this classification system and a legend defining the terms used in describing the relative compaction, consistency or firmness of the soil are attached in this appendix. Bag samples of the major earth units were obtained for laboratory inspection and testing, and the in-place density of the various strata encountered in the exploration was determined

## GEOTECHNICAL CONSULTANTS

PARTICLE SIZE LIMITS		U.S. STANDARD SIEVE SIZE	MAJOR DIVISIONS	GROUP SYMBOLS	TYPICAL NAMES		
PARTICLE SIZE LIMITS	BOULDERS	12 in.	<b>GRAVELS</b> <small>(More than 50% of coarse fraction is LARGER than the No. 4 sieve size.)</small>	<b>CLEAN GRAVELS</b> <small>(Little or no fines)</small>	GW GP	Well graded gravel, gravel-sand mixtures, little or no fines. Poorly graded gravel or gravel-sand mixtures, little or no fines.	
	COBBLES	3 in.		<b>GRAVELS WITH FINES</b> <small>(Appreciable amt. of fines)</small>	GM	Silty gravels, gravel-sand-silt mixtures.	
	GRAVEL	No. 4			GC	Clayey gravels, gravel-sand-clay mixtures.	
	COARSE	3/4 in.		<b>SANDS</b> <small>(More than 50% of coarse fraction is SMALLER than the No. 4 sieve size)</small>	<b>CLEAN SANDS</b> <small>(Little or no fines)</small>	SW	Well graded sands, gravelly sands, little or no fines.
	FINE	No. 10			<b>SANDS WITH FINES</b> <small>(Appreciable amount of fines)</small>	SP	Poorly graded sands or gravelly sands, little or no fines.
	SAND	No. 40				SM	Silty sands, sand-silt mixtures.
	MEDIUM	No. 100	<b>SILTS AND CLAYS</b> <small>(Liquid limit LESS than 50)</small>		ML	Inorganic silts and very fine sands, rock flour silty or clayey fine sands or clayey silts with slight plasticity	
	FINE	No. 200			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.	
	SILT OR CLAY	No. 200	<b>SILTS AND CLAYS</b> <small>(Liquid limit GREATER than 50)</small>		OL	Organic silts and organic silty clays of low plasticity.	
				MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.		
				CH	Inorganic clays of high plasticity, fat clays.		
				OH	Organic clays of medium to high plasticity, organic silts.		
<b>HIGHLY ORGANIC SOILS</b>				Pt	Peat and other highly organic soils.		

**BOUNDARY CLASSIFICATIONS:** Soils possessing characteristics of two groups are designated by combinations of group symbols.

### UNIFIED SOIL CLASSIFICATION SYSTEM



## GEOTECHNICAL CONSULTANTS

### I. SOIL STRENGTH/DENSITY

#### BASED ON STANDARD PENETRATION TESTS

Compactness of sand		Consistency of clay	
Penetration Resistance N (blows/Ft)	Compactness	Penetration Resistance N (blows/ft)	Consistency
0-4	Very Loose	<2	Very Soft
4-10	Loose	2-4	Soft
10-30	Medium Dense	4-8	Medium Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff
		>30	Hard

N = Number of blows of 140 lb. weight falling 30 in. to drive 2-in OD sampler 1 ft.

#### BASED ON RELATIVE COMPACTION

Compactness of sand		Consistency of clay	
% Compaction	Compactness	% Compaction	Consistency
<75	Loose	<80	Soft
75-83	Medium Dense	80-85	Medium Stiff
83-90	Dense	85-90	Stiff
>90	Very Dense	>90	Very Stiff

### II. SOIL MOISTURE

Moisture of sands		Moisture of clays	
% Moisture	Description	% Moisture	Description
<5%	Dry	<12%	Dry
5-12%	Moist	12-20%	Moist
>12%	Very Moist	>20%	Very Moist, wet

#### SOIL DESCRIPTION LEGEND



## Exploratory Boring Log

## Boring No. B-1

Sheet 1 of 2

Date Drilled: 8/19/16  
 Logged By: KD  
 Location: See Boring Location Map  
 Elevation (ft):

Drilling Company and Equipment: 2R Drilling CME -75 Hollow Stem Auger  
 Boring Hole Diameter: 8"  
 Drive Weights: 140 lbs.  
 Drop: 30"

Depth (ft)	Samples			Moisture Content (%)	Dry Density (pcf)	USCS	Graphic Symbol	Material Description
	Sample Type	Blows (blows/ft)	Bulk Sample					
5	R	14	[Hatched Box]	11.3	109.6	ML	[Vertical Lines]	<p>Alluvium (Qal): Light brown sandy silt, fine sand, slightly moist, non-porous, non-cohesive, medium stiff to stiff</p> <p>Hand augered to 5 feet</p> <p>Slight increase in moisture content</p>
10	R	34		3.9	111.3	SM	[Dotted]	Light grayish-brown silty fine to coarse sand, dry, non-cohesive, dense
15	R	39		1.1	118.9	SP	[Dotted]	Gray fine to coarse sand with minor silt, dry, poorly sorted, dense
20	R	55		0.5	120.4	SM	[Dotted]	Light brown silty fine to medium sand, dry, non-porous, non-cohesive, dense
25	R	51		1.1	117.0	SP	[Dotted]	Gray fine to coarse sand with minor silt, dry, poorly sorted, dense

Sample Types:

- R - Ring Sample   
 [Hatched] - Bulk Sample   
 Nr - No Recovery   
  - Groundwater  
T - Tube Sample   
S - SPT Sample   
1 - Bulk Sample Number   
 - End of Boring






## Exploratory Boring Log

**Boring No. B-1**

Sheet 2 of 2

Date Drilled: 8/19/16  
 Logged By: KD  
 Location: See Boring Location Map  
 Elevation (ft):

Drilling Company and Equipment: 2R Drilling CME -75 Hollow Stem Auger  
 Boring Hole Diameter: 8"  
 Drive Weights: 140 lbs.  
 Drop: 30"

Depth (ft)	Samples			Moisture Content (%)	Dry Density (pcf)	USCS	Graphic Symbol	Material Description
	Sample Type	Blows (blows/ft)	Bulk Sample					
35	S	13		5.6		ML		Brown sandy silt, fine to medium sand with a trace of gravel, slightly moist, non-cohesive, medium stiff to stiff
40	S	13		5.4		SP		Gray fine to coarse sand with silt and trace of gravel, dry, poorly sorted, dense
45	S	53		1.7		SP		Increase in fine sand and silt content and decrease in coarse sand content, gravel absent
50	S	24		2.9		SM		Brown silty fine to medium sand with slight trace of gravel, slightly moist, non-porous, non-cohesive, dense
55	S	27		5.1		SP		Gray fine to coarse sand with trace of gravel, slightly moist, poorly sorted, dense
<p>Total depth 51.5 feet            No groundwater encountered            Hole backfilled with cuttings</p>								

Sample Types:

- R - Ring Sample   
 B - Bulk Sample   
 NR - No Recovery   
  - Groundwater  
T - Tube Sample   
S - SPT Sample   
1 - Bulk Sample Number   
 - End of Boring

## Exploratory Boring Log

**Boring No. B-2**

Date Drilled: 4/22/16  
 Logged By: KRD  
 Location: See Boring Location Map

Drilling Company and Equipment: 2R Drilling CME -75 Hollow Stem Auger  
 Boring Hole Diameter: 8"  
 Drive Weights: 140 lbs.  
 Drop: 30"

