



Palomar Community College District
Contract Services/Rm. A-128
1140 W. Mission Rd.
San Marcos, CA 92069-1487
Phone: (760) 744-1150, EXT. 2129
FAX: (760) 761-3548

BID DOCUMENTS

for

BID # CM-17-18-01-NEC-01-D- North Education Center Paving, Site Concrete and Improvements

BID # CM-17-18-01-NEC-01-E North Education Center Laboratory Modularity

BID # CM-17-18-01-NEC-01-F North Education Center Landscaping

Bid Closes Date & Time: December 21, 2017 at 3:00PM

To: Prospective Bidders:

** * ATTENTION: Please review this document as soon as you receive it. * * **

** No Bidder questions will be accepted 72 hours prior to bid closing **

Please immediately review our "Bid Process Timeline", Item # 1 in the Information for Bidders - Specific section, Page 6 of this document.

Pre-bid conferences shall be held on Thursday November 30, at 10:00 a.m. and Tuesday December 5, at 1:00 p.m. at the Balfour Beatty construction trailer onsite at 35090 Horse Ranch Creek Rd, Fallbrook, Ca 92028. Attendance to at least one of the conferences is MANDATORY. Further details are in Item # 2 in the Information for Bidders - Specific section, Page 7 of this document. Bidders are required to have a valid California Contractor's License as follows: BP- D: Class A BP – E: Class A or Class B BP- F: "C27"

This Project is a public work and subject to prevailing wage requirements as set forth in Labor Code §1720 *et seq.* The bidder/contractor and all subcontractors of every tier are required to pay laborers performing any portion of work on the Project not less than the prevailing wage rate established for the labor provided. Pursuant to Labor Code §1771.4(a)(4), prevailing wage rate monitoring and enforcement shall be by the California Department of Industrial Relations ("DIR"). Each bidder must be registered with the DIR pursuant to Labor Code §1725.5 in order to be qualified submit a bid on or to perform work on this Project. Bids submitted by contractors not registered with the DIR will be rejected as non-responsive. All subcontractors listed in the bid also must be registered with the DIR at the time of bid opening. At all times during performance of the Project, the bidder/contractor and **all** subcontractors, **of any tier**, must be registered with the DIR.

Any requests for interpretation or corrections must be made in accordance with the Information for Bidders – Specific section, "Item 3. Interpretation of Documents and Bid Clarifications" and according to the "Bid Process Timeline."

The District reserves the right to reject any or all bids, to accept or to reject any one or more items on a bid, or to waive any irregularities or informalities in the bids or in the bidding process.

If you wish to bid, your completed bid must be returned in a sealed envelope no later than the **Bid Opening Date and Time** as stated in the Notice to Contractors Calling for Bids.

If you have any questions regarding the bid requirements or timeline, please contact Debbi Claypool, Contracts Administrator, Contract Services, at (760) 744-1150 extension 2129 or Dclaypool@palomar.edu.

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NOTICE TO CONTRACTORS CALLING FOR BIDS

NOTICE IS HEREBY GIVEN that Palomar Community College District of San Diego County, California, acting by and through its Governing Board, hereinafter referred to as the DISTRICT will receive up to, but not later than **3:00PM, on the 21st day of December, 2017**, sealed bids for the award of a contract for:

BID # CM-17-18-01-NEC-01-D- North Education Center Paving, Site Concrete and Improvements
BID # CM-17-18-01-NEC-01-E North Education Center Laboratory Modulares
BID # CM-17-18-01-NEC-01-F North Education Center Landscaping

Bid Package NEC-01 D Description of Work: Asphalt paving and base; striping and parking lot signage; curb, gutter, and medians; concrete flatwork; concrete housekeeping pads for mechanical, electrical, and other equipment; permeable concrete and pavers; segmented block retaining walls; chain link fencing and gates; structural steel and metal deck canopy at mechanical equipment area, complete; site furnishings including bollards and picnic tables for the new Interim Village campus.

Estimated Project Cost: \$1,500,0000

Estimated Start Date: January 17, 2018

Completion of Work: April 30, 2018

Bid Package NEC-01 E Description of Work: For the Science modulares: all Laboratory casework and equipment; fume hoods; all mechanical equipment, ductwork, controls, and appurtenances; all interior finishes including insulation, drywall, ceilings, paint, and flooring.

Estimated Project Cost: \$1,000,0000

Estimated Start Date: January 17, 2018

Completion of Work: March 16, 2018

Bid Package NEC-01 F Description of Work: Irrigation, planting, and stabilized decomposed granite paving.

Estimated Project Cost: \$2,000,0000

Estimated Start Date: January 17, 2018

Completion of Work: April 30, 2018

Bids shall be received in the office of Contract Services (Room A-128) of Owner at 1140 West Mission Road, San Marcos, CA 92069, and shall be opened and publicly read aloud at the above-stated time and place.

Pre-bid conferences shall be held on Thursday November 30, at 10:00 a.m. and Tuesday December 5, at 1:00 p.m. at the Balfour Beatty construction trailer onsite at 35090 Horse Ranch Creek Rd, Fallbrook, Ca 92028. Any bid submitted by a Bidder who does not attend one of the mandatory pre-bid conferences shall be considered a non-responsive bid.

Each bidder shall be a licensed contractor pursuant to the Business and Professions Code and shall be licensed in the following appropriate classification of contractor's license, for the work bid upon, and must maintain the license throughout the duration of the Contract: Class A

Contractors bidding on this scope must be prequalified by Palomar College.

<http://www2.palomar.edu/pages/businessservices/contractor-pre-qualification-process/>

Bid documents can be obtained on-line at <https://bbcus.egnyte.com/fl/Gmp3Kcjuny> or by contacting Daniel Luker, Project Manager, Balfour Beatty, at (858) 414-8106 or dluker@balfourbeattyus.com.

Each bid shall conform and be responsive to the bid plans, specifications and bid documents. Each bid submittal shall be accompanied by bid security in the form of cash, cashier's check, certified check, or

bidder's bond executed by an admitted surety insurer, and made payable to the Palomar Community College District, in the face amount of ten percent (10%) of the contract amount.

Pursuant to Public Contract Code Section 10126 (c) (2) the District declares that the following method shall be used to determine the lowest, responsive bidder on the project: lowest total bid.

This Project is a public work and subject to prevailing wage requirements per Labor Code §1720 *et seq.* The bidder/contractor and all subcontractors of every tier shall pay laborers performing any portion of the Project not less than the prevailing wage rate established for the labor provided. Pursuant to Labor Code §1771.4(a)(4), prevailing wage rate monitoring and enforcement shall be by the California Department of Industrial Relations ("DIR"). Each bidder must be registered with the DIR pursuant to Labor Code §1725.5 in order to be qualified to submit a bid or to perform work on this Project. Bids submitted by contractors not registered with the DIR will be rejected as non-responsive. All listed subcontractors in the bid also must be registered with the DIR at the time of bid opening. At all times during performance of the Project, the bidder/contractor and **all** subcontractors, **of any tier**, must be registered with the DIR. Bidders/contractors may register with the DIR online at <http://www.dir.ca.gov/Public-Works/PublicWorks.html>.

Deadlines: a) March 1, 2015: No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with the DIR pursuant to Labor Code §1725.5 [limited exceptions apply per Labor Code section 1771.1(a)]; b) April 1, 2015: No contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the DIR pursuant to Labor Code §1725.5.

The Director of Industrial Relations has determined the general prevailing rate of per diem wages in the locality in which this work is to be performed for each craft or type of worker needed to execute the Contract which will be awarded to the successful bidder, copies of which are available online at <http://www.dir.ca.gov/dlsr>. A copy of these rates shall be posted by the successful bidder at the job site. The successful bidder, and all subcontractor(s) under the successful bidder as well as all subcontractors of any tier, shall comply with all applicable Labor Code provisions, which include, but are not limited to, registration with the DIR for the duration of the work performed on the Project, the payment of not less than the required prevailing rates to all workers employed by them in the execution of the Contract, reporting compliance to the DIR, the employment of apprentices, the hours of labor and the debarment of contractors and subcontractors.

This project is a "public work" as defined in California Labor Code Section 1720 and as such is subject to prevailing wage requirements. In addition to the registration and reporting requirements for contractors required by the DIR; the District has initiated and enforces its own Labor Compliance Program (LCP) for projects funded by the proceeds of a general obligation bond (Prop M) which requires that (i) all contracts contain appropriate language concerning public works; (ii) federal and state labor laws are fully disclosed to all bidders; (iii) weekly payroll records of each contractor and subcontractor be available for District review; (iv) all contractors and subcontractors comply with applicable prevailing wage laws; (v) the District may withhold contract payments if any of the other requirements have not been satisfied.

The successful bidder will be required to furnish the District with a Performance Bond equal to 100% of the successful bid, and a Payment Bond equal to 100% of the successful bid, prior to execution of the Contract. All bonds are to be secured from a surety company that meets all of the State of California bonding requirements, as defined in Code of Civil Procedure section 995.120, and is authorized by the State of California, and all documents required by Code of Civil Procedure section 995.660, to the extent required by law.¹

Pursuant to the provisions of Public Contract Code section 22300, the successful bidder may substitute certain securities for funds withheld by District to ensure his performance under the Contract. At the request and expense of the successful bidder, securities equivalent to any amount withheld shall be

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A payment bond must be filed for a contract involving expenditure in excess of \$25,000 (Civil Code Section 3247 (a) and may be required for contracts involving smaller expenditures at the option of the District.

deposited at the discretion of District, with either District or a state or federally chartered bank, as the escrow agent, who shall then pay any funds otherwise subject to retention to the successful bidder. Upon satisfactory completion of the Contract, the securities shall be returned to the successful bidder.

All bidders shall agree to obtain and maintain in full effect all required insurance with limits not less than the amounts indicated. Bidders who fail to comply with the insurance requirements of this contract may have their bids rejected as non-responsive at the election of the District.

The District reserves the right to reject any or all bids, to accept or to reject any one or more items on a bid, or to waive any irregularities or informalities in the bids or in the bidding process.

No bidder may withdraw its bid for a period of sixty (60) days after the date set for the opening of bids.

BY THE ORDER OF THE GOVERNING BOARD OF THE
PALOMAR COMMUNITY COLLEGE DISTRICT

John Halcón, Secretary of the Governing Board
Palomar Community College District
San Diego County, California

Publication: San Diego Daily Transcript
November 22 & November 29, 2017



INFORMATION FOR BIDDERS – Specific

The following information is specific to this Bid / Contract. Information stated in this “Information for Bidders – Specific” section supersedes any conflicting information which may be contained in the following “Information for Bidders – General” section.

1. **BID PROCESS TIMELINE:** The following is the timeline for bid submittals and the bid evaluation and selection process:

DATE AND TIME	DEADLINE / PROCESS DESCRIPTION
November 22, 2017 November 29, 2017	Legal Notice to Contactors Calling for Bids is published in the San Diego Daily Transcript.
November 30, 2017 10:00AM December 5, 2017 1:00 PM	MANDATORY Pre-Bid Conferences / Job Walks to be held: Balfour Beatty construction trailer 35090 Horse Ranch Creek Rd Fallbrook, Ca 92028 BIDDING CONTRACTORS MUST ATTEND ONE
December 13, 2017 5:00PM	Request for Information / Clarification RFIs are to be sent to: Debbi Claypool, Contracts Administrator Contract Services at (760) 744-1150 extension 2129 Dclaypool@palomar.edu
December 14, 2017 2:00PM	Contractors must submit prequalification documents to Palomar College http://www2.palomar.edu/pages/businessservices/contractor-pre-qualification-process/
December 18, 2017 3:00PM	Final Bid Clarifications will be issued
December 21, 2017 3:00 PM	BID OPENING DATE AND TIME (BID SUBMITTAL DEADLINE). <u>Sealed Bids</u> must be received no later than this date and time at the following address: Palomar College Attn: Contract Services, Room A-128 W. Mission Rd. Room A-128 San Marcos, CA 92069-1487 (See following Item #10 “MAILING / DELIVERING THE BID” for envelope labeling instructions, Campus Map and Campus Parking instructions.)

December 22, 2017	Listed Subcontractors(s) – verified DIR Registered Contractor(s) pursuant to Labor Code 1771.1(c)(1) or (2). Reference “Listed Subcontractors’ Status” in Item 2 below.
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2. **MANDATORY PRE-BID CONFERENCE/JOB WALK:** Each prospective bidder is responsible for fully acquainting him/herself with the conditions of the Project Site (which may include more than one site), as well as those relating to the construction and labor of the Project, to fully understand the facilities, difficulties and restrictions which may impact the cost or effort required to complete the Project. To this end, a Mandatory Pre-Bid Conference and Job Walk will be held on the date and time and place as indicated below.

The Mandatory Pre-Bid Conference and Job Walk will be held as follows:

- **DATE/TIME:** Thursday November 30, 2017
 - 10:00AM
- **DATE/TIME:** Tuesday December 5, 2017
 - 1:00PM
- **PLACE:** Balfour Beatty construction trailer
35090 Horse Ranch Creek Rd
Fallbrook, Ca 92028

Bidder will be required to sign-in at the pre-bid conference. Any bid submitted by a Bidder whose name does not appear on the sign-in sheet shall be considered a non-responsive bid.

3. **INSTRUCTIONS FOR BIDDERS:** Bidder and Subcontractors DIR Registered Contractor Status. Bidder Status. In addition to other requirements in this bid package relating to Bidder qualifications, a contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, or engage in the performance of any contract for public work unless currently registered and qualified to perform public work pursuant to Labor Code §1725.5. Bidder must be registered with the DIR at the time of bid opening or the bid will be rejected as non-responsive. Bidder may register with DIR at <http://www.dir.ca.gov/Public-Works/PublicWorks.html>.

Listed Subcontractors’ Status. All Subcontractors listed in Bidder’s Bid also must be Registered with the DIR at the time of bid submission. Bidders must include listed subcontractors’ DIR registration number with the bid, or if the listed subcontractor’s DIR registration number is not known at time of bid submittal, then the subcontractor’s DIR registration number may be submitted to District within twenty-four hours (24) of bid opening. Pursuant to Labor Code §1771.1 an inadvertent error in listing a subcontractor who is not registered with DIR in a bid or proposal shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive, provided that any of the following apply: (1) The subcontractor is registered prior to the bid opening; (2) Within 24 hours after the bid opening, the subcontractor is registered and has paid the penalty registration fee specified in subparagraph (E) of paragraph (2) of subdivision (a) of Section 1725.5; or (3) The subcontractor is replaced by another registered subcontractor pursuant to Section 4107 of the Public Contract Code.

DIR Registration Verification. A form of DIR Registration – Verification is included with the Contract Documents. Each Bidder shall submit the completed DIR Registration Verification Form executed by a duly authorized officer or employee of the Bidder with the Bidder’s bid or proposal.

4. **INTERPRETATION OF DOCUMENTS AND BID CLARIFICATIONS:** If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of the plans, specifications, or other proposed contract documents, or finds discrepancies in, or omissions from the specifications, he/she may submit to Palomar College a written request for an interpretation or correction thereof. It is the sole and exclusive responsibility of the Bidder to submit such request in sufficient time for Palomar College’s response thereto and delivery of such response to all Bidders prior to the scheduled closing for receipt of Bids. Any request of any Bidder, pursuant to the foregoing sentence that is made after the deadline date and time specified in the “Bid Process Timeline” (Item # 1 in the Information for Bidders – Specific section) shall be deemed untimely. Please email requests on Document 00105 – BIDDER’S CLARIFICATION REQUEST to dclaypool@palomar.edu. Your e-mail address or fax # should be included with your request. Any interpretation or correction of the proposed documents will be made only by Addendum duly issued by the District, and a copy of such Addendum or notification of Addendum will be e-mailed, and/or faxed to each person receiving a set of such documents. The Palomar Community College

District will not be responsible for any other explanation or interpretation of the proposed documents. No Bidder questions will be accepted 72 hours prior to bid closing.

Any Addenda issued by the Palomar Community College District during the time of bidding or forming a part of the documents issued to the bidder for the preparation of the bid shall be covered in the bid and shall be made a part of the contract. The Bidder shall notate in the applicable spaces provided on the Bid Form any and all Addenda numbers issued by the District for this Bid.

The District will e-mail Addenda or notification of Addenda to prospective bidders **whose names appear on the sign-in sheet**. In the absence of any information to the contrary, the District will assume that any Addenda or notification of Addenda mailed, faxed, or e-mailed to a prospective bidder was successfully received by that prospective bidder, and the District will not request a separate confirmation back from the prospective bidder that such Addenda were received.

All prospective bidders are encouraged to check the District's bid website <http://www.palomar.edu/businessservices/Bids.html> or <https://bbcus.egnyte.com/fi/Wy0PNRhWuG> for any Addenda for this bid prior to sending and submitting its bid package to the District.

5. **DOCUMENTS TO BE INCLUDED IN THE BIDDER'S BID SUBMITTAL PACKAGE:** A Bidder's bid submittal must include the following items, completely filled out and signed by authorized signatory personnel of the Bidder's company, in order to be considered a responsive bid:

- Bid Form
- Bid Bond
- Designation of Subcontractors
- Non-Collusion Bidding Declaration
- Contractor's Certification Regarding Worker's Compensation
- Verification of Contractor/Subcontractors' DIR Registration

IMPORTANT: With the exception of the Bid Bond form, all documents that are required to be submitted in the Bidder's Bid Submittal Package must be submitted in the District's original document format.

Bidders do not need to return the entire set of bid documents back to the District. Only the documents listed above are required to be submitted. Should the Bidder submit pages from the Bid Documents that have not been required by the District to be submitted as part of the Bidder's Bid Submittal Package, the District will discard that extraneous paperwork.

6. **BIDDER'S SAMPLES TO BE SUBMITTED AT TIME OF BID:** No samples are required.
7. **BID BOND REQUIREMENT:** A Bid Bond is required of Bidders in the amount of 10% of the combined total of Bid price as reflected on the Bidder's Bid Sheets.
8. **PAYMENT AND/OR PERFORMANCE BONDS TO BE REQUIRED OF AWARDED VENDOR:** Refer to the "Specifications – Special Conditions" section, Item #5.
9. **SUBCONTRACTOR'S LIST:** Bidders are required to complete the "Designation of Subcontractors" Form as part of their bid submittal. The Bidder must provide the name, Address, California Contractors License Number, DIR Registration Number, and Portion of work to be performed for all Subcontractor'.
10. **CONTRACTOR'S CERTIFICATION REGARDING WORKERS' COMPENSATION:** In accordance with the provisions of Section 3700 of Labor Code, Contractor shall secure the payment of compensation to his employees. Contractor shall sign and file with the District the following certificate prior to performing the work under this contract. "I am aware of the provisions of Section 37700 of the labor Code which required 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 contract." The form of such certificate is included as a part of the contract documents. Each bidder shall sign the certificate and submit it with his/her sealed bid.
11. **MAILING / DELIVERING THE BID:** The Bidder is ultimately responsible for the timely submittal of the Bidder's **sealed** Bid Package. **To ensure that the bid package remains sealed until the bid opening**

date and time, clearly indicate the Bid Number on the outside of the package, or at a minimum, on the sealed envelope that may be placed inside the mailing package or carton.

If the package is sent via U.S. Postal Service, UPS, Fed Ex, etc, all packages must be clearly addressed to:

Palomar Community College District

Attn: Contract Services

BID # CM-17-18-01-NEC-01-D- North Education Center Paving, Site Concrete and Improvements

OR

BID # CM-17-18-01-NEC-01-E North Education Center Laboratory Modulares

OR

BID # CM-17-18-01-NEC-01-F North Education Center Landscaping

1140 W. Mission Road, Room A-128

San Marcos, CA 92069-1487

If the package is hand-delivered prior to or at bid opening, bring Bidder's sealed Bid Package to: **Building A Room A-128** (refer to the Campus Map enclosed in these Bid documents). The Campus Map and directions to the College are also available at the following website:

<http://www2.palomar.edu/pages/lmaunu/files/2013/09/campus-map.pdf>

Allow sufficient time to obtain a **Vendor** Parking Permit from the Campus Police located in the Police modular building to the northwest of the main entrance to the San Marcos Campus. With that permit displayed, you may park in any available parking space (except those designated for handicapped) in Parking Lot # 1 or # 2. The Contract Services Office is located in **Bldg. A, Room A-128**, which is on the south side of the inner courtyard area of Bldg. A (As shown on the Campus Map, it is near the bottom of the building symbol "A").



INFORMATION FOR BIDDERS - General

1. Preparation of Bid Form

The District invites bids on the attached forms to be submitted at such time and place as is stated in the Notice to Contractors Calling for Bids, and not later than such date and time. Bids shall be received in the Contract Services offices located at 1140 W. Mission Road, Room A-128, San Marcos, CA 92069. All blanks in the bid form must be appropriately filled in, and all prices must be stated in figures. In the case where a calculation is incorrect, the Unit Bid Price shall prevail, and the District will automatically calculate and correct the extended amount(s). **All bids must be submitted in sealed envelopes bearing on the outside the name of the bidder, his/her address, and the name of the project for which the bid is submitted. It is the sole responsibility of the bidder to see that his/her bid is received in proper time. All bids received after the scheduled closing time for receipt of bids will be returned to the bidder unopened.**

2. Bid Security

Each bid shall be accompanied by a certified or cashiers' check payable to District, or a satisfactory bid bond in favor of the District executed by the bidder as principal and an admitted surety approved to conduct business in the State of California as surety, in the amount specified in the Special Conditions hereof. The check or bid bond shall be given as a guarantee that the bidder shall execute the contract if it be awarded to him in conformity with the contract documents and shall provide the surety bond or bonds as specified therein within five (5) days after notification of the award of the contract to the bidder.

3. Faxed and Electronic Mail Bids

All bids must be under sealed cover. District will not accept any bids or bid modifications submitted by facsimile or electronic mail transmission.

4. Signature

The bid must be signed in the name of the bidder and must bear the signature in longhand of the person or persons duly authorized to sign the bid.

5. Modifications

Changes in or additions to the bid form, recapitulations of the work bid upon, alternate proposals, or any other modification of the bid form which is not specifically called for in the contract documents may result in the District's rejection of the bid as not being responsive to the invitation to bid. No oral or telephonic modification of any bid submitted will be considered and a telegraphic modification may be considered only if the postmark evidences that a confirmation of the telegram duly signed by the bidder was placed in the mail prior to the opening of bids.

6. Erasures/Mutilation of Bid Documents

The bid form submitted must not contain any erasures, interlineations, or other corrections unless each such correction is suitably authenticated by affixing in the margin immediately opposite the correction the surname or surnames of the person or persons signing the bid.

Contractors should not deface or mutilate the bid documents to the extent that they may not be usable for construction purposes. Bid documents obtained under deposit shall be returned within ten (10) days after bid opening.

7. Examination of Site and Contract Documents

Each bidder may visit the site of the proposed work and fully acquaint himself/herself with the conditions relating to the construction and labor so that he may fully understand the facilities, difficulties, and restrictions attending the execution of the work under the contract. Bidders shall thoroughly examine and be familiar with the drawings and specifications. The failure or omission of any bidder to receive or examine any contract documents, form, instrument, addendum, or other document or to visit the site and acquaint himself with conditions there existing shall in no way relieve any bidder from obligations with respect to his/her bid or to the contract. The bidder is responsible to obtain any geotechnical and/or soils report pertaining to the site of the work. Although any such report does not operate as a warranty or guarantee of site conditions, the submission of a bid shall be taken as prima facie evidence of compliance with all terms of this section.

Each bidder, by making his/her bid represents that the/she has read and understands the Contract and Bid Documents and any and all related reports and information. After executing the Agreement, no consideration will be given to any claim of misunderstanding of the documents.

Each bidder, by making his/her bid, represents that he/she has visited the site, inspected the area of the work, and familiarized himself/herself with the local conditions under which the work is to be performed, including sub-surface conditions. Such inspection shall specifically consider requirements for accessing the site and determining the work can be completed as required by, and as shown in, the Contract Documents.

With District's approval, including provision of insurance as required, and after scheduling access with the District, each bidder may conduct additional site investigations at the bidder's sole cost.

8. Withdrawal of Bids

Any bidder may withdraw his/her bid either personally, by written request, or by telegraphic request confirmed in the manner specified above at any time prior to the scheduled closing time for receipt of bids.

9. Agreements and Bonds

The Agreement from which the successful bidder, as Contractor, will be required to execute, and the forms and amounts of surety bonds which he/she will be required to furnish at the time of execution of the Agreement, are included in the contract documents and shall be carefully examined by the bidder. The required number of executed copies of the Agreement, the Performance Bond, and the Payment Bond for Public Works is as specified in the Special Conditions.

The Performance Bond must be executed by an admitted Surety approved to conduct business in the State of California which meets the highest standards the District is legally permitted to establish and which it has established.

The Payment Bond must be in the amount of 100% of the total amount payable. The Payment Bond must be executed by an admitted Surety approved to conduct business in the State of California which meets the highest standards the District is legally permitted to establish.

Bonds shall be in the form set forth in the contract documents.

10. Interpretation of Plans and Documents

If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of the drawings, specifications, or other information pertaining to the site (including any available soils or geotechnical report) or finds discrepancies in, or omissions from the drawings and specifications, he is hereby required in accordance with Public Contract Code section 1104 to submit to the Architect a written request for an interpretation or correction thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation or correction of the contract documents or other available information will be made only by addenda duly issued and a copy of such addendum will be mailed or delivered to each person receiving a set of the contract documents. At the option of the District, all addenda may be mailed, delivered, faxed, made available for pick-up or sent via electronic mail. District shall have the option to send a hard copy via regular mail or overnight delivery, at the option of District. No oral interpretation of any provision in the contract documents will be made to any bidder. Numbers spelled out in words will take precedence over numerals/figures.

11. Bidders Interested in More than One Bid and Bidders Not Qualified to Bid

No person, firm, or corporation shall be allowed to make, or file, or be interested in more than one bid for the same work unless alternate bids are specifically called for. A person, firm, or corporation that has submitted a sub-proposal to a bidder, or that has quoted prices of materials to a bidder, is not thereby disqualified from submitting a sub-proposal or quoting prices to other bidders or making a prime proposal. **No person, firm, or corporation shall be allowed to bid who has participated in the preparation of contract specifications; a bid by such a person, firm or corporation shall be determined to be non-responsive.**

12. Award of Contract

The District reserves the right to reject any or all bids, or to waive any irregularities or informalities in any bids or in the bidding. The award of the contract, if made by the District, will be to the lowest responsible bidder therefore.

13. Additive and Deductive Items: Method of Determining Lowest Bid

Pursuant to Public Contract Code section 20103.8, should this bid solicitation include additive and/or deductive items, the checked [X] method shall be used to determine the lowest bid:

- ☒ (a) The lowest bid shall be the lowest bid price based on the base bid only without consideration of the prices on the additive or deductive items.
- ☐ (b) The lowest bid shall be the lowest total of the bid prices on the base contract and those additive or deductive items taken in the numerical order set forth in the bid form and specifically identified as being used for the purpose of determining lowest bid price.
- ☐ (c) The lowest bid shall be the lowest total of the bid prices on the base contract and those additive or deductive items that when taken in order from a specifically identified list of those items in the bid form and added to, or subtracted from, the base contract, are less than, or equal to, a funding amount publicly disclosed by the District before the first bid is opened.
- ☐ (d) The lowest bid shall be determined in a manner that prevents any information that would identify any of the bidders from being revealed to the public entity before the ranking of all bidders from lowest to highest has been determined.

The lowest bid shall be determined as described in the Bid Documents generally and specifically in paragraph 1 of the Bid Form.

If no method is checked, sub-paragraph (a) shall be used to determine the lowest bid.

Notwithstanding the method used by the District to determine the lowest responsible bidder, the District retains the right to add to or deduct from the contract any of the additive or deductive items included in the bid solicitation after the lowest responsible bidder has been determined.

14. Evidence of Responsibility

Upon the request of the District, a bidder whose bid is under consideration for the award of the contract shall submit promptly to the District satisfactory evidence showing the bidder's financial resources, his/her construction experience in the type of work being required by the District, and his/her organization available for the performance of the contract and any other required evidence of the bidder's qualifications to perform the proposed contract. The District may consider such evidence before making its decision awarding the proposed contract. Failure to submit requested evidence of a bidder's responsibility to perform the proposed contract may result in rejection of the bid.

15. Listing Subcontractors

Each bidder shall submit with his/her sealed bid a list of the proposed subcontractors on this project as required by the Subletting and Subcontracting Fair Practices Act (Public Contract Code section 4100 and following). Forms for this purpose are furnished with the contract documents. All listed subcontractors must be registered with the DIR pursuant to Labor Code §1725.5. Bidder must include in the bid the DIR registration number for each listed subcontractor. If the DIR registration number for a listed subcontractor is not known at the time of bid submittal, the Bidder may submit the subcontractor's DIR registration number to the District within twenty-four (24) hours of bid opening. Pursuant to Labor Code §1771.1, an inadvertent error in listing a subcontractor who is not registered with DIR in a bid or proposal shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive, provided that any of the following apply: (1) The subcontractor is registered prior to the bid opening; (2) Within 24 hours after the bid opening, the subcontractor is registered and has paid the penalty registration fee specified in subparagraph (E) of paragraph (2) of subdivision (a) of Section 1725.5; or (3) The subcontractor is replaced by another registered subcontractor pursuant to Section 4107 of the Public Contract Code. In addition to these requirements, within one business day after the bid opening, Contractor shall provide the address, phone number, and license number of each listed subcontractor. If the bidder fails to provide information within one business day, District may in its discretion, reject the bid as non-responsive.

16. Workers' Compensation

In accordance with the provisions of section 3700 of the Labor Code, Contractor shall secure the payment of compensation to his/her employees. Contractor shall sign and file with District the following certificate prior to performing the work under this contract:

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 contract. The form of such certificate is included as part of the contract

17. Substitution of Security

Monies withheld by the District to ensure performance under the contract may be released in accordance with Public Contract Code section 22300 and the contract documents.

18. Contractor's License

If, at the time the bids are opened, bidder is not licensed to perform the project in accordance with division 3, chapter 9 of the Business and Professions Code of the State of California (Section 7028.15) and the Notice of Contractors Calling for Bids, the bid will not be considered.

19. Ethics in Bidding

The District expects the bidders to maintain high ethical standards in engaging in the competitive bidding process. The bid amount of one bidder should not be divulged to another before the award of the subcontract or order, nor should it be used by Contractor to secure a lower proposal from another bidder on that project (bid shopping). Subcontractors or Suppliers should not request information for the Contractor regarding any sub-bid in order to submit a lower proposal on that project (bid peddling). District will consider any bidder found to be engaging in such practices to be a non-responsible bidder and may reject its bid on that ground.

20. Substitutions and Special Brand Names

In accordance with Public Contract Code section 3400 "prior to or after the award of the contract" district must provide for "submissions of data substantiating a request for a substitution of 'an equal' item." Therefore, no later than thirty-five (35) days after award of the contract, if the bidder is requesting substitution of "an equal" item or product or work, the make and grade of the item, product or work which is to be substituted shall be provided to the District representative. The documentation submitted must include any and all illustrations, specifications, and other relevant data including catalogue information which describes the substituted item or product or work and substantiates that it is an "or equal" to the specified item or product or work. In addition, the submittal documentation must also include a statement of the cost implications of the substitution being requested stating whether and why the substitution will reduce or increase the contract price. The documentation submitted must also include information regarding the durability and life cycle cost of the substituted item, product or work. Substantiating data shall include a signed affidavit from the Contractor stating that the substituted item or product or work is equivalent to the specified item or product or work in every way except as listed on the affidavit. Whenever possible, the same substitution information is to be included in the sealed bid submittal package. Failure to submit all the needed substantiating data, including the signed affidavit, may result in a determination that the bid is non-responsive. Bidders are specifically notified that the submission of his/her documentation in no way obligates the District or it's representative to review such documentation prior to contract award. Furthermore, after award of a contract, if a proposed substitution is rejected, bidder shall be responsible to provide the item or product or work as originally specified at no additional cost to the District. District has the complete and sole discretion to determine if an item or article is an equal item.

21. Labor Compliance Program

This contract will be monitored by the California Department of Industrial Relations to ensure compliance with prevailing wage requirements. All contractors, subcontractors, bidders and laborers performing work on the Project are required to comply with the applicable Labor Code requirements (Labor Code §1725.5 and §1771.4, respectively).

Projects funded the proceeds of the District's Prop M ballot initiative will also be subject to the District's own labor compliance program.

**AGREEMENT***[To be executed between the District and the selected/awarded contractor]*

THIS AGREEMENT, made this ____ day of _____, 20__ in the County of San Diego, State of California, by

and between the **Palomar Community College District**, hereinafter called the District, and

_____, hereinafter called the Contractor,

WITNESSETH that the District and the Contractor for the considerations stated herein agree as follows:**ARTICLE 1 - SCOPE OF WORK.** The Contractor shall perform within the time stipulated the contract as herein defined, and shall provide all labor, materials, tools, utility services, and transportation to complete in a workmanlike manner all of the work required in connection with the following titled project:**BID # CM-17-18-01-NEC-01-D- North Education Center Paving, Site Concrete and Improvements**

in strict compliance with the contract documents as specified in Article 4 below.

ARTICLE 2 - TIME FOR COMPLETION. (a) The work shall be commenced on the date stated in the District's notice to proceed, as provided in Item # 1 of the Specifications - Special Conditions. As specified in District's notice to proceed, the work shall be completed no later than **April 30, 2018**.

(b) In entering into this Agreement, Contractor acknowledges and agrees that the construction duration stipulated herein is adequate and reasonable for the size and scope of the project.

ARTICLE 3 – CONTRACT PRICE. The District shall pay to the Contractor as full consideration for the faithful performance of the contract, subject to any additions or deductions as provided in the contract documents, and including any applicable sales, use or other taxes or costs, the sum of _____ Dollars (\$ _____), said sum being the total amount of the following amounts stipulated in the bid:

1.) Paving, Site Concrete and Improvements in the amount of \$ _____

2.) Owner's Miscellaneous Allowance in the amount of \$ _____

GRAND TOTAL CONTRACT PRICE \$ _____

Payment shall be made as set forth in the General Conditions.

ARTICLE 4 – COMPONENT PARTS OF THE CONTRACT. The contract entered into by this Agreement consists of the following contract documents (referred to herein as the contract or the contract documents), all of which are component parts of the contract as if herein set out in full or attached hereto:

Notice to Contractors Calling for Bids
 Information for Bidders
 Bid, as accepted
 Designation of Subcontractors
 Non-collusion Bidding Declaration
 Verification of Contractor and Subcontractors' DIR Registration
 Agreement
 Performance Bond
 Payment Bond for Public Works
 Contractor's Certificate Regarding Workers' Compensation
 Specifications (all components)
 Addendum Nos. _____, _____, _____, _____ as issued

All of the above-named contract documents are intended to be complementary. Work required by one of the above-named contract documents and not by others shall be done as if required by all. This agreement shall supersede any prior agreement of the parties.

IN WITNESS WHEREOF, this Agreement has been duly executed by the above-named parties, on the day and year first above written.

PALOMAR COMMUNITY COLLEGE DISTRICT

San Diego County, California

By: _____

Ronald E. Ballesteros-Perez,
Assistant Superintendent, Vice President
Finance and Administrative Services

Date: _____

Contractor

(SAMPLE ONLY. Do not submit with Bid)

By: _____

Signature of Authorized Agent/Officer

Print Name: _____

Title: _____

Date: _____

Award Pre-Approved by Governing Board on _____, 2018.

Contractors are required by law to be licensed and regulated by the Contractors' State License Board. Any questions concerning a contractor may be referred to the registrar of the board whose address is:

Contractors State License Board
9821 Business Park Drive
Sacramento, CA 95827
Phone: (800) 321-CLSB
<http://www.cslb.ca.gov>



PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That

WHEREAS, the Palomar Community College District (hereinafter designated as "Public Entity" or "District"), by action taken or a resolution passed on _____, has approved the award to _____, hereinafter designated as the "Principal," a contract for the work described as follows:

BID # CM-17-18-01-NEC-01-D- North Education Center Paving, Site Concrete and Improvements

(the "Project"); and

WHEREAS, said Principal is required under the terms of said contract to furnish a bond for the faithful performance of said contract,

NOW THEREFORE, we, the Principal and, _____, as Surety, are held and firmly bound unto the Public Entity in the penal sum of _____ Dollars (\$ _____) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if the above bounded Principal, his/her or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by and well and truly keep and perform, the covenants, conditions, and agreements in the said contract and any alteration thereof made as therein provided, on his/her or their part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the Public Entity, its officers and agents, as therein stipulated, then this obligation shall become null and void, otherwise, it shall be and remain in full force and virtue.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder, or the specifications accompanying the same, shall in anywise affect its obligation on this bond, and does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the contract, or to the work, or to the specifications.

In the event suit is brought upon this bond by the District and judgment is recovered, the Surety shall pay all litigation expenses incurred by the District in such suit, including attorneys' fees, court costs, expert witness fees and investigation expenses.

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

(Attach Required Acknowledgements)

(Principal Name)

By: _____
(Signature)

(Type or printed name)

(Title)

(Corporate Seal)

(Surety Name)

By: _____
(Signature of Attorney-in-Fact for Surety)

(Type or Printed Name of Attorney-in Fact)

(Address)

(Area Code & Telephone # of Surety)

SAMPLE



PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That

WHEREAS, the Palomar Community College District (hereinafter designated as "Public Entity" or "District"), by action taken or a resolution passed on _____, has approved the award to _____, hereinafter designated as the "Principal," a contract for the work described as follows:

BID # CM-17-18-01-NEC-01-D- North Education Center Paving, Site Concrete and Improvements

(the "Project"); and

WHEREAS, said Principal is required by Chapter 5 (commencing at Section 3225) and Chapter 7 (commencing at Section 3247), Title 15, Part 4, Division 3 of the California Civil Code to furnish a bond in connection with said contract;

NOW THEREFORE, we, the Principal and, _____, as Surety, are held and firmly bound unto the Public Entity in the penal sum of _____ Dollars (\$_____) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, his/her or its tier subcontractors, heirs, executors, administrators, successors or assigns, shall fail to pay (1) any of the persons named in Section 3181 of the California Civil Code, (2) amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or (3) for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Contractor and his/her tier subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor the surety or sureties will pay for the same, in an amount not exceeding the sum hereinabove specified, and also, in case suit is brought upon this bond, all litigation expenses incurred by the Public Entity in such suit, including reasonable attorneys' fees, court costs, expert witness fees and investigation expenses.

This bond shall inure to the benefit of any of the persons named in Section 3181 of the California Civil Code so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

It is further stipulated and agreed that the Surety on this bond shall not be exonerated or released from the obligation of this bond by any change, extension of time for performance, addition, alteration or modification in, to, or of any contract, plans, specifications, or agreement pertaining or relating to any scheme or work of improvement hereinabove described, nor by any fraud practiced by any person other than the claimant seeking to recover on the bond and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given, and under no circumstances shall Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between the owner or Public Entity and original Contractor or on the part of any obligee named in such bond, but the sole conditions of recovery shall be that claimant is a person described in Section 3110 or 3112 of the California Civil Code, and has not been paid the full amount of his/her claim and that Surety does hereby waive notice of any such change, extension of time, addition, alteration or modification herein mentioned.

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

(Attach Required Acknowledgements)

(Corporate Seal)

 (Principal Name)

By: _____
(Signature)

(Type or printed name)

(Title)

(Corporate Seal)

(Surety Name)

By: _____
(Signature of Attorney-in-Fact for Surety)

(Attach Attorney-in-Fact Certificate)

(Type or Printed Name of Attorney-in Fact)

(Address)

(Area Code & Telephone # of Surety)



SPECIFICATIONS – DOCUMENT 0900 DIVISION OF WORK

Pursuant to all documents referenced in “ARTICLE 4 – COMPONENT PARTS OF THE CONTRACT” of the AGREEMENT, the scope of work for the Site Utilities and Laboratory Plumbing of the Palomar College North Education Center includes but is not limited to:

BID DOCUMENTS

Bid Clarification Request-----	DOCUMENT 00105
Bid Submission Checklist -----	DOCUMENT 00350
Master Construction Schedule Update #8 10.1.17 -----	DOCUMENT 00875
Safety, Health, and Environmental Performance Requirements -----	DOCUMENT 00950
Utility Strike Prevention Plan-----	DOCUMENT 00955
Quick Reference Guide for Cultural and Biological Monitoring -----	DOCUMENT 01475
WEAP Powerpoint Palomar NEC-----	DOCUMENT 01480

DIVISION OF WORK

1. PART 1 – GENERAL

1.1. SUMMARY

- 1.1.1. GENERAL NOTE: Work items listed in this section are for clarification only and are not intended to be a comprehensive list of inclusions. It is the responsibility of each bidder to include all plant, labor, material, and equipment necessary to complete the work of their Bid Package(s) as shown on all contract documents including but not limited to the plans, project specifications, As-builts, SWPPP Manual, Documents, Safety Manual, and construction bid schedule.
- 1.1.2. Work of the total project is accomplished by dividing the total work among multiple bid packages. Each contract is identified by a “Bid Package” number and title. The multiple bidding contractors are referred to herein as Prime Trade Contractors.

1.2. SCOPE OF CONTRACTS

- 1.2.1. Each Trade to determine the amount of plant, labor, material and equipment necessary to accomplish the particular type of work upon which the bid is made and for proper completion of the project as designed. Prime Trade Contractor must study **the Bid Documents, all plans, project specifications, As-builts, SWPPP Manual, Safety Manual, and construction bid schedule** to ensure all portions of work related to that particular Bid Package are covered in the bid amount.
- 1.2.2. This Section defines scope-of-work of the various Bid Packages involved in the construction of the project.
- 1.2.3. Bidders are referred to Document, “Information to Bidders”, for method of securing clarification

prior to bidding if such clarification is felt to be needed.

2. PART 2 – ALL BID PACKAGES

ALL BID PACKAGES: Include but are not limited to the following:

- 2.0.1 **All of the work noted in each bid package must be included in that bid, regardless of what any other bid package states. If there is a duplication of work items between multiple bid packages, forward a Bid Clarification Request. If the time for bid clarifications have run out, include the duplicated work item in the bid. If duplications of items of work are found in multiple bid packages after time of bid, Construction Manager will determine which bid package shall perform the duplicated work item. The bid package which does not perform the duplicated work item will be required to provide a credit.**
- 2.0.2 Prime Trade Contractor has primary responsibility for locating existing utilities prior to commencing underground work. Prime Trade Contractor must make own notification to required agencies and hold a pre-dig conference prior to starting underground work. Prime Trade Contractor should not rely on any representation made by anyone other than those individuals duly authorized to survey, locate and stake existing utilities. PRIME TRADE CONTRACTOR SHALL ALSO ABIDE BY THE BALFOUR BEATTY UTILITY STRIKE PREVENTION PROTOCOL LOCATED IN DOCUMENT 00950
- 2.0.3 All Prime Trade Contractor are responsible for reviewing all documents and including in their bid all work that is required for complete systems to be utilized by the District whether the work is fully designed and shown or not. All parties agree and acknowledge that it has been contractor's duty to fully review the construction documents for constructability and that there shall be no adjustment to the contract for costs resulting from contractor's failure to include work scope which could be identified by the contractor utilizing reasonable due diligence during the job walk, review of contract documents, and the detailed bidding of the project. For example, if a room shows new lighting and no switch, then contractor is to cover the cost and provide all labor, material, and equipment required and provide the switch and the lighting complete. If the new roof top mechanical unit does not show a condensate drain, then contractor is to provide all labor, material, and equipment required and provide the condensate drain complete. In these instances, Prime Trade Contractor and its tier Prime Trade Contractors are to required to exercise a reasonable standard of care of a licensed contractor in reviewing the contract documents and must supply sufficient quantities of devices, wire, pipes, ducts, or other features that are a) reasonably inferable from the construction documents; or b) required to make all systems complete and functional. All code requirements that may not be shown on the documents are each applicable Trade's responsibility to be covered in the bid amount.
- 2.0.4 Any additional fencing not part of the initial project logistics and mobilization fencing will be the responsibility of the requesting Prime Trade Contractor for cost, maintenance and repair. Temporary relocation of the temporary fence, including additional fencing required, to accommodate a Prime Trade Contractor's specific work scope, will be the responsibility of that Prime Trade Contractor. Any costs associated with damaged fencing will be assessed to the responsible Prime Trade Contractor.
- 2.0.5 Submittal process shall begin immediately upon issuance of Notice to Proceed from District, unless otherwise noted. Submittals, including product data, shop drawings, mock-ups, and samples must be turned in to Construction Manager as required to maintain orderly and sequential progress of work in accordance with the Project Schedule. Unless otherwise specified, all submittals must be turned in no later than fourteen (14) calendar days from the date of issuance of the Notice to Proceed. **(All documents must be submitted electronically– Trades to get instruction from Construction Manager).** In addition to the electronic submittal, all Trades to submit 3 hard copies of shop drawings. Each Prime Trade Contractor will bear the responsibility of

cost for delivery, return, and costs of delays to the project due to late, incomplete, or inadequate submittal, or submittals, in anyway, not complying with project contract documents. Trades will be responsible for the cost of architect/consultant submittal review time over and above the initial review. **Trade will be charged a fine of \$200/day of late submittals unless prior written approval from the Construction Manager and District has been established.**

- 2.0.6 Obtain all deferred approvals as specified on plans or specifications in a timely manner so as not to affect the project schedule. Prime Trade Contractor to include cost of obtaining California PE stamped drawings if required by deferred approval process.
- 2.0.7 All project record documents as required per plans and specifications. Monthly updates of as-built documents on Construction Manager's plan set and transfer to final as-built drawings at the end of project as required by the contract documents. Update as-builts before own work is covered up. Prime Trade Contractor's Monthly payment will not be released until as-builts have been updated and verified by the Construction Manager and IOR.
- 2.0.8 **All closeout documentation as required, including warranties, guarantees, operation & maintenance manuals, etc. For each product or system requiring an Operation and Maintenance Manual, Prime Trade Contractor is to provide said manual a maximum of one month after submittal approval of each item is received. Provide remainder of closeout documentation a minimum of six months prior to project completion. In addition to paper submittals, all documentation is to be submitted electronically by each Trade.**
- 2.0.9 All extra stock as required by specifications for own work. All extra stock to be delivered, identified, inventoried with Construction Manager or Owner, and packaged for storage. A transmittal clearly defining the extra stock and the specific specification section it applies to shall accompany any delivery.
- 2.0.10 All owner training and instruction for own work as shown on plans or included in specifications, including videotaping of any specified instructional/training sessions. All videotaped training sessions must be recorded so that they are legible, i.e. equipment noise cannot drown out the voices of the trainer. If videotape is deemed unintelligible by Owner, the training session will be re-recorded at Prime Trade Contractor's sole expense.
- 2.0.11 Contractor shall notify Construction Manager in writing of any potential cost and schedule impacts associated with any changed field conditions, RFI's, ASI's, submittal reviews, or any other written direction from the architect, Construction Manager, inspector, or any other owner's agent. Such notification shall be prompt, and timely enough for owner to take preventative action against cost or schedule impact without delaying the overall project schedule. In no case shall the contractor's notification be more than (5) working days from changed field condition or written direction from owner's agent. Failure to comply with the above notification procedures will result in contractors loss of right to cost or schedule impacts.
- 2.0.12 Each Prime Trade Contractor is responsible for the completion and submittal of daily reports, schedule updates (for their own scope of work, to show compliance with overall project schedule), and certified payroll. Current complete insurance certificates complying with the specified requirements are required to be delivered to the District prior to the start of work and to be maintained throughout the duration of work.
- 2.0.13 Requested modifications to the contract documents due to Prime Trade Contractor's errors and omissions or per the requests by Prime Trade Contractor may require additional Architectural, Engineering, Consultant, and Inspection services that may result in additional costs to the requesting Prime Trade Contractor.
- 2.0.14 Procurement of business licenses as needed.

- 2.0.15 Compliance with regulatory agency, trade organization, and governing body requirements having jurisdiction over own work.
- 2.0.16 All Prime Trade Contractors are responsible for any and all permits required by local authorities for all on and off site work including costs and coordination with local authorities having jurisdiction required to complete work.
- 2.0.17 Safety requirements for own work, in compliance with most recent OSHA regulations (including **Respirable Crystalline Silica standard** that went into effect in September 2017) and in cooperation with Project Zero Harm Program and Prime Trade Contractor's Safety Program.
- 2.0.18 Hardhats, safety or steel toed boots, safety glasses, safety vests, gloves and long pants are required for all personnel at all times during construction of the Project regardless of work activity. Failure to comply with Safety Regulations will be grounds for removal of personnel from the jobsite.
- 2.0.19 Compliance with Project Health and Safety Plan, which is included in the contract documents. Failure to comply will be grounds for removal of personnel and/or contractor from the jobsite.
- 2.0.20 All Prime Trade Contractors are responsible for furnishing, installing and maintaining impalement guards on all stakes, anchor bolts, rebar or any items which could be an impalement hazard that is part of its own scope of work.
- 2.0.21 All Prime Trade Contractors are responsible for all impalement guards on all pipes and conduits protruding through slabs and footings as soon as they are placed and maintained until walls are completed around them.
- 2.0.22 All Prime Trade Contractors are responsible for floor hole protection per OSHA standards including but not limited to securing, labeling, and maintenance.
- 2.0.23 All Prime Trade Contractors responsible for OSHA compliant engineered fall protection and fall protection tie off anchorage points for their own scope of work.
- 2.0.24 Flammable products must be continually stored per OSHA regulations.
- 2.0.25 Hazardous material containment required for any hazardous materials stored on site. (i.e. Fuel, oil, etc.).
- 2.0.26 No radios or other music/news generating devices of any kind are allowed on this project.
- 2.0.27 Compliance with regulatory agencies i.e. Cal/OSHA, Fed/OSHA, trade organization, and governing body requirements having jurisdiction over own work. In the event of conflicting regulations the more stringent shall take precedence.
- 2.0.28 **Job Hazard Analysis (JHA) must be submitted to and approved by Construction Manager prior to commencement of work. Any new personnel that start work on this project must review and sign a log stating that they have reviewed the approved PTP's and JHA's.**
- 2.0.29 **All jobsite foremen and site supervisors will be required to complete the ZERO HARM SITE SAFETY and HEALTH Orientation prior to the commencement of work. This will be a one day training. All site foreman/supervisors to be OSHA 10 certified.**
- 2.0.30 **All trades to perform weekly safety meetings and submit safety meeting minutes and sign in sheet to Construction Manager upon completion of each meeting.**

- 2.0.31 Pre-Task Meetings will be conducted with each Prime Trade Contractor and the Construction Manager, Inspector/Owner a minimum two weeks prior to the start of the task/phase. Prime Trade Contractors Project Manager and Foreman/Superintendent will be required to attend and to provide, information concerning JHA, Prime Trade Contractor planned safety measures, employee safety training certificates, planned safety measure to be taken with other trades, inspection access and requirements, anticipated crew size, equipment requirements and safety inspection records, schedule and work hours, submittal and material procurement status, etc.
- 2.0.32 There will also be Task meeting with the Trade personnel that will be performing the task when they start the task. This meeting is to insure that all safety procedures are being followed, the specified materials are being used, and the procedures for quality are being utilized as agreed to during the Pre-Task Meeting.
- 2.0.33 Provide fire extinguishers for own work per OSHA regulations. This is in addition to fire extinguishers provided for general site safety
- 2.0.34 Prime Trade Contractor to comply with all ordinances regarding parking, hours of work, and routing of delivery trucks to the project site. Hours of work shall be from 07:00 am to 5:00 pm Monday through Saturday. Trades must seek written approval from the Construction Manager prior to start of work, if a deviation is desired, from the above times.
- 2.0.35 Daily clean-up of own debris and removal of same from jobsite, **including dumpsters** and fees as necessary. Jobsite to be kept in a "broom-swept" "clean as you go" condition at all times. Any on site storage of debris will only be allowed in approved metal containers to be covered at the end of each day and prior to and during rain events.
- 2.0.36 Each Prime Trade Contractor is responsible for cleanup of own work. In addition, while completing onsite work, will provide **one qualified laborer for four hours, once a week** for a joint overall clean-up of site and/or miscellaneous labor as directed by Construction Manager.
- 2.0.37 **Due to safety reasons, upon failure by Contractor to provide sufficient cleanup, Construction Manager will direct the cleanup and assess all costs against the Contractor's Contract, due to safety regulations, without 48 hour or 2 day notice.**
- 2.0.38 All Prime Trade Contractors are responsible for working in a clean and uncluttered area. Any crew found to be working in a cluttered and dangerous area will be removed from the project for the day.
- 2.0.39 Responsibility for storage and security of own materials and/or equipment located on and off jobsite property. Location of staging area to be determined/ approved by Construction Manager. Own work shed, yard, lighting and security fence if required for storage. Provide relocation of staging areas as necessary due to Construction Progress and as directed by Construction Manager. Any materials stored off site must be in a bonded warehouse and inspected by the IOR in order to receive payment for said material.
- 2.0.40 All materials must be stored off the ground in an organized manner on pallets, dunnage, and under constant cover. All stored material must comply with SWPPP, State and local regulations.
- 2.0.41 Each Prime Trade Contractor shall provide staging, false work and hoisting for own work.
- 2.0.42 Each Prime Trade Contractor is responsible for coordination of all work within own scope and with all other Bid Packages for a complete job. Prime Trade Contractor shall "know the work" to be performed and communicate with associated Prime Trade Contractors and Construction Manager to ensure timely installation of work to comply with the

schedule of the work scope in progress.

- 2.0.43 Protection and cleaning of own work including barricades, coverage, masking, etc., for duration of project, until project completion and acceptance by owner.
- 2.0.44 **Coordination and protection of own work with other trades. All damage to Prime Trade Contractor's work must be identified and agreed to in writing by damaging Prime Trade Contractor(s) at time of occurrence of damage in order for damaged Prime Trade Contractor(s) to request compensation for correction of such damage. Change orders for corrective work will be processed only if damage is agreed upon with signatures by all participating Prime Trade Contractors (damaging and damaged). Construction Manager and/or District will not be responsible for any costs other than those caused by district staff and/or vendors.**
- 2.0.45 Prime Trade Contractor has reviewed the project and is aware of existing conditions regardless of attendance of preconstruction conferences or depiction of existing conditions on contract documents. Prime Trade Contractor has included funds to deal with these existing conditions in Prime Trade Contractor's base bid.
- 2.0.46 Responsibility for environmental conditions (i.e. temperature, moisture, etc.) affecting own work. Weather damaged goods will be subject to rejection.
- 2.0.47 Provide one qualified English-speaking/Competent Superintendent or one lead foreman for the duration of own work on project, including punch list corrections at completion of project. Foreman must be on-site when work is being performed. Superintendent/Foreman may not be changed without Construction Manager's approval. Emergency after hours phone # must be provided to Construction Manager.
- 2.0.48 Each Prime Trade Contractor shall be responsible for complying with the Construction Manager's project schedule, particularly as it pertains to staffing, and the ordering, fabrication, delivery of all materials and move-ons to the job site. Each Prime Trade Contractor shall be responsible in recognizing that this is a high priority project for the District, and that it shall require special priority, coordination, and management to maintain the District's project schedule.
- 2.0.49 Each Prime Trade Contractor shall be responsible for Move-ons to comply with the project schedule.
- 2.0.50 Each Prime Trade Contractor shall be responsible for prompt correction of any deficiencies.
- 2.0.51 **Each Prime Trade Contractor shall provide applicable payment and performance bonds within (5) days of receipt of notification of award.**
- 2.0.52 Each Prime Trade Contractor shall provide scheduling information within (10) days of receipt of Notice to Proceed, and forward to Construction Manager.
- 2.0.53 **Prime Trade Contractors shall be responsible for costs for Re-inspections due to failure of Contractor to notify Construction Manager 48 hours prior to canceling an inspection, re-inspection caused by the Prime Trade Contractors failure to comply with the plans and specifications (including failure of the test), and additional inspection costs to accommodate contractor initiated changes in the work for benefit of contractor. The District will only pay for the initial inspection.**
- 2.0.54 Provide, maintain and remove all scaffolding required for own scope of work. All scaffolding shall be OSHA compliant at all times. In addition to OSHA standards, all scaffolds must be toe boarded 100% of the time. Contractor shall have a certified scaffolding "Competent Person" on site at all times during scaffold use. The Competent Person must perform daily inspections of all fixed and rolling scaffold. Documentation

must be submitted daily.

- 2.0.55 All trades performing activities, requiring a Competent Person, must perform daily inspections with proper documentation that is submitted to the CM daily.
- 2.0.56 Each Prime Trade Contractor will be responsible for power and task specific lighting for own work including extension cords. Temporary electrical power distribution (spider boxes) and general lighting in and around the structures will be provided by Electrical Prime Trade Contractor for use by others. Each Prime Trade Contractor is responsible for temporary power, portable lighting and extension cords necessary to complete work that is not within 100' of buildings.
- 2.0.57 Each Prime Trade Contractor will be **responsible for providing portable sanitary facilities** for its workers including no less than 1 portable toilet per every 10 workers, and 1 portable handwashing station for every 20 workers, and one trashcan with lid for each handwashing station. Toilets and sinks to be pumped, cleaned, stocked, refilled, maintained, and trash dumped a minimum of once per work. Prime Trade Contractor will immediately correct any unsanitary conditions at portable sanitary facilities if directed by Construction Manager.
- 2.0.58 **Construction water will be provided at District expense through water meters at hydrants along Horse Ranch Creek Road. Prime Trade Contractor will be responsible for connection from multi-connection water distribution systems that will be provided by the plumbing Prime Trade Contractor.**
- 2.0.59 **Plumbing Prime Trade Contractor responsible for provision of a multi-connection water distribution system attached to existing system at two hydrants per the Construction Manager.**
- 2.0.60 Dust control to be implemented and maintained on the entire site by all Prime Trade Contractors in compliance with all local codes and agency requirements. All Prime Trade Contractors responsible for dust control associated with own work. All Prime Trade Contractors to comply with project SWPPP.
- 2.0.61 All Prime Trade Contractors to include traffic control, traffic control plan creation that comply with State and local regulations and implementation, flagman or barricades including trench plates and/or temporary asphalt patching for own work and accessibility for other trades to the site as required. Each Prime Trade Contractor shall provide proper notification to the city and governing agencies prior to performing work in public right of ways. All deliveries and traffic control/safety plans that occur on campus must be approved by the District prior to any commencement of said work.
- 2.0.62 Provide trench plates as required for own work in order to maintain constant access to all areas for other Prime Trade Contractors on site.
- 2.0.63 No company banners or signage to be displayed on site without permission of the owner with exception of painted trailers.
- 2.0.64 All utilities that serve existing building must be kept in service at all times, if they need to be shut down for cross-overs or tie-ins, 48 hour notice must be given to the Construction Manager.
- 2.0.65 Cleaning of streets, driveways, etc., as required for own operations and to comply with project SWPPP.
- 2.0.66 Pre-installation coordination meetings will be held for each scope of construction and will be the responsibility of the associated Prime Trade Contractor.
- 2.0.67 Each Prime Trade Contractor shall attend the pre-construction, jobsite coordination,

construction, and scheduling meetings as requested by Construction Manager. Pre-construction meetings must be attended by both the Prime Trade Contractor Project Manager and Superintendent/Foreman.

- 2.0.68 **Each Prime Trade Contractor shall participate in special scheduling meetings, as requested, to accommodate the preparation and updating of the project's CPM schedule, Pull Planning Schedule and the submission of related data as may be requested.**
- 2.0.69 All Prime Trade Contractors responsible for providing all labor, plant, material, equipment, and maintenance for own work.
- 2.0.70 Responsibility for environmental conditions affecting own work including (SWPPP) installation and maintenance that pertains to own work.
- 2.0.71 Storm Water Pollution control as required for own scope of work, including conformance with erosion control plan and protection of own work as applies. All Prime Trade Contractors responsible for repair and replacement of SWPPP control measures disturbed by own operations. Conformance with below requirements, for all trades, "SWPPP – Implementation, Maintenance and Inspection"
- 2.0.72 Each Prime Trade Contractor is responsible for implementation of applicable Best Management Practices within the Storm Water Pollution Prevention Plan for own work including storage, fueling, dust control, water quality, waste disposal, dewatering, street cleaning, concrete washouts and removals etc.
- 2.0.73 Each Prime Trade Contractors are responsible for repair and replacement of any installed SWPPP materials removed or damaged by Prime Trade Contractor's own work.
- 2.0.74 **Each Prime Trade Contractor whose scope of work modifies the SWPPP plan in place due to means and methods, in any way, are RESPONSIBLE to pay the designated Qualified SWPPP Developer to modify/amend the existing SWPPP plan, implement, maintain, monitor and inspect BMP's to comply with SWPPP requirements for the duration of their particular scope, or until change condition is complete.**
- 2.0.75 Provide and maintain dewatering operations for own work as required to eliminate ponding of water immediately after rainfall has occurred in order to allow these areas to dry out as quickly as possible. Dewatering to be done by whatever means necessary, including mechanical pumps, siphons, etc. Any SWPPP measures defeated or removed in the dewatering process shall be replaced per the posted SWPPP plan by the removing Contractor. Dewatering for grading operation, trenches, footings, pits, slab areas, etc., shall be done immediately by affected Prime Trade Contractor. Continuous dewatering of site due to groundwater infiltration is included in Grading and Earthwork Bid Package.
- 2.0.76 Prime Trade Contractors are to maintain all work activities within the limits of the construction boundary. Damage to adjacent finished surfaces will be the responsibility of the Prime Trade Contractor to repair to like new condition.
- 2.0.77 **Each Prime Trade Contractor is responsible for all loading, hauling, dumping, and compaction of clean spoils and soils generated by own work to the extreme southern end of the project site at approximately the high voltage overhead power lines. Each Prime Trade Contractor is responsible for tarp or heavy polyethylene and sandbags covering stockpile soils, and maintenance of same, as required by SWPPP compliance regulations. Each Prime Trade Contractor to remove and dispose of tarp, heavy polyethylene, sandbags, hay bales, required to cover own stockpiled soils, as necessary for export and prior to project completion.**
- 2.0.78 **Import backfill material if required due to unsuitability of onsite materials.**

(Approval of imported material will be required). Prime Trade Contractor to find, secure, obtain, and maintain, a source of import materials in quantities necessary to fulfill the requirements of the project in advance of start of work. Coordination of the testing of imported materials is the responsibility of this Prime Trade Contractor.

- 2.0.79 All required excavation for own work.
- 2.0.80 All trenching, backfill, compaction, bedding, etc., as required for own work.
- 2.0.81 Each Prime Trade Contractor is responsible for restoring all grades/sub-grades to elevation, condition, and compaction as received at time of acceptance of grade/sub-grade.
- 2.0.82 Promptly notify, in writing, associated Prime Trade Contractor and Construction Manager of any unsuitable grade/subgrade conditions. Commencement of installation will imply the acceptance of the grade/subgrade condition.
- 2.0.83 **Survey for own scope of work is to be provided by Prime Trade Contractor.**
- 2.0.84 Responsibility for protection of stakes placed for own work. Any additional staking or survey required, that is not identified in the contract documents will be the responsibility of the requesting Prime Trade Contractor. Errors and omissions insurance will be required for all survey operations. Once stakes are installed, it is the responsibility of each Prime Trade Contractor to protect their requested staking. All costs associated with re-staking shall be the responsibility of the requesting Prime Trade Contractor.
- 2.0.85 Prime Trade Contractor to provide minimum 48 hour written notice required for soils testing or inspection.
- 2.0.86 All Prime Trade Contractors to provide concrete washouts for own concrete work. Concrete trucks to be washed out at an area designated by Construction Manager. Prime Trade Contractor to provide containment and is responsible for removal of all washout debris to a legal, off-site disposal location. Containment must comply with all SWPPP requirements. Repair any damage caused by concrete truck washouts, including cleaning of storm drains and catch basins. Provide signage (4'x8' minimum) reading "Concrete Washout Area". Prime Trade Contractor to provide water for washouts.
- 2.0.87 There may be no washing of any vehicle exteriors on site at any time.
- 2.0.88 **Each Prime Trade Contractor to provide competent person onsite during all concrete pours to monitor placement of own work and ensure components such as but not limited to sleeves, drains, conduits, pipes, embeds, anchor bolts in concrete are not disturbed and are at proper elevation and configuration as required for future use.**
- 2.0.89 Provide (48) hours notice of all concrete pours to adjacent contractors, IOR, and Construction Manager. Coordination of batch plant inspections.
- 2.0.90 Each Prime Trade Contractor to provide all slurry and thrust blocks required for own work.
- 2.0.91 Each Prime Trade Contractor is responsible for safe off existing conditions corresponding to Prime Trade Contractor's own scope of work (electrical, plumbing, mechanical, etc.) prior to beginning of demolition, grading and trenching operations.
- 2.0.92 Layout and field measurements for own work.
- 2.0.93 Each Contractor is responsible to coordinate all backing, sleeving, support, head outs, wall or ceiling openings, and embed requirements for own work with related Prime Trade

Contractors prior to installation operations such as wall framing, masonry operations, and concrete operations. Failure to coordinate and confirm installation of backing, sleeving, support, head outs, wall or ceiling openings and embed requirements for own work with applicable Prime Trade Contractor transfers backing responsibility including all costs associated with rework, removal or replacement to contractor requiring backing.