Depth (ft)	Samples			Moisture Content (%)	Dry Density (pcf)	USCS	Graphic Symbol	Material Description
	Sample Type	Blows (blows/ft)	Bulk Sample					
5	R	31		8.6	109.5	ML		<p>Alluvium (Qal): Light brown sandy silt, fine sand, slightly moist, non-porous, non-cohesive, medium stiff to stiff</p> <p>Trace of off-white carbonite staining and stringers</p>
10	R	34		2.8	116.1	SP		<p>Gray fine to coarse sand with minor silt, dry, poorly sorted, dense</p>
15	R	25		2.3	111.2			
20	R	32		6.4	111.0	SM		<p>Light brown to brown silty sand, slightly moist to moist, non-porous, non-cohesive, dense</p>
25	R	29		8.0	113.3	SP		<p>Gray fine to medium sand with silt and minor coarse sand, moist, poorly sorted, dense</p>
								<p>Total depth 26.5 feet            No groundwater encountered            Hole backfilled with cuttings</p>

Sample Types:

- R - Ring Sample      - Bulk Sample     Nr - No Recovery
- T - Tube Sample     S - SPT Sample      - End of Boring



## GEOTECHNICAL CONSULTANTS

### APPENDIX B

### LABORATORY TESTS

**APPENDIX B**

**LABORATORY TESTS**

**B-1.00 LABORATORY TESTS**

**B-1.01 Maximum Density**

Maximum density - optimum moisture relationships for the major soil types encountered during the field exploration were performed in the laboratory using the standard procedures of ASTM D1557.

**B-1.02 Expansion Tests**

Expansion index tests were performed on representative samples of the major soil types encountered by the test methods outlined in ASTM D4829.

**B-1.03 Soluble Sulfates and Chlorides**

A test was performed on representative sample encountered during the investigation using the Caltrans Test Methods CTM 417 and CTM 422.

**B-1.04 Soil Reactivity (pH) and Resistivity**

Representative soil sample was tested for soil reactivity (pH) and resistivity (Ohms) using California Test Method S3.0 and 643. The pH measurement determines the degree of acidity or alkalinity in the soils. The resistivity is a measure of the electrical resistivity.

**B-1.05 Particle Size Analysis**

Particle size analysis was performed on representative samples of the major soils types in accordance to the standard test methods of the ASTM D422. The hydrometer portion of the standard procedure was not performed and the material retained on the #200 screen was washed.

**B-1.06 Direct Shear**

A direct shear test was performed on a representative sample of the major soil types encountered in the test holes using the standard test method of ASTM D3080 (consolidated and drained). The test was performed on a remolded sample. The remolded sample was tested at 90 percent relative compaction.

Shear tests were performed on a direct shear machine of the strain-controlled type. To simulate possible adverse field conditions, the samples were saturated prior to shearing. Several samples were sheared at varying normal loads and the results plotted to establish the angle of the internal friction and cohesion of the tested samples.

**B-1.07 Moisture Determination**

Moisture content of the soil samples was performed in accordance to standard method for determination of water content of soil by drying oven, ASTM D2216. The mass of material remaining after oven drying is used as the mass of the solid particles.

**B-1.08 Density of Split-Barrel Samples**

Soil samples were obtained by using a split-barrel sampler in accordance to standard method of ASTM D1586.

**B-1.09 Test Results**

Test results for all laboratory tests performed on the subject project are presented in this appendix.

## GEOTECHNICAL CONSULTANTS

### SAMPLE INFORMATION

Sample Number	Sample Description	Sample Location	
		Boring No.	Depth (ft)
1	Light brown sandy silt	B-1	2-5
2	Light brown sandy silt	B-2	2-4.5

### MAXIMUM DENSITY - OPTIMUM MOISTURE

Test Method: ASTM D1557

Sample Number	Optimum Moisture (Percent)	Maximum Density (lbs/ft <sup>3</sup> )
1	10.6	124.8

### EXPANSION TEST

Test Method: ASTM D4829

Sample Number	Molding Moisture Content (Percent)	Final Moisture Content (Percent)	Initial Dry Density (lbs/ft <sup>3</sup> )	Expansion Index	Expansion Classification
1	4.6	16.9	106.5	11	Very low

### SOLUBLE SULFATES AND CHLORIDES

Test Method: CTM 417 and CTM 422

Sample Number	Soluble Sulfate (ppm)	Chlorides (ppm)
1	181	139

## GEOTECHNICAL CONSULTANTS

### SOIL REACTIVITY (pH) AND ELECTRICAL CONDUCTIVITY

Test Method: ASTM D4972

Sample Number	pH	Resistivity (Ohm-cm)
1	7.0	1,450

**PARTICLE SIZE ANALYSIS**

**ASTM D422**

Sample ID: 1

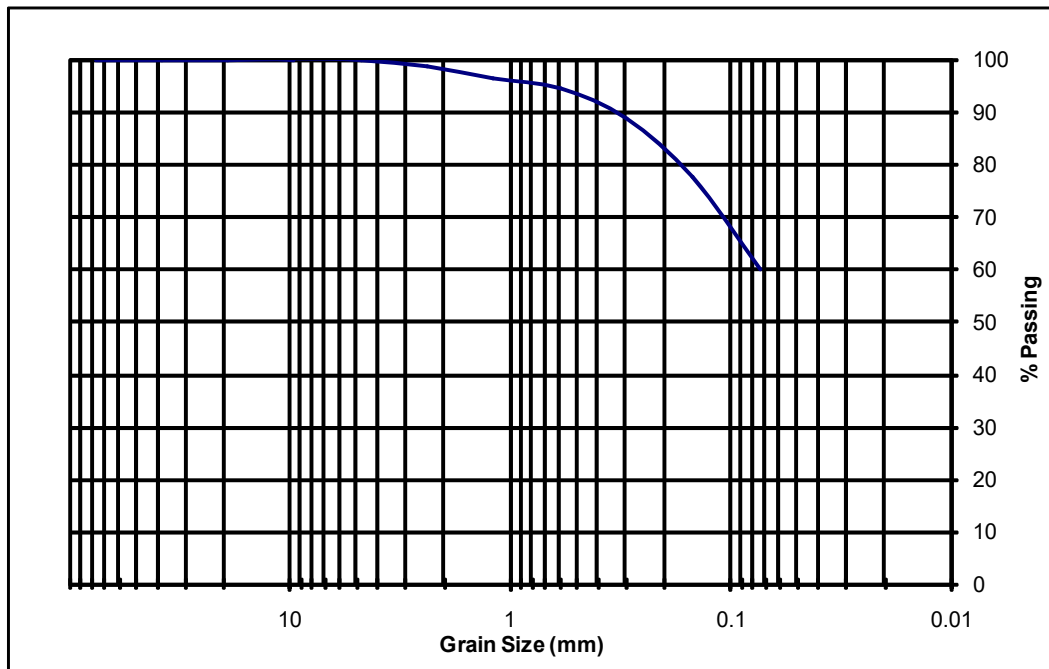
Location: B-1 @ 2-5 feet

Fraction A: Dry Net Weight (gms): 899

Fraction B: Dry Net Weight (gms): 487.2

	Screen Size	Net Retained Weight (gms)	Net Passing Weight (gms)	% Passing
Fraction A:	3"	0	899.2	100
	1-1/2"	0	899.2	100
	3/4"	0	899.2	100
	3/8"	0	899.2	100
	#4	2	897.2	100