- 2.0.94 Layout and install in own work all sleeves, embeds, anchor bolts, hold down bolts, etc., including templates, required for the work of other trades - framing, CMU, CIP concrete, metal decking, steel, MEP, etc. - as required and provided by others trades. Coordination with other trades included.
- 2.0.95 Coring, cutting, and drilling for own penetrations in existing structures/conditions as required. This includes x-raying existing structure if required by project documents.
- 2.0.96 When attaching to existing structures/surfaces, all Prime Trade Contractors are required to prepare surfaces of existing structures, as well as all bolting, through bolting, wedge anchors, attachment, for same.
- 2.0.97 Installation or coordination of Owner Furnished Owner Installed (OFOI) or Owner Furnished Contractor Installed (OFCI) items in adherence of the project schedule as indicated within the plans and specifications.
- 2.0.98 All welding required for own work. Submit welder's certifications.
- 2.0.99 All Prime Trade Contractors to include the furnishing of all required weldable reinforcing bars for their own scopes of work. Weldable reinforcing bars to be installed by structural steel Prime Trade Contractor with approved welding procedures.
- 2.0.100 Identification of own work as required.
- 2.0.101 All testing, cleaning, inspection, balancing and maintenance of own work until Owner's acceptance.
- 2.0.102 Dissimilar material and corrosion protection.
- 2.0.103 Each Prime Trade Contractor shall provide fire resistive joint systems as required for own work.
- 2.0.104 **All Mechanical, Electrical, Plumbing and other trade penetrations through roof are the responsibility of associated Prime Trade Contractor with regards to waterproofing, roof jacks, flashing, and pad covers, as required per contract documents including installation of the sealants around roof penetration escutcheons utilized for own work that were installed by Roofing and Sheet Metal Bid Package.**
- 2.0.105 **Provide and maintain all shoring as required for own work including but not limited to engineered systems and plans that have been submitted and approved by the applicable agency including California PE stamp if required.**
- 2.0.106 All patching back of existing conditions disturbed by contractor's work. Includes AC and concrete trench patching, planting, wall patching, etc.
- 2.0.107 All sealants for own work. Provide sealant at all dissimilar materials.
- 2.0.108 Fire stopping at own penetrations performed by a certified installer.
- 2.0.109 All required shimming for own work.
- 2.0.110 All Prime Trade Contractors will include reasonable minor demolition - above what is

specifically shown on contract documents – as required for access to perform own work.

- 2.0.111 All bid packages have all concrete work associated with or required for own work, unless specifically shown on the plans as cast in place concrete and specifically identified in this specification section as work to be provided by other bid packages.
- 2.0.112 Provide access panels as required for future maintenance of own work whether shown in the contract documents or not, including stainless steel access panels in tile locations. Coordinate with associated framing contractor for all backing requirements. Final locations are subject to Architect's acceptance.
- 2.0.113 All finishes per contract documents.
- 2.0.114 All low voltage wiring and controls associated with own work and per associated bid package.
- 2.0.115 **All Trade Packages responsible for required rough carpentry associated with own work – blocking under flooring systems and casework, plywood back boards, HVAC sleepers, etc. Includes all related hardware, miscellaneous appurtenances, fire rated lumber, etc. Note: This project does not have a separate bid package for rough carpentry, so Prime Trade Contractors must include in their bids all required rough carpentry required for or related to their scope of work.**
- 2.0.116 Final adjustment of own work upon completion of installation.
- 2.0.117 All Prime Trade Contractors are responsible for all layout within their scope of work including but not limited to the removal of all layout markings not removed during the construction process.
- 2.0.118 There will be **commissioning** meetings for MEP trades; Fire protection trades; and Elevator trades for the purpose of total building commissioning as well as HVAC commissioning. The Construction Manager, Commissioning Agent, and the District will coordinate these meetings and all parties pertaining to that specific meeting will be in attendance. Expect one meeting per month starting at the beginning of the project with two meetings per month during the last six months.
- 2.0.119 No catering trucks are allowed on campus or the project site unless approved by the Construction Manager.
- 2.0.120 72 hour notice must be given to Construction Manager to coordinate campus notice of work outside of perimeter fence.
- 2.0.121 All Prime Trade Contractors shall provide the Basic Services described within the project documents using its best professional skill and judgment, acting with due care and in accordance with professional standards of care, the terms hereof and applicable law, code, rule or regulation. The Prime Trade Contractor's services hereunder shall be provided and completed promptly and in such a manner as to avoid hindrance, interruption or delay to the orderly progress and timely completion of their scope of work and the project as a whole.
- 2.0.122 All cementitious materials, plaster, and mortar are considered a contaminant and will be treated as an environmental hazardous spill on this project. Install tarp or heavy duty plastic under all plaster operations and scaffolds to a minimum of 10 feet from plaster and/or equipment. Remove and dispose of all excess plaster/materials on ground immediately per hazardous material handling regulations. Rake clean and return grade to original state.
- 2.0.123 All Prime Trade Contractors have reviewed the project documents and has, by means of its submittal of a bid price, determined that the project documents are free of errors,



omissions, conflicts, or other deficiencies so that the Prime Trade Contractor can construct the project as depicted without delays, disruptions, or additional costs resulting from errors, omissions, conflicts, or other deficiencies in the project documents.

- 2.0.124 Work being done in existing building is an enclosed space, use of gasoline engines is restricted and may require specialized ventilation that is the responsibility of the Prime Trade Contractor.
- 2.0.125 Any hazardous materials encountered during the course of construction shall be brought to the attention of the Construction Manager for coordination and proper removal.
- 2.0.126 **Each Prime Trade Contractor shall provide for acoustic sealant to seal all penetrations created by installation of own work.**

3. BID PACKAGES (SPECIFIC)

PART 3A: CM-17-18-01-NEC-01-D North Education Center Paving, Site Concrete and Improvements

- 3.1 All base and asphalt paving; parking lot and road striping and signage and wheelstops; all site concrete including flatwork, sidewalks, curbs/gutters, medians, equipment pads, and electrical/utility yard slabs, including all associated reinforcing steel and embedded items; permeable paving and pavers; chain link fencing and gates; entrance gates; unreinforced block planters including foundations; steel canopy at exterior lab equipment area including foundations; site furnishings as required by the Contract Documents, COMPLETE, including but not limited to:

DIVISION 10 - SPECIALTIES

SECTION 10 14 53 - PARKING AREA SIGNS

DIVISION 12 - FURNISHINGS

SECTION 12 93 00 – SITE FURNISHINGS

DIVISION 32 - EXTERIOR IMPROVEMENTS

- SECTION 32 12 16 – ASPHALTIC CONCRETE PAVING
- SECTION 32 12 17 – ASPHALTIC CONCRETE RAMPS
- SECTION 32 13 13 – SITEWORK CONCRETE
- SECTION 32 13 13 – CONCRETE WALKS
- SECTION 32 13 14 – PORTLAND CEMENT CONCRETE PAVING
- SECTION 32 13 14.10 – PERVIOUS CONCRETE PAVEMENT
- SECTION 32 14 13 – PRECAST UNIT PAVERS
- SECTION 32 17 23 - PAVEMENT MARKING
- SECTION 32 17 26 - TACTILE/DETECTABLE WARNING SURFACE TILE
- SECTION 32 31 13 - FENCES AND GATES
- SECTION 32 32 23 – SEGMENTED BLOCK RETAINING WALL

AS APPLICABLE:

DIVISION 31 - EARTHWORK

SECTION 31 10 00 – GREEN SITE CLEARING
 SECTION 31 22 00.10 – EARTHWORK
 SECTION 31 22 01 – LANDSCAPE FINISH GRADING
 SECTION 31 23 15 – EARTHWORK - PORTABLES
 SECTION 31 23 16 – EXCAVATION
 SECTION 31 23 17 – TRENCHING
 SECTION 31 23 19 – DEWATERING
 SECTION 31 23 23 – BACKFILLING
 SECTION 21 23 26 – STABILIZED SUBSURFACE BASE

- 3.2 All site hardscape, concrete, and asphalt and permeable paving at Interim Village including but not limited to all shown on Phase 2 sheet A1.22.2.
- 3.3 All sidewalks, curbs, gutters, medians, mow strips, ramps, swales, cross gutters, driveways, dikes, "maintenance walks" (typical of Detail E on Phase 2 sheet L-5.1), truncated domes, and other concrete site improvements per (but not limited to) Phase 2 Civil Sheets and Landscape Construction Plans L-1.1 through L-1.12 and associated details including all jointing as required.
- 3.4 All chain link fencing and gates including but not limited to Equipment Yard (sheet A1.23.2), Maintenance Yard (sheet A1.24.2), and Electrical Equipment Yard near Lot D (sheet A1.25.2), including wind screen as required.
- 3.5 All vehicular/Traffic Control Gates at Campus Entrances, including all foundations, embeds, hardware, and finishes as required.
- 3.6 All equipment pads in Equipment Yard (Phase 4 sheet A.1.21.4), electrical housekeeping pads, pads at backflow/valve assemblies, parking kiosk pads, and other ancillary MEP equipment and housekeeping concrete pads as required, including re-mobilizations as required. Excludes site light pole bases by others.
- 3.7 All bollards as shown, including foundations and finishes.
- 3.8 All striping and parking lot/road signage as indicated, complete, including all posts, foundations, coring, pour rock, caulking, embeds, and any other work or accessories required for a complete installation.
- 3.9 Raised block planters per Detail H on Phase 2 sheet L-5.1.
- 3.10 Interlocking concrete pavers per Detail I on Phase 2 sheet L-5.1 incl filter fabric and base.
- 3.11 Structural steel and metal deck equipment canopy (Phase 4 sheet A1.21.4), complete, including all foundations, embeds, reinforcing steel, and finishes.
- 3.12 Site furnishings, including but not limited to Picnic Tables at Interim Village per Phase 2 Sheet L-1.12.
- 3.13 After final completion of all concrete and paving work, provide one complete street sweeping operation just prior to overall project completion.
- 3.14 Provide and install all concrete reinforcing work indicated by all contract documents, including but not limited to architectural and structural drawings and concrete reinforcing specifications. All reinforcing steel bar, dowels, wire mesh, welded wire fabric and accessories, spacing, wiring, shop and field fabrication and installation at the site as required for complete reinforcing for all project cast in place concrete work as indicated by the contract documents, including transportation, hoisting, installation, and coordination.
- 3.15 All transportation, plant, appliances, tools, supervision, services, including formwork, pumping, placing, finishing, curing, and material necessary to perform the scope of work to fully complete the cast-in-place concrete requirements of the project.
- 3.16 Provide concrete pumps for own work. Provide complete traffic control for concrete pump and trucks including cones, signs and flagmen as needed.
- 3.17 Concrete trucks to be washed out in approved washout containers provided by this Contractor. This Contractor is responsible for removal of washout debris to a legal dumpsite offsite.
- 3.18 May require revisions to pour sequencing as necessary.
- 3.19 Any overtime necessary to complete slab placement and finishing. Provide light stands for

- after dark work as needed.
- 3.20 Furnish and set screeds to proper elevations, monitor screeds during concrete placement.
- 3.21 Concrete tolerance not to exceed the specified requirements in any direction.
- 3.22 Sawcutting of control joints, and decorative scoring/joints at slabs (within 24 hours) and where required by contract documents.
- 3.23 Provide and install concrete accessories such as construction joints, expansion joint material, chamfer strips, etc. as required for a complete installation.
- 3.24 No dry concrete, block or plaster cutting or coring is permitted on this project. Only wet methods will be allowed.
- 3.25 Provide all curing and sealing components as required for own work per plans and specifications.
- 3.26 Caulk all joints adjacent to concrete including expansion control joints.
- 3.27 Obtain proper concrete moisture content as specified in the contract documents.
- 3.28 Sack and patch as necessary to produce a neat, uniform appearance ready to receive sealant, waterproofing, plaster or other finishes.
- 3.29 Grind, patch, plug and provide corrective work of deficiencies due to concrete placement and finishing as necessary to bring concrete surfaces to requirements of contract documents. If not specified all holes ¼" or greater shall be filled and sacked.
- 3.30 Remove any nails, wires, etc., which remain in the concrete after removal of formwork and which may generate rust or stains on exposed concrete surfaces. If necessary, grind out embedded item sufficiently beyond face of exposed concrete and patch with suitable material.
- 3.31 Contractor is responsible for all repair and/or replacement of concrete that has been rejected due to material failure, location, error or finished appearance and all such related costs are included in this subcontract. All such proposed methods of repair will be reviewed and approved by the Architect and/or Balfour Beatty prior to the replacement method being installed.
- 3.32 Provide holes drilled in own formwork for other trade's penetrations (MEP conduits, etc.). Layout to be provided by other Contractor requiring penetration.
- 3.33 Monitor all formwork during concrete placement and provide immediate corrective measures required by form deflection, leakage, etc.
- 3.34 This Contractor will provide and install all structural steel and embedded items to be installed in own work. Includes, but is not limited to, all anchor bolts, sill bolts, embeds, column base plates, guardrail sleeves, bollards, gate posts, etc. Grout and/or drypack for base plates shall be installed by this contractor.
- 3.35 Notify Balfour Beatty a minimum of 72 hours (not including weekends and holidays) in advance of concrete pour of any embedded items.
- 3.36 Ensure proper concrete consolidation at embeds, sleeves, inserts, etc. without damaging or dislodging them.
- 3.37 Clean up required due to concrete placement. Remove concrete splatter from rebar and other adjacent finishes.
- 3.38 Clean-up hoses at an area designated by Project Superintendent. Pump washout to occur at concrete batch plant or other off-site location.
- 3.39 Upon cleaning of ready mix trucks, pumps etc., all material shall be removed from site same day as placed.
- 3.40 Contractor shall be responsible for preparation before concrete placing including blowing off and final cleaning of embeds, reinforcing, formwork, etc.
- 3.41 Obtain approval for finish samples prior to concrete placement.
- 3.42 Pull reinforcing and/or mesh into slabs during concrete placement when necessary.
- 3.43 Relocation of rebar due to the placing of embeds.
- 3.44 Provide, locate and install spirals, bolsters, chairs, spacers, stirrups, dobies, ties, cages, etc, and other devices for spacing, supporting and fastening reinforcing steel in place.
- 3.45 Provide binding and straightening of existing rebar left exposed as specified or required.
- 3.46 Monitor reinforcing steel during concrete placement and reset any rebar that is moved or dislodged. This Contractor will provide labor and material to repair any rework required during concrete placement at no additional cost.
- 3.47 Provide and coordinate with the Project Superintendent all splices and laps at construction, control and expansion cold joints, including those required for the concrete/formwork sequence of concrete pours and provide necessary reinforcing steel.

- 3.48 Provide guy wire, support cages, and/or bracing for reinforcing steel as required in order to prevent movement prior to and during concrete placing and finishing.
- 3.49 Contractor to provide and install additional reinforcing and splices required at blockouts, penetrations, embeds, construction joints, anchors, sleeves, etc. as shown on drawings, and as required by field conditions and phasing of work.
- 3.50 Provide protection measures to maintain Cal-OSHA approved safety where reinforcing dowels are exposed e.g. wood tops and or oversized caps (bend over only where allowed).
- 3.51 Provide, place, and compact all base material for own work, as required by contract documents.
- 3.52 Contractor will be responsible for all required excavation of Contractor's work, as well as all required backfill against own work, so that grade adjacent to work is restored to the state at which it was received by this contractor. Backfill to include soil conditioning and compaction as required by the soils report, earthwork specifications and soils inspector.
- 3.53 Contractor will be responsible for all required dewatering for own work due to environmental/climactic conditions.
- 3.54 Provide all scarification, saturation and recompaction of sub grades as required prior to concrete or subgrade base placement.
- 3.55 Provide all fine grading required for own work from level grade received at +/- 0.1'.
- 3.56 Strict compliance with Project Construction Schedule, particularly as it pertains to the timely submittal of shop drawings, procurement, fabrication, delivery and installation of concrete work to the jobsite. **Completion of all work at the Interim Village is Critical Path of the project.**
- 3.57 Provide certified mill test reports, Batch Plant inspections, and samples for testing as required per plans and specifications.
- 3.58 Comply with all applicable ADA standards. If a discrepancy exists with ADA over any elevation given on the Contract drawings, immediately bring to the Construction Manager's attention before installation proceeds. Failure to do so may require removal and replacement of said work, at no cost to the owner.
- 3.59 Provide close coordination and attention to detail between design documents and between required work of other Contractors during the submittal process and all phases of construction. Conflicts between design documents, and required work of other Contractors, as well as proposed resolution shall be identified in writing within 30 days of award of contract so as not to delay the submission of submittals and shop drawings.
- 3.60 All structural steel; miscellaneous, ornamental and architectural steel and metal work, complete, to include all anchor bolts, nuts, washers, columns, girders, beams, cross bracing, tube steel, channels, angles, machine bolts, and all other structural steel components required by the contract documents. All cutting, shaping, welding by certified welders, fasteners, adhesives, steel to steel connections and any accessories required for a complete installation and system.
- 3.61 All welding and bolting of own work as required. Provide welders certification and procedures per AWS and identification of welded connections with AWS welding symbols. All welding must be adequate and compliant to all codes.
- 3.62 All plumbing and aligning of all steel components.
- 3.63 All hot dip galvanizing, prime painting, shop painting, and all finish coating to all steel as required. Field touch up of priming, painting and galvanizing as required after installation to maintain complete finish coverage on installed product.
- 3.64 Provide one leveling nut per anchor bolt template that has been surveyed at the design concrete foundation elevation. Spray with leveling nut orange color.
- 3.65 All expansion bolt, screw type and epoxy adhesive anchors required for own work.
- 3.66 Provide isolation coatings and materials between dissimilar metals in order to prevent electrolysis.
- 3.67 Provide shop drawings coordinated with architectural, structural, MEP, etc., drawings and requirements, as well as concrete requirements, which show dimensions and placement of all required penetrations, equipment layouts, platform sizes, connections, etc.
- 3.68 Cleaning of all grease, mill oil, dirt, or loose and flaky shop primer or any other deleterious material as required of any materials scheduled to receive paint or other finishes or are to be embedded in concrete or masonry.
- 3.69 Provide horizontal and vertical dimensioned layout plan for all FOB embed items.



- 3.70 Responsible for double checking placement of all anchor bolts, embeds and embedded templates for own work in concrete and masonry prior to concrete/grout pours.
- 3.71 Hoisting of own work.
- 3.72 Provide line-of-sight shielding as required to protect public during welding operations.
- 3.73 Provide and install all metal decking and accessories per contract documents.
- 3.74 Provide all metal decking finishes required by all contract documents, including but not limited to structural and architectural drawings and metal decking specifications.
- 3.75 Base Bid amount includes \$40,000 Allowance for 2 each entrance Monument Sign foundations and hardscape TBD.
- 3.76 Base Bid amount includes \$25,000 Allowance for additional Class 2 base to fill in any subgrade areas that do not comply with requirements of item 3.25 above.
- 3.77 Base Bid Amount includes \$200,000 Miscellaneous Owners Allowance.

PART 3B: CM-17-18-01-NEC-01-E North Education Center Laboratory Modulares

- 3.78 Complete interior build-out of 3 each prefabricated Science Modular buildings which arrive onsite from the manufacturing facility as “shells” with just exposed wall framing at exterior walls, plywood floors, and no ceilings. Plumbing and Electrical rough-in’s and Fire Sprinklers will be by others. This Scope includes all Laboratory casework and equipment; fume hoods and associated equipment and ductwork; all mechanical equipment, ductwork, controls, and appurtenances; all interior finishes including insulation, interior drywall/taping/finishing on exterior wall framing, all framing/drywall/taping/finishing on interior walls complete, interior doors/frames/hardware, signage, ceilings, paint, and flooring, COMPLETE, including but not limited to:

DIVISION 11 - EQUIPMENT

SECTION 11 53 10 – LABORATORY CASEWORK AND OTHER FURNISHINGS

SECTION 11 53 13 – FUME HOODS AND OTHER AIR CONTAINMENT UNITS

SECTION 11 53 43 – LABORATORY SERVICE FITTINGS AND FIXTURES

DIVISION 23 - HEATING, VENTILATION AND AIR CONDITIONING

SECTION 23 00 00 – GENERAL MECHANICAL REQUIREMENTS

SECTION 23 05 13 – COMMON MOTOR REQUIREMENTS FOR HVAC EQUIPMENT

SECTION 23 05 14 – VARIABLE FREQUENCY DRIVES

SECTION 23 05 53 – IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT

SECTION 23 05 92 – TESTING, ADJUSTING AND BALANCING FOR HVAC

SECTION 23 07 13 – DUCT INSULATION

SECTION 23 09 23 – DIRECT DIGITAL CONTROL SYSTEM AND INSTRUMENTATION FOR HVAC

SECTION 23 09 93 – SEQUENCE OF OPERATIONS FOR HVAC CONTROLS

SECTION 23 31 13 – METAL DUCTS

SECTION 23 33 00 – AIR DUCT ACCESSORIES

SECTION 23 34 16 – CENTRIFUGAL HVAC FANS

SECTION 23 37 13 – DIFFUSERS, REGISTERS AND GRILLES

SECTION 23 74 33 – DEDICATED OUTDOOR AIR UNITS

- 3.79 All work shown or required by M sheets and HVAC specifications, complete.
- 3.80 Seismic anchorage including engineering, bracing, vibration isolation, and insulation for own work as required per contract documents and governing codes.
- 3.81 Provide all equipment, ducting and piping acoustic lining and insulations as required.
- 3.82 Provide complete heating, ventilation, cooling systems including all equipment, acoustic linings, piping, VFD's, VAV boxes, above-ceiling and below-floor ducting, louvers, vents, ventilators, dampers, vanes, connectors, hardware, grilles, duct access doors, registers, fire smoke dampers and associated motors, pumps, finish material, etc.

- as required to meet the performance criteria specified and for a complete and operating HVAC system.
- 3.83 All testing, cleaning, inspection, balancing and maintenance of own work until Owner acceptance.
 - 3.84 Provide all flashing and sheet metal associated with own work, including flashing at roof and wall penetrations and roof jacks at own penetrations for equipment as required.
 - 3.85 Provide all pre-fabricated and field fabricated mechanical curbs, including insulation, flashing, sloping for curbs, supports, stands, equipment leveling, blocking, wood framing and seal strips for own equipment as required.
 - 3.86 All rough carpentry, wood sleepers, blocking, etc. for HVAC units and ducting.
 - 3.87 Provide all motors, power driven equipment and automatic control equipment and accessories for a complete system per plans and specification.
 - 3.88 Provide exhaust fans and power ventilators as required.
 - 3.89 Provide all diffusers, registers, dampers and grilles for own work.
 - 3.90 Provide one set of temporary air filters for each piece of equipment at systems start-up and one more set for each piece of equipment for installation as directed by the General Contractor prior to project turnover during the commissioning/start up process.
 - 3.91 Provide and install complete new set of air filters at project turnover.
 - 3.92 Install duct detectors, if applicable.
 - 3.93 Provide all sound attenuation devices and duct silencers, sound proofing/sealing at penetrations including sound testing per plans and specifications.
 - 3.94 Interface with fire and smoke alarm systems as required. Final connection to fire smoke damper by Electrician.
 - 3.95 Start up and commissioning for own equipment.
 - 3.96 All testing, cleaning, inspection, balancing and maintenance of own work until Owner acceptance
 - 3.97 All hoisting and handling of material and equipment.
 - 3.98 Labeling, marking, engraving and stenciling of own work as required.
 - 3.99 Provide Controls System per plans and specifications, including central and remote hardware, software, interconnecting wire, thermostats, control valves, dampers, operators, indicating devices, interface equipment, apparatus, and accessories required for a functional system. Includes all required electrical infrastructure for controls – cabling, wiring, conduit, trays, hangars, j-boxes, etc (Electrician to provide all line voltage for controls system per contract documents).
 - 3.100 Condensing units and fan coil units, complete, for IDF and MDF rooms per “M” sheets in Phase 3 (15 prefabricated modular units), including piping, condensate lines, pads, hanging, supports, anchorage, and penetrations.
 - 3.101 Furnish and install complete interior drywall on all walls, and metal stud framing on interior walls, finish per plans and specifications.
 - 3.102 Furnish and install all access panels, assuming 25 each for walls and 15 each for floors. Cutout, coordinate, and install with Electrical or Plumbing Contractors.
 - 3.103 Provide backing for other trades. Request and obtain such information from the other trades. Coordinate with other trades before framing installation begins. Notify Balfour Beatty in writing a minimum of 72 hours (not including weekends and holidays) in advance of installation of drywall.
 - 3.104 Furnish and install backing, blocking, framed openings and supports as required for the installation of light fixtures, electrical units, mechanical equipment, accessories, special equipment, roofing systems, access panels, etc.
 - 3.105 Furnish and install fire rated assemblies where required.
 - 3.106 Preparation of finish surfaces to receive own work per plans and specifications.
 - 3.107 Furnish and install all joint sealers, fire caulk and acoustical caulking as required.
 - 3.108 Protection of own work after installation. Replace damaged areas. Do not reuse broken or damage units.
 - 3.109 Allow for taping, finishing, and painting for one accent wall in each of the modular units (Both the 3 Science Modulares and the other 15 Modulares, excluding restrooms), assumed to run the longest dimension of each unit and full height. Assume the 15 Modular accent walls will require the removal of factory-installed tackable panels or marker boards.



- 3.110 Furnish and install all insulation at interior and exterior walls and in roof framing.
- 3.111 Coordinate ceiling hanger wires with other trades, for batt insulation below roof deck.
- 3.112 Furnish and install all adhesives, fasteners, tape, stick pins, wires, rods, wire mesh and accessories as required for a complete installation.

- 3.113 Furnish and install all ceilings work, including but not limited to ceiling grid, acoustical lay-in ceiling panels, acoustical tiles, hanger wires, hanger wires for light fixtures and air distribution devices, ceiling mounted devices, and HVAC ceiling registers as needed, compression struts, bracing, trim, wall angle, splices, devices, etc. for a complete installation per plans, specifications and code requirements.
- 3.114 Provide 5 cases of ceiling tiles for damage replacement during construction in addition to the attic stock required by the specifications.
- 3.115 Protection of own work after installation. Replace damaged areas. Do not reuse broken or damaged units.
- 3.116 It will be the responsibility of this bid package to cut or allow for the penetrations for all mechanical, fire sprinkler, electrical and plumbing penetrations through all ceilings and walls, as required. This bid package to provide for acoustic sealant to seal all penetrations through own work including penetrations for others work passing through own work.

- 3.117 Provide flooring systems TBD, likely carpet tiles and/or VCT or similar type installed with adhesives over plywood subfloor.

- 3.118 Furnish and install complete laboratory scope including casework, fumehoods, ductwork (including below floor), exhausted cabinets, backdraft and downdraft exhaust, laboratory fittings, laboratory tops and sinks, including but not limited to complete laboratory scope in Phase 4 "LF" drawings.
- 3.119 Electrical and plumbing rough-in will be by others, but this Contractor to coordinate layouts, penetrations, cut-outs in casework and tops, and all other coordination items in casework for a complete scope. Once lab casework, tops, and equipment are set by this Contractor to electrical and plumbing rough-in's by others, electrical and plumbing contractor will set finishes per their scope.
- 3.120 Eyewashes and safety showers including handrails and attachments. Rough-in plumbing and final connection will be by Plumbing contractor.
- 3.121 Knox Box(es), if required.
- 3.122 Fire extinguishers as shown in the 3 Science Modulares, including attachment and backing.
- 3.123 Signage complete in the 3 Science Modulares, as shown in Phase 4 drawings.
- 3.124 Assume 2 each 4'X8' marker boards in each of the 3 Science Modulares.
- 3.125 100 hours of miscellaneous labor for use at Owner and Construction Manager's discretion.
- 3.126 Final clean of ALL prefabricated modular units including 3 Science and 15 other Modulares.
- 3.127 Base Bid Amount includes \$100,000 Miscellaneous Owners Allowance.

PART 3C: CM-17-18-01-NEC-01-F North Education Center Landscaping

- 3.126 All irrigation, planting, landscape appurtenances, and decomposed granite paving as required by the Contract Documents, COMPLETE, including but not limited to:

DIVISION 32 - EXTERIOR IMPROVEMENTS

SECTION 32 12 43 – STABILIZED DECOMPOSED GRANITE PAVING

SECTION 32 80 00 – IRRIGATION SYSTEM

SECTION 32 93 00 – TREES, PLANTS AND GROUND COVERS

AS APPLICABLE:

DIVISION 31 - EARTHWORK

SECTION 31 10 00 – GREEN SITE CLEARING
 SECTION 31 22 00.10 – EARTHWORK
 SECTION 31 22 01 – LANDSCAPE FINISH GRADING
 SECTION 31 23 15 – EARTHWORK - PORTABLES
 SECTION 31 23 16 – EXCAVATION
 SECTION 31 23 17 – TRENCHING
 SECTION 31 23 19 – DEWATERING
 SECTION 31 23 23 – BACKFILLING
 SECTION 21 23 26 – STABILIZED SUBSURFACE BASE

- 3.127 All labor, material and equipment necessary to furnish and install all irrigation work complete, per plans and specifications, including but not limited to all backfill, compaction, bedding material, plant drains, offsets, controllers, backflow preventers, valves, control wiring, fittings, piping, sleeving, fittings, connections, sprinklers, valve boxes, and all miscellaneous and sundry accessories and items as required to obtain a complete operational system.
- 3.128 All labor, material and equipment necessary to furnish and install all planting and maintenance work complete, per plans and specifications, including but not limited to all finish grading, soil testing, amendments, soil preparation, root barriers, stakes, mound construction, turf, lawns, sod, plants, trees, shrubs, groundcover, mulch, hydro seeding, and other miscellaneous and sundry items as required to obtain a complete landscape system.
- 3.129 Planter boxes per Detail J on Phase 2 Sheet L-5.1.
- 3.130 Fill with planter soil all raised block planters (block planters by others) at Interim Village, including filter fabric.
- 3.131 Mounding as required by the contract documents.
- 3.132 Boulders per Detail G on Phase 2 Sheet L-5.1.
- 3.133 Stabilized decomposed granite path, complete, per Detail C on L-5.1 including subgrade preparation, compaction, filter fabric, and aluminum header board.
- 3.134 Additional 2 each spare sleeves at each location that irrigation crosses paved or hardscaped areas.
- 3.135 90-day landscape maintenance period
- 3.136 1 year warranty on trees greater than 5 gallon size.
- 3.137 Final water and power connection of irrigation system.
- 3.138 Provide all sleeving in place prior to hardscape.
- 3.139 Import backfill material as required due to unsuitability of material onsite and to creating mounding or other landscape features.
- 3.140 All tree drains complete per plans and specifications.
- 3.141 Certification of backflow preventer as required. Backflow cage as required.
- 3.142 Flushing and adjusting of all systems.
- 3.143 As-built documents, controller charts, maintenance manual, training and tools as required by plans and specifications for own work.
- 3.144 Replacement of planting, if necessary, due to faulty installation or premature failure of planting.
- 3.145 This bid package is responsible for the supply and placement of planter fill. Obtain approval from Architect for all planter fill.
- 3.146 Protection and maintenance of own work until end of maintenance period and acceptance.
- 3.147 All vaults, pull-boxes, clean-outs, manhole covers, etc. shall be set flush with finish surface. Coordinate setting of such items with affected trades (asphalt, concrete, etc.).
- 3.148 Upon completion of all landscape planting, wash & hose-off all exterior concrete and paving surfaces.
- 3.149 Base Bid amount includes \$30,000 Allowance for 2 each entrance Monument Sign irrigation, landscape, and boulders TBD.
- 3.150 Base Bid Amount includes \$50,000 Miscellaneous Owners Allowance.



SPECIFICATIONS – PLANS

Pursuant to all documents referenced in “ARTICLE 4 – COMPONENT PARTS OF THE CONTRACT” of the AGREEMENT, the scope of work for the Site Utilities and Laboratory Plumbing of the Palomar College North Education Center includes but is not limited to:

DSA NOT APPROVED NEC Drawings (PHASE 2 Dated 10/6/17)----- DOCUMENT 01305

DSA NOT APPROVED NEC Drawings (PHASE 3 Dated 10/6/17)----- DOCUMENT 01315

DSA NOT APPROVED NEC Drawings (PHASE 4 Dated 10/13/17)----- DOCUMENT 01320

Copies of all referenced documents can be found here:

<https://bbcus.egnyte.com/fl/Gmp3Kcjny>



SPECIFICATIONS - TECHNICAL SPECIFICATIONS

Pursuant to all documents referenced in “ARTICLE 4 – COMPONENT PARTS OF THE CONTRACT” of the AGREEMENT, the scope of work for the Site Utilities and Laboratory Plumbing of the Palomar College North Education Center includes but is not limited to:

DSA NOT APPROVED NEC Specs (PHASE 2 Dated 10/6/17)----- DOCUMENT 01430

DSA NOT APPROVED NEC Specs (PHASE 3 Dated 10/6/17)----- DOCUMENT 01435

DSA NOT APPROVED NEC Specs (PHASE 4 Dated 10/6/17)----- DOCUMENT 01440

Copies of all referenced documents can be found here:

<https://bbcus.egnyte.com/fl/Gmp3Kcjny>



SPECIFICATIONS – GENERAL CONDITIONS

Note: Those Articles/sections which are reflected/printed with/as a ~~strikethrough~~ are Articles/sections which the District is thereby indicating are not applicable to this specific bid/project.

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SPECIFICATIONS - GENERAL CONDITIONS

Article 1. DEFINITIONS

- a. The "District" and "Contractor" are those mentioned as such in the agreement. For convenience and brevity, these terms, as well as terms identifying other persons involved in the contract are treated throughout the contract documents as if they are of singular number and masculine gender.
- b. "Subcontractor", as used herein, includes those having a direct contract with Contractor and one who furnishes material worked to a special design according to plans and specifications of this work, but does not include one who merely furnishes material not so worked.
- c. "Surety" is the person, firm, or corporation, admitted as a California admitted surety that executes as surety the Contractor's Performance Bond and Payment Bond for Public Works.
- d. "Provide" shall include "provide complete in place", that is, "furnish and install".
- e. Words such as "indicated," "shown," "detailed," "noted," "scheduled," or words of similar meaning shall mean that reference is made to the drawings, unless otherwise noted. It shall be understood that the direction, designation, selection, or similar import of the Architect is intended, unless stated otherwise.
- f. "Work" of the Contractor or subcontractor includes labor or materials or both.
- g. The term "day" as used herein shall mean calendar day unless otherwise specifically designated.
- h. Where the words "equal," "equivalent," "satisfactory," "directed," "designated," "selected," "as required," and words of similar meaning are used, the written approval, selection, satisfaction, direction, or similar action of the Architect is required.
- i. Where the word "required" and words of similar meaning are used, it shall mean "as required to properly complete the work as required by the Architect," unless stated otherwise.
- j. The word "perform" shall be understood to mean that the Contractor, at Contractor's expense, shall perform all operations necessary to complete the work, including furnishing of necessary labor, tools, and equipment, and further including the furnishing and installing of materials that are indicated, specified, or required to complete such performance.
- k. Where the words "acceptable," "acceptance," or words of similar import are used, it shall be understood that the acceptance of the Architect and District is intended.
- l. Where shown, the words "includes," and "including," do not limit the work to the items following those words.

Article 2. DRAWINGS AND SPECIFICATIONS

- a. **Contract Documents.** Contract Documents are complementary, and what is called for by one shall be as binding as if called for by all. The intention of documents is to include all labor and materials, equipment, and transportation necessary for the proper execution of the work. Materials or work described in words which as applied have a well-known technical or trade meaning shall be deemed to refer to such recognized standards.
- b. **Interpretations.** Drawings and specifications are intended to be fully cooperative and to agree. However, if Contractor observes that drawings and specifications are in conflict, he shall promptly notify the architect in writing and any necessary changes shall be adjusted as provided in contract for changes in work. If such conflict arises, the following order of precedence shall generally apply, provided, however, that the order of precedence shall not be so rigidly interpreted as to affect an absurd or costly result:
 - 1. Special Conditions shall take precedence over General Conditions.
 - 2. Technical Specifications implement, in additional detail, the requirements of the General Conditions. In the event the conflict between the Technical Specifications and the General Conditions, the General Conditions shall take precedence.
 - 3. In the event of a conflict between the Technical Specifications and the drawings, the higher quality, higher quantity and most stringent requirements shall be deemed to apply and shall govern as to materials, workmanship, and installation procedures.
 - 4. With regard to drawings:

- (a) Figures govern over scaled dimensions;
 - (b) Larger details govern over general drawings;
 - (c) Addenda/change order drawings govern over contract drawings;
 - (d) Contract drawings govern over standard drawings.
- 5. Work not particularly shown or specified shall be the same as similar parts that are shown or specified.
- c. Misunderstanding of drawings and specifications shall be clarified by the architect, whose decisions shall be final.
- d. Standards, Rules, and Regulations referred to are recognized printed standards and shall be considered as one and a part of these specifications within limits specified.

Article 3. COPIES FURNISHED

Contractor will be furnished, free of charge, copies of drawings and specifications as set forth in Special Conditions. Additional copies may be obtained at cost of reproduction.

Article 4. OWNERSHIP OF DRAWINGS

All drawings, specifications, and copies thereof furnished by District are its property. They are not to be used on other work and with exception of signed contract sets, are to be returned to District on request at completion of work.

Article 5. DETAIL DRAWINGS AND INSTRUCTIONS

- a. In case of ambiguity, conflict, or lack of information, architect shall furnish with reasonable promptness additional instructions, by means of drawings or otherwise, necessary for proper execution of work. For purposes of this "reasonable promptness" shall mean as soon as possible in order for Contractor to execute the work. If the item is identified by the Contractor as a critical path item, "reasonable promptness" shall mean no more than five business days. All such drawings and instructions shall be consistent with contract documents, true developments thereof, and reasonably inferable therefrom.
- b. Work shall be executed in conformity therewith and Contractor shall do no work without proper drawings and instructions..

Article 6. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

- a. Project shall be commenced on or before the date stated in District's notice to the contractor to proceed and shall be completed by Contractor in the time specified in the Special Conditions. The District is under no obligation to consider early completion of the project and the contract completion date shall not be amended by the District's acceptance of the Contractor's proposed earlier completion date. Furthermore, Contractor shall not, under any circumstances receive additional compensation from the District for indirect, general, administrative or other forms of overhead costs for the period between the time of earlier completion proposed by the Contractor and the official contract completion date. If the work is not completed in accordance with the foregoing, it is understood that the District will suffer damage. It being impractical and infeasible to determine the amount of actual damage, it is agreed that Contractor shall pay to District as fixed and liquidated damages, and not as a penalty, the sum stipulated in the Special Conditions for each calendar day of delay until work is completed and accepted. Contractor and his/her surety shall be liable for the amount thereof. Any money due or to become due the Contractor may be retained to cover said liquidated damages. Should such money not be sufficient to cover said liquidated damages, District shall have the right to recover the balance from the Contractor or his/her sureties, who will pay said balance forthwith. Regardless of the time lines in the schedule submitted by Contractor, no delay claims shall be accepted by District unless the event or occurrence delays the completion of the Project beyond the contractual completion date.
- b. Contractor shall abide by District's determination of what constitutes inclement weather based upon the inspector or geotechnical engineer's recommendation. A bad weather day is a day when the weather causes unsafe work conditions or is unsuitable for work that should not be performed during inclement weather (i.e., exterior finishes). Time extensions shall only be granted when the work that is stopped during inclement weather is on the critical path of the Project schedule. The District's consideration of time extension requests will take into account situations when rain days exceed the normal frequency and amount based on the closest weather station data averaged over the past three years, for the period of this contract and when Contractor can show such rain days impact the critical path. Contractor shall be expected to perform all work he can possibly complete during inclement weather (i.e., interior work).

- c. **Extension of Time.** Contractor shall not be charged liquidated damages because of any delays in completion of work due to unforeseeable causes beyond the control and without the fault or negligence of Contractor including, but not restricted to: acts of God, or of public enemy, acts of Government, acts of District or anyone employed by it or acts of another Contractor in performance of a contract with District, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather or delays of subcontractors due to such causes. Contractor shall within five (5) days of beginning of any such delay (unless District grants a further period of time prior to date of final settlement of the contract) notify District in writing of causes of delay; thereupon District shall ascertain the facts and extent of delay and grant extension of time for completing work when, in its judgment, the findings of fact justify such an extension. The District's findings of fact thereon shall be final and conclusive on all parties. In case of a continuing cause of delay, only one claim is necessary. Time extensions to the project should be requested by the Contractor as they occur and without delay. Regardless of the time lines in the schedule submitted by Contractor, no delay claims shall be accepted by District unless the event or occurrence delays the completion of the project beyond the contractual completion date.
- d. **Determining Damages for Delay.** District's liability to Contractor for delays for which District is responsible shall be limited to an extension of time for delays unless such delays were unreasonable under the circumstances involved and were not within the contemplation of the parties when the contract was awarded. Contractor agrees that the District's representative shall determine the actual costs to Contractor of any delay for which Contractor may claim damages from District. Such costs, if any, shall be directly related to the project, and shall not include costs that would be borne by the Contractor in the regular course of business, including, but not limited to, office overhead and ongoing insurance costs. The District shall not be liable for any damages which the Contractor could have avoided by any reasonable means including, but not limited to, the judicious handling of forces, equipment, or plant.
- e. **Removal or Relocation of Main or Trunk line Utility Facilities.** The Contractor shall not be assessed for liquidated damages for delay in completion of the project, when such delay was caused by the failure of the awarding authority of this contract or the owner of the utility to provide for removal or relocation of the existing main or trunk line utility facilities; however, when the Contractor is aware that removal or relocation of an existing utility has not been provided for, Contractor shall promptly notify the awarding authority and the utility in writing, so that provision for such removal or relocation may be made to avoid and minimize any delay which might be caused by the failure to remove or relocate the main or trunk line utility facilities, or to provide for its removal or relocation. In accordance with section 4215 of the Government Code, if the Contractor while performing the contract discovers any existing main or trunk line utility facilities not identified by the public agency in the contract plans or specifications, he shall immediately notify the public agency and utility in writing. The public utility, where they are the owner, shall have the sole discretion to perform repairs or relocation work or permit the Contractor to do such repairs or relocation work at a reasonable price. The Contractor shall be compensated for the costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the plans and specifications with reasonable accuracy and for equipment on the project necessarily idled during such work. Such compensation shall be in accordance with the extra work provisions set out of Article 40 hereof.

Article 7. PROGRESS SCHEDULE

- a. Within fourteen (14) days after the date of the Award of the Contract, Contractor shall prepare a baseline progress schedule in hard copy and disk form and shall submit this schedule for the District's approval. The schedule shall clearly identify all staffing and other resources which in the Contractor's judgment are needed to complete the project within the time specified for completion. The schedule shall include milestones and shall include the "critical path" of construction. The Contractor is fully responsible to determine and provide for any and all staffing and resources at levels which allow for good quality and timely completion of the project; the District's approval of the progress schedule does not relieve the Contractor of any such responsibility. Contractor's failure to incorporate all elements of work required for the performance of the contract or any inaccuracy in the schedule shall not excuse the Contractor from performing all work required for a completed project within the specified contract time period, notwithstanding the District's acceptance of the schedule. **The first payment will not be made unless the District has been provided and has accepted the project schedule.**
- b. The schedule shall allow enough time for inclement weather. Such schedule shall indicate graphically the beginning and completion dates of all phases of construction, and shall indicate the critical path for all critical, sequential time related activities. All required schedules shall indicate "float time" for all "slack" or "gaps" in the non-critical activities. Submitted construction schedules shall have a duration which does not exceed the contract time. Excess time may be picked up with "float time" at the discretion of the District. A "bar chart" in reasonably complete detail shall be adequate in contracts over \$1 million and shall show critical path items. All required schedules shall be periodically updated to reflect changes in the status of the job, including weather delays. **At a minimum, the Contractor shall be required to provide and keep updated a monthly schedule in order to prevent delay claims.**

Article 8. CONTRACT SECURITY

Unless otherwise specified in Special Conditions, Contractor shall furnish a surety bond in an amount equal to 100 percent of contract price as security for faithful performance of this contract and shall furnish a separate bond as security for

payment of persons performing labor and furnishing materials in connection with this contract. The Payment Bond must be in the amount of 100 percent of the total amount payable. Both the Payment and the Performance Bonds must be executed by an admitted Surety approved to conduct business in the State of California which meets the highest standards the District is legally permitted to establish. Aforesaid bonds shall be in form set forth in these contract documents. Upon request of Contractor, District will consider and accept multiple sureties on such bonds.

Article 9. ASSIGNMENT

Contractor shall not assign this contract or any part thereof without prior written consent of District. Any assignment of money due or to become due under this contract shall be subject to a prior lien for services rendered or material supplied for performance of work called for under said contract in favor of all persons, firms, or corporations rendering such services or supplying such materials to the extent that claims are filed pursuant to the Civil Code, the Code of Civil Procedure, and/or the Government Code.

Article 10. PROHIBITED INTERESTS

No official of District and no District representative who is authorized in such capacity and on behalf of District to negotiate, make, accept, or approve, or to take part in negotiating, making, accepting or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with construction of project, shall be or become directly or indirectly interested financially in this contract or in any part thereof. No officer, employee, architect, attorney, engineer or inspector of or for District who is authorized in such capacity and on behalf of District to exercise any executive, supervisory or other similar functions in connection with construction of project, shall become directly or indirectly interested financially in this contract or in any part thereof.

Article 11. SEPARATE CONTRACTS

District reserves the right to let other contracts in connection with this work or other work at the same site. Contractor shall afford other contractors reasonable opportunity for introduction and storage of their materials and execution of their work and shall properly connect and coordinate his/her work with theirs.

If any part of Contractor's work depends for proper execution or results upon work of any other contractor, the Contractor shall inspect and promptly report to architect any defects in such work that renders it unsuitable for such proper execution and results. His/her failure to inspect and report shall constitute his/her acceptance of other contractor's work as fit and proper for reception of his/her work, except as to defects which may develop in the other contractor's work after execution of contractor's work.

To insure proper execution of his/her subsequent work, Contractor shall measure and inspect work already in place and shall at once report to the architect any discrepancy between executed work and contract documents.

Contractor shall ascertain to his/her own satisfaction the scope of the project and nature of any other contracts that have been or may be awarded by District in prosecution of project to the end that Contractor may perform this contract in the light of such other contracts, if any. Nothing herein contained shall be interpreted as granting to Contractor exclusive occupancy at site of project. Contractor shall not cause any unnecessary hindrance or delay to any other contractor working on project. If simultaneous execution of any contract for project is likely to cause interference with performance of some other contract or contracts, District shall decide which contractor shall cease work temporarily and which contractor shall continue or whether work can be coordinated so that contractors may proceed simultaneously. District shall not be responsible for any damages suffered or for extra costs incurred by Contractor resulting directly or indirectly from award, performance, or attempted performance of any other contract or contracts on project, or caused by any decision or omission of District respecting the order of precedence in performance of contracts.

Article 12. SUBCONTRACTING

- a. Contractor agrees to bind every subcontractor by terms of the contract as far as such terms are applicable to subcontractor's work and understands that all subcontractors of any tier performing work on the Project are subject to registration with the Department of Industrial Relations pursuant to Labor Code §1725.5 and 1771.1. Failure to register with the DIR or expiration of registration at any time during the duration of work on the Project shall be grounds for termination of subcontractor's contract. If Contractor subcontracts any part of this contract, Contractor shall be as fully responsible to District for the acts and omissions of his/her subcontractor and of persons either directly or indirectly employed by his/her subcontractor, as he is for acts and omissions of persons directly employed by himself. Nothing contained in these contract documents shall create any contractual relation between any subcontractor and District. The District shall be deemed to be the third party beneficiary of the contract between the contractor and subcontractor.
- b. District's consent to or approval of any subcontractor under this contract shall not in any way relieve Contractor of his/her obligations under this contract and no such consent or approval shall be deemed to waive any provision of this contract. The District reserves the right of approval of all subcontractors proposed for use on this Project, and to

this end, may require financial, performance and such additional information as is needed to secure this approval. If a Subcontractor is not approved, the Contractor shall promptly submit another of the same trade for approval.

- c. Substitution or addition of subcontractors shall be permitted only as authorized in chapter 4 (commencing at section 4100), part 1, division 2 of the California Public Contract Code.

Article 13. DISTRICT'S RIGHT TO SUSPEND WORK

The District may, in its reasonable discretion, and without invalidating or terminating the Contract, order the Contractor, in writing, to suspend, delay or interrupt the Work in whole or in part for such period of time as the District may determine. The Contractor shall resume and complete the Work suspended by the District in accordance with the District's directive, whether issued at the time of the directive suspending the Work or subsequent thereto.

Article 14. ADJUSTMENTS TO CONTRACT PRICE AND CONTRACT TIME

In the event the District shall order suspension of the Work, an adjustment shall be made to the Contract Price for increases in the direct cost of performance of the Work of the Contract Documents, actually caused by suspension, delay or interruption ordered by the District; provided, however, that no adjustment of the Contract Price shall be made to the extent: (i) that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible under the Contract Documents; or (ii) that an equitable adjustment is made or denied under another provision of the Contract Documents. The foregoing notwithstanding, any such adjustment of the Contract Price shall not include any adjustment to increase the Contractor's overhead, general administrative costs or profit, all of which shall remain as reflected in the Cost Breakdown submitted by the Contractor pursuant to the Contract Documents. In the event of the District's suspension of the Work, the Contract Time shall be equitably adjusted.

Article 15. DISTRICT'S RIGHT TO TERMINATE CONTRACT

District may, without prejudice to any other right or remedy, serve written notice of intent to terminate upon Contractor and his/her surety stating its intention to terminate this contract if the Contractor (i) refuses or fails to prosecute the work or any separable part thereof with such diligence as will insure its completion within the time specified or any extension thereof, or (ii) fails to complete said work within such time, or (iii) if the Contractor should file a bankruptcy petition, or (iv) if he should make a general assignment for the benefit of his/her creditors, or (v) if a receiver should be appointed on account of his/her insolvency, or (vi) if he should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials to complete the work in time specified, or (vii) if he should fail to make prompt payment to subcontractors or for material or labor, or (viii) persistently disregard laws, ordinances or instructions of District, or (ix) otherwise be guilty of a substantial violation of any provision of the contract, or (x) if he or his/her subcontractors should violate any of the provisions of this contract, including, but not limited to, failure to register and maintain in full force and effect registration with the California Department of Industrial Relations for purposes of labor compliance monitoring. The notice of intent to terminate shall state generally the reasons for such intention to terminate. Unless within five (5) days after the service of such notice, such condition shall cease or such violation shall cease and satisfactory arrangements for the correction thereof be made, this contract shall be deemed to have ceased and terminated. The Contractor then shall not be entitled to receive any further payment until work is finished. Upon the termination of the contract as provided above, District shall immediately serve upon surety and contractor written notice of termination stating that the contract has ceased and terminated. Surety shall have the right to investigate, take over and perform this contract, provided, however, that if surety, within five (5) days after service upon it of said notice of termination, does not give District written notice of its intention to take over and perform this contract and does not commence performance thereof within seven (7) days from the date of service upon it of such notice of termination, District may take over the work and prosecute same to completion by contract or by any other method it may deem advisable for the account and at the expense of Contractor. If Surety does not perform the project work itself, the Surety shall consult with the District regarding its planned choice of a contractor or contractors to complete the project, and upon request by District, Surety shall provide District Evidence of Responsibility of Surety's proposed contractor or contractors. District shall be entitled to reject Surety's choice of contractor or contractors if District determines in its sole discretion that the contractor or contractors are non-responsible. If Surety provides District written notice of its intention to take over and perform this contract, within fourteen (14) days of such written notice of intent to take over and perform, Surety or its chosen contractor or contractors (if such contractor or contractors are approved by District) shall provide District a detailed Progress Schedule as specified in Article 7 above. Contractor and his/her surety shall be liable to District for any excess cost or other damages occasioned the District as a result of Surety or Surety's contractor or contractors takeover and performance. If the District takes over the work as hereinabove provided, the District may, without liability for so doing, take possession of and utilize in completing the work such materials, appliances, plant, and other property belonging to the Contractor as may be on the site of the work and necessary therefore.

If the unpaid balance of the contract price exceeds the expense of finishing work, including compensation for additional architectural, managerial, and administrative services, such excess shall be paid to Contractor. If such expense shall exceed such unpaid balance, Contractor shall pay the difference to District. Expense incurred by District as herein provided, and damage incurred through Contractor's default, shall be certified by architect.

The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to the District.

Notwithstanding the foregoing provisions, this contract may not be terminated or modified where a trustee-in-bankruptcy has assumed the contract pursuant to 11 U.S.C. sections 365 (Federal Bankruptcy Act).

Article 16. GUARANTEE

Besides guarantees required elsewhere, Contractor shall, and hereby does, guarantee all work for a period of one year after date of acceptance of work by District. Contractor shall repair or replace any or all such work, together with any other work, which may be displaced in so doing, that may prove defective in workmanship and/or materials within a one-year period from date of acceptance without expense whatsoever to District, ordinary wear and tear, unusual abuse or neglect excepted. District will give notice of observed defects with reasonable promptness. Contractor shall notify District upon completion of repairs.

In the event of failure of Contractor to comply with above-mentioned conditions within one week after being notified in writing, District is hereby authorized to proceed to have defects repaired and made good at the expense of Contractor. Contractor hereby agrees to pay costs and charges therefore immediately on demand.

If, in the opinion of the District, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the District or to prevent interruption of operations of the District, the District will attempt to give the notice required by this article. If the Contractor cannot be contacted or does not comply with the District's request for correction within a reasonable time as determined by the District, the District may, notwithstanding the provisions of this article, proceed to make such correction or provide such attention. The costs of such correction or attention shall be charged against the Contractor. Such action by the District will not relieve the Contractor of the guarantees provided in this article or elsewhere in this contract.

This article does not in any way limit the guarantee on any items for which a longer guarantee is specified or on any items for which a manufacturer gives a guarantee for a longer period. Contractor shall furnish District with all appropriate guarantee or warranty certificates upon completion of project.

Article 17. NOTICE AND SERVICE THEREOF

- a. Any notice from one party to the other under the contract shall be in writing and shall be dated and signed by party giving such notice or by the duly authorized representative of such party. Any such notice shall be effective for any purpose whatsoever unless served in one of the following manners:
 1. If notice is given to District, by personal delivery thereof to District's representative or District's architect or by depositing same in United States mail, enclosed in a sealed envelope addressed to District for attention of said representative or architect, postage prepaid and registered;
 2. If notice is given to Contractor, by personal delivery thereof to said Contractor or his/her foreman at site of project, or by depositing same in United States mail, enclosed in a sealed envelope addressed to said Contractor at his/her regular place of business or at such other address as may have been established for the conduct of work under this contract, postage prepaid and registered;
 3. If notice is given to surety or other person, by personal delivery to such surety or other person or by depositing same in United States mail, enclosed in a sealed envelope addressed to such surety or person at the address of such surety or person last communicated by him to party giving notice, postage prepaid and registered.
 4. If notice is served by mail, it shall be deemed received and all time periods associated with the giving of notice shall run from the third day after mailing.

Article 18. WORKERS

- a. Contractor shall at all times enforce strict discipline and good order among his/her employees. Contractor shall not employ on work any unfit person or any one not skilled in work assigned to him.
- b. Any person in the employ of the Contractor whom District may deem incompetent or unfit shall be dismissed from work and shall not again be employed on it except with the written consent of District.

Article 19. WAGE RATES, PAYROLL RECORDS AND DEBARMENT

- a. The Contractor is aware of the requirements of California Labor Code sections 1720 et seq. and 1770 et seq., as well as California Code of Regulations, Title 8, section 16000 et seq. ("Prevailing Wage Laws"), which require the

payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects. Since this Project involves an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and since the total compensation is \$1,000 or more, Contractor agrees to fully comply with such Prevailing Wage Laws, including but not limited to, registration of Contractor and all subcontractors, of all tiers with the Department of Industrial Relations (DIR) pursuant to Labor Code §1771.1 and 1725.5 and the compliance monitoring and reporting requirements set forth in labor Code §1771.4. The Contractor shall obtain a copy of the prevailing rates of per diem wages at the commencement of this Agreement from the website of the Division of Labor Statistics and Research of the DIR located at www.dir.ca.gov/dlsr/. Contractor shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to perform work on the Project available to interested parties upon request, and shall post copies at the Contractor's principal place of business and at the Project site and shall post any additional job site notices required by Labor Code section 1771.4 subd (a)(1) or applicable DIR regulations. Contractor shall defend, indemnify and hold the District, its elected officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Prevailing Wage Laws (Labor Code §1720 *et seq*) and/or the District's LCP.

- b. The Contractor and each subcontractor shall forfeit as a penalty to the District not more than two hundred (\$200) for each calendar day, or portion thereof, for each worker paid less than the stipulated prevailing wage rate for any work done by him, or by any subcontract under him, in violation of the provisions of the California Labor Code. The difference between such stipulated prevailing wage rate and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by the Contractor or subcontractor, subject to the provisions of Labor Code §1775, to which Contractor agrees to comply. Contractor could also be subject to a \$2,000 penalty for failure to comply with the DIR registration requirements (Labor Code §1725.5)
- c. As a further material part of this Contract, Contractor agrees to hold harmless and indemnify the District, its Board and each member of the Board, its officers, employees and agents from any and all claims, liability, loss, costs, damages, expenses, fines and penalties, of whatever kind or nature, including all costs of defense and attorneys' fees, arising from any alleged failure of Contractor or its subcontractors to comply with the prevailing wage laws of the State of California. If the District or any of the indemnified parties are named as a party in any dispute arising from the failure of Contractor or its subcontractors to pay prevailing wages, Contractor agrees that the District and the other indemnified parties may appoint their own independent counsel, and Contractor agrees to pay all attorneys' fees and defense costs of the District and the other indemnified parties as billed, in addition to all other damages, fines, penalties and losses incurred by the District and the other indemnified parties as a result of the action.
- d. Accurate payroll records shall be kept by the contractor and each subcontractor, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work.
- e. It shall be the responsibility of Contractor to Comply with Labor Code section 1776 as it may be amended by the Legislature from time to time with respect to each payroll record. Pursuant to Labor Code §1771.4 subd (a)(3), each contractor and subcontractor shall furnish the records specified in Labor Code §1776 directly to the Labor Commissioner at DIR at least monthly and in a format prescribed by the Labor Commissioner. As of June 2014, Labor Code section 1776 provides as follows:
 - "(a) Each contractor and subcontractor shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:
 - "(1) The information contained in the payroll record is true and correct.
 - "(2) The employer has complied with the requirements of Sections 1771, 1811, and 1815 for any work performed by his or her employees on the public works project
 - "(b) The payroll records enumerated under subdivision (a) shall be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor on the Following basis:
 - "(1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.
 - "(2) A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the body

awarding the contract and the Division of Labor Standards Enforcement of the Department of Industrial Relations.

- “(3) A certified copy of all payroll records enumerated in subdivision (a) shall be made available upon request by the public for inspection or for copies thereof. However, a request by the public shall be made through either the body awarding the contract or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (2), the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the contractor, subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal office of the contractor.
- “(c) Unless required to be furnished directly to the Labor Commissioner in accordance with paragraph (3) of subdivision (a) of Section 1771.4, the certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the division. The payroll records may consist of printouts of payroll data that are maintained as computer records, if the printouts contain the same information as the forms provided by the division and the printouts are verified in the manner specified in subdivision (a).
- “(d) A contractor or subcontractor shall file a certified copy of the records enumerated in subdivision (a) with the entity that requested the records within 10 days after receipt of written request.
- “(e) Except as provided in subdivision (f), any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the awarding body or, the Division of Labor Standards Enforcement shall be marked or obliterated to prevent disclosure of an individual's name, address, and social security number. The name and address of the contractor awarded the contract or the subcontractor performing the contract shall not be marked or obliterated. Any copy of records made available for inspection by, or furnished to, a multiemployer Taft-Hartley trust fund (29 U.S.C. Sec. 186(c)(5)) that requests the records for the purposes of allocating contributions to participants shall be marked or obliterated only to prevent disclosure of an individual's full social security number, but shall provide the last four digits of the social security number. Any copy of records made available for inspection by, or furnished to, a multiemployer Taft-Hartley trust fund (29 U.S.C. Sec. 186(c)(5)) that requests the records for the purposes of allocating contributions to participants shall be marked or obliterated only to prevent disclosure of an individual's full social security number, but shall provide the last four digits of the social security number. Any copy of records made available for inspection by, or furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (29 U.S.C. Sec. 175a) shall be marked or obliterated only to prevent disclosure of an individual's social security number.
- “(f) (1) Notwithstanding any other provision of law, agencies that are included in the Joint Enforcement Strike Force on the Underground Economy established pursuant to Section 329 of the Unemployment Insurance Code and other law enforcement agencies investigating violations of law shall, upon request, be provided nonredacted copies of certified payroll records. Any copies of records or certified payroll made available for inspection and furnished upon request to the public by an agency included in the Joint Enforcement Strike Force on the Underground Economy or to a law enforcement agency investigating a violation of law shall be marked or redacted to prevent disclosure of an individual's name, address, and social security number.

 (2) An employer shall not be liable for damages in a civil action for any reasonable act or omission taken in good faith in compliance with this subdivision.
- “(g) The Contractor shall inform the body awarding the contract of the location of the records enumerated under subdivision (a), including the street address, city, and county, and shall, within five working days, provide a notice of a change of location and address.
- “(h) The Contractor or subcontractor has 10 days in which to comply subsequent to receipt of a written notice requesting the records enumerated in subdivision (a). In the event that the Contractor or subcontractor fails to comply within the 10-day period, he or she shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit one hundred dollars (\$100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. A contractor is not subject to a penalty assessment pursuant to this section due to the failure of a subcontractor to comply with this section.

- “(i) The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section.
 - “(j) The director shall adopt rules consistent with the California Public Records Act (Chapter 3.5 (commencing with Section 6250) of Division 7 of Title 1 of the Government Code) and the Information Practices Act of 1977 (Title 1.8 (commencing with Section 1798) of Part 4 of Division 3 of the Civil Code) governing the release of these records, including the establishment of reasonable fees to be charged for reproducing copies of records required by this section.”
- f. Debarment. The Contractor, or any subcontractor, working under the Contractor may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public project pursuant to Section 1777.1 or Section 1777.7 of the California Labor Code. Any contract on a public works project entered into between the Contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid, or may have been paid to a debarred subcontractor by the Contractor on the project shall be returned to the District. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the project.

Article 20. APPRENTICES

Contractor's attention is directed to the provisions of Sections 1777.5, 1777.6, and 1777.7 of the California Labor Code concerning employment of apprentices by the Contractor or any subcontractor under him. The Contractor shall be knowledgeable of and comply with all California Labor Code sections including 1727, 1773.5, 1775, 1777, 1777.5, 1810, 1813, 1860, including all amendments; each of these sections is incorporated by reference into this Contract. The responsibility for compliance with these provisions for all apprentice able occupations rests with the Contractor. Knowing violations of Section 1777.5 will result in forfeiture not to exceed \$100 for each calendar day of non-compliance pursuant to Section 1777.7 for the first offense. A contractor or subcontractor that knowingly commits a second or subsequent violation within a three-year period, if the noncompliance results in apprenticeship training not being provided as required by Chapter 1 of Part 7 of Division 2 of the Labor Code (§1720 – 1861), shall forfeit as a civil penalty the sum of not more than three hundred dollars (\$300) for each full calendar day of noncompliance.

Article 21. HOURS OF WORK

- a. As provided in article 3 (commencing at section 1810), chapter 1, part 7, division 2 of the Labor Code, eight (8) hours of labor shall constitute a legal day's work. The time of service of any worker employed at any time by the Contractor or by any subcontractor on any subcontract under this contract upon the work or upon any part of the work contemplated by this contract is limited and restricted to eight (8) hours during any one-calendar day and forty (40) hours during any one-calendar week, except as hereinafter provided. Notwithstanding the provisions herein above set forth, work performed by employees of Contractor in excess of eight (8) hours per day, and forty (40) hours during any one week, shall be permitted upon this public work upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half times the basic rate of pay.
- b. The Contractor and every subcontractor shall keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by him in connection with the work or any part of the work contemplated by this contract. The record shall be kept open at all reasonable hours to the inspection of the District and to the Division of Labor Law Enforcement, Department of Industrial Relations of the State of California.
- c. The Contractor or subcontractor shall pay, as a penalty to the District, forfeit twenty-five dollars (\$25) for each worker employed in the execution of this contract by the respective Contractor or subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any calendar day and forty (40) hours in any one calendar week in violation of the provisions of article 3 (commencing at section 1810), chapter 1, part 7, division 2 of the Labor Code. The District shall take cognizance of all violations of Labor Code §1810 *et seq.* committed in the course of the execution of the contract, and shall report them to the Division of Labor Standards Enforcement.
- d. Any work necessary to be performed after regular working hours, or on Sundays or other holidays shall be performed without additional expense to District.