	Screen Size	Net Retained Weight (gms)	Net Passing Weight (gms)	% Passing
Fraction B:	#8	6.0	481.2	99
	#16	16.0	471.2	97
	#30	26.0	461.2	94
	#50	54.0	433.2	89
	#100	109.0	378.2	77
	#200	194.0	293.2	60





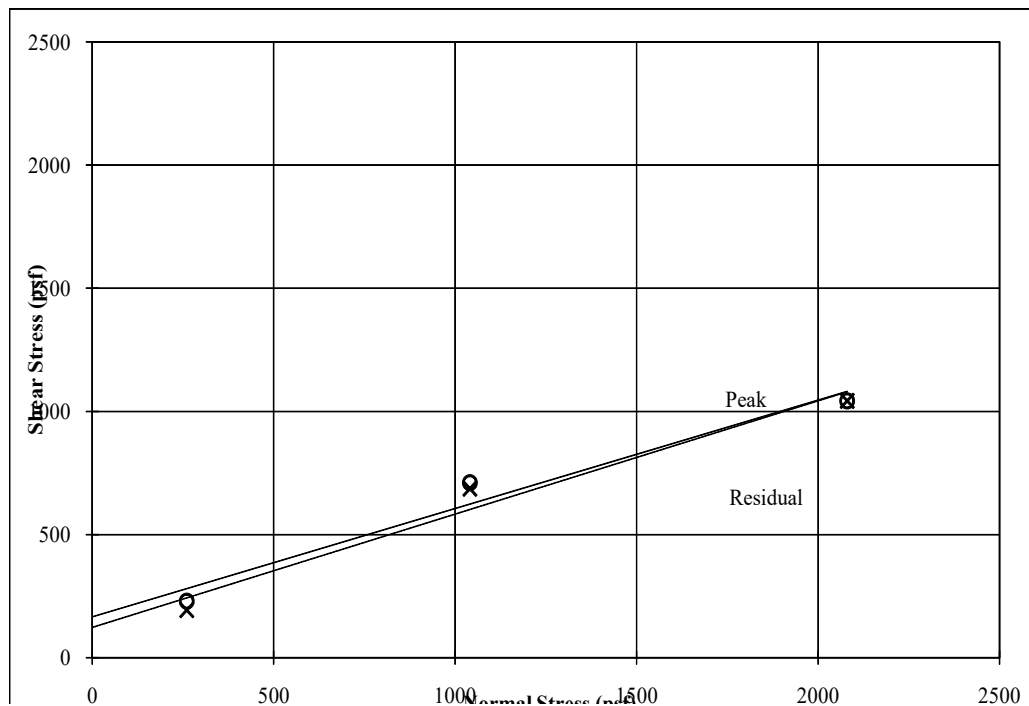
**DIRECT SHEAR TEST  
ASTM D3080**

Sample ID: 1  
Location: B-1 @ 2-5 feet

Maximum Dry Density (pcf) = 124.8  
Optimum Moisture Content (%) = 10.6  
Initial Dry Density (pcf) = 112.3  
Initial Moisture Content (%) = 10.6  
Final Moisture Content (%) = 20.4

Normal Pressure	Peak Shear Resist	Residual Shear Resist
260	230	194
1040	711	687
2080	1043	1043

	Peak	Residual
Cohesion (psf) =	170	120
Friction Angle (deg) =	24	25





## GEOTECHNICAL CONSULTANTS

### APPENDIX C

#### GENERAL EARTHWORK AND GRADING SPECIFICATIONS

**APPENDIX C**

**GENERAL EARTHWORK AND GRADING SPECIFICATIONS**

**C-1.00 GENERAL DESCRIPTION**

**C-1.01 Introduction**

These specifications present our general recommendations for earthwork and grading as shown on the approved grading plans for the subject project. These specifications shall cover all clearing and grubbing, removal of existing structures, preparation of land to be filled, filling of the land, spreading, compaction and control of the fill, and all subsidiary work necessary to complete the grading of the filled areas to conform with the lines, grades and slopes as shown on the approved plans.

The recommendations contained in the geotechnical report of which these general specifications are a part of shall supersede the provisions contained hereinafter in case of conflict.

**C-1.02 Laboratory Standard and Field Test Methods**

The laboratory standard used to establish the maximum density and optimum moisture shall be ASTM D1557.

The insitu density of earth materials (field compaction tests) shall be determined by the sand cone method (ASTM D1556), direct transmission nuclear method (ASTM D6938) or other test methods as considered appropriate by the geotechnical consultant.

Relative compaction is defined, for purposes of these specifications, as the ratio of the in-place density to the maximum density as determined in the previously mentioned laboratory standard.

**C-2.00 CLEARING**

**C-2.01 Surface Clearing**

All structures marked for removal, timber, logs, trees, brush and other rubbish shall be removed and disposed of off the site. Any trees to be removed shall be pulled in such a manner so as to remove as much of the root system as possible.

**C-2.02 Subsurface Removals**

A thorough search should be made for possible underground storage tanks and/or septic tanks and cesspools. If found, tanks should be removed and cesspools pumped dry.

Any concrete irrigation lines shall be crushed in place and all metal underground lines shall be removed from the site.

**C-2.03 Backfill of Cavities**

All cavities created or exposed during clearing and grubbing operations or by previous use of the site shall be cleared of deleterious material and backfilled with native soils or other materials approved by the soil engineer. Said backfill shall be compacted to a minimum of 90% relative compaction.

## **GEOTECHNICAL CONSULTANTS**

### **C-3.00 ORIGINAL GROUND PREPARATION**

#### **C-3.01 Stripping of Vegetation**

After the site has been properly cleared, all vegetation and topsoil containing the root systems of former vegetation shall be stripped from areas to be graded. Materials removed in this stripping process may be used as fill in areas designated by the soil engineer, provided the vegetation is mixed with a sufficient amount of soil to assure that no appreciable settlement or other detriment will occur due to decaying of the organic matter. Soil materials containing more than 3% organics shall not be used as structural fill.

#### **C-3.02 Removals of Non-Engineered Fills**

Any non-engineered fills encountered during grading shall be completely removed and the underlying ground shall be prepared in accordance to the recommendations for original ground preparation contained in this section. After cleansing of any organic matter the fill material may be used for engineered fill.

#### **C-3.03 Overexcavation of Fill Areas**

The existing ground in all areas determined to be satisfactory for the support of fills shall be scarified to a minimum depth of 6 inches. Scarification shall continue until the soils are broken down and free from lumps or clods and until the scarified zone is uniform. The moisture content of the scarified zone shall be adjusted to within 2% of optimum moisture. The scarified zone shall then be uniformly compacted to 90% relative compaction.

Where fill material is to be placed on ground with slopes steeper than 5:1 (H:V) the sloping ground shall be benched. The lowermost bench shall be a minimum of 15 feet wide, shall be a minimum of 2 feet deep, and shall expose firm material as determined by the geotechnical consultant. Other benches shall be excavated to firm material as determined by the geotechnical consultant and shall have a minimum width of 4 feet.

Existing ground that is determined to be unsatisfactory for the support of fills shall be overexcavated in accordance to the recommendations contained in the geotechnical report of which these general specifications are a part.

### **C-4.00 FILL MATERIALS**

#### **C-4.01 General**

Materials for the fill shall be free from vegetable matter and other deleterious substances, shall not contain rocks or lumps of a greater dimension than is recommended by the geotechnical consultant, and shall be approved by the geotechnical consultant. Soils of poor gradation, expansion, or strength properties shall be placed in areas designated by the geotechnical consultant or shall be mixed with other soils providing satisfactory fill material.