Article 22. WORKERS' COMPENSATION INSURANCE

- a. The Contractor shall provide, during the life of this contract, workers' compensation insurance for all of his/her employees engaged in work under this contract, on or at the site of the project, and, in case any of his/her work is sublet, the Contractor shall require the subcontractor similarly to provide workers' compensation insurance for all the latter's employees. Any class of employee or employees not covered by a subcontractor's insurance shall be

covered by the Contractor's insurance. In case any class of employees engaged in work under this contract, on or at the site of the project, is not protected under the Workers' Compensation Statutes, the Contractor shall provide or shall cause a subcontractor to provide, adequate insurance coverage for the protection of such employees not otherwise protected. The Contractor shall file with the District certificates of his/her insurance protecting workers.

- b. Company or companies providing insurance coverage shall be acceptable to the District, and in the following form and coverage.
 1. Statutory Workers' Compensation and Employer's Liability Coverage: Contractor shall maintain insurance to afford protection for all claims under California Workers' Compensation Act and other employee benefit acts, and in addition, shall maintain Employer's Liability Insurance for a minimum limit of \$1,000,000. The Workers' Compensation Policy shall include the following endorsements, copies of which shall be provided to District.
 - (a) The Voluntary Compensation Endorsement; and
 - (b) Broad Form All States Endorsement; and
 - (c) The Longshoremen's and Harbor Workers Endorsement, where applicable to the work under this contract; and
 - (d) Waiver of Subrogation Endorsement.

Article 23. COMMERCIAL GENERAL LIABILITY AND PROPERTY DAMAGE INSURANCE

- a. The Contractor shall provide, during the life of this contract, workers' compensation insurance for all of his/her employees engaged in work under this contract, on or at the site of the project, and, in case any of his/her work is sublet, the Contractor shall require the subcontractor similarly to provide workers' compensation insurance for all the latter's employees. Any class of employee or employees not covered by a subcontractor's insurance shall be covered by the Contractor's insurance. In case any class of employees engaged in work under this contract, on or at the site of the project, is not protected under the Workers' Compensation Statutes, the Contractor shall provide or shall cause a subcontractor to provide, adequate insurance coverage for the protection of such employees not otherwise protected. The Contractor shall file with the District certificates of his/her insurance protecting workers.
- b. Contractor shall make certain that any and all subcontractors hired by Contractor are insured in accordance with this contract. If any subcontractor's coverage does not comply with the foregoing provisions, Contractor shall indemnify and hold District harmless from any damage, loss, cost, or expense, including attorneys' fees, incurred by District as a result thereof.
- c. Company or companies providing insurance coverage shall be acceptable to the District and authorized to conduct business in the State of California.
- d. Any general liability policy provided by Contractor hereunder shall contain an endorsement which applies its coverage to District, members of District's board of trustees, and the officers, agents, employees and volunteers of District, the State Allocation Board, if applicable, the architect, and the architect's consultants, individually and collectively, as additional insureds using form CG2010 11-85 or equivalent which must include products and completed operations coverage, broad form property damage coverage, coverage for collapse, explosion and underground, and include independent contractor coverage.
- e. The coverage afforded by the additional insured endorsement described in paragraph d above, shall apply as primary insurance, and any other insurance maintained by District, the members of District's Board of Trustees, or its officers, agents, employees and volunteers, or any self-funded program of District, shall be in excess only and not contributing with such coverage.
- f. Contractor shall notify District in writing of the amount, if any, of self-insured retention provided under the General Liability coverage, with a maximum limit of \$25,000. District may approve higher retention amounts, based upon review of documentation submitted by Contractor. Such review shall take into consideration Contractor's net worth and reserves for payment of claims of liability against Contractor, which must be sufficient to adequately compensate for the lack of other insurance coverage required hereunder.
- g. All general liability policies shall be written to apply to all bodily injury, including death, property damage, personal injury and other covered loss, however occasioned, occurring during the policy term, and shall specifically insure the performance by Contractor of that part of the indemnification contained in Article 26 hereof, relating to liability for injury to or death of persons and damage to property. If the coverage contains one or more aggregate limits, a minimum of 50% of any such aggregate limit must remain available at all times; if over 50% of any aggregate limit has been paid or reserved, District may require additional coverage to be purchased by Contractor to restore the required limits. Contractor may combine primary, umbrella, and as broad as possible excess liability coverage to achieve the total limits indicated above. Any umbrella or excess liability policy shall include the additional insured endorsement, products and completed operations coverage and broad form property damage described in

paragraphs d and e, above. To the extent that the umbrella insurer requires notice of changes to the primary policy, notice will be considered to be given and not prejudice the District's rights to recover under the umbrella policy.

- h. Contractor and District release each other, and their respective authorized representatives, from any Claims (as defined in Article 26 hereof), but only to the extent that the proceeds received from any policy of liability insurance carried by District or Contractor, other than any self-insurance, covers any such Claim or damage. Included in any policy or policies of liability insurance provided by Contractor hereunder shall be a standard waiver of rights of subrogation against District by the insurance company issuing said policy or policies.
- i. If coverage is written on a "claims made" basis, the Certificate of Insurance shall clearly so state. In addition to the coverage requirements specified above, such policy shall provide that:
 - 1. The policy retroactive date coincides with or precedes Contractor's commencement of work under the Agreement (including subsequent policies purchased as renewals or replacements).
 - 2. Contractor will make every effort to maintain similar insurance during the required extended period of coverage following expiration of the Agreement, including the requirement of adding all additional insureds.
 - 3. If insurance is terminated for any reason, Contractor shall purchase an extended reporting provision of at least two years to report claims arising in connection with the agreement.
 - 4. The policy allows for reporting of circumstances or incidents that might give rise to future claims.
- j. Contractor's failure to procure the insurance specified herein, or failure to deliver certified copies or appropriate certificates of such insurance, or failure to make the premium payments required by such insurance, shall constitute a material breach of the contract, and District may, at its option, terminate the Agreement for any such default by Contractor.
- k. The requirements as to the types and limits of insurance coverage set forth herein and in the Special Conditions to be maintained by the Contractor, and any approval of said insurance by the District or its insurance advisor(s), are not intended to and shall not in any manner limit or qualify the liabilities and obligations otherwise assumed by the Contractor pursuant to the Agreement, including, but not limited to, the provisions concerning indemnification.
- l. District shall retain the right at any time to review the coverage, form, and amount of insurance required herein and may require Contractor to obtain insurance reasonably sufficient in coverage, form and amount to provide adequate protection against the kind and extent of risk which exists at the time a change in insurance is required.
- m. All deviations from the contractual insurance requirements stated herein must be approved in writing by District's risk manager.

Article 24. ~~BUILDER'S RISK/APPLICABLE INSTALLATION/FIRE INSURANCE (NOT USED)~~

- a. ~~It is the Contractor's responsibility to maintain or cause to be maintained builder's risk insurance or applicable installation coverage on all work, material, equipment, appliances, tools, and structures which are a part of the contract and subject to loss or damage by fire, extended coverage, and vandalism and malicious mischief. District accepts no responsibility until the contract is formally accepted by the Governing Board for the work. The Contractor is required to file with the District a certificate evidencing builder's risk or applicable installation of not less than the amount identified in the special conditions insurance coverage.~~
- b. Provide insurance coverage on completed value form, all-risk or special causes of loss coverage.
 - 1. Insurance policies shall be so conditioned as to cover the performance of any extra work performed under the contract.
 - 2. Coverage shall include all materials stored on site and in transit.
 - 3. Coverage shall include Contractor's tools and equipment.
 - 4. Insurance shall include boiler, machinery and material hoist coverage.
- c. Company or companies providing insurance coverage shall be acceptable to the District and authorized to conduct business in the State of California.

Article 25. PROOF OF CARRIAGE OF INSURANCE

- a. Contractor shall, as soon as practicable following the placement of insurance required hereunder, but in no event later than the effective date of the Agreement, deliver to District certificates of insurance evidencing the same, together with appropriate separate endorsements thereto, evidencing that Contractor has obtained such coverage for

the period of the Agreement. Contractor shall deliver certified copies of the actual insurance policies specified herein, within thirty days after commencement of work. Thereafter, copies of renewal policies, or certificates and appropriate separate endorsements thereof, shall be delivered to District within thirty (30) days prior to the expiration of the term of any policy required herein. Contractor shall permit District at all reasonable times to inspect any policies of insurance of Contractor which Contractor has not delivered to District.

- b. Certificates and insurance policies shall include the following clause:

"This policy shall not be canceled or reduced in required limits of liability or amounts of insurance until notice has been mailed to District stating date of cancellation, reduction or other adverse change respecting such insurance. The date of cancellation, reduction or adverse change may not be less than thirty (30) days after date of mailing notice."

- c. Certificates of insurance shall state in particular those insured, extent of insurance, location and operation to which insurance applies, expiration date, and cancellation and reduction notice. All Certificates of Insurance provided by Contractor shall name District, the architect, and architect's consultants as additional insureds.
- d. After receiving written Notice of Cancellation of Insurance, Contractor shall have ten (10) days to provide other policies of insurance similar to the canceled policies and acceptable insurance. If such replacement coverage is not provided, the District may secure insurance at the Contractor's expense.
- e. Nothing contained in the insurance requirements shall be construed as limiting the extent of the Contractor's responsibility for payment of damages resulting from operations under this agreement.

Article 26. INDEMNIFICATION

District shall not be liable for, and Contractor shall defend and indemnify District to the fullest extent permitted by law against any and all claims, demands, liability, judgments, awards, fines, mechanics' liens or other liens, labor disputes, losses, damages, expenses, charges or costs of any kind or character, including attorneys' fees, expert witness fees, investigation costs and court costs (hereinafter collectively referred to as "Claims"), which arise out of or are in any way connected to the work covered by this contract arising either directly or indirectly from any act, error, omission or negligence of Contractor or its contractors, licensees, agents, servants or employees, including, without limitation, Claims caused by the concurrent act, error, omission or negligence of District or its agents or employees. However, Contractor shall have no obligation to indemnify District from a Claim if it is determined by a court of competent jurisdiction that such Claim was caused by the active negligence, sole negligence, or willful misconduct of District or its agents or employees.

Article 27. LAWS AND REGULATIONS

- a. Contractor shall give all notices and comply with all laws, ordinances, rules, and regulations bearing on conduct of work as indicated and specified. If Contractor observes that drawings and specifications are at variance therewith, he shall promptly notify architect in writing and any necessary changes shall be adjusted as provided in contract for changes in work. If Contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to architect, he shall bear all costs arising therefrom.
- b. Contractor shall be responsible for familiarity with the Americans with Disabilities Act (ADA) (42 USC 12101 et seq.). Installations of equipment and other devices shall be in compliance with ADA regulations.

Article 28. PERMITS AND LICENSES

Permits and licenses necessary for prosecution of work shall be secured and paid for by Contractor, unless otherwise specified.

Article 29. INSPECTION FEES FOR PERMANENT UTILITIES

All inspection fees and other municipal charges for permanent utilities including, but not limited to, sewer, electrical, phone, gas, water, and irrigation shall be paid for by District. Contractor shall be responsible for arranging the payment of such fees, but inspection fees and other municipal fees relating to permanent utilities shall be paid by District. Contractor may either request reimbursement from District for such fees, or obtain the funds from District prior to paying such fees.

Article 30. EASEMENTS

Easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by District, unless otherwise specified.

Article 31. SURVEYS

~~Surveys to determine location of property lines and corners will be supplied by District.~~ Surveys to determine location of construction, grading, and site work shall be provided by Contractor. Surveys to verify bottoms of excavations, certified pads, and others required for independent verification purposes will be supplied by District.

Article 32. EXCISE TAXES

If under federal excise tax law any transaction hereunder constitutes a sale on which a federal excise tax is imposed and the sale is exempt from such excise tax because it is a sale to a state or local government for its exclusive use, the District, upon request, will execute a certificate of exemption which will certify (1) that the District is a political subdivision of the state for the purposes of such exemption and (2) that the sale is for the exclusive use of the District. No excise tax for such materials shall be included in any bid price.

Article 33. PATENTS, ROYALTIES, AND INDEMNITIES

The Contractor shall hold and save the District and its officers, agents, and employees harmless from liability of any nature or kind, including cost and expense, for or on account of any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of this contract, including its use by the District, unless otherwise specifically stipulated in the contract documents.

Article 34. MATERIALS

- a. Except as otherwise specifically stated in this contract, Contractor shall provide and pay for all materials, labor, tools, equipment, ~~water~~, lights, ~~power~~, transportation, superintendency, temporary constructions of every nature, and all other services and facilities of every nature whatsoever necessary to execute and complete this contract within specified time.
- b. Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of good quality.
- c. Materials shall be furnished in ample quantities and at such times as to insure uninterrupted progress of work and shall be stored properly and protected as required. Contractor shall be entirely responsible for damage or loss by weather or other causes to materials or work under this contract.
- d. No materials, supplies, or equipment for work under this contract shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by seller or supplier. Contractor warrants good title to all material, supplies, and equipment installed or incorporated in work and agrees upon completion of all work to deliver premises, together with all improvements and appurtenances constructed or placed thereon by him, to District free from any claims, liens, or charges. He further agrees that neither he nor any person, firm, or corporation furnishing any materials or labor for any work covered by this contract shall have any right to lien upon premises or any improvement or appurtenance thereon, except that Contractor may install metering devices or other equipment of utility companies or of political subdivisions title to which is commonly retained by utility company or political subdivision. In event of installation of any such metering device or equipment, Contractor shall advise District as to owner thereof. Nothing contained in this article, however, shall defeat or impair right of persons furnishing material or labor under any bond given by Contractor for their protection or any rights under any law permitting such persons to look to funds due Contractor in hands of District, and this provision shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing material for work when no formal contract is entered into for such material.

Article 35. SUBSTITUTIONS

- a. Whenever in specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name or by name of manufacturer, such specification shall be deemed to be used for the purpose of facilitating description of material, process, or article desired and shall be deemed to be followed by the words "or equal." Contractor may, unless otherwise stated, offer any material, process, or article which shall be substantially equal or better in every respect to that so indicated or specified. Any material, process, or article not exactly meeting the specifications in the documents in every respect shall be considered a substitution. If a material, process, or article offered by Contractor is not, in opinion of architect, substantially equal or better in every respect to that specified, then Contractor shall furnish the material, process, or article specified. Burden of proof as to equality of any material, process, or article shall rest with Contractor.
- b. In accordance with Public Contract Code section 3400 "prior to or after the award of the contract", district must provide for "submission of data substantiating a request for a substitution of 'an equal' item." Therefore, no later than thirty-five (35) days after award of the contract, if the Contractor is requesting substitution of "an equal" item or product or work, the make and grade of the item, product or work which is to be substituted shall be provided to the District representative. The documentation submitted must include any and all illustrations, specifications, and other relevant data including catalogue information which describes the substituted item or product or work and

substantiates that it is an "or equal" to the specified item or product or work. In addition, the submittal documentation must also include a statement of the cost implications of the substitution being requested stating whether and why the substitution will reduce or increase the contract price. The documentation submitted must also include information regarding the durability and life cycle cost of the substituted item, product or work. Substantiating data shall include a signed affidavit from the Contractor stating that the substituted item or product or work is equivalent to the specified item or product or work in every way except as listed on the affidavit. Whenever possible, the same substitution information is to be included in the sealed bid submittal package. Failure to submit all the needed substantiating data, including the signed affidavit, may result in a determination that the bid is nonresponsive. BIDDERS ARE SPECIFICALLY NOTIFIED THAT THE SUBMISSION OF THIS DOCUMENTATION IN NO WAY OBLIGATES THE DISTRICT OR ITS REPRESENTATIVE TO REVIEW SUCH DOCUMENTATION PRIOR TO CONTRACT AWARD. FURTHERMORE, IF A PROPOSED SUBSTITUTION IS REJECTED, BIDDER SHALL BE RESPONSIBLE TO PROVIDE THE ITEM OR PRODUCT OR WORK AS ORIGINALLY SPECIFIED. DISTRICT HAS THE COMPLETE AND SOLE DISCRETION TO DETERMINE IF AN ITEM OR ARTICLE IS AN EQUAL ITEM.

After award of the contract should the District determine in its sole discretion that substitution of an item or product is reasonable and necessary or reasonable and appropriate, the Contractor shall submit any substitution requests together with all data required to substantiate that the substituted product or item is an "or equal" to the specified product or item. The make and grade of the item, product or work which is to be substituted shall be provided to the District representative. The documentation submitted must include any and all illustrations, specifications, and other relevant data including catalogue information which describes the substituted item, product or work and substantiates that it is an "or equal" to the specified item, product or work. In addition, the submittal documentation must also include a statement of the cost implications of the substitution being requested stating whether and why the substitution will reduce or increase the contract price. The documentation submitted must also include information regarding the durability and life cycle cost of the substituted item, product or work. Substantiating data shall include a signed affidavit from the Contractor stating that the substituted product is equivalent to the specified product or item in every way except as listed on the affidavit. Failure to submit all the needed substantiating data, including the signed affidavit, to the District Representative or Architect in a timely fashion so that the substitution can be adequately reviewed and considered prior to any necessity for its use or application may result in the rejection of the proposed substitution. The District Representative or Architect is not obligated to review multiple substitution submittals for the same product or item due to the Contractor's failure to submit a complete package either at time of submission of bid documents or in a timely manner after award of contract.

- c. In event Contractor furnishes material, process, or article more expensive than that specified, the difference in cost of such material, process, or article so furnished shall be borne by Contractor.

Article 36. SHOP DRAWINGS

- a. Contractor shall check and verify all field measurements and shall submit with such promptness as to cause no delay in his/her own work or in that of any other contractor, subcontractor, architect, other independent contractor or worker on the Project, three (3) copies of all shop or setting drawings, schedules, and materials list, and all other submittals in accordance with other provisions of the contract required for the work of various trades. Contractor shall sign all submittals affirming that submittals have been reviewed and approved by Contractor prior to submission to architect. Each signed submittal shall affirm that the submittal meets all the requirements of the contract documents except as specifically and clearly noted and listed on the cover sheet of the submittal.
- b. Contractor shall advise District immediately, if architect has not checked and approved with reasonable promptness, such schedules and drawings for conformance with design concept of project and compliance with information given in contract documents. Contractor shall make any corrections required by architect, file with him three (3) corrected copies, and furnish such other copies as may be needed for construction. Architect's approval of such drawings or schedules also shall not relieve Contractor from responsibility for deviations from drawings or specifications unless he has in writing called architect's attention to such deviations at time of submission and has secured his/her written approval. Architect's approval of such drawings and schedules also shall not relieve contractor from responsibility for errors in shop drawings or schedules. For purposes of this section "reasonable promptness" shall mean such reasonable promptness as to cause no delay in the work or in the activities of the District, Contractor or separate contractors, while allowing sufficient time in the architect's professional judgment to permit adequate review.

Article 37. SUBMITTALS

- a. Contractor shall furnish for approval, within fourteen (14) days following award of contract a log of all samples, material lists and certifications, mix designs, schedules, and other submittals, as required in specifications. Such log shall indicate whether samples will be provided as specified and in accordance with other provisions of this contract.
- b. Contractor will provide samples and submittals, together with catalogs and supporting data required by architect within a reasonable time period so as not to cause delays on the project.

- c. This provision shall not authorize any extension of time for performance of this contract. Architect will check and approve such samples, only for conformance with design concept of work and for compliance with information given in contract documents. Work shall be in accordance with approved samples. Architect's action will be taken within fourteen (14) calendar days after receiving such samples and submittals. If in the architect's professional judgment fourteen days is an insufficient amount of time to permit adequate review, Architect shall, within the initial fourteen (14) day period, notify the Contractor, with a copy to the Inspector and the District, of the amount of time that will be required to respond.
- d. If the Architect's response results in a change in the project, then such change shall be effected by a written change order.

Article 38. CLOSEOUT SUBMITTALS

The Contractor shall be responsible for the timely delivery of the technical manuals, warranties and guarantees as required in the technical specifications. The final payment will not be made until the District representative has had an opportunity to review and accept the required documents.

Article 39. COST BREAKDOWN AND PERIODICAL ESTIMATES

- a. Contractor shall furnish on forms approved by District:
 - 1. Within ten (10) days of award of contract a detailed estimate giving a complete breakdown of contract price; and
 - 2. A periodical itemized estimate of work done for the purpose of making partial payments thereon;
 - 3. Within ten (10) days of requires by District, a schedule of estimated monthly payments which shall be due him under the contract.
- b. Values employed in making up any of these schedules will be used only for determining basis of partial payments and will not be considered as fixing a basis for additions to or deductions from contract price.

Article 40. PAYMENTS AND RETENTION

- a. Each month as soon as practicable after receipt of approved periodical estimate for partial payment, but in order to avoid the payment of interest, in any event within thirty (30) days of receipt of such periodical estimate, there shall be paid to Contractor a sum equal to ninety percent (95%) of the value of work performed up to the last day of the previous month, less the aggregate of previous payments. Upon receipt of a payment request the District shall as soon as practicable determine whether the payment request is proper. If the request is determined not to be a proper payment request suitable for payment, it shall be returned to the Contractor as soon as practicable within seven days after receipt and shall be accompanied by a statement in writing as to the reasons why the payment request is not proper. Monthly payments shall be made only on the basis of monthly estimates which shall be prepared by Contractor on a form approved by District and filed before the fifth day of the month during which payment is to be made. Work completed as estimated shall be an estimate only and no inaccuracy or error in said estimate shall operate to release Contractor or any bondsman from damages arising from such work or from enforcing each and every provision of this contract and District shall have the right subsequently to correct any error made in any estimate for payment. Contractor shall not be entitled to have any payment estimates processed or be entitled to have any payment made for work performed so long as any lawful or proper direction concerning work, or any portion thereof given by the District or architect shall remain uncomplied with.
- b. The final payment of five percent (5%) of the value of work done under this contract, if unencumbered, shall be made within sixty (60) days after the date of completion of the work, provided however, that in the event of a dispute between the District and the Contractor, the District may withhold from the final payment an amount not to exceed one hundred and fifty percent (150%) of the disputed amount. Completion means any of the following as provided by Public Contract Code section 7107:
 - 1. The occupation, beneficial use, and enjoyment of a work of improvement, excluding any operation only for testing, startup, or commissioning, by the public agency, or its agent, accompanied by cessation of labor on the work of improvement.
 - 2. The acceptance by public agency, or its agent, of the work of improvement.
 - 3. For purposes of this contract, the acceptance by the District means acceptance made only by an action of the governing body of District in session. Acceptance by Contractor of said final payment shall constitute a waiver of all claims against District arising from this contract.

4. After the commencement of a work of improvement, a cessation of labor on the work of improvement for a continuous period of 100 days or more, due to factors beyond the control of the Contractor.
 5. After the commencement of a work of improvement, a cessation of labor on the work of improvement for a continuous period of 30 days or more, if the public agency files for record a notice of cessation or a notice of completion.
- c. This contract is subject to the provisions of Public Contract Code section 7107.
- d. At any time after fifty percent (50%) of the work has been completed, if the District, by action of its governing body, finds that satisfactory progress is being made, District may make any of the remaining payments in full for actual work completed or may withhold any amount up to five percent (5%) thereof as District may find appropriate based on the Contractor's progress.
- e. Whenever any part of the work is in a condition suitable for use, and the best interest of the District requires such use, the District may take possession of, connect to, open for public use, or use a part thereof. When so used, maintenance and repairs due to ordinary wear and tear or vandalism will be made at District's expense. The use by the District as contemplated in this section shall in no case be construed as constituting acceptance of the work or any part thereof. Such use shall neither relieve the Contractor of any of his/her responsibilities under the Contract nor act as a waiver by the District of any of the conditions thereof. Contractor shall continue to maintain all insurance, including Builder's Risk insurance, on the project.

Article 41. PAYMENTS WITHHELD

- a. In addition to amounts which District may retain under any and all other articles in this contract including those entitled "Payments," and "Time for Completion and Liquidated Damages," District may withhold a sufficient amount or amounts of any payment or payments otherwise due to Contractor, as in his/her judgment may be necessary to cover.
1. Payments which may be past due and payable for just claims against Contractor or any subcontractors for labor or materials furnished in and about the performance of work on the project under this contract.
 2. Defective work not remedied.
 3. Failure of Contractor to make proper payments to his/her subcontractor or for material or labor.
 4. Completion of contractor if there exists a reasonable doubt that contract can be completed for balance then unpaid.
 5. Damage to another Contractor.
 6. Amounts which may be due District for just claims against Contractor.
 7. Failure of Contractor to keep the record ("as-built") drawings up to date.
 8. Failure to provide update on construction schedule as required by Article 7 hereof.
- b. District may apply such withheld amount or amounts to payment of such claims or obligations at its discretion. In so doing, District shall be deemed the agent of Contractor and any payment so made by District shall be considered as a payment made under contract by District to Contractor and District shall not be liable to Contractor for such payments made in good faith. Such payments may be made without prior judicial determination of claim or obligations. District will render Contractor a proper accounting of such funds disbursed on behalf of Contractor.

Article 42. CHANGES AND EXTRA WORK

- a. Changes in Work. District, without invalidating contract, and as provided by law, may order extra work or make changes by altering, adding to, or deducting from work, the contract sum being adjusted accordingly. All such work shall be subject to prevailing wage rates and shall be executed under the conditions of the original contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change.
- b. In giving instructions, Contractor agrees that architect shall have authority to make minor changes in work, not involving change in cost, and not inconsistent with the purposes or approvals of the project. Otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless pursuant to a written order from District, and no claim for an addition to the contract sum shall be valid unless so ordered.

- c. Unforeseen Conditions. Contractor shall provide District with notice of unforeseen conditions immediately upon discovery of such conditions.
- d. Value of any such extra work, change, or deduction shall be determined at the discretion of District in one or more of the following ways:

1. By acceptable lump sum proposal from Contractor with itemization of required by District.
2. By unit prices contained in Contractor's original bid and incorporated in contract documents or fixed by subsequent agreement between District and Contractor.
3. By the cost of material and labor and a percentage for overhead and profit. The following form shall be followed as applicable for additions and deductions to contract.

EXTRA / (CREDIT)

(a) Material (attach itemized quantity and unit cost plus sales tax)	_____
(b) Labor (attach itemized hours and base rates from Identified prevailing wage schedules)	_____
(c) Equipment (attach hours and base rates)	_____
(d) General Liability Insurance, Workers' Compensation Insurance, Social Security Pension and Unemployment Taxes at actual and Verified cost.	_____
(e) Subtotal	_____
(f) Subcontractor's overhead and profit not to Exceed 10% of item (e).	_____
(g) Subtotal	_____
(h) General Contractor's Overhead and Profit, Including extended home office overhead, Not to exceed 10% of item (d).	_____
(i) Subtotal	_____
(j) Bond Premium, not to exceed 1% of Item (i)	_____
(k) Total	=====

- e. Regardless of whether the cost of the change order is determined pursuant to 1, 2, or 3, above, in addition to the cost of the material and labor for deleted items, Contractor shall credit back an appropriate and reasonable overhead mark-up and the bonding mark up for deleted items. In addition, in no circumstance shall contractor be entitled to subcontractor's overhead costs or mark-up where work is performed by Contractor's own forces.
- f. Should Contractor claim that any instruction, request, drawing, specification, action, condition, omission, default, or other situation (i) obligates the District to pay additional compensation to the Contractor; or (ii) obligates the District to grant an extension of time for the completion of the contract; or (iii) constitutes a waiver of any provision in the contract, CONTRACTOR SHALL NOTIFY THE DISTRICT, IN WRITING, OF SUCH CLAIM AS SOON AS POSSIBLE, BUT IN NO EVENT WITHIN MORE THAN FIVE (5) WORKING DAYS FROM THE DATE CONTRACTOR HAS ACTUAL OR CONSTRUCTIVE NOTICE OF THE CLAIM. CONTRACTOR SHALL ALSO PROVIDE DISTRICT WITH SUFFICIENT WRITTEN DOCUMENTATION SUPPORTING THE FACTUAL BASIS OF THE CLAIM. Contractor shall be required to certify under penalty of perjury the validity and accuracy of any claims submitted. The Contractor's failure to notify the District within such five (5) working day period shall be deemed a waiver and relinquishment of the claim against the District. If such notice be given within the specified time, the procedure for its consideration shall be as stated above in this article. In the event of a dispute as to any work to be performed, the District has the right to direct the Contractor to continue to proceed with work as directed, and the

Contractor is obligated to continue performance of work and advise District of its concerns in writing in accordance with the provisions of this subsection f. The procedure for consideration shall be as stated above in this article.

- g. In the event a mutual agreement cannot be reached on the cost of a change order, Contractor and District agree that an industry estimating guide, such as an estimating guide published by Means, shall be used to determine the cost of a disputed change order item.
- h. All costs associated with the change are to be included in the change order proposal to the District. Costs may be in terms of time, money or both.

Article 43. DEDUCTIONS FOR UNCORRECTED WORK

If District deems it inexpedient to correct work injured or not done in accordance with contract, an equitable deduction from contract price shall be made therefore.

Article 44. PAYMENTS BY CONTRACTOR

Contractor shall pay:

- a. For all transportation and utility services not later than the 20th day of the calendar month following that in which such services are rendered,
- b. For all materials, tools, and other expendable equipment to the extent of ninety percent (90%) of cost thereof, not later than the 20th day of the calendar month following that in which such materials, tools, and equipment are delivered at site of project and balance of cost thereof not later than the 30th day following completion of that part of work in or on which such materials, tools, and equipment are incorporated or used, and
- c. To each of his/her subcontractors, not later than the 5th day following each payment to Contractor, the respective amounts allowed Contractor on account of work performed by respective subcontractor to the extent of such subcontractor's interest therein.

Article 45. CONTRACTOR'S SUPERVISION

- a. Unless personally present on the premises where work is being done, Contractor shall keep on the work, during its progress, a competent full-time job (project) superintendent satisfactory to District. The job superintendent shall not be changed except with the written consent of District unless the job superintendent proves to be unsatisfactory to Contractor and ceases to be in his/her employ. The job superintendent shall represent Contractor in his/her absence and all directions given to him shall be as binding as if given to Contractor. Other directions shall be so confirmed on written request in each case.
- b. Contractor shall give efficient supervision to work, using his/her best skill and attention to control safety and job coordination. He shall carefully study and compare all drawings, specifications, and other instructions and shall at once report to architect any error, inconsistency or omission which he may discover. The Contractor shall not be liable to District for any damage resulting from errors or deficiencies in the contract documents or other instructions by the architect.

Article 46. INSPECTOR'S FIELD OFFICE (NOT USED)

- ~~a. Contractor shall provide for the use of inspector a separate trailer or temporary private office of not less than seventy five square feet of floor area to be located as directed by inspector and to be maintained until removal is authorized by District. The Office shall be of substantial waterproof construction with adequate natural light and ventilation by means of stock design windows. Door shall have a key-type lock or padlock hasp. The inspector's field office shall have heating and air conditioning and shall be equipped with a telephone, a telephone answering machine, a fax machine and use of an on-site copier at Contractor's expense.~~
- ~~b. A table satisfactory for the study of plans and two chairs shall be provided by Contractor. Contractor shall provide and pay for adequate electric lights, local telephone service, and adequate heat and air conditioning for the field office until authorized renewal.~~
- ~~c. The provisions of this section are intended to be complementary to any requirements provided elsewhere in these contract documents, however in the event of conflicts between this section and other provisions of these contract documents, this section shall prevail.~~

Article 47. DOCUMENTS ON WORK

- a. Contractor shall keep one copy of all contract documents, including addenda, change orders, Division I, Title 21 of the California Code of Regulations, Parts 1-5 and 12 of Title 24 of the California Code of Regulations, and the prevailing wage rates applicable at the time of the contract, which are a part of contract documents, on job at all times. Said documents shall be kept in good order and shall be available to District representative, architect and his/her representatives. Contractor shall be acquainted with and comply with the provisions of said Titles 21 and 24 as they relate to this project. (See particularly Duties of the Contractor, Title 24 California Code of Regulations, section 4-343.) Contractor shall also be acquainted with and comply with all California Code of Regulations provisions relating to this project, particularly Titles 17, 19, 21 and 24.)
- b. Contractor shall also make available all books, records, accounts, contracts, bids, etc. upon request of District.

Article 48. RECORD ("AS BUILT") DRAWINGS

- a. Contractor shall maintain a clean, undamaged set of contract drawings and shop drawings. In addition to maintaining one complete set of record drawings (herein referred to as "as-builts"), Contractor shall require each trade to do its own as-builts. The trade as-builts shall contain information showing clean and clear drawings with horizontal and vertical controls suitable for conversion to electronic media. Graphic quality must be equal to clean and clear original drawings; adequacy of the drawings shall be determined by the District's representative or architect. Contractor shall mark the set to show the actual installation where the installation varies from the work as originally shown. Contractor shall mark whichever drawings are most capable of showing conditions fully and accurately where shop drawings are used, and shall record a cross-reference at the corresponding location on the contract drawings. Contractor shall give particular attention to concealed elements that would be difficult to measure and record at a later date. Contractor shall use colors to distinguish variations in separate categories of the work.
- b. Contractor shall note related change order numbers where applicable. Contractor shall organize record drawings sheets into manageable sets, bound with durable paper cover sheets and shall print suitable title, dates and other identification on the cover of each set.
- c. At the end of the project, the Contractor shall provide the district representative with a complete set of as-built drawings. The complete set shall contain information showing clean and clear drawings with horizontal and vertical controls suitable for conversion to electronic media. Graphic quality must be equal to clean and clear original drawings; adequacy of the drawings shall be determined by the District's representative or architect. The as-builts must show the entire site for each major trade, including but not limited to water, sewer, electrical, data, telephone, cable, fire, alarm, gas, and plumbing.

Article 49. UTILITY USAGE

- ~~a. All temporary utilities, including but not limited to electricity, water, gas, and telephone used on work shall be furnished and paid for by Contractor. Contractor shall furnish and install necessary temporary distribution systems, including meters, if necessary, from distribution points to points on site where utility is necessary to carry on the work. Upon completion of work, Contractor shall remove all temporary distribution systems.~~
- ~~b. Contractor shall provide necessary and adequate utilities and pay all costs for water, electricity, gas, oil, and sewer charges required for completion of the project.~~
- ~~c. All permanent meters installed shall be listed in the Contractor's name until completion occurs, as defined in Article 6 hereof, at which time further pro-rating will be determined if necessary. When District begins using the project, charges over and above power actually used for construction will be the responsibility of the District.~~
- ~~d. If contract is for construction in existing facilities, Contractor may, with written permission of District, use District's existing utilities by making prearranged payments to District for utilities used by Contractor for construction.~~

Article 50. SANITARY FACILITIES

The Contractor shall provide temporary toilets for the use of all workers associated with this scope of Work. The building shall be maintained in a sanitary condition at all times and shall be left at the site until the inspector directs removal. Use of toilet facilities in the work under construction shall not be permitted except by approval of the inspector.

Article 51. TRENCHES

If the contract price \$25,000, the Contractor shall submit to the District or a registered civil or structural engineer employed by the District, a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation of any trench or trenches five feet or more in depth. If such plan varies from the shoring system standards established by the Construction Safety Orders, the plan shall be prepared by a registered civil or structural engineer. No excavation of such trench or trenches shall be commenced until said plan has been accepted by District or the person to whom authority to accept has been delegated by District.

Article 52. PROTECTION OF WORK AND PROPERTY

- a. The Contractor shall be responsible for all damages to persons or property that occur as a result of his/her fault or negligence in connection with the prosecution of this contract. Contractor shall be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance by the District. All work shall be solely at the Contractor's risk. Contractor shall adequately protect adjacent property from settlement or loss of lateral support as provided by law and contract documents. Contractor shall take all necessary precautions for the safety of employees on the project and shall comply with all applicable safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to premises where work is being performed. Contractor shall erect and properly maintain at all times, as required by conditions and progress of work, all necessary safeguards, signs, barriers, lights, and watchmen for protection of workers and the public and shall post danger signs warning against hazards created by such features in the course of construction. Contractor shall designate a responsible member of his/her organization on the work, whose duty shall be prevention of accidents. The name and position of the person so designated shall be reported to District by Contractor
- b. In an emergency affecting safety of life or of work or of adjoining property, Contractor, without special instruction or authorization from architect or District, is hereby permitted to act, at his/her discretion, to prevent such threatened loss or injury, and he shall so act, without appeal, if so authorized or instructed by architect or District. Any compensation claimed by Contractor on account of emergency work shall be determined by agreement.
- c. Contractor shall provide such heat, covering, and enclosures as are necessary to protect all work, materials, equipment, appliances, and tools against damage by weather conditions.
- d. Contractor shall take adequate precautions to protect existing sidewalks, curbs, pavements, utilities, adjoining property, and structures, and to avoid damage thereto, and repair any damage thereto caused by construction operations. Contractor shall:
 1. Enclosed working area with a substantial barricade, arrange work to cause minimum amount of inconvenience and danger to students and faculty in their regular school activities, and perform work which may interfere with school routine before or after school hours. (This subsection applies to new construction on existing sites.)
 2. Provide substantial barricades around any shrubs or trees indicated to be preserved.
 3. Deliver materials to the building area over a rout designated by architect.
 4. When directed by District, take preventive measures to eliminate objectionable dust.
 5. Confine Contractor's apparatus, the storage of materials, and the operations of his/her workers to limits indicated by law, ordinances, permits, or directions of architect. Contractor shall not unreasonably encumber premises with his/her materials. Contractor shall enforce all instructions of District and architect regarding signs, advertising, fires, danger signals, barricades, and smoking and require that all persons employed on work comply with all regulations while on construction site.
 6. Take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed by accident, they shall be replaced by an approved civil engineer or land surveyor, licensed in the State of California, at no cost to the District.

Article 53. LAYOUT AND FIELD ENGINEERING

All field engineering required for laying out this work and establishing grades for earthwork operations shall be furnished by the Contractor at his/her expense. Such work shall be done by a qualified civil engineer or land surveyor licensed in California and approved by the architect. Any required "as-built" drawings of site development shall be prepared by a qualified civil engineer or land surveyor licensed in California and approved by the architect.

Article 54. REMOVAL OF HAZARDOUS MATERIALS

- a. Since removal and/or abatement of asbestos, PCBs and other toxic wastes and hazardous materials is a specialized field of work with specialized insurance requirements, unless otherwise specified in the contract documents, district shall contract directly for such specialized services, if required, and shall not require the Contractor to subcontract for such services.
- b. In the event the Contractor encounters on the site material reasonably believed to be asbestos or polychlorinated biphenyl (PCB) which has not been rendered harmless, the Contractor shall immediately stop work in the area affected and report the condition to the District, inspector, and architect in writing. The work in the affected area shall

not thereafter be resumed except by written agreement of the District and Contractor if in fact the material is asbestos or PCB and has not been rendered harmless. The work in the affected area shall be resumed in the absence of asbestos or PCB, or when it has been rendered harmless, by written agreement of the District and Contractor, or by arbitration under Article 71 hereof.

Article 55. CUTTING AND PATCHING

- a. Contractor shall do all cutting, fitting, or patching of work as required to make its several parts come together properly and fit it to receive or be received by work of other contractors showing upon, or reasonably implied by, the drawings and specifications for the completed structure. Contractor shall make good after them as architect may direct.
- b. All cost caused by defective or ill-timed work shall be borne by party responsible therefore.
- c. Contractor shall not endanger any work by cutting, excavating, or otherwise altering work and shall not cut or alter work of any other contractor save with consent or at the direction of architect.

Article 56. CLEANING UP

Contractor at all times shall keep premises free from debris such as waste, rubbish, and excess materials and equipment caused by this work. Contractor shall not leave debris under, in, or about the premises. Upon completion of work, Contractor shall clean the interior and exterior of the building or improvement including fixtures, equipment, walls, floors, ceilings, roofs, window sills and ledges, horizontal projections, and any areas where debris has collected so surfaces are free from foreign material or discoloration. Contractor shall clean and polish all glass, plumbing fixtures, and finish hardware and similar finish surfaces and equipment and contractor shall also remove temporary fencing, barricades, planking and construction toilet and similar temporary facilities from site.

Article 57. CORRECTION OF WORK BEFORE FINAL PAYMENT

- a. Contractor shall promptly remove from the premises all work condemned by District as failing to conform to the contract, whether incorporated or not. Contractor shall promptly replace and re-execute his/her own work to comply with contract documents without additional expense to District and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.
- b. If Contractor does not remove such condemned work within a reasonable time, fixed by written notice, District may remove it and may store the material at Contractor's expense. If Contractor does not pay expenses of such removal within ten (10) days' time thereafter, District may, upon ten (10) days' written notice, sell such materials at auction or at private sale and shall account for net proceeds thereof, after deducting all costs and expenses that should have been borne by Contractor.

Article 58. ACCESS TO WORK

District and its representative shall at all times have access to work wherever it is in preparation or progress. Contractor shall provide safe and proper facilities for such access so that District's representatives may perform their functions under contract.

Article 59. OCCUPANCY

District reserves the right to occupy buildings at any time before completion, and such occupancy shall not constitute final acceptance of any part of work covered by this contract.

Article 60. DISTRICT'S INSPECTOR

- a. If applicable, an inspector will be employed by District in accordance with requirements of Title 24 of the California Code of Regulations and will be assigned to the work. His/her duties are specifically defined in Part 1, Title 24, Section 4-342 of the California Code of Regulations.
- b. All work shall be under the observation of said inspector. He shall have free access to any or all parts of work at any time. Contractor shall furnish inspector reasonable facilities for obtaining such information as may be necessary to keep him fully informed respecting progress and manner of work and character of materials. Inspection of work shall not relieve Contractor from any obligation to fulfill this contract. Inspector or architect shall have authority to stop work whenever the provisions of the contract documents are not being complied with and Contractor shall instruct his/her employees accordingly.

Article 61. TESTS AND INSPECTIONS

- a. If contract, District's instructions, laws, ordinances, or any public authority require any work to be specially tested or approved, Contractor shall give notice in accordance with such authority of its readiness for observation or inspection **at least two (2) working days prior to being tested or covered up.** If inspection is by a public authority other than District, Contractor shall inform District of date fixed for such inspection. Required certificates of inspection shall be secured by Contractor. Observations by District shall be promptly made and where practicable at source of supply. If any work should be covered up without approval or consent of District, it must, if required by District, be uncovered for examination and satisfactorily reconstructed at Contractor's expense in compliance with the contract. Costs for testing and inspection shall be paid by District. Costs of tests of any materials found not to be in compliance with the contract shall be paid by the Contractor.
- b. Where such inspection and testing are to be conducted by an independent laboratory or agency, such materials or samples of materials to be tested shall be selected by such laboratory or agency, or District's representative, and not by Contractor.
- c. In advanced of manufacture of materials to be supplied by Contractor under the contract, which by the terms of the contract must be tested, Contractor shall notify District in advance so that District may arrange for testing of same at the source of supply. Any materials shipped by Contractor from the source of supply prior to having satisfactorily passed such testing and inspection, or prior to receipt of notice from District's representative that such testing and inspection will not be required, shall not be incorporated into the work without the prior approval of District and subsequent testing and inspection.
- d. Re-examination of questioned work may be ordered by District. If so ordered, work must be uncovered by Contractor. If such work is found to be in accordance with the contract documents, District shall pay the costs of re-examination and replacement. If such work be found not to be in accordance with the contract documents, Contractor shall pay such costs.

Article 62. SOILS INVESTIGATION REPORT

Except as provided in Article 68, when a soils investigation report obtained from test holes at the site is available, such report SHALL BE a part of this contract. Nevertheless, with respect to any such soils investigation and/or geotechnical report regarding the site, it shall be the responsibility of the Contractor to review and be familiar with such report. Any information obtained from such report or any information given on drawings as to subsurface soil condition or to elevations of existing grades or elevations of underlying rock is approximate only, is not guaranteed, and does not form a part of the contract, unless otherwise specifically provided. Contractor is required to make a visual examination of site and must make whatever tests he deems appropriate to determine the underground condition of the soil. Limited soil tests and subsurface investigations, if any, are available for review and consideration by Contractor and were conducted for the purpose of design only. Subsurface investigation information is made available by District solely as a matter of convenience and general information for Contractor and Contractor is expected to review and be familiar with such information. No representation is made by District or Architect that information provided is completely representative of all conditions and materials which may be encountered. If such a report is referenced in the contract documents for performance of the Work, such reference shall be to establish minimum requirements only. Further, no representation is made by District or Architect that information provided is solely adequate for purposes of construction. District disclaims responsibility for interpretations by Contractor of soil and subsurface investigation information, such as in protecting soil-bearing values, rock profiles, presence and scope of boulders and cobbles, soil stability and the presence, level and extent of underground water. Contractor shall determine means, methods, techniques and sequences necessary to achieve required characteristics of completed Work. Conditions found after execution of the Agreement to be materially different from those reported and which are not customarily encountered in the geographic area of the Work shall be governed by provisions of the General Conditions of the Contract for unforeseen conditions.

Article 63. ARCHITECT'S STATUS

- a. In general and where appropriate and applicable, the architect shall be the District's representative during the construction period and shall observe the progress and quality of the work on behalf of the District. He shall have the authority to act on behalf of District only to the extent expressly provided in the contract documents. After consultation with the Inspector and after using his/her best efforts to consult with the District, the architect shall have authority to stop work whenever such stoppage may be necessary in his/her reasonable opinion to insure the proper execution of the contract.
- b. Contractor further acknowledges that the architect shall be, in the first instance, the judge of the performance of this contract.

Article 64. ARCHITECT'S DECISIONS

Contractor shall promptly notify District in writing if the architect fails within a reasonable time, make decisions on all claims of the District or Contractor and on all other matters relating to the execution and progress of work.

Article 65. PROVISIONS REQUIRED BY LAW DEEMED INSERTED

Each and every provision of law and clause required by law to be inserted in this contract shall be deemed to be inserted herein and the contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon application of either party, the contract shall forthwith be physically amended to make such insertion or correction.

Article 66. LABOR/EMPLOYMENT SAFETY

The Contractor shall maintain emergency first aid treatment for his/her employees which complies with the Federal Occupational Safety and Health Act of 1970 (29 USC, section 651 et seq.).

Article 67. NOTICE OF TAXABLE POSSESSORY INTEREST

The terms of this document may result in the creation of a possessory interest. If such a possessory interest is vested in a private party to this document, the private party may be subjected to the payment of personal property taxes levied on such interest.

Article 68. ASSIGNMENT OF ANTITRUST ACTIONS

Contractor or subcontractor offers and agrees to assign to District all rights, title, and interest in and to all causes of action it may have under section 4 of the Clayton Act (15 USC, section 15) or under the Cartwright Act (chapter 2 (commencing with section 16700) of part 2 of division 7 of the Business and Professions Code), arising from the purchase of goods, services, or materials pursuant to this contract or any subcontract. This assignment shall be made and become effective at the time District tenders final payment to the Contractor, without further acknowledgment by the parties.

Article 69. SUBSTITUTION OF SECURITY

a. Upon the Contractor's conditions:

1. The Contractor shall bear the expense of the District and the escrow agent, either the District or the bank, in connection with the escrow deposit made.
2. Securities or certificates of deposit to be placed in escrow shall be of a value at least equivalent to the amounts of retention to be paid to the Contractor pursuant to this section.
3. The contractor shall enter into an escrow agreement satisfactory to the District, which agreement shall include provisions governing inter alia:
 - (a) The amount of securities to be deposited,
 - (b) The providing of powers of attorney or other documents necessary for the transfer of the securities to be deposited,
 - (c) Conversions to cash to provide funds to meet defaults by the Contractor, including, but not limited to, termination of the Contractor's control over the work, stop notices filed pursuant to law, assessment of liquidated damages or other amounts to be kept or retained under the provisions of the contract,
 - (d) Decrease in value of securities on deposit,
 - (e) The termination of escrow upon completion of the contract.
4. The Contractor shall obtain the written consent of the surety to such agreement.
5. As an alternative to Contractor depositing into escrow securities of a value equivalent to the amounts of retention to be paid to the Contractor, upon Contractor's request, District will make payment of retentions earned directly to the escrow agent at the expense of Contractor pursuant to and in accordance with Public Contract Code section 22300.

Article 70. EXCAVATIONS DEEPER THAN FOUR FEET

If this contract involves digging trenches or other excavations that extend deeper than four feet below the surface, then all of the following shall apply:

- a. The Contractor shall promptly, and before the following conditions are disturbed, notify the District, in writing, of any:
 1. Material that the Contractor believes may be material that is hazardous waste, as defined in section 25117 of the Health and Safety Code, which is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.
 2. Subsurface or latent physical conditions at the site differing from those indicated.
 3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.
- b. Upon receiving any such notice, the District shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the work District shall issue a change order under the procedures described in this contract.
- c. In the event that a dispute arises between the District and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by this contract, but shall proceed with all work to be performed under the contract. A contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the contracting parties. (Public Contract Code section 7104).

Article 71. COMPLIANCE WITH STATE STORM WATER PERMIT FOR CONSTRUCTION

- a. The Contractor shall be required to comply with all conditions of the State Water Resources Control Board (State Water Board) National Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity (Permit) for all construction activity which results in the disturbance of in excess of one acre of total land area or which is part of a larger common area of development or sale. The Contractor shall be responsible for filing the Notice of Intent and for obtaining the Permit. The Contractor shall be solely responsible for preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) prior to initiating Work. It shall be Contractor's responsibility to evaluate the cost of compliance with the SWPPP in bidding on this contract. Contractor shall comply with all requirements of the State Water Resources Control Board. Contractor shall include all costs of compliance with specified requirements in the contract amount.
- b. Contractor shall be responsible for implementing and complying with the provisions of the Permit and the SWPPP, including the standard provisions, monitoring and reporting requirements as required by Permit. Contractor shall provide copies of all reports and monitoring information to District.
- c. Contractor shall comply with the lawful requirements of any applicable municipality, the County, drainage district, and other local agencies regarding discharges of storm water to separate storm drain system or other watercourses under their jurisdiction, including applicable requirements in municipal storm water management programs.
- d. Failure to comply with the Permit is a violation of federal and state law. Contractor hereby agrees to indemnify and hold harmless District, its Board Members, officers, agents, employees and authorized volunteers from and against any and all claims, demands, losses or liabilities of any kind or nature which District, its Board Members, officers, agents, employees and authorized volunteers may sustain or incur for noncompliance with the Permit arising out of or in connection with the project, except for liability resulting from the negligence or willful misconduct of District, its Board Members, officers, agents, employees or authorized volunteers. District may seek damages from Contractor for delay in completing the contract in accordance with Article 6 hereof, caused by Contractor's failure to comply with Permit.

Article 72. RESOLUTION OF CONSTRUCTION CLAIMS OF \$375,000 OR LESS

- a. For public work claims of \$375,000 or less between Contractor and District, if District has not elected to resolve disputes by arbitration pursuant to article 7.1 (commencing with section 10240) of chapter 1 of part 2 of the Public Contract Code, the provisions of article 1.5 (commencing with section 20104) of chapter 1 of part 3 of the Public Contract Code apply ("Article 1.5").
- b. For purposes of Article 1.5, "public work" has the same meaning as in sections 3100 and 3106 of the Civil Code. "Claims" means a separate demand by Contractor for a time extension, or payment of money or damages for work done by or for Contractor, payment for which is not otherwise expressly provided in the contract or to which Contractor would not otherwise be entitled, or a payment disputed by District.

- c. Each claim shall be submitted in writing before the date of final payment and shall include all necessary substantiating documentation. District shall respond in writing within forty-five (45) days of receipt of the claim if the claim is less than \$50,000 ("50,000 claim") or within sixty (60) days of receipt of the claim, if the claim is over \$50,000 but less than or equal to \$375,000 ("50,000-\$375,000 claim"). In either case, District may request in writing within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the District may have against the claimant. Any additional information shall be requested and provided upon mutual agreement of the District and the claimant. District's written response to the claim shall be submitted to claimant within fifteen (15) days after receipt of the further documentation for 50,000 claims or within thirty (30) days after receipt of the further documentation for 50,000-\$375,000 claims or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.
- d. Within fifteen(15) days of receipt of the District's response, if claimant disputes District's written response or within fifteen (15) days of the District's failure to respond within the time prescribed, the claimant shall provide written notification to District demanding an informal conference to meet and confer ("conference") to be scheduled by the District within thirty (30) days. If the claim or any portion of the claim remains in dispute following the meet and confer ("meet and confer conference") to be scheduled by the District within 30 days, the claimant may file a claim as provided in Chapter 1 (commencing with section 900) and Chapter 2 (commencing with section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the period of time within which a claim must be filed is tolled from the time the claimant submits a written claim until the time the claim is denied, including time utilized as a result of the meet and confer process, including time utilized by the meet and confer process.
- e. If a civil action is filed to resolve claims within sixty (60) days (but no earlier than thirty (30) days) following the filing or responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide that both parties select a disinterested third person mediator within fifteen (15) days, shall be commenced within thirty (30) days of the submittal and concluded within fifteen (15) days from the commencement of the mediation unless time is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator.
- f. If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to chapter 2.5 (commencing with section 1141.10) of title 3 of part 3 of the Code of Civil Procedure, notwithstanding section 1141.11 of that code. The Civil Discovery Act of 1986 (article 3 [commencing with section 2016] of chapter 3 of title 3 or part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration. The court may, upon request by any party, order any witness to participate in the mediation or arbitration process.
- g. Notwithstanding any other provision of law, upon stipulation of the parties, arbitrators appointed for purposes of this article shall be experienced in construction law and, upon stipulation of the parties, mediators and arbitrators shall be paid necessary and reasonable hourly rates not to exceed their customary rate. Such fees and expenses shall be paid equally by the parties, except in the case of arbitration where the arbitrator, for good cause, determines a different division. In no event shall these fees or expenses be paid by state or county funds. Any party who, after receiving an arbitration award requests a trial de novo but does not obtain a more favorable judgment, shall pay the attorney's fees of the other party arising out of the trial de novo in addition to payment of costs and fees required under chapter 2.5 (commencing with section 1141.10) of title 3 of part 3 of the Code of Civil Procedure. District shall not fail to pay any portion of a claim which is undisputed unless otherwise provided herein and shall pay interest at the legal rate commencing on the date the suit is filed in court on any arbitration award or judgment.
- h. Any arbitration, mediation or other forms of alternate dispute resolution shall be handled within the boundaries of the District unless otherwise mutually agreed.

Article 73. RESOLUTION OF CONSTRUCTION CLAIMS IN EXCESS OF \$375,000

- a. If a dispute in excess of a total value of \$375,000, arises out of, or relates to this contract, or the breach thereof, and if said dispute cannot be settled through normal contract negotiations, the parties agree that as a condition precedent to the initiation of litigation, the dispute shall first be submitted to mediation pursuant to this Article 71. The mediation is voluntary, non-binding, and intended to provide an opportunity for the parties to evaluate each other's cases and arrive at a mutually agreeable resolution of the dispute. These provisions relating to voluntary mediation shall not be construed or interpreted as mandatory arbitration.
- b. Either party may initiate mediation by notifying the other party or parties in writing. A Request for Mediation shall contain a brief statement of the nature of the dispute or claim, and the names, addresses, and phone numbers of all parties to the dispute or claim, and those, if any, who will represent them in the mediation.

- c. The mediation process set forth in this section shall be administered by the American Arbitration Association (AAA) and governed by their rules in effect at the time of filing, or by any other neutral organization agreed to by the parties (hereinafter called "Administrator").
- d. The costs for all mediation, including the administrative fees and mediator compensation, will be shared equally by all parties. Fees shall be jointly negotiated by all parties directly with the Administrator. The expenses of witnesses for any party shall be paid by the party producing such witnesses.
- e. A single mediator, acceptable to all parties, shall be used to mediate the dispute. The mediator will be knowledgeable in construction matters and will be selected from lists furnished by the Administrator. The initial mediation session shall commence within thirty (30) days of filing, unless otherwise agreed by the parties, or at the direction of the mediator.
- f. At least ten (10) days before the first scheduled mediation session, each party shall provide the mediator a brief memorandum setting forth its position with regard to the issues that need to be resolved. At the discretion of the mediator, such memoranda may be mutually exchanged by the parties. At the first session, the parties will be expected to produce all information reasonably required for the mediator to understand the issue presented. The mediator may require each party to supplement such information.
- g. Mediation hearings will be conducted in an informal manner and discovery will not be allowed unless agreed to by all parties. All discussions, statements, or admissions will be confidential to the proceedings and will not be used for any other purpose as they relate to either party's legal position. There shall be no stenographic record of the mediation.
- h. Mediation sessions are private. The parties and their representatives may attend mediation sessions. Other persons may attend only with the permission of the parties and with the consent of the mediator. The parties may have an attorney present and shall advise the other parties no less than five (5) working days before the mediation of their intent to have an attorney present, so that the other parties may also have their attorneys present.
- i. The mediator does not have authority to impose a settlement on the parties but will attempt to assist the parties in reaching a satisfactory resolution of their dispute. The mediator is authorized to conduct joint and separate meetings with the parties and to make oral and written recommendations for settlement. Whenever necessary, the mediator may also obtain expert advice concerning technical aspects of the dispute, provided the parties agree and assume the expenses of obtaining such advice. Arrangements for obtaining such advice shall be made by the mediator or the parties, as the mediator shall determine.
- j. The mediator is authorized to end the mediation whenever, in the mediator's judgment, further efforts at mediation would not contribute to a resolution of the dispute between the parties.
- k. Any resultant agreements from mediation shall be documented in writing, as agreed upon during the mediation, and may be used as the basis for a change order or other directive as appropriate. All mediation results and documentation shall be non-binding and inadmissible for any purpose in any legal proceedings, unless such admission is otherwise agreed in writing by all parties. Mediators shall not be subject to any subpoena or liability and their actions shall not be subject to discovery in subsequent proceedings.
- l. The Mediation shall be terminated by the execution of a Settlement Agreement by the parties; by a written declaration of the Mediator to the effect that further efforts at Mediation are no longer worthwhile; or by a written declaration of a party or parties to the effect that the Mediation proceedings are terminated.
- m. If mediation is unsuccessful in resolving the dispute, the parties thereafter may agree to submit the matter to the Administrator for binding arbitration. The parties agree that the matter shall be submitted to one (1) arbitrator, unless they agree to three (3) arbitrators in writing. The parties further agree that they will faithfully observe this agreement, and that the parties will abide by and perform any award rendered by the arbitrator(s), that a judgment of a court having competent jurisdiction may be entered upon the award, and that such judgment shall be enforceable as a final judgment to the fullest extent under the law. The parties agree to split evenly all arbitration and arbitrator(s) fees and expenses. The arbitration shall be subject to, and proceed in accordance with California Code of Civil Procedure, Section 1280 through 1294.2. If the parties do not agree to submit to binding arbitration, neither party is prevented from pursuing other legal remedies.
- n. Any arbitration, mediation or other forms of alternate dispute resolution shall be handled within the boundaries of the District unless otherwise mutually agreed.

Article 74. GOVERNING LAW AND VENUE

This Contract shall be governed in accordance with the laws of the State of California and venue shall be in San Diego County.

Article 75. ~~FINGERPRINTING (NOT USED)~~

~~District Determination of Fingerprinting Requirement Application is set forth in the Special Conditions.~~

~~(a) Contracts for Construction, Reconstruction, Rehabilitation or Repair of a School Facility Involving **More than Limited Contact with Students:**~~

~~If the District determines based on the totality of the circumstances concerning the Project that the Contractor and Contractor's employees are subject to the requirements of Education Code section 45125.2 pertaining to Contracts for Construction, Reconstruction, Rehabilitation or Repair of a School Facility because they will have contact other than limited contact with pupils, by execution of the Agreement/Contract, the Contractor acknowledges that Contractor is entering into a contract for the construction, reconstruction, rehabilitation, or repair of a school facility where the Contractor and/or Contractor's employees will have more than limited contact with students and the services to be provided do not constitute an emergency or exceptional situation. In accordance with Education Code section 45125.2 the Contractor shall, at Contractor's own expense, (a) install a physical barrier to limit contact with students by Contractor and/or Contractor's employees, or (b) provide for the continuous supervision and monitoring of the Contractor and/or Contractor's employees by an employee of the Contractor who has received fingerprint clearance from the California Department of Justice, or (c) provide for the surveillance of the Contractor and Contractor's employees by a District employee.~~

~~(b) Contracts for Construction, Reconstruction, Rehabilitation or Repair of a School Facility Involving **Only Limited Contact with Students:**~~

~~If the District determines based on the totality of the circumstances concerning the Project that the Contractor and Contractor's employees are subject to the requirements of Education Code section 45125.2 pertaining to Contracts for Construction, Reconstruction, Rehabilitation or Repair of a School Facility because they will have only limited contact with pupils, by execution of the Agreement/Contract, the Contractor acknowledges that Contractor is entering into a contract for the construction, reconstruction, rehabilitation or repair of a school facility involving only limited contact with students. Accordingly, the parties agree that the following conditions apply to any work performed by the Contractor and/or Contractor's employees on a school site: (1) Contractor and/or Contractor's employees shall check in with the school office each day immediately upon arriving at the school site; (2) Contractor and/or Contractor's employees shall inform school office staff of their proposed activities and location at the school site; (3) Once at such location Contractor and/or Contractor's employees shall not change locations without contacting the school office; (4) Contractor and Contractor's employees shall not use student restroom facilities; and (5) If Contractor and/or Contractor's employees find themselves alone with a student, Contractor and Contractor's employees shall immediately contact the school office and request that a member of the school staff be assigned to the work location.~~

Article 76. COMPLIANCE WITH DTSC GUIDELINES – IMPORTED SOILS

If the project requires the use of imported soils, the Contractor shall be responsible to use and shall certify that the imported material it uses is free of any hazardous and/or toxic substance or material of any nature or type as defined in accordance with California Law and the California Health and Safety Code. The District reserves the right to reject any imported material that has come from agricultural or commercial land uses. Contractor must notify the District of the source of material and comply with the San Diego Regional Water Quality Control Board Resolution 95-63 and when applicable, with the guidelines of the Department of Toxic Substances Control (DTSC).

Article 77. NO ASBESTOS

- a. The Contractor will be required to execute and submit a Certificate Regarding Non-Asbestos Containing Materials.
- b. Should asbestos containing materials be installed by the Contractor in violation of this certification, or if removal of asbestos containing materials is part of the Project, decontaminations and removals will be performed in accordance with the requirements of all applicable laws and will meet the following criteria:
 1. Decontamination and removal of work found to contain asbestos or work installed with asbestos containing equipment shall be done only under the supervision of a qualified consultant, knowledgeable in the field of asbestos abatement and accredited by the Environmental Protection Agency (EPA).
 2. The asbestos removal contractor shall be an EPA accredited contractor qualified in the removal of asbestos and shall be chosen and approved by the asbestos consultant who shall have sole discretion and final determination in this matter.
 3. The asbestos consultant shall be chosen and approved by the District which shall have sole discretion and final determination in this matter.

4. The work will not be accepted until asbestos contamination is reduced to levels deemed acceptable by the asbestos consultant.
- c. If removal of asbestos containing materials is part of the project, the cost of all asbestos removal, including, but not necessarily limited to the cost of the asbestos removal contractor, the cost of the asbestos consultant, analytical and laboratory fees, time delays and additional costs that may be incurred by the District shall be borne entirely by the Contractor.
- d. Hold Harmless: Interface of work for the Project with work containing asbestos shall be executed by the Contractor at his/her/their risk and at his/her/their discretion with full knowledge of the currently accepted standards, hazards, risks and liabilities associated with asbestos work and asbestos containing products. By execution of the Agreement, the Contractor acknowledges the above and agrees to the fullest extent permitted by law to hold harmless the District, its Governing Board, employees, agents, representatives, including its architect and assigns, for all asbestos liability which may be associated with this work. The Contractor further agrees to instruct his/her/their employees with respect to the above-mentioned standards, hazards, risk and liabilities.