#### **C-4.02 Oversize Material**

Oversize material, rock or other irreducible material with a maximum dimension greater than 12 inches, shall not be placed in fills, unless the location, materials, and disposal methods are specifically approved by the geotechnical consultant. Oversize material shall be placed in such a manner that nesting of oversize material does not occur and in such a manner that the oversize material is completely surrounded by fill material compacted to a minimum of 90% relative compaction. Oversize material shall not be placed within 10 feet of finished grade without the approval of the geotechnical consultant.

#### **C-4.03 Import**

## GEOTECHNICAL CONSULTANTS

Material imported to the site shall conform to the requirements of Section 4.01 of these specifications. Potential import material shall be approved by the geotechnical consultant prior to importation to the subject site.

### C-5.00 PLACING AND SPREADING OF FILL

#### C-5.01 Fill Lifts

The selected fill material shall be placed in nearly horizontal layers which when compacted will not exceed approximately 6 inches in thickness. Thicker lifts may be placed if testing indicates the compaction procedures are such that the required compaction is being achieved and the geotechnical consultant approves their use.

Each layer shall be spread evenly and shall be thoroughly blade mixed during the spreading to insure uniformity of material in each layer.

#### C-5.02 Fill Moisture

When the moisture content of the fill material is below that recommended by the soils engineer, water shall then be added until the moisture content is as specified to assure thorough bonding during the compacting process.

When the moisture content of the fill material is above that recommended by the soils engineer, the fill material shall be aerated by blading or other satisfactory methods until the moisture content is as specified.

#### C-5.03 Fill Compaction

After each layer has been placed, mixed, and spread evenly, it shall be thoroughly compacted to not less than 90% relative compaction. Compaction shall be by sheepfoot rollers, multiple-wheel pneumatic tired rollers, or other types approved by the soil engineer.

Rolling shall be accomplished while the fill material is at the specified moisture content. Rolling of each layer shall be continuous over its entire area and the roller shall make sufficient trips to insure that the desired density has been obtained.

#### C-5.04 Fill Slopes

Fill slopes shall be compacted by means of sheepfoot rollers or other suitable equipment. Compacting of the slopes may be done progressively in increments of 3 to 4 feet in fill height. At the completion of grading, the slope face shall be compacted to a minimum of 90% relative compaction. This may require track rolling or rolling with a grid roller attached to a tractor mounted side-boom.

Slopes may be over filled and cut back in such a manner that the exposed slope faces are compacted to a minimum of 90% relative compaction.

The fill operation shall be continued in six inch (6") compacted layers, or as specified above, until the fill has been brought to the finished slopes and grades as shown on the accepted plans.

#### C-5.05 Compaction Testing

Field density tests shall be made by the geotechnical consultant of the compaction of each layer of fill. Density tests shall be made at locations selected by the geotechnical consultant.

Frequency of field density tests shall be not less than one test for each 2.0 feet of fill height and at least every one thousand cubic yards of fill. Where fill slopes exceed four feet in height their finished faces shall be tested at a frequency of one test

## **GEOTECHNICAL CONSULTANTS**

for each 1000 square feet of slope face.

Where sheepfoot rollers are used, the soil may be disturbed to a depth of several inches. Density reading shall be taken in the compacted material below the disturbed surface. When these readings indicate that the density of any layer of fill or portion thereof is below the required density, the particular layer or portion shall be reworked until the required density has been obtained.

### **C-6.00 SUBDRAINS**

#### **C-6.01 Subdrain Material**

Subdrains shall be constructed of a minimum 4-inch diameter pipe encased in a suitable filter material. The subdrain pipe shall be Schedule 40 Acrylonitrile Butadiene Styrene (ABS) or Schedule 40 Polyvinyl Chloride Plastic (PVC) pipe or approved equivalent. Subdrain pipe shall be installed with perforations down. Filter material shall consist of 3/4" to 1 1/2" clean gravel wrapped in an envelope of filter fabric consisting of Mirafi 140N or approved equivalent.

#### **C-6.02 Subdrain Installation**

Subdrain systems, if required, shall be installed in approved ground to conform the approximate alignment and details shown on the plans or herein. The subdrain locations shall not be changed or modified without the approval of the geotechnical consultant. The geotechnical consultant may recommend and direct changes in the subdrain line, grade or material upon approval by the design civil engineer and the appropriate governmental agencies.

### **C-7.00 EXCAVATIONS**

#### **C-7.01 General**

Excavations and cut slopes shall be examined by the geotechnical consultant. If determined necessary by the geotechnical consultant, further excavation or overexcavation and refilling of overexcavated areas shall be performed, and/or remedial grading of cut slopes shall be performed.

#### **C-7.02 Fill-Over-Cut Slopes**

Where fill-over-cut slopes are to be graded the cut portion of the slope shall be made and approved by the geotechnical consultant prior to placement of materials for construction of the fill portion of the slope.

### **C-8.00 TRENCH BACKFILL**

#### **C-.01 General**

Trench backfill within street right of ways shall be compacted to 90% relative compaction as determined by the ASTM D1557 test method. Backfill may be jetted as a means of initial compaction; however, mechanical compaction will be required to obtain the required percentage of relative compaction. If trenches are jetted, there must be a suitable delay for drainage of excess water before mechanical compaction is applied.

## **GEOTECHNICAL CONSULTANTS**

### **C-9.00 SEASONAL LIMITS**

#### **C-9.01 General**

No fill material shall be placed, spread or rolled while it is frozen or thawing or during unfavorable weather conditions. When the work is interrupted by heavy rain, fill operations shall not be resumed until field tests by the soils engineer indicate that the moisture content and density of the fill are as previously specified.

### **C-10.00 SUPERVISION**

#### **C-10.01 Prior to Grading**

The site shall be observed by the geotechnical consultant upon completion of clearing and grubbing, prior to the preparation of any original ground for preparation of fill.

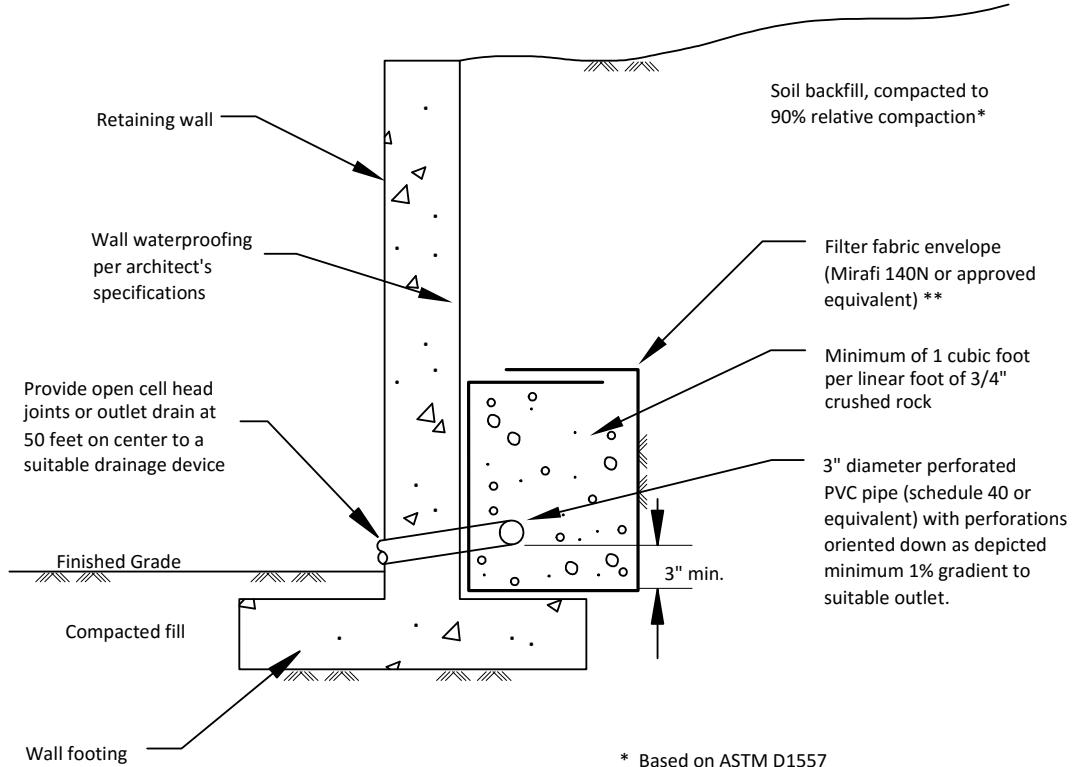
The supervisor of the grading contractor and the field representative of the geotechnical consultant shall have a meeting and discuss the geotechnical aspects of the earthwork prior to commencement of grading.