Article 78. LABOR COMPLIANCE

- a. Labor compliance monitoring shall be conducted by the Department of Industrial Relations pursuant to Labor Code §1771.4(a)(4). The Contractor and every subcontractor of any tier must be registered with the DIR pursuant to Labor Code §1725.5 at all times during the Project in order to be qualified to perform work on this Project. Contractor/subcontractors may register with the DIR online at <http://www.dir.ca.gov/Public-Works/PublicWorks.html>. The Contractor must submit to the District the form of DIR Registration Verification included with the Contract Documents executed by a duly authorized officer or employee of the Contractor at the time of Bid and Contractor shall require all subcontractors of any tier to be registered with DIR and to submit their respective DIR registration numbers at the commencement of Work on the Project. Contractor shall furnish all information associated with labor compliance monitoring and registration to the District upon request and shall diligently report payroll records to the DIR pursuant to labor Code sections 1776 and 1771.4 subd. (a)(3). It is the responsibility of Contractor to ensure that subcontractors of all tiers are registered with DIR and that their registration with DIR has been verified,
- b. Labor Compliance Program. A labor compliance program is only required if the project will be funded by either the Kindergarten-University Public Education Facilities Bond Act of 2002 or the Kindergarten-University Public Education Facilities Bond Act of 2004 and if a notice to proceed was issued on or after April 1, 2003. The District also maintains a Labor Compliance Program for Projects funded by the District's Prop M bond measure. If a labor compliance program is required, the following applies to this contract in addition to the requirements for DIR monitoring if the contract subject to a Labor Compliance Program is entered into on or after April 1, 2015:

This contractor is subject to a labor compliance program, as described in subdivision (b) of Section 1771.5 of the Labor Code. The Labor Compliance Program is incorporated by reference into the Contract and it will be enforced as required by state law and regulations and the Director of the Department of Industrial Relations. That law requires that District's labor compliance program shall include, but not be limited to, the following requirements:

1. All bids invitations and public works contracts shall contain appropriate language concerning the requirements of this chapter,
2. A pre-job conference shall be conducted with the contractor and subcontractors to discuss federal and state labor law requirements applicable to the contract,
3. Project contractors and subcontractors shall maintain and furnish, at a designated time, a certified copy of each weekly payroll containing a statement of compliance signed under penalty of perjury,
4. The District shall review, and, if appropriate, audit payroll records to verify compliance with this chapter,
5. The District shall withhold contract payments when payroll records are delinquent or inadequate,
6. The District shall withhold contract payments equal to the amount of underpayment and applicable penalties when, after investigation, it is established that underpayment has occurred.

Article 79. DISABLED VETERANS PARTICIPATION GOALS AND RECORD RETENTION

- a. In accordance with Education Code section 17076.11, this District has a participation goal for disabled veteran business enterprises ("DVBE") of at least 3 percent per year of the overall dollar amount of funds allocated to the District by the State Allocation Board pursuant to the Leroy F. Greene School Facilities Act of 1998 for construction or modernization and expended each year by the District. Prior to, and as a condition precedent for final payment under

any contract for such project, the Contractor shall provide appropriate documentation to the District identifying the amount paid to disabled veteran business enterprises in conjunction with the contract, so that the District can assess its success at meeting this goal.

- b. The Contractor agrees that, for all contracts subject to DVBE participation goals, the State and the District have the right to review, obtain and copy all records pertaining to performance of the contract in accordance with DVBE requirements. The Contractor agrees to provide the State or the District with any relevant information requested and shall permit the State and/or the District access to its premises upon reasonable notice for purposes of interviewing employees and inspecting records. The Contractor agrees to maintain such records for a period of three years after final payment under the contract.

Article 80. NOTIFICATION OF THIRD PARTY CLAIMS

The District shall provide the Contractor with timely notification of the receipt by the District of any third party claim relating to this contract, and the District may charge back to the Contractor the cost of any such notification.



SPECIFICATIONS - SPECIAL CONDITIONS

1. TIME OF PERFORMANCE:

The work shall commence on the date stated in the District's Notice to Contractor to Proceed and shall be completed within the stated days listed in such Notice. District and Contractor each hereby stipulate that the state performance period is accepted as reasonable and that no other performance period shall be acceptable unless accepted in writing. Work under this contract shall be scheduled and coordinated in compliance with the following:

- a. The anticipated date of award of the contract is January 10, 2018
- b. The anticipated start date is January 17, 2018
- c. Scheduled completion date for BP# NEC-01-E is March 16, 2018
Scheduled completion date for BP# NEC-01-D and F is April 30, 2018

Time of performance should allow for fifteen (15) non-compensable Weather Days.

2. LIQUIDATED DAMAGES: If the work under this contract is not ready for the intended use by the specified time period, the agreed upon liquidated damages established in Article 6 of the General Conditions is Fifteen hundred Dollars (\$1,500.00) per day for each calendar date completion is delayed.

3. DOCUMENTS FURNISHED: The number of copies of drawings and specifications to be furnished to Contractor free of charge, per Article 3 of the General Conditions is ZERO (0).

4. BID BOND: A Bid Bond is required of Bidders in the amount of 10% of the Bidder's Total Amount of the Bid as reflected on the Bidder's Bid Sheets.

5. PAYMENT AND PERFORMANCE BONDS: Before the District issues the District Purchase Order/Notice to Proceed, the Contractor shall submit the following required bonds to the Offices of Contract Services:

- **PAYMENT BOND:** A Payment Bond in the amount of no less than One Hundred Percent (100%) of the Contract Amount as stated in the Agreement between the District and the Contractor.
- **PERFORMANCE BOND:** A Performance Bond in the amount of no less than One Hundred Percent (100%) of the Contract Amount as stated in the Agreement between District and the Contractor.

6. INSURANCE: The Contractor shall maintain adequate insurance to protect him/herself and the District from claims for damages or personal injury, including death, damage to property and loss of property, and from claims under Workers' Compensation Acts, which may arise from operations under a contract with the District. The Contractor shall be required to file the following proofs of such insurance with the District prior to receiving authorization to proceed on a contract:

- Certificate of Insurance, both naming Palomar Community College District as an additional insured, confirming the following minimum coverage:
 - \$1,000,000 combined single limit **general liability** coverage, and
 - \$1,000,000 **automobile liability** coverage,
- Endorsements to the above policies naming Palomar Community College District and Balfour Beatty Construction, LLC as an additional insured.
- Proof of Workers' Compensation coverage (or proof the coverage is not required / applicable).

- Builders Risk Insurance: *Builder's Risk (or Course of Construction Coverage), Applicable Fire Insurance* (See Article 22) Project Replacement Value at100% (One Hundred Percent).

Should any of the above described policies be canceled prior to their expiration dates, the issuing company shall mail 30 days written notice of cancellation to the District. The Contractor shall maintain current insurance documents, for all of the above coverages, on file at the District during the term of any contract with the District.

- 7. NOTICE TO PROCEED:** The District shall provide a Notice to Proceed to the contractor by e-mail or fax, and then followed up by mailing the original Notice to the Contractor.
- 8. EXECUTED COPIES:** The number of executed copies of the Agreement, the Performance Bond, and the Payment Bond for Public Works required is One (1).
- 9. LICENSE CLASSIFICATION:** Each bidder shall be a licensed Contractor pursuant to the Business and Professional Code and shall be licensed in the following classification:

BP# NEC-01-D: Class A – General Engineering Contractor

BP# NEC-01-E: Class A – General Engineering Contractor or Class B – General Building Contractor

BP# NEC-01-F: C27 – Landscaping Contractor

- 10. FINGERPRINTING (NOT USED):** Pursuant to the provisions of article 75 of the General Conditions:

District Determination of Fingerprinting Requirement Application is as follows:

The District has considered the totality of the circumstances concerning the Project and has determined that the Contractor and Contractor's employees,

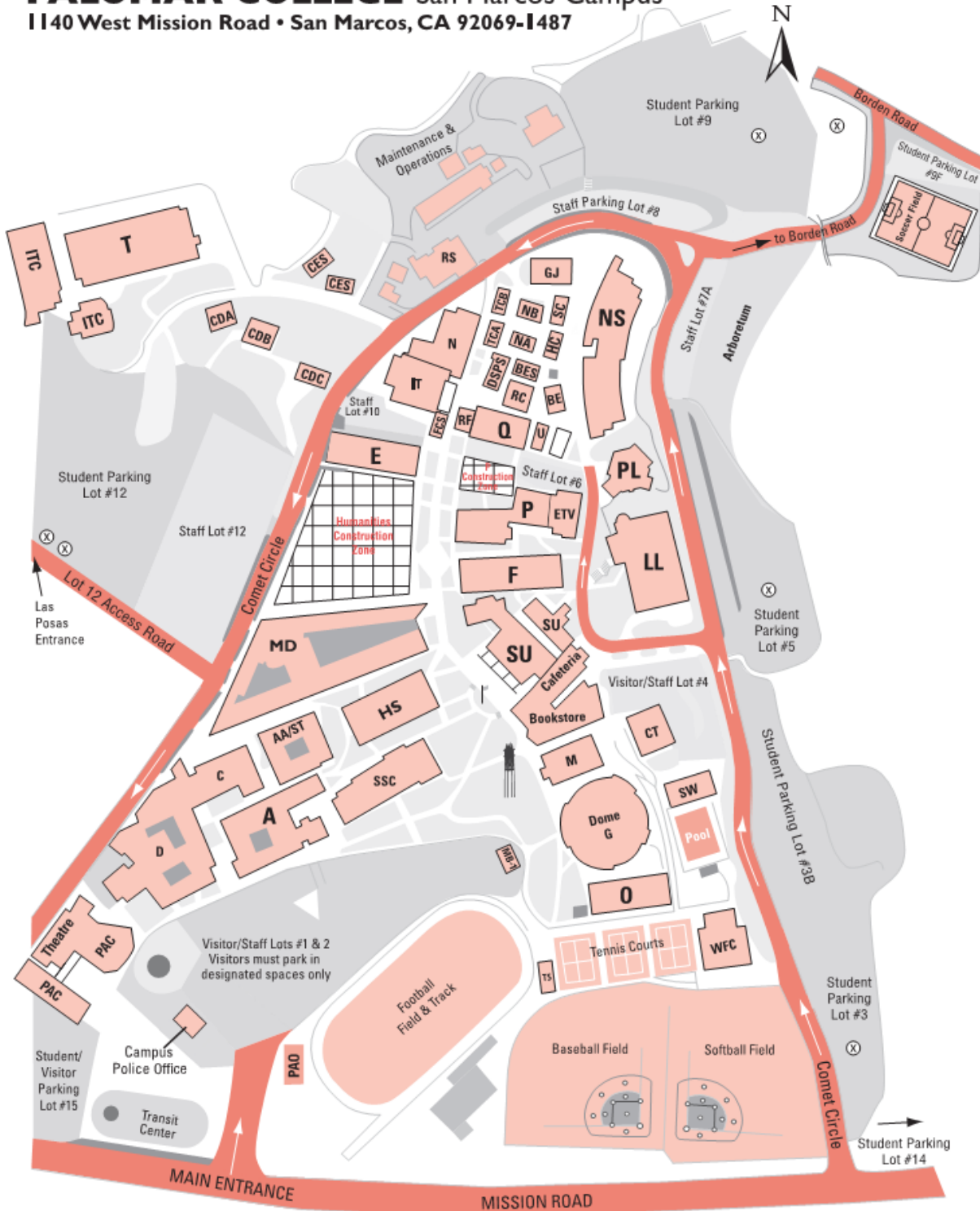
- are subject to the requirements of Education Code section 45125.2 and Paragraph (a) of Article 73 of the General Conditions.
- X are not subject to the requirements of Education Code section 45125.2 and Paragraph (b) of Article 73 of the General Conditions.

- 11. CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS:** Contractor/Bidder must submit to the District the form (included with the Contract Documents) of Verification of Registration with the California Department of Industrial Relations required pursuant to Labor Code section 1725.5 and must also provide to the District the listed subcontractors' DIR registration numbers as part of their bid submittal. Contractor must also require subcontractors of every tier to be registered with the DIR and to provide proof of such registration to the contractor/subcontractor under whom they are working in order to ensure registration and compliance with California Labor Code provisions pertaining to prevailing wage monitoring and compliance (generally, Labor Code section 1720 *et seq.*) Contractor agrees to provide the District with any labor compliance monitoring information upon request.



CAMPUS MAP

PALOMAR COLLEGE San Marcos Campus
 1140 West Mission Road • San Marcos, CA 92069-1487



(X) Daily Parking Machines in Lots 3, 5, 9 and 12



BID FORM

TO: Palomar Community College District, acting by and through its Governing Board, herein called the "District":

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

BID # CM-17-18-01-NEC-01-D- North Education Center Paving, Site Concrete and Improvements

all in strict conformity with the drawings and specifications and other contract documents, including Bid Clarification/Addendum nos. _____, _____, _____, and _____, on file at the office of the said District for the sum of _____

_____ Dollars (\$ _____). Said sum includes all applicable taxes and costs and Owner's Allowances as noted*.

- | | |
|---|---------------|
| 1.) Paving, Site Concrete, and Site Improvements in the amount of | \$ _____ |
| 2.) Allowance for foundations at Entrance Monument Signs | \$ 40,000.00 |
| 3.) Allowance for additional Class 2 base for low subgrades | \$ 25,000.00 |
| 4.) Owner's Miscellaneous Allowance | \$ 200,000.00 |

Grand Total Base Bid: \$ _____ **

*** Owner's Allowances:** Bidder shall include in Bid Proposal the stipulated sums of Forty Thousand Dollars (\$40,000) for monument sign foundations at campus entrances, to be designed during the course of the work; Twenty-Five Thousand Dollars (\$25,000) to import additional class 2 base materials to fill in subgrades that are too low due to weather, traffic, or other disturbances after fire grading work by others was complete; and Two Hundred Thousand Dollars (\$200,000.00) for miscellaneous site improvement work that may be changed or clarified during the final DSA approval of the Documents, or added by the District, all subject to the labor and equipment rates accepted by the District. Contractor shall include separate line items in Contractor's Schedule of Values for these scopes with these values. Work under these Allowances shall be approved by Construction Manager prior to commencing work. Time and Materials work shall be documented by Contractor and submitted to Construction Manager on a daily basis for verification of work performed. At closeout of contract, any funds remaining in the Allowances shall be credited to District through a Change Order.

****Said GRAND TOTAL BASE BID includes all applicable taxes and costs and three (3) Owner's Allowances specified above.**

From time to time it may be necessary to complete additional work on a unit price basis. The unit prices below are NOT included in the Total Base Bid amount above, are subject to Construction Manager approval prior to starting work, and will remain in effect for the duration of the project. Unit costs may or may not be selected at the sole discretion of the District and will be accepted or rejected on the final Agreement form.

2. It is understood that the District reserves the right to reject this bid and that this bid shall remain open and not be withdrawn for the period specified in the Notice to Contractors Calling for Bids.
3. The required bid security is attached hereto.
4. Non-collusion affidavit is attached hereto.
5. The required list of proposed subcontractors is attached hereto.

6. It is understood and agreed that bidder shall provide the name, addresses, portion of work and license numbers of all listed subcontractors as part of their bid submittal.
7. It is understood and agreed that if written notice of the acceptance of this bid is mailed, telegraphed, or delivered to the undersigned after the opening of the bid, and within the time this bid is required to remain open, or at any time thereafter before this bid is withdrawn, the undersigned will execute and deliver to the District a contract in the form attached hereto in accordance with the bid as accepted. The undersigned will also furnish and deliver to the District the Performance Bond and Payment Bond for Public Works as specified, all within five (5) days after receipt of notification of award. The work under the contract shall be commenced by the undersigned bidder, if awarded the contract, on the date to be stated in the District's Notice to the Contractor to Proceed, and shall be completed by the Contractor in the time specified in the contract documents.
8. Notice of acceptance or requests for additional information should be addressed to the undersigned at the address stated below:
9. The names of all persons interested in foregoing proposal as principals are as follows:

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

10. **Bidder certifies that he is licensed in accordance with the law providing for the registration of Contractors, License No. _____, Expiration Date _____, class of license _____.**

I, _____, the _____ of the bidder, hereby certify under penalty of perjury under the laws of the State of California, that all of the information submitted by the bidder in connection with this bid and all of the representations made herein are true and correct.

Executed on this _____ day of _____ at _____ County, California.

Proper Name of Bidder

Address

By: _____
Signature of Authorized Agent/Officer

City, State, Zip Code

Print Name

Telephone

Fax

Email address

NOTE: If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature(s) of authorized officers or agents; if bidder is a partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; and if bidder is an individual, his/her or her signature shall be placed above

Bidder must submit the following documents with this Bid Form in order to be considered responsive:

- ☐ Bid Bond
- ☐ Designation of Subcontractors
- ☐ Non-Collusion Bidding Declaration
- ☐ Contractor's Certificate Regarding Workers' Compensation
- ☐ Verification of Contractor/Subcontractors' DIR Registration



BID FORM

TO: Palomar Community College District, acting by and through its Governing Board, herein called the "District":

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

BID # CM-17-18-01-NEC-01-E North Education Center Laboratory Modulares

all in strict conformity with the drawings and specifications and other contract documents, including Bid Clarification/Addendum nos. _____, _____, _____, and _____, on file at the office of the said District for the sum of _____

_____ Dollars (\$ _____). Said sum includes all applicable taxes and costs and Owner's Allowances as noted*.

- 1.) Complete interior buildout of Laboratory Modulares in the amount of \$ _____
- 2.) Owner's Miscellaneous Allowance \$ 100,000.00

Grand Total Base Bid: \$ _____ **

***Owner's Allowance:** Bidder shall include in Bid Proposal the stipulated sum of One Hundred Thousand Dollars (\$100,000.00) for miscellaneous work that may be changed or clarified during the final DSA approval of the Documents, or added by the District, subject to the labor and equipment rates accepted by the District. Contractor shall include a separate line item in Contractor's Schedule of Values as "Miscellaneous Allowance" with the value of One Hundred Thousand Dollars (\$100,000.00). Work under this Allowance shall be approved by Construction Manager prior to commencing work. Time and Materials work shall be documented by Contractor and submitted to Construction Manager on a daily basis for verification of work performed. At closeout of contract, any funds remaining in the Allowance shall be credited to District through a Change Order.

****Said GRAND TOTAL BASE BID includes all applicable taxes and costs and one (1) Owner's Allowance specified above.**

From time to time it may be necessary to complete additional work on a unit price basis. The unit prices below are NOT included in the Total Base Bid amount above, are subject to Construction Manager approval prior to starting work, and will remain in effect for the duration of the project. Unit costs may or may not be selected at the sole discretion of the District and will be accepted or rejected on the final Agreement form.

2. It is understood that the District reserves the right to reject this bid and that this bid shall remain open and not be withdrawn for the period specified in the Notice to Contractors Calling for Bids.
3. The required bid security is attached hereto.
4. Non-collusion affidavit is attached hereto.
5. The required list of proposed subcontractors is attached hereto.
6. It is understood and agreed that bidder shall provide the name, addresses, portion of work and license numbers of all listed subcontractors as part of their bid submittal.

7. It is understood and agreed that if written notice of the acceptance of this bid is mailed, telegraphed, or delivered to the undersigned after the opening of the bid, and within the time this bid is required to remain open, or at any time thereafter before this bid is withdrawn, the undersigned will execute and deliver to the District a contract in the form attached hereto in accordance with the bid as accepted. The undersigned will also furnish and deliver to the District the Performance Bond and Payment Bond for Public Works as specified, all within five (5) days after receipt of notification of award. The work under the contract shall be commenced by the undersigned bidder, if awarded the contract, on the date to be stated in the District's Notice to the Contractor to Proceed, and shall be completed by the Contractor in the time specified in the contract documents.
8. Notice of acceptance or requests for additional information should be addressed to the undersigned at the address stated below:
9. The names of all persons interested in foregoing proposal as principals are as follows:

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

10. **Bidder certifies that he is licensed in accordance with the law providing for the registration of Contractors, License No. _____, Expiration Date _____, class of license _____.**

I, _____, the _____ of the bidder, hereby certify under penalty of perjury under the laws of the State of California, that all of the information submitted by the bidder in connection with this bid and all of the representations made herein are true and correct.

Executed on this _____ day of _____ at _____ County, California.

 Proper Name of Bidder

 Address

By: _____
Signature of Authorized Agent/Officer

 City, State, Zip Code

 Print Name

 Telephone

 Fax

 Email address

NOTE: If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature(s) of authorized officers or agents; if bidder is a partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; and if bidder is an individual, his/her or her signature shall be placed above

Bidder must submit the following documents with this Bid Form in order to be considered responsive:

- ☐ Bid Bond
- ☐ Designation of Subcontractors
- ☐ Non-Collusion Bidding Declaration
- ☐ Contractor's Certificate Regarding Workers' Compensation
- ☐ Verification of Contractor/Subcontractors' DIR Registration



BID FORM

TO: Palomar Community College District, acting by and through its Governing Board, herein called the "District":

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

BID # CM-17-18-01-NEC-01-F North Education Center Landscaping

all in strict conformity with the drawings and specifications and other contract documents, including Bid Clarification/Addendum nos. _____, _____, _____, and _____, on file at the office of the said District for the sum of _____

_____ Dollars (\$ _____). Said sum includes all applicable taxes and costs and Owner's Allowances as noted*.

- | | |
|---|---------------------|
| 1.) Landscaping and decomposed granite walks in the amount of | \$ _____ |
| 2.) Allowance for landscaping at 2 each monument signs at entrances | \$ <u>30,000.00</u> |
| 3.) Owner's Miscellaneous Allowance | \$ <u>50,000.00</u> |

Grand Total Base Bid: \$ _____ **

***Owner's Allowances:** Bidder shall include in Bid Proposal the stipulated sums of Thirty Thousand Dollars (\$30,000.00) for monument sign landscaping at campus entrances, to be designed during the course of the work and Fifty Thousand Dollars (\$50,000.00) for miscellaneous landscaping work that may be changed or clarified during the final DSA approval of the Documents, or added by the District, all subject to the labor and equipment rates accepted by the District. Contractor shall include separate line items in Contractor's Schedule of Values for these scopes with these values. Work under these Allowances shall be approved by Construction Manager prior to commencing work. Time and Materials work shall be documented by Contractor and submitted to Construction Manager on a daily basis for verification of work performed. At closeout of contract, any funds remaining in the Allowances shall be credited to District through a Change Order.

****Said GRAND TOTAL BASE BID includes all applicable taxes and costs and two (2) Owner's Allowances specified above.**

From time to time it may be necessary to complete additional work on a unit price basis. The unit prices below are NOT included in the Total Base Bid amount above, are subject to Construction Manager approval prior to starting work, and will remain in effect for the duration of the project. Unit costs may or may not be selected at the sole discretion of the District and will be accepted or rejected on the final Agreement form.

2. It is understood that the District reserves the right to reject this bid and that this bid shall remain open and not be withdrawn for the period specified in the Notice to Contractors Calling for Bids.
3. The required bid security is attached hereto.
4. Non-collusion affidavit is attached hereto.
5. The required list of proposed subcontractors is attached hereto.
6. It is understood and agreed that bidder shall provide the name, addresses, portion of work and license numbers of all listed subcontractors as part of their bid submittal.

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

8. Notice of acceptance or requests for additional information should be addressed to the undersigned at the address stated below:

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

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

10. **Bidder certifies that he is licensed in accordance with the law providing for the registration of Contractors, License No. _____, Expiration Date _____, class of license _____.**

I, _____, the _____ of the bidder, hereby certify under penalty of perjury under the laws of the State of California, that all of the information submitted by the bidder in connection with this bid and all of the representations made herein are true and correct.

Executed on this _____ day of _____ at _____ County, California.

 Proper Name of Bidder

 Address

By: _____
Signature of Authorized Agent/Officer

 City, State, Zip Code

 Print Name

 Telephone

 Fax

 Email address

NOTE: If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature(s) of authorized officers or agents; if bidder is a partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; and if bidder is an individual, his/her or her signature shall be placed above

Bidder must submit the following documents with this Bid Form in order to be considered responsive:

- ☐ Bid Bond
- ☐ Designation of Subcontractors
- ☐ Non-Collusion Bidding Declaration
- ☐ Contractor's Certificate Regarding Workers' Compensation
- ☐ Verification of Contractor/Subcontractors' DIR Registration



BID BOND

KNOW ALL MEN BY THESE PRESEDNTS: THAT we, _____,
 as Principal, and _____, as Surety, are
 held and firmly bound unto the **PALOMAR COMMUNITY COLLEGE DISTRICT**, hereinafter called the District, in the
 penal sum of _____ PERCENT (____%) OF THE
 TOTAL AMOUNT OF THE BID of the Principal submitted to the said District for the work described below for the
 payment of which sum in lawful money of the United States, well and truly to be made, we 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 the accompanying bid
 dated _____, 20____ for

NOW, THEREFORE, if the Principal shall not withdraw said bid within the period specified therein after the opening of
 the same, or, if no period be specified, within sixty (60) days after said opening; and, if the Principal be awarded the
 contract, and shall within the period specified therefore, or, if no period be specified, within five (5) days after the
 prescribed forms are presented to him for signature, enter into a written contract with the District, in accordance with the
 bid as accepted and give bond with good and sufficient surety or sureties, as may be required, for the faithful
 performance and proper fulfillment of such contract and for the payment for labor and materials used for the
 performance of the contract, or in the event of the withdrawal of said bid within the period specified or the failure to
 enter into such contract and give such bonds within the time specified, if the Principal shall pay the District the
 difference between the amount specified in said bid and the amount for which the District may procure the required
 work and/or supplies, if the latter amount be in excess of the former, together with all costs incurred by the District in
 again calling for bids, then the above obligation shall be void and of no effect, otherwise to remain in full force and
 virtue.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the
 terms of the contract on the call for bids, or to the work to be performed thereunder, or the specifications accompanying
 the same, shall in anywise 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 said contract or the call for bids, or to the work, or to the
 specifications.

In the event suit is brought upon this bond by the District and judgment is recovered, the Surety shall pay all litigation
 expenses incurred by the District in such suit, including reasonable attorneys' fees, court costs, expert witness fees and
 investigation expenses.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals this _____
 day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and
 these presents duly assigned by its undersigned representative, pursuant to authority of its governing body.

(Corporate Seal)

PRINCIPAL: _____

By: _____

Title: _____

SURETY: _____

By: _____

Attorney-in-Fact

(Attach Attorney-in-Fact Certificate)



DESIGNATION OF SUBCONTRACTORS

In compliance with the Subletting and Subcontracting Fair Practices Act of the Public Contract Code of the State of California, each bidder shall set forth below: (a) the name and the location of the place of business and (b) the portion of the work which will be done by each subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the work in an amount in excess of one-half of one percent (1/2%) of the Contractor's Total Bid Price and (c) License & DIR number(s) of subcontractor. Notwithstanding the foregoing, if the work involves streets and highways, then the Contractor shall list each subcontractor who will perform work or labor or render service to Contractor in or about the work in an amount in excess of one-half of one percent (1/2%) of the Contractor's Total Bid Price. No additional time shall be granted to provide the below requested information.

If no subcontractor is specified, for a portion of the work, or if more than one subcontractor is specified for the same portion of Work, to be performed under the Contract in excess of one-half of one percent (1/2%) of the Contractor's Total Bid Price or \$10,000, whichever is greater if the work involves streets or highways, then the Contractor shall be deemed to have agreed that it is fully qualified to perform that Work, and that it shall perform that portion itself.

NOTE: If alternate bids are called for and bidder intends to use a different or additional subcontractor on the alternates, a separate list of subcontractors must be provided for each such alternate. Identify additional list of subcontractors by Alternate Bid No.

All information below is required to be completed in full.

SUBCONTRACTOR	Location of Business (Address)	PORTION OF Work	License Number	DIR Registration Number

SUBCONTRACTOR	Location of Business (Address)	PORTION OF Work	License Number	DIR Registration Number

Name of Bidder: _____

Signature: _____

Name and Title: _____



NON-COLLUSION BIDDING DECLARATION

State of California)
)
 County of _____)

I, _____ declare as follows:

That I am the _____ of _____,

the party making the foregoing bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that 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, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that 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, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

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

 Proper Name of Bidder

 Signature of Authorized Agent/Officer

 Date



CONTRACTOR'S CERTIFICATION REGARDING WORKERS' COMPENSATION

State of California 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:

By being insured against liability to pay compensation in one or more insurers duly write compensation insurance in this State.

By securing from the Director of Industrial Relations a certificate of consent to self-insure, either as an individual employer, or as one employer in a group of employers, 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 or her employees.

I am aware of the provision 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 the code, and I will comply with such provisions before commencing the performance of work of this contract.

Proper Name of Bidder

Signature of Authorized Agent/Officer

Date

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 contract.



VERIFICATION OF CONTRACTOR/SUBCONTRACTORS' DIR REGISTRATION

I am the _____ of _____
 (Title/position) (Proper Name of Bidder)
 ("Bidder/Contractor") submitting the accompanying Bid for the Work on the Project described as:

BID # CM-17-18-01-NEC-01-D- North Education Center Paving, Site Concrete and Improvements
OR
BID # CM-17-18-01-NEC-01-E North Education Center Laboratory Modulares
OR
BID # CM-17-18-01-NEC-01-F North Education Center Landscaping

I hereby certify as follows:

1. Bidder/Contractor is currently registered as a contractor with the California Department of Industrial Relations ("DIR");
2. Bidder/Contractor's DIR Registration Number is: _____. The expiration date of the Bidder's DIR Registration is June 30, 20____.
3. If Bidder is awarded the Contract for the Work and the expiration date of the Bidder'/Contractor's DIR Registration will occur (i) prior to expiration of the Contract Time for the Work; or (ii) prior to the Bidder/Contractor completing all obligations under the Contract for the Work, the Bidder/Contractor will take all measures necessary to renew Bidder/Contractor's DIR Registration so that there is no lapse in Bidder'/Contractor's DIR Registration while performing Work under the Contract.
4. The Bidder, if awarded the Contract for the work, will remain a DIR registered contractor for the entire duration of the Work;
5. Bidder/Contractor has independently verified that each subcontractor listed in the Bid is currently registered with DIIR;
6. Bidder has provided the DIR Registration number for each listed subcontractor or will do so within twenty-four (24) hours of the bid opening for the Project,
7. Bidder's solicitation of subcontractor bids includes notice to prospective subcontractors that : (i) all sub-tier subcontractors must be registered with DIR at all times during performance of Work on the Project; and (ii) prospective subcontractors may only solicit sub-bids from and contract with lower –tier subcontractors who are registered with the DIR.
8. If any of the statements in this Verification are false or omit material facts rendering a statement to be false or misleading, the Bidder's Bid is subject to rejection as non-responsive.
9. I have personal first-hand knowledge of the foregoing.

I declare under penalty of perjury under the law of the State of California that the foregoing is true and correct.

Executed this _____ day of _____, 20____, at _____.

 Signature

 Printed Name and Title



Document 00105
BIDDER'S CLARIFICATION REQUEST

Date: _____

PROJECT: PALOMAR COMMUNITY COLLEGE DISTRICT
NORTH EDUCATION CENTER INTERIM VILLAGE

REGARDING: BID # CM-17-18-01-NEC-01-D- North Education Center Paving, Site Concrete and
Improvements
BID # CM-17-18-01-NEC-01-E North Education Center Laboratory Modulares
BID # CM-17-18-01-NEC-01-F North Education Center Landscaping

FROM: Provide Company Name, Contact Name, Email, Phone & Fax Numbers

REFERENCE: _____
Drawing Number(s) Specification Section(s)

Please provide the following Clarification(s):

Prime Trade Contractor Signature

SPACE BELOW THIS LINE FOR USE BY ARCHITECT / GENERAL CONTRACTOR ONLY

Bidders Clarification #:	Date Received by CM: _____	Date sent to Architect: _____
	Date Received by Architect: _____	Date returned to CM: _____
	Date Received by CM: _____	Date issued in Addendum: _____

Response(s):

Architect Signature

Construction Manager Signature

ALL REQUESTS FOR CLARIFICATION must be received in the office of Contract Services no later than 5:00 P.M. on Tuesday December 13, 2017.
Please email Clarifications to dclaypool@palomar.edu.



**DOCUMENT 00350
BID SUBMISSION CHECKLIST**

The following items shall be submitted in each sealed bid envelope:

- Completed Bid Form (page 75, 77, or 79 of the Bid Documents depending on Bid Package)
- Bid Bond (page 81 of the Bid Documents)
- Designation of Subcontractors (page 82 of the Bid Documents)
- Non Collusion Bidding Declaration (page 84 of the Bid Documents)
- Contractor's Certification Regarding Workers' Compensation (page 85 of the Bid Documents)
- Verification of Contractor/Subcontractors' DIR Registration (page 86 of the Bid Documents)

IMPORTANT: With the exception of the Bid Bond form, all documents that are required to be submitted in the Bidder's Bid Submittal Package must be submitted in the District's original document format.

The following items shall be submitted within 3 working days of receipt of written notice to proceed:

- Evidence of Insurance Coverage that match requirements in the General and Special Conditions.
- Payment Bonds as Required in the General and Special Conditions.
- Performance Bonds as Required in the General and Special Conditions.