#### **C-10.02 During Grading**

Site preparation of all areas to receive fill shall be tested and approved by the geotechnical consultant prior to the placement of any fill.

The geotechnical consultant or his representative shall observe the fill and compaction operations so that he can provide an opinion regarding the conformance of the work to the recommendations contained in this report.

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\* Based on ASTM D1557

\*\* If class 2 permeable material (See gradation to left) is used in place of 3/4" - 1 1/2" gravel. Filter fabric may be deleted. Class 2 permeable material compacted to 90% relative compaction. \*

**SPECIFICATIONS FOR CLASS 2 PERMEABLE MATERIAL (CAL TRANS SPECIFICATIONS)**

Sieve Size	% Passing
1"	100
3/4"	90-100
3/8"	40-100
No.4	25-40
No.8	18-33
No.30	5-15
No.50	0-7
No.200	0-3

**RETAINING WALL DRAINAGE DETAIL**





## GEOTECHNICAL CONSULTANTS

### APPENDIX D

### REFERENCES

**APPENDIX D**

**REFERENCES**

1. Allen, C.R., 1957, San Andreas Fault Zone in San Gorgonio Pass, Southern California: Bulletin of the Geological Society of America, V. 66, p. 315-360.
2. Blake, T.F., 2000, FRISKSP Computer Program, Version 4.00.
3. Bloyd, R.M., 1971, Underground Storage of Imported Water in the San Gorgonio Pass Area, Southern California: U.S. Geological Survey Water-Supply Paper 1999-D.
4. Bryant, W.A. and Hart, E.W., 2007, Fault-Rupture Hazard Zones in California: California Geological Survey Special Publication 42, Interim Revision 2007 and online updates.
5. California Building Standards Commission, 2010 California Building Code.
6. California Department of Water Resources, 2012, California State Groundwater Elevation Monitoring System online data, [www.water.ca.gov/groundwater/casgem](http://www.water.ca.gov/groundwater/casgem).
7. California Division of Mines and Geology, 1995, Earthquake Fault Zone Map, Beaumont Quadrangle, Effective date June 1, 1995.
8. California Division of Mines and Geology, 1995, Earthquake Fault Zone Map, Cabazon Quadrangle, Revised Effective date June 1, 1995
9. California Geological Survey, 2008, Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117.
10. California Geological Survey, 2012, California Historical Earthquakes ( $M \geq 5.5$ ), Interactive Online Database, <http://redirect.conservation.ca.gov/cge/rghm/quakes/historical/hiseq.asp>.
11. California Geological Survey, 2012, Seismic Hazards Zonation Program – Online Seismic Hazard Zone Maps and Reports, <http://conservation.ca.gov/cgw/shzp/pages/Index.aspx>.
12. Cao, Y. and others, 2003, The Revised 2002 California Probabilistic Seismic Hazard Maps, June 2003.
13. Catching, R.D. and others, 1999, Structural, Velocities, and Faulting Relationships Beneath San Gorgonio Pass, California: Implication for Water Resources and Earthquake Hazards: U.S. Geological Survey OFR 99-568.
14. City of Banning, 1983, Public Works Specifications, Minimum Street Design Standards, page 31, Table A.
15. City of Banning, 2006, General Plan, Chapter V, Environmental Hazards.
16. County of Riverside, 2016, Map My County website, version 4.
17. Dair, L. and Cooke, M.L., 2009, San Andreas Fault Geometry through the San Gorgonio Pass, California: Geology, v. 37, p. 119-122.
18. Dibblee, T.W., Jr., 2003, Geologic Map of the Beaumont Quadrangle, Riverside County, California: Dibblee Geology Center Map # DF-114.

## GEOTECHNICAL CONSULTANTS

19. Dibblee, T.W., Jr., 2004, Geologic Map of the Cabazon Quadrangle, Riverside County, California: Dibblee Geology Center Map # DF-119.
20. Geoscience, 2011, City of Banning 2010 Urban Water Management Plan, dated July 22, 2011.
21. Google Earth, Aerial Photographs, 2016, 2015, 2014, 2013, 2012, 2011, 2009, 2006, 2005, 2004, 2003, 2002 and 1996.
22. Historicaerials.com, Aerial Photographs, 2012, 2010, 2009, 2005, 1996, 1978, 1972, and 1967.
23. Historicaerials.com, Topographic Maps, 1999, 1988, 1982, 1979, 1973, 1970, 1964, 1962, 1961, 1954, 1952, 1950, 1942, 1937, 1929, 1925, 1913, and 1909.
24. Jennings, C.W., and Bryant, W.A, 2010, Fault Activity Map of California: California Geological Survey, Geologic Data Map No. 6.
25. Jennings, C.W., Gutierrez, C., and others, 2010, Geologic Map of California: California Geological Survey Data Map No. 2.
26. Langenheim, V.E. and others, 2005, Geophysical Evidence for Wedging in the San Gorgonio Pass Structural Knot, Southern San Andreas Fault Zone, Southern California: Geological Society of America Bulletin, v. 117, p. 1554-1572.
27. Martin, G.R. and Lew, M., 1999, Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction Hazards in California, Southern California Earthquake Center publication.
28. Matti, J.C., Morton, D.M. and Cox, B.F., 1992, The San Andreas fault System in the vicinity of the Central Transverse Ranges Province, Southern California: U.S. Geological Survey OFR 92-354.
29. Rewis, D.L. and others, 2006, Geology, Ground-Water Hydrology, Geochemistry, and Ground-Water Simulation of the Beaumont and Banning Storage Units, San Gorgonio Pass Area, Riverside County, California: U.S. Geological Survey Scientific Investigations Report 2005-2006.
30. Riverside County, 2003, General Plan.
31. Riverside County, 2016, Map My County Website, [http://mmc.rivcoit.org/MMC\\_Public/Viewer.html?Viewer=MMC\\_Public](http://mmc.rivcoit.org/MMC_Public/Viewer.html?Viewer=MMC_Public)
32. Rogers, T.H., 1965, Geologic Map of California, Santa Ana Sheet: California Division of Mines and Geology, Geologic Atlas of California.
33. Saul, R.B., Gray, C.H. and Evans, J.R., 1968, Map of Riverside County Showing Locations of Mines and Mineral Resources: California Division of Mines and Geology OFR 68-7.
34. U.S. Geological Survey, 2015, Seismic Design Maps Calculator, ASCE 7-10 Standard, <http://ehp2-earthquake.wr.usgs.gov/designmaps/us/report.php>.
35. Wallace, R.E., Editor, 1990, The San Andreas Fault System, California: U.S. Geological Survey Professional Paper 1515.
36. Yule, D. and Sieh, K., 2003, Complexities of the San Andreas Fault near San Gorgonio Pass: Implications for

## GEOTECHNICAL CONSULTANTS

Large Earthquakes: Journal of Geophysical Research, v. 108, no. B11.