Activity ID	Activity Name	DOCUMENT 00875	Start	Orig Dur	Actl Dur	Rem Dur	% Compl	Finish	Total Float	2017												2018												2019												2020					
										M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J		
Palomar CCD North Education Center																																																			
Project Summary & Milestones																																																			
A1000	Project Start		01-Feb-17 A	0d	0d	0d	100%			Project Start																																									
A1260	Project Duration (Cal Days)		01-Feb-17 A	881d	242d	880d	0.11%	27-Feb-20	0d	Project Duration																																									
A1001	Bird Season 2017 Ends (9/15/2017)			0d	0d	0d	100%	15-Sep-17 A		Bird Season 2017 Ends (9/15/2017)																																									
A1002	Bird Season 2018 Starts (2/1/2018)		01-Feb-18*	0d	0d	0d	0%		523d	Bird Season 2018 Starts (2/1/2018)																																									
A1080	Project Completion			0d	0d	0d	0%	27-Feb-20	0d	Project Completion																																									
BBC Contracting																																																			
Interim Village Construction (CM at Risk)																																																			
A1541	BBC Legal Review		01-May-17 A	30d	40d	0d	100%	26-Jun-17 A		BBC Legal Review																																									
A1543	Contract Negotiations		27-Jun-17 A	20d	46d	0d	100%	30-Aug-17 A		Contract Negotiations																																									
A1542	Approvals		31-Aug-17 A	10d	21d	22d	0%	31-Oct-17	20d	Approvals																																									
A1544	Contract Execution		31-Oct-17	0d	0d	0d	0%		20d	Contract Execution																																									
Soils Report																																																			
A1005	Borings		01-Feb-17 A	20d	20d	0d	100%	28-Feb-17 A		Borings																																									
A1010	Preliminary Report		01-Feb-17 A	20d	20d	0d	100%	28-Feb-17 A		Preliminary Report																																									
A1020	Final Report		01-Feb-17 A	28d	28d	0d	100%	10-Mar-17 A		Final Report																																									
A1030	CGS Approval		13-Mar-17 A	61d	72d	0d	100%	21-Jun-17 A		CGS Approval																																									
A1360	CGS Approval Complete			0d	0d	0d	100%	21-Jun-17 A		CGS Approval Complete																																									
Mass Grading																																																			
Design																																																			
A1040	Design / DSA Submittal		01-Feb-17 A	85d	78d	0d	100%	22-May-17 A		Design / DSA Submittal																																									
A1050	DSA Back Check and Approval		23-May-17 A	28d	39d	0d	100%	18-Jul-17 A		DSA Back Check and Approval																																									
A1370	DSA Final Approval - Mass Grading			0d	0d	0d	100%	18-Jul-17 A		DSA Final Approval - Mass Grading																																									
Bid Period																																																			
A1071	Internal Grading Meeting #1 for Scope		23-May-17 A	4d	8d	0d	100%	02-Jun-17 A		Internal Grading Meeting #1 for Scope																																									
A1062	Mass Grading RFQ Prepared		23-May-17 A	20d	43d	0d	100%	24-Jul-17 A		Mass Grading RFQ Prepared																																									
A1074	District IOR Selection		01-Jun-17 A	71d	72d	0d	100%	12-Sep-17 A		District IOR Selection																																									
A1552	District Monitor Selection		01-Jun-17 A	71d	72d	0d	100%	12-Sep-17 A		District Monitor Selection																																									
A1075	Pre-RFQ Request for Clarifications Due		24-Jul-17 A	3d	8d	0d	100%	02-Aug-17 A		Pre-RFQ Request for Clarifications Due																																									
A1060	Mass Grading RFQ Issued			0d	0d	0d	100%	24-Jul-17 A		Mass Grading RFQ Issued																																									
A1136	Subcontractor Pre-Qualification Period		25-Jul-17 A	15d	18d	0d	100%	17-Aug-17 A		Subcontractor Pre-Qualification Period																																									
A1065	Job Walk - Meet at Jobsite		28-Jul-17 A	1d	1d	0d	100%	28-Jul-17 A		Job Walk - Meet at Jobsite																																									
A1125	Pre-RFQ RFI Responses Posted		02-Aug-17 A	2d	3d	0d	100%	04-Aug-17 A		Pre-RFQ RFI Responses Posted																																									
A1085	RFQ Due		10-Aug-17 A	0d	0d	0d	100%			RFQ Due																																									
A1135	District / BBC RFQ Review		10-Aug-17 A	5d	5d	0d	100%	16-Aug-17 A		District / BBC RFQ Review																																									
A1137	Subcontractor Pre-Qualification Complete		17-Aug-17 A	0d	0d	0d	100%			Subcontractor Pre-Qualification Complete																																									
A1095	Contractor Interviews		17-Aug-17 A	2d	1d	0d	100%	17-Aug-17 A		Contractor Interviews																																									
A1096	District / BBC Shortlist		18-Aug-17 A	4d	4d	0d	100%	23-Aug-17 A		District / BBC Shortlist																																									
A1097	Shortlist Announced / Bid Package Released		24-Aug-17 A	0d	0d	0d	100%			Shortlist Announced / Bid Package Released																																									
A1098	Bidding		24-Aug-17 A	6d	6d	0d	100%	31-Aug-17 A		Bidding																																									
A1099	Bids Due			0d	0d	0d	100%	31-Aug-17 A		Bids Due																																									
A1145	Bid Analysis		01-Sep-17 A	3d	3d	0d	100%	06-Sep-17 A		Bid Analysis																																									
A1105	Board Approval to Award		06-Sep-17 A	5d	5d	0d	100%	12-Sep-17 A		Board Approval to Award																																									
A1106	Mass Grading Pre-Con / Kick-off Meeting		20-Sep-17 A	1d	1d	0d	100%	20-Sep-17 A		Mass Grading Pre-Con / Kick-off Meeting																																									
A1110	Issue NTP Mass Grading		25-Sep-17 A	0d	0d	0d	100%			Issue NTP Mass Grading																																									
Construction																																																			
A1070	Construction - Mass Grading		25-Sep-17 A	103d	5d	83d	19.42%	31-Jan-18	6d	Construction - Mass Grading																																									
Rainbow MWD																																																			
A1340	Rainbow MWD Sewer Design		01-Feb-17 A	42d	44d	0d	100%	03-Apr-17 A		Rainbow MWD Sewer Design																																									

[illegible]

Activity ID	Activity Name	Start	Orig Dur	Actl Dur	Rem Dur	% Compl	Finish	Total Float	2017												2018												2019												2020					
									M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J		
A1330	Design Programming	01-Mar-17 A	47d	47d	0d	100%	04-May-17 A		<div>Design Programming</div>																																									
A1331	District Programming Approval	05-May-17 A	9d	9d	0d	100%	17-May-17 A		<div>District Programming Approval</div>																																									
A1336	Lab Programming	17-May-17 A	20d	25d	0d	100%	21-Jun-17 A		<div>Lab Programming</div>																																									
A1200	Elite Contract Administration	18-May-17 A	42d	94d	20d	52.38%	27-Oct-17	15d	<div>Elite Contract Administration</div>																																									
A1411	Temp MPOE / Data Center and Tech Programming	22-Jun-17 A	15d	10d	0d	100%	07-Jul-17 A		<div>Temp MPOE / Data Center and Tech Programming</div>																																									
A1338	District Lab Programming Meetings and Approvals	22-Jun-17 A	5d	11d	0d	100%	07-Jul-17 A		<div>District Lab Programming Meetings and Approvals</div>																																									
A1214	Interim Site Data Requirements	22-Jun-17 A	15d	11d	0d	100%	07-Jul-17 A		<div>Interim Site Data Requirements</div>																																									
A1344	Order Interim Village IT Hardware		0d	0d	0d	100%	14-Jul-17 A		<div>Order Interim Village IT Hardware</div>																																									
A1345	Procure Interim Village IT Hardware	17-Jul-17 A	120d	54d	61d	49.17%	29-Dec-17	56d	<div>Procure Interim Village IT Hardware</div>																																									
A1332	Interim Village Design Non-Labs (HMC)	23-Jun-17 A	9d	57d	0d	100%	14-Sep-17 A		<div>Interim Village Design Non-Labs (HMC)</div>																																									
A1333	Interim Village Design (Elite)	07-Aug-17 A	24d	28d	0d	100%	14-Sep-17 A		<div>Interim Village Design (Elite)</div>																																									
A1557	Interim Village Design - Labs (HMC)	07-Aug-17 A	30d	28d	0d	100%	14-Sep-17 A		<div>Interim Village Design - Labs (HMC)</div>																																									
A1334	DSA Approval R0 (Rejected)	15-Sep-17 A	3d	2d	0d	100%	18-Sep-17 A		<div>DSA Approval R0 (Rejected)</div>																																									
A1334.1	Design / DSA Submittal R1	19-Sep-17 A	29d	9d	20d	31.03%	27-Oct-17	0d	<div>Design / DSA Submittal R1</div>																																									
A1353	DSA Approval R1		0d	0d	0d	0%	27-Oct-17	0d	<div>DSA Approval R1</div>																																									
A1353.1	DSA Back Check and Approval	30-Oct-17	15d	0d	15d	0%	17-Nov-17	0d	<div>DSA Back Check and Approval</div>																																									
A1410	Release Interim Village Order (Elite)		0d	0d	0d	0%	17-Nov-17	0d	<div>Release Interim Village Order (Elite)</div>																																									
A1420	Offsite Build-out Interim Village (Elite)	20-Nov-17	37d	0d	37d	0%	16-Jan-18	0d	<div>Offsite Build-out Interim Village (Elite)</div>																																									
A1343	DRHorton Sewer Lift Station Complete		0d	0d	0d	0%	01-Mar-18*	13d	<div>DRHorton Sewer Lift Station Complete</div>																																									
FF&E																																																		
A1337	District FF&E Design	07-Aug-17 A	42d	39d	3d	92.86%	04-Oct-17	17d	<div>District FF&E Design</div>																																									
A1339	District FF&E Bid & Contracting	05-Oct-17	42d	0d	42d	0%	05-Dec-17	17d	<div>District FF&E Bid & Contracting</div>																																									
A1341	District FF&E Release Order		0d	0d	0d	0%	05-Dec-17	17d	<div>District FF&E Release Order</div>																																									
A1342	District FF&E Procurement	06-Dec-17	55d	0d	55d	0%	23-Feb-18	17d	<div>District FF&E Procurement</div>																																									
Bid Period - Lab																																																		
A1346	Bid Doc Distribution	23-Oct-17*	1d	0d	1d	0%	23-Oct-17	5d	<div>Bid Doc Distribution</div>																																									
A1347	Job Wak	30-Oct-17	1d	0d	1d	0%	30-Oct-17	5d	<div>Job Wak</div>																																									
A1348	Pre-Bid RFIs	31-Oct-17	5d	0d	5d	0%	06-Nov-17	5d	<div>Pre-Bid RFIs</div>																																									
A1349	Final Bid Clarification	07-Nov-17	10d	0d	10d	0%	20-Nov-17	5d	<div>Final Bid Clarification</div>																																									
A1553	Bids Due	22-Nov-17	0d	0d	0d	0%		5d	<div>Bids Due</div>																																									
A1554	BBC Bid Review & Approval	27-Nov-17	3d	0d	3d	0%	29-Nov-17	5d	<div>BBC Bid Review & Approval</div>																																									
A1555	Board Approval	30-Nov-17	1d	0d	1d	0%	30-Nov-17	5d	<div>Board Approval</div>																																									
A1556	Issue NTP - Interim Village Lab Construction	01-Dec-17	0d	0d	0d	0%		5d	<div>Issue NTP - Interim Village Lab Construction</div>																																									
Bid Period - Modular Finishes																																																		
A1572	Bid Doc Distribution	20-Nov-17	1d	0d	1d	0%	20-Nov-17	25d	<div>Bid Doc Distribution</div>																																									
A1577	Job Wak	29-Nov-17	1d	0d	1d	0%	29-Nov-17	25d	<div>Job Wak</div>																																									
A1582	Pre-Bid RFIs	30-Nov-17	5d	0d	5d	0%	06-Dec-17	25d	<div>Pre-Bid RFIs</div>																																									
A1587	Final Bid Clarification	07-Dec-17	10d	0d	10d	0%	20-Dec-17	25d	<div>Final Bid Clarification</div>																																									
A1592	Bids Due	26-Dec-17	0d	0d	0d	0%		25d	<div>Bids Due</div>																																									
A1597	BBC Bid Review & Approval	27-Dec-17	3d	0d	3d	0%	29-Dec-17	25d	<div>BBC Bid Review & Approval</div>																																									
A1602	Board Approval	02-Jan-18	1d	0d	1d	0%	02-Jan-18	25d	<div>Board Approval</div>																																									
A1607	Issue NTP - Interim Village Modular Finishes	03-Jan-18	0d	0d	0d	0%		25d	<div>Issue NTP - Interim Village Modular Finishes</div>																																									
Bid Period - Landscaping																																																		
A1612	Bid Doc Distribution	20-Nov-17	1d	0d	1d	0%	20-Nov-17	45d	<div>Bid Doc Distribution</div>																																									
A1617	Job Wak	29-Nov-17	1d	0d	1d	0%	29-Nov-17	45d	<div>Job Wak</div>																																									
A1622	Pre-Bid RFIs	30-Nov-17	5d	0d	5d	0%	06-Dec-17	45d	<div>Pre-Bid RFIs</div>																																									
A1627	Final Bid Clarification	07-Dec-17	10d	0d	10d	0%	20-Dec-17	45d	<div>Final Bid Clarification</div>																																									
A1632	Bids Due	26-Dec-17	0d	0d	0d	0%		45d	<div>Bids Due</div>																																									
A1637	BBC Bid Review & Approval	27-Dec-17	3d	0d	3d	0%	29-Dec-17	45d	<div>BBC Bid Review & Approval</div>																																									
A1642	Board Approval	02-Jan-18	1d	0d	1d	0%	02-Jan-18	45d	<div>Board Approval</div>																																									
A1647	Issue NTP - Interim Village Landscaping	03-Jan-18	0d	0d	0d	0%		45d	<div>Issue NTP - Interim Village Landscaping</div>																																									

Start Date: 01-Feb-17

Finish Date: 27-Feb-20

Data Date: 01-Oct-17

Print Date: 13-Oct-17 11:33

Remaining Level of Effort

Summary

Actual Work

Remaining Work

Critical Remaining Work

Milestone

Project ID: PALNEC03 10-1-17

Page: 3 of 4

Balfour Beatty Construction

Palomar CCD North Education Center - Update #8

Project Schedule

Updated as of 01-Oct-17

BBC LT-C1

Date

Revision

Checked

Approved

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ZEROHARM
MAKE **SAFETY** PERSONAL

Balfour Beatty
Construction

SUBCONTRACTOR

Safety, Health, & Environmental
Performance Requirements

Rev 17 – 11/2/2016

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DEFINITIONS

BBC: Balfour Beatty Construction

Competent Person: A competent person is defined as one who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary or dangerous to employees. The Competent Person has authority to impose prompt corrective measures to eliminate these hazards. [Competent Person Form](#)

Contract Documents: contract documents include the owner-contractor agreement, conditions of the contract, plans, drawings, specifications, addenda, modifications, and changes, together with any other items stipulated as being specifically included.

Employer: This terms shall have the same definition of subcontractor for the purpose of this document.

Experience Modification Rating (EMR): a number used by insurance companies to gauge the past cost of injuries and future chances of risk. The lower the EMR, the lower the worker compensation insurance premiums will be. An EMR of 1.0 is considered the industry average.

Incident: An event with an unfavorable or potentially unfavorable outcome. Incidents may consist of an injury, illness, utility strike, first aid injury, property damage, near miss, etc.

J/AHA: Job/Activity Hazard Analysis (a document used to create a safe work plan for **all activities** conducted by a subcontractor on a project)

Owner: An entity who has a contract between themselves and Balfour Beatty Construction.

PTP: Pre-Task Plan (a document used to create a safe work plan for a subcontractor's **daily activity**)

Project: The premises owned by the Owner subject to construction as described in the contract between the Owner and Balfour Beatty Construction.

Project Manager: The BBC designated representative functioning as the Project Manager for this project site.

Qualified Person: A qualified person is defined as a person designated by the employer who by reason of training, experience and education has demonstrated the ability to solve and resolve problems and, when required, is properly licensed in accordance with federal, state, or local laws and regulations. [Qualified Person Form](#)

Risk Manager: The BBC designated representative functioning as the Risk Manager for this project site.

SH&E: Safety, Health and Environmental

Subcontractor: This term applies to all Subcontractors (all-tiers), Vendors, or Suppliers performing work under contract with Balfour Beatty Construction.

INTRODUCTION

This document outlines general and specific safety, health and environmental contractual requirements for this project. Subcontractors are responsible for ensuring their employees are properly trained to carry out the rules and procedures required by this document. Subcontractors and their tiers are required to take action to eliminate unsafe acts of workers and unsafe/unhealthy working conditions.

Compliance with the following are a contractual obligation of the Subcontractors working on this project:

- Federal, State, Local Laws and regulations
- American Society of Mechanical Engineers (ASME),
- American National Standards Institute (ANSI),
- American Society for Testing Materials (ASTM)
- Manufacturer's recommendations

Conflicts between requirements shall be resolved by adhering to the more stringent requirement.

EXECUTION

Contracts with BBC will require the subcontractor and their lower tiers to comply with BBC's SH&E policies, procedures, and applicable federal, state, and local laws. Failure to comply with contractual obligations may be grounds for termination of the contract. For subcontractors with an EMR over 1.24, additional requirements may be added to their contract.

When a Subcontractor is notified by the BBC Project Management Team of any noncompliance with the provisions of the Contract, the Subcontractor shall IMMEDIATELY correct the unsafe act or condition. If the BBC Project Management Team becomes aware of any condition that poses a serious or imminent danger to the health or safety of the public, owners and their representatives, or the Subcontractor's personnel, the Subcontractor will be notified verbally followed with written confirmation, and shall require immediate implementation of corrective action(s). Should the Subcontractor fail to comply promptly, the BBC Project Management Team may stop all or any part of the work being performed. When, in the opinion of the BBC Project Management Team, satisfactory corrective action has been taken to correct the unsafe act or condition, work may resume.

The Subcontractor shall not be allowed any extension of time or compensation for damages by reason of suspension of work. The Subcontractor shall insert this clause, with appropriate changes in the designation of the parties, in all Trade, Supplier, and Vendor Contracts. At no time shall the Subcontractor and their sub-tiers be relieved of the responsibility to be aware of and correct any unsafe actions and/or unsafe conditions. If the Subcontractor fails to take corrective action, the BBC Project Management Team may direct the corrective action to be performed by a third party with the cost of such action being withheld from the next progress payment and deducted from the Subcontractor's subcontract. If the Subcontractor fails to submit the required SH&E submittals or any other required reports within the time specified within these documents, the BBC Project Manager may retain an amount equal to ten percent (10%) of the estimated value of the work performed during the month from the next submitted Progress Payment, except that such retention shall not exceed \$10,000, nor be less than \$1,000.

RELATED DOCUMENTS

The Subcontractor is responsible for knowing and abiding by the appropriate sections of these and any other applicable regulations and/or specifications:

- OSHA General Industry Safety and Health Standards (29CFR1910)
- OSHA Construction Industry Standards (29CFR1926)
- Cal/OSHA, Title 8, Division 1, Chapter 4, Subchapter 7, General Industry Safety Orders
- Cal/OSHA Title 8, Division 1, Chapter 4, Subchapter 4, Construction and Electrical Safety Orders
- National Emission Standards for Hazardous Air Pollutants (40CFR61)
- Environmental Protection Agency Final Rule (40CFR761)
- State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ for the General Construction Permit
- Federal Standard 313A - Safety Data Sheets, Preparation and Submission
- Record Keeping Guidelines for Occupational Injuries and Illnesses
- American National Standards Institute (ANSI) A10.33 "Safety and Health Requirements for Multi-Employer Projects"
- Manual on Uniform Traffic Control Devices (MUTCD), U.S. Department of Transportation, Federal Highway Administration
- Procedure for conducting Pre-phase Planning, Job/Activity Hazard Analysis (JHA/AHA) and Pre-Task Plan (PTP) (See Figure 5)
- (ANSI)/Scaffold Shoring & Forming Institute SC 100-5/2005
- ASME B30.26-2004
- ASME standards that are applicable to the equipment or operations.
- ANSI standards that are applicable to the equipment or operations.
- ASTM standards that are applicable to the equipment, operations or testing criteria.

Fifteen (15) days prior to the start of onsite activities, the Subcontractor shall submit the required SH&E submittals to the BBC Project Manager or their designee for acceptance. The submittals may be in either hard copy or digital format. As a reference, please see the attached "[Subcontractor SH&E Submittal Checklist.](#)" For reviewing purposes, the submittals shall be provided to BBC in the following format/file structure:

Required SH&E Submittals

1. Injury and Illness Prevention Program (IIPP)

The Subcontractor's written Injury and Illness Prevention Program shall meet the requirements set forth in [CAL/OSHA Title 8, Chapter 4, Subchapter 7, Section 3202, Injury and Illness Prevention Program \(IIPP\), General Industry Safety Orders.](#)

2. Site-Specific Safety and Health Program

Each Subcontractor shall prepare and submit a Site-Specific Safety and Health Program applicable to the project. Compensation for preparing a site specific Safety, Health & Environmental Program and for conforming to the provisions therein shall be considered as included in the prices paid for the various Contract items of work, and no separate payment will be made therefore.

The Site-Specific Safety and Health Program shall include at a minimum:

- Company Safety and Health Policy Statements which include Principal's Signature(s)
- Drug / Alcohol Free Workplace
- Injury / Illness/ Near Miss Incident / Utility Hit Reporting Procedures
- Emergency Procedures, Rescue, Evacuation, Injury Treatment Procedure, Medical Facilities name, location, and phone number(s)
- Code of Safe Work Practices (Subcontractors shall also comply with [BBC's Code of Safe Work Practices](#))
- Fire Prevention
- Hazard Communication Program in accordance with the [Globally Harmonized System](#) requirements
- Hazard Recognition
- Fall Protection /Prevention Plan and Requirements
- Housekeeping / Orderliness
- Electrical Safety
- Lock-Out / Tag-Out (LOTO) Procedure
- Ladder / Scaffold Safety
- Hot Work Procedure
- Material Handling (Hoisting – Signaling, Rigging--Manual Personnel Lifting - Forklift)
- Personal Protective Equipment Requirements (PPE)
- Competent Person and/or Qualified Person Designation Acknowledgement Form
- Heat Illness Prevention Plan in compliance with CA Title 8 applicable regulations

When applicable, the Site-Specific Safety and Health Program shall also include:

- Confined Space Procedures
- Perimeter Guarding / Floor, Wall And Roof Openings
- Mobile Equipment Safety
- Signs, Barricades, Flagging
- Rigging /Signaling/ Crane Safety
- Trenching And Excavation Procedures
- Hazardous Material Handling

- Asbestos, Lead, Mold, etc. Abatement Issues
- Written Respiratory Protection Program
- Concrete pumping and placement safety procedures
- Tele-handler safety (forklift, aerial lifts, etc)
- Any other procedures specifically applicable to this project
- Storm Water Pollution Plan Program

3. Safety Data Sheets

The Subcontractor shall submit a current Safety Data Sheet (SDS) for any product that may contain harmful or hazardous materials or chemicals. The SDS shall be legible, not more than three (3) years old, or be accompanied by a letter from the manufacturer stating that the process and content have not changed. SDS's shall be made available to all employers on multi-employer work sites. SDS shall accompany Subcontractor's JHA/AHA where chemicals or hazardous substances may be used.

4. Job/Activity Hazard Analysis

The Subcontractor shall submit a Job/Activity Hazard Analysis (J/AHA) which covers all major work activities to be conducted by the Subcontractor on the project. The J/AHA shall be updated, amended, and re-submitted as necessary to be always current throughout the project. For a tutorial on J/AHAs, please click [HERE](#). Subcontractors may use their own [Job/Activity Hazard Analysis Form](#) if they meet or exceed BBC's J/AHA form (see attachment).

As applicable, subcontractors must ensure that the following work activities are included on their J/AHA:

- Confined space work
- Work in excavations or trenches
- Work involving hazardous materials or chemicals
- Work on or near exposed, energized systems (ex. electrical, fluid, air)
- Lock Out Tag Out
- Work at elevated positions with potential fall hazards
- Scaffolding
- All work performed in areas accessible by or potentially affecting the general public
- Work requiring the use of respiratory protection
- Electrical – low and high voltage
- Crane work, including rigging and signaling
- Working around moving equipment/machinery

5. Traffic Control Plan

The Subcontractor shall submit traffic revision plans for all road, lane and pedestrian walkway closures, detours or deviations from existing roads, lanes and pedestrian walkways.

6. OSHA 30 Training Certificate

The Subcontractor's Superintendent/Foreman/Leadsperson assigned to the project shall have successfully completed one of the following and shall submit documentation thereof:

- U.S. Department of Labor sanctioned OSHA 30-Hour Construction Safety & Health Course
- EM385-1-1 40 hour course
- Safety Trained Supervisor Construction (STSC) certification through www.BCSP.org

7. Competent & Qualified Personnel Documentation

The Subcontractor shall submit a Competent and/or Qualified Person Acknowledgement Form (see attachments) for their "[Competent Person](#)" and/or "[Qualified Person](#)" for, but not limited to, the following activity categories:

- Asbestos

- Cadmium
- Lead
- Mold
- Welding and Cutting
- Ionizing Radiation
- Scaffolding / Platforms
- Excavations and Trenching
- Fall Protection / Prevention
- Respiratory Protection
- Concrete, Concrete Forms and Shoring, Precast Concrete and Tilt-Up
- Steel Erection
- Rigging
- Cranes and Derricks
- Lock Out / Tag Out (LOTO)
- Confined Space(s)
- Material / Personnel Hoists and Elevators
- Tunnels and Shafts, Caissons, Cofferdams and Compressed Air
- Blasting
- Hazardous Waste Operations and Emergency Response (HAZWOPER)
- Underground Construction
- Demolition
- Traffic Control

After the start of onsite activities, the Subcontractor shall submit the following daily:

1. Pre-Task Plan (see attachment)

A PTP is required to be completed at least once a day prior to starting any work activity. It shall be completed by the Supervisor/Foreman/Leadsman. PTPs must be completed by subcontractors, their sub-tiers at every level, select material delivery involving a labor component such as material movement, select vendor activities and inspection services. Upon completion of the PTP, it MUST be signed by all parties in attendance, posted in or adjacent to the work area and made readily available for the crew and/or BBC staff. Failure to complete an adequately detailed PTP WILL result in a stoppage of work. A copy of the PTP MUST be forwarded to the Balfour Beatty project team at the conclusion of the work day/shift. To watch a brief video on how to adequately complete a PTP, please click [HERE](#).

SITE SH&E TRAINING & MEETINGS

1. Zero Harm & S.A.F.E. Training (Safety Awareness for Everyone)

ALL Subcontractor Employees shall attend Zero Harm & S.A.F.E. training prior to working on the project. The training may take up to three hours and is held throughout the South West Division on a regular basis. Subcontractors may request to have the training delivered at their office—please contact the Safety, Health and Environmental (SH&E) Manager or BBC Project Manager for scheduling.

2. Zero Harm Pre-Construction SH&E Meeting

The BBC SH&E Manager, Project Manager and Superintendent may conduct a Zero Harm Pre-Construction SH&E Meeting to cover site-specific and general requirements as well as any items identified on the Project's Preconstruction Risk Assessment. The BBC Project Manager will coordinate the Zero Harm Pre-Construction SH&E Meeting with the Subcontractors, Supplier and Vendors. This is a management level meeting and the Subcontractor is required to attend the meeting. No work, other than mobilization, may occur prior to the completion of the Zero Harm Pre-Construction SH&E Meeting.

2. Project Orientation

Prior to entering any work area on the project, all Subcontractor Employees shall receive a Project Orientation. The orientation may take up to 90 minutes. Subcontractors must coordinate the on-site arrival of their personnel with the BBC Project Team to ensure personnel receive the orientation prior to working on site. The [Project Orientation Checklist](#) is attached to this document for reference.

3. Weekly All-Hands SH&E Meetings

All Subcontractors and their tiers must attend the Weekly All-Hands SH&E Meeting.

4. Weekly Tool-Box Safety & Health Meetings

The Subcontractor shall conduct its own Weekly Tool-Box Safety & Health Meetings. The Subcontractor shall retain on site and submit meeting minutes and attendance sign-in sheets to the BBC Project Manager on the date of the meeting.

5. Other Safety & Health Meetings

The BBC Project Manager and/or Superintendent may require Subcontractors to attend or have additional safety and health meetings. Additional meetings may be required as a result of special or changed conditions or to address safety and health audits/inspections and notices. Stand-down meetings fall under this category of “other” safety & health meetings.

6. Zero Harm Committee Meeting

Once per week, the site may have a Zero Harm Committee Meeting which consists of a job walk and discussion. Each Subcontractor on site is required to have a representative from their company at the meeting.

INCIDENT REPORTING REQUIREMENTS

INJURY / ILLNESS / UTILITY STRIKE / FIRST AID / PROPERTY DAMAGE / NEAR MISS /ETC

1. The Subcontractor shall follow all Incident Reporting Procedures.
2. The Subcontractor shall IMMEDIATELY notify the BBC Project Manager, BBC SH&E Manager and/or BBC Superintendent of any incident.
3. The BBC Project Manager, BBC SH&E Manager and/or BBC Superintendent shall be notified IMMEDIATELY if a Subcontractor employee is:
 - Hospitalized for a work-related injury or illness.
 - Involved in an occupational injury/illness resulting in days away from work, restricted duty or transfer, or an injury/illness that is OSHA Recordable.
 - Involved in a work-related fatality.
4. Within eight (8) hours of any injury / illness or near miss, utility hit, or any harm caused to the Public, the Subcontractor shall provide assistance to the BBC Project Team for completing the [BBC Incident Report Form](#) (see attachment).
5. The Subcontractor shall notify the appropriate OSHA organization within 8 hours of a fatal injury or when three or more employees are hospitalized overnight as a result of one incident requiring its employee(s) to be hospitalized for more than 24 hours. Documentation of whom the Subcontractor contacted and what was discussed shall be provided to the BBC Project Manager, BBC SH&E Manager and/or BBC Superintendent.

POST INJURY-ILLNESS REQUIREMENTS

1. [On-Site Health and Safety](#) is the preferred vendor for non-emergency medical treatment on BBC projects.
2. If injured/ill worker(s) are sent off site for treatment, they must be accompanied by their supervisor or a designee.
3. Attempts must be made to avoid prescription medications and being placed off of work.

4. A Work Status Release/Report must be acquired from the treatment provider and a copy given to the BBC Project Manager or their designee within 24 hours.
5. Injured/ill persons are required to return to work when placed on restricted duty.
6. After any incident, involved party(ies) will be required to undergo drug and/or alcohol screening and provide results to the BBC Project Management Team.

INSPECTION REQUIREMENTS

The subcontractor is required to inspect their work areas and activities daily. Hazards identified must be corrected immediately and reported to BBC Project Management Team as applicable. Inspections are to be documented and available upon request for review by BBC Project Team Members. As a recommendation, subcontractors may use the attached [Project SH&E Checklist](#) for documenting observed hazards and corrective actions taken. Subcontractors are responsible for taking prompt action to correct any SH&E hazards that they have created or exposed their personnel to.

If a subcontractor fails to correct known hazards, the disciplinary action program will be implemented. Work which is not in compliance with applicable SH&E standards may be stopped until corrective action is implemented. Any SH&E issues that cannot be promptly corrected by the subcontractor shall be IMMEDIATELY brought to the attention of BBC Project Team Members.

Any safety or health issues that cannot be promptly corrected by the Subcontractors shall be IMMEDIATELY brought to the attention to BBC Project Manager/Superintendent/Safety Manager.

MANDATORY COMPLIANCE AND DISCIPLINARY REQUIREMENTS

All personnel are required to work safely as a condition of employment, which includes strict compliance with:

- Requirements contained within this document.
 - Requirements issued verbally.
 - Safety, health and environmental regulations.
 - Manufacturer requirements.
 - Safe work practices.
 - The avoidance of “horseplay”.
 - Exercising reasonable judgment in the safe performance of work duties.
1. BBC reserves the right to suspend or remove any employee of any Subcontractor or their tier-subcontractors from this project for failure to comply with safety, health and environmental requirements.
 2. Personnel responsible for enforcing the above provisions include the Subcontractor’s Supervisor and the BBC Project Manager/Superintendent/Safety Manager.
 3. Disciplinary actions may include the following and may be documented on the attached [Disciplinary Action Form](#):
 - Verbal warnings
 - Written warnings
 - Removal from the Project
 4. Any of the aforementioned disciplinary actions may be enforced at any time based upon the seriousness and circumstances of the safety rule violation