37. Yule, 2009, The Enigmatic San Gorgonio Pass: Geology, v. 37, no. 2, p. 191-192.



**BID FORM**

To: Governing Board of the County of Riverside ("County")

From: \_\_\_\_\_  
(Proper Name of Bidder)

**PROJECT:** \_\_\_\_\_

**PHASE:** \_\_\_\_\_

The undersigned declares that the Contract Documents including, without limitation, the Notice to Bidders and the Instructions to Bidders have been read and agrees and proposes to furnish all necessary labor, materials, equipment, and services to perform and furnish all work in accordance with the terms and conditions of the Contract Documents, including, without limitation, the Drawings and Specifications of **Bid No. FM08250007638, Larry D. Smith Correctional Facility – Clinic Project** ("Project") and will accept in full payment for that Work the following total lump sum amount, all taxes and mark up included:

Bid Category No. \_\_\_\_\_

Description: \_\_\_\_\_

**A. Base Bid** (Includes all General Conditions/Requirements, Mark-Up, Bonds, etc. for Allowances):

Amount: \$ \_\_\_\_\_ Written

Dollars \_\_\_\_\_

**B. Allowances** (Actual Amount of Allowance Only. All General Conditions / Requirements, Mark-Up, Bonds, etc. for Allowances to be included in Bas Bid Above).

a. Allowance No. \_\_\_\_\_ Description: \_\_\_\_\_

Amount: \$ \_\_\_\_\_ Written

Dollars \_\_\_\_\_

b. Allowance No. \_\_\_\_\_ Description: \_\_\_\_\_

Amount: \$ \_\_\_\_\_ Written

Dollars \_\_\_\_\_

c. Allowance No. \_\_\_\_\_ Description: \_\_\_\_\_

Amount: \$ \_\_\_\_\_ Written

Dollars \_\_\_\_\_

**C. Total Bid Amount (Base Bid plus all Allowances – Items A and B Above):**

Amount: \$ \_\_\_\_\_ Written  
Dollars \_\_\_\_\_

**NOTE: Alternate Bids are not to be included in the Total Bid Amount Above.**

**[IF APPLICABLE] Additive/Deductive Alternates: (Refer to the Scope of Work Summaries – If Unit Price Alternate, please List the Cost per Units (Example \$/Square Foot).**

Descriptions of alternates are primarily scope definitions and do not necessarily detail the full range of materials and processes needed to complete the construction.

Alternate # \_\_\_\_\_ Description \_\_\_\_\_

Written: \$ \_\_\_\_\_  
\_\_\_\_\_ Dollars

Alternate # \_\_\_\_\_ Description \_\_\_\_\_

Written: \$ \_\_\_\_\_  
\_\_\_\_\_ Dollars

Alternate # \_\_\_\_\_ Description \_\_\_\_\_

Written: \$ \_\_\_\_\_  
\_\_\_\_\_ Dollars

**NOTE:** The Bidder confirms that it has checked all the above figures and understands that neither the County nor any of its agents, employees or representatives shall be responsible for any errors or omissions on the part of the undersigned in preparing and submitting this Bid Form.

1. The undersigned has reviewed the Work outlined in the Contract Documents and fully understands the scope of Work required in this Bid, understands the construction and project management function(s) as described in the Contract Documents, and that each Bidder who is awarded a contract shall be in fact a prime contractor, not a subcontractor, to the County, and agrees that its Bid, if accepted by the County, will be the basis for the Bidder to enter into a contract with the County in accordance with the intent of the Contract Documents.
2. The undersigned has notified the County in writing of any discrepancies or omissions or of any doubt, questions, or ambiguities about the meaning of any of the Contract Documents, and has contacted the Construction Manager before bid date to verify the issuance of any clarifying Addenda.

3. The undersigned agrees to commence work under this Contract on the date established in the Contract Documents and to complete all work within the time specified in the Contract Documents.
4. The liquidated damages clause of the Supplemental General Conditions and Agreement is hereby acknowledged.
5. The undersigned acknowledges that [five percent (5%)] retention is required for this Project.
6. It is understood that the County reserves the right to reject this bid and that the bid shall remain open to acceptance and is irrevocable for a period of ninety (90) days.
7. The following documents are attached hereto and in the following order:
  - 00 41 13 - Bid Form
  - 00 43 13 - Bid Bond on the County's form or other security
  - 00 43 36 - Designated Subcontractors List
  - 00 45 01 - Site-Visit Certification, if a site visit was required
  - 00 45 19 - Non-collusion Declaration
  - 00 45 46.11 - Iran Contracting Act Verification
  - 00 45 46.13 - Verification of Contractor and Subcontractors' DIR Registration
8. Receipt and acceptance of the following addenda is hereby acknowledged:

No.____, Dated _____	No.____, Dated _____
No.____, Dated _____	No.____, Dated _____
No.____, Dated _____	No.____, Dated _____

9. The undersigned hereby certifies that Bidder is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the Work.
10. The Bidder represents that it is competent, knowledgeable, and has special skills with respect to the nature, extent, and inherent conditions of the Work to be performed. Bidder further acknowledges that there are certain peculiar and inherent conditions existent in the construction of the Work that may create, during the Work, unusual or peculiar unsafe conditions hazardous to persons and property.
11. Bidder expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the Work with respect to such hazards.
12. Bidder expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, Cal. Gov. Code, §12650 et seq.), the County will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the Contractor may be subject to criminal prosecution.



13. The undersigned Bidder certifies that it is, and shall be throughout the period of the contract, licensed by the State of California to do the type of work required under the terms of the Contract Documents. Bidder further certifies that it is regularly engaged in the general class and type of work called for in the Contract Documents.

**Furthermore, Bidder hereby certifies to the County that all representations, certifications, and statements made by Bidder, as set forth in this bid form, are true and correct and are made under penalty of perjury.**

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_

Name of Bidder \_\_\_\_\_

Type of Entity [Corp., LLC, etc.] \_\_\_\_\_

**Signature of Bidder** \_\_\_\_\_

Name & Title of Signer \_\_\_\_\_

Address of Bidder \_\_\_\_\_

Taxpayer's Identification No. of Bidder \_\_\_\_\_

Telephone Number \_\_\_\_\_

Fax Number \_\_\_\_\_

E-mail \_\_\_\_\_ Web page \_\_\_\_\_

Contractor's License No(s): No.: \_\_\_\_\_ Class: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

No.: \_\_\_\_\_ Class: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

No.: \_\_\_\_\_ Class: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Contractor's DIR Registration No.: \_\_\_\_\_

If Bidder is a corporation, affix corporate seal.

Name of Corporation: \_\_\_\_\_

President: \_\_\_\_\_

Secretary: \_\_\_\_\_

Treasurer: \_\_\_\_\_

Manager: \_\_\_\_\_

END OF DOCUMENT

**BID BOND**

**(Note: If Bidder is providing a bid bond as its bid security, Bidder must use this form, NOT a surety company form.)**

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned, \_\_\_\_\_ as Principal ("Principal"),

and \_\_\_\_\_ as Surety ("Surety"),  
a corporation organized and existing under and by virtue of the laws of the State of \_\_\_\_\_  
and authorized to do business as a surety in the State of California, are held and firmly bound  
unto the County of Riverside ("County") of Riverside County, State of California as Obligee, in  
the sum of

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

lawful money of the United States of America, for the payment of which sum well and truly to  
be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors,  
and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted a bid  
to the County for all Work specifically described in the accompanying bid;

NOW, THEREFORE, if the Principal is awarded the Project and, within the time and manner  
required under the Contract Documents, after the prescribed forms are presented to Principal  
for signature, enters into a written contract ("Agreement"), in the prescribed form in  
accordance with the bid, and files two bonds, one guaranteeing faithful performance and the  
other guaranteeing payment for labor and materials as required by law, and meets all other  
conditions to the contract between the Principal and the Obligee becoming effective, or if the  
Principal shall fully reimburse and save harmless the Obligee from any damage sustained by  
the Obligee through failure of the Principal to enter into the Agreement and to file the required  
performance and labor and material bonds, and to meet all other conditions to the Agreement  
between the Principal and the Obligee becoming effective, then this obligation shall be null and  
void; otherwise, it shall be and remain in full force and effect. The full payment of the sum  
stated above shall be due immediately if Principal fails to execute the Agreement within ten  
(10) days of the date of the County's Notice of Award to Principal.

Surety, for value received, hereby stipulates and agrees that no change, extension of time,  
alteration or addition to the terms of the Agreement or the call for bids, or to the work to be  
performed thereunder, or the specifications accompanying the same, shall in any way affect its  
obligation under this bond, and it does hereby waive notice of any such change, extension of  
time, alteration or addition to the terms of the Agreement or the call for bids, or to the work,  
or to the specifications.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the  
Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorneys'  
fee to be fixed by the Court.

If the County awards the bid, the security of unsuccessful bidder(s) shall be returned within  
ninety (90) days from the time the award is made. Unless otherwise required by law, no  
bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above named, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

(Affix Corporate Seal)

\_\_\_\_\_  
Principal

\_\_\_\_\_  
By

(Affix Corporate Seal)

\_\_\_\_\_  
Surety

\_\_\_\_\_  
By

\_\_\_\_\_  
Name of California Agent of Surety

\_\_\_\_\_  
Address of California Agent of Surety

\_\_\_\_\_  
Telephone Number of California Agent of Surety

**Bidder must attach Power of Attorney and Certificate of Authority for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.**

END OF DOCUMENT

**DESIGNATED SUBCONTRACTORS LIST**

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

PROJECT: **Bid No. FM08250007638, Larry D. Smith Correctional Facility – Clinic Project**

**Bidder Qualifications:** Bidders wishing to bid as a prime contractor and/or work on selected trades on this Project must have been previously pre-qualified by the County of Riverside in one or more of the following categories:

Please refer to 00 21 13-Instructions to Bidder for a complete list of prequalified trades. Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., it must clearly set forth below the name and location of each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the Work in an amount in excess of one-half of one percent (0.5%) of Bidder's total Bid and the kind of Work that each will perform. Furthermore, Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., if Bidder fails to list as to any portion of Work, or if Bidder lists more than one subcontractor to perform the same portion of Work, Bidder must perform that portion itself or be subjected to penalty under applicable law.

If alternate bids are called for and Bidder intends to use subcontractors different from or in addition to those subcontractors listed for work under the base Bid, Bidder must list subcontractors that will perform Work in an amount in excess of one half of one percent (0.5%) of Bidder's total Bid, including alternates.

In case more than one subcontractor is named for the same kind of Work, state the portion of Work that each subcontractor will perform.

Vendors or suppliers of materials only do not need to be listed.

If further space is required for the list of proposed subcontractors, additional sheets showing the required information, as indicated below, shall be attached hereto and made a part of this document.

All subcontractors (of any tier) performing any portion of the Work must comply with the Labor Code sections 1725.5 and 1771.1 and must be properly and currently registered with the California Department of Industrial Relations and qualified to perform public works pursuant to Labor Code section 1725.5 throughout the duration of the Project.

Bidder shall have twenty four (24) hours to submit the **additional subcontractor list information** after the public opening of the bid pursuant to Public Contract Code section 4104. Please refer to the items identified with the "\*", indicates what is allowed to be submitted within 24 hours. All other information must be provided at the time of the bid.

<b>Subcontractor Name:</b>	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
<b>Subcontractor Name:</b>	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
<b>Subcontractor Name:</b>	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
<b>Subcontractor Name:</b>	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
<b>Subcontractor Name:</b>	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	

<b>Subcontractor Name:</b>	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
<b>Subcontractor Name:</b>	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
<b>Subcontractor Name:</b>	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
<b>Subcontractor Name:</b>	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
<b>Subcontractor Name:</b>	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	

<b>Subcontractor Name:</b>	Location:
Portion of Work:	
Contractor's License No.:	
Bid Amount*:	
DIR Registration No.*:	
<b><i>This form must be executed and returned with bid proposal even if no subcontractors are listed:</i></b>	
Date:	
Proper Name of Bidder:	
Signature:	
Print Name:	
Title:	

**\* This information must be provided at the time of submission of bid or must be provided within 24 hours after the time set for the opening of bids. Bidders who choose to provide this information within 24 hours after the time set for the opening of bids are solely responsible to ensure the County receives this information in a timely manner. The County is not responsible for any problems or delays associated with emails, faxes, delivery, etc. Absent a verified fax or email receipt date and time by the County, the County's determination of whether the information was received timely shall govern and be determinative. Bidder shall not revise or amend any other information in this form submitted at the time of bid. The information submitted at the time of bid shall govern over any conflicts, discrepancies, ambiguities, or other differences in any subsequent Designated Subcontractors List submitted by the bidder.**

END OF DOCUMENT

**SITE VISIT CERTIFICATION**

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID  
REGARDLESS IF SITE VISIT WAS MANDATORY OR NOT

PROJECT: \_\_\_\_\_

Check option that applies:

\_\_\_\_\_ I certify that \_\_\_\_\_ (Bidder's representative) visited the Site of the proposed Work and became fully acquainted with the conditions relating to construction and labor. The Bidder's representative fully understood the facilities, difficulties, and restrictions attending the execution of the Work under contract.

Bidder fully indemnifies the County of Riverside, its Architect, its Engineer, its Construction Manager, and all of their respective officers, agents, employees, and consultants from any damage, or omissions, related to conditions that could have been identified during my visit and/or the Bidder's representative's visit to the Site.

I certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Date: \_\_\_\_\_

Proper Name of Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT



**\*\*This page intentionally left blank\*\***

**NON-COLLUSION DECLARATION  
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID  
Public Contract Code Section 7106**

The undersigned declares:

I am the \_\_\_\_\_ of \_\_\_\_\_, the party making the foregoing bid ("Bidder").

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham bid. The Bidder has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham bid, or to refrain from bidding. The Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other Bidder. All statements contained in the bid are true. The Bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a Bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the Bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on \_\_\_\_\_ [date], at \_\_\_\_\_ [city], \_\_\_\_\_ [state]."

Date: \_\_\_\_\_

Proper Name of Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

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**WORKERS' COMPENSATION CERTIFICATION**

PROJECT/CONTRACT NO.: \_\_\_\_\_ between the County of Riverside ("County") and \_\_\_\_\_ ("Bidder") ("Project").

Labor Code section 3700, in relevant part, provides:

Every employer except the State shall secure the payment of compensation in one or more of the following ways:

- a. By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this state; and/or
- b. By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees.

I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Project.

Date: \_\_\_\_\_

Proper Name of Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

(In accordance with Article 5 - commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, the above Certificate must be signed and filed with the awarding body prior to performing any Work under this Project.)

END OF DOCUMENT

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**PREVAILING WAGE AND  
RELATED LABOR REQUIREMENTS CERTIFICATION**

PROJECT/CONTRACT NO.: \_\_\_\_\_ between County of Riverside  
("County") and \_\_\_\_\_ ("Bidder")  
("Project").

I hereby certify that I will conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hours' notice, payroll records, and apprentice and trainee employment requirements, for all Work on the above Project.

I hereby certify that Bidder and all subcontractors of any tier will be properly registered with the Department of Industrial Relations in accordance with Labor Code section 1725.5 at all times during performance of the Work.

I hereby certify that Bidder and all subcontractors (of any tier) shall furnish certified payroll records as required pursuant Labor Code section 1776 directly to the Labor Commissioner in accordance with Labor Code section 1771.4 on at least on a monthly basis (or more frequently if required by the County or the Labor Commissioner) and in a format prescribed by the Labor Commissioner.

Date: \_\_\_\_\_

Proper Name of Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

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**DRUG-FREE WORKPLACE CERTIFICATION**

PROJECT/CONTRACT NO.: \_\_\_\_\_ between \_\_\_\_\_ the County of Riverside ("County") and \_\_\_\_\_ ("Bidder") ("Project").

This Drug-Free Workplace Certification form is required from the successful Bidder pursuant to Government Code section 8350 et seq., the Drug-Free Workplace Act of 1990 ("Act"). The Drug-Free Workplace Act of 1990 requires that every person or organization awarded a contract or grant for the procurement of any property or service from any state agency must certify that it will provide a drug-free workplace by doing certain specified acts. In addition, the Act provides that each contract or grant awarded by a state agency may be subject to suspension of payments or termination of the contract or grant, and the contractor or grantee may be subject to debarment from future contracting, if the contracting agency determines that specified acts have occurred.

The County is not a "state agency" as defined in the applicable section(s) of the Government Code, but the County is a local agency under California law and requires all contractors on County projects to comply with the provisions and requirements of Government Code section 8350 et seq., the Drug-Free Workplace Act of 1990.

Bidder shall certify that it will provide a drug-free workplace by doing all of the following:

- a. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the person's or organization's workplace and specifying actions which will be taken against employees for violations of the prohibition.
- b. Establishing a drug-free awareness program to inform employees about all of the following:
  - (1) The dangers of drug abuse in the workplace.
  - (2) The person's or organization's policy of maintaining a drug-free workplace.
  - (3) The availability of drug counseling, rehabilitation, and employee-assistance programs.
  - (4) The penalties that may be imposed upon employees for drug abuse violations.
- c. Requiring that each employee engaged in the performance of the contract or grant be given a copy of the statement required above, and that, as a condition of employment on the contract or grant, the employee agrees to abide by the terms of the statement.

I, the undersigned, agree to fulfill the terms and requirements of Government Code section 8355 listed above and will publish a statement notifying employees concerning (a) the prohibition of controlled substance at the workplace, (b) establishing a drug-free awareness program, and (c) requiring that each employee engaged in the performance of the Contract be given a copy of the statement required by section 8355(a), and requiring that the employee agree to abide by the terms of that statement.



I also understand that if the County determines that I have either (a) made a false certification herein, or (b) violated this certification by failing to carry out the requirements of section 8355, that the Contract awarded herein is subject to termination, suspension of payments, or both. I further understand that, should I violate the terms of the Drug-Free Workplace Act of 1990, I may be subject to debarment in accordance with the requirements of the aforementioned Act.

I acknowledge that I am aware of the provisions of Government Code section 8350 et seq. and hereby certify that I will adhere to the requirements of the Drug-Free Workplace Act of 1990.

Date: \_\_\_\_\_

Proper Name of Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**HAZARDOUS MATERIALS CERTIFICATION**

PROJECT/CONTRACT NO.: \_\_\_\_\_ ("Project") between County of Riverside ("County") and \_\_\_\_\_ ("Contractor").

1. Contractor hereby certifies that no Asbestos, or Asbestos-Containing Materials, polychlorinated biphenyl (PCB), or any material listed by the federal or state Environmental Protection Agency or federal or state health agencies as a hazardous material, or any other material defined as being hazardous under federal or state laws, rules, or regulations ("New Hazardous Material"), shall be furnished, installed, or incorporated in any way into the Project or in any tools, devices, clothing, or equipment used to affect any portion of Contractor's work on the Project for the County.
2. Contractor further certifies that it has instructed its employees with respect to the above-mentioned standards, hazards, risks, and liabilities.
3. Asbestos and/or asbestos-containing material shall be defined as all items containing but not limited to chrysotile, crocidolite, amosite, anthophyllite, tremolite, and actinolite. Any or all material containing greater than one-tenth of one percent (0.1%) asbestos shall be defined as asbestos-containing material.
4. Any disputes involving the question of whether or not material is New Hazardous Material shall be settled by electron microscopy or other appropriate and recognized testing procedure, at the County's determination. The costs of any such tests shall be paid by Contractor if the material is found to be New Hazardous Material.
5. All Work or materials found to be New Hazardous Material or Work or material installed with equipment containing "New Hazardous Material" will be immediately rejected and this Work will be removed at Contractor's expense at no additional cost to the County.
6. Contractor has read and understood the document Hazardous Materials Procedures & Requirements, and shall comply with all the provisions outlined therein.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

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**IMPORTED MATERIALS CERTIFICATION**

PROJECT/CONTRACT NO.: \_\_\_\_\_ ("Project") between County of Riverside ("County") and \_\_\_\_\_ ("Contractor").

This form shall be executed by all entities that, in any way, provide or deliver and/or supply any soils, aggregate, or related materials ("Fill") to the Project Site. All Fill shall satisfy all requirements of any environmental review of the Project performed pursuant to the statutes and guidelines of the California Environmental Quality Act, section 21000 et seq. of the Public Resources Code ("CEQA").

Certification of:     Delivery Firm/Transporter     Supplier     Manufacturer  
                           Wholesaler                                    Broker                                    Retailer  
                           Distributor                                    Other \_\_\_\_\_

Type of Entity     Corporation                                    General Partnership  
                           Limited Partnership                            Limited Liability Company  
                           Sole Proprietorship                            Other \_\_\_\_\_

Name of firm ("Firm"): \_\_\_\_\_

Mailing address: \_\_\_\_\_

Addresses of branch office used for this Project: \_\_\_\_\_

If subsidiary, name and address of parent company: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

By my signature below, I hereby certify that I am aware of section 25260 of the Health and Safety Code and the sections referenced therein regarding the definition of hazardous material. I further certify on behalf of the Firm that all soils, aggregates, or related materials provided, delivered, and/or supplied or that will be provided, delivered, and/or supplied by this Firm to the Project Site are free of any and all hazardous material as defined in section 25260 of the Health and Safety Code. I further certify that I am authorized to make this certification on behalf of the Firm.

Date: \_\_\_\_\_

Proper Name of Firm: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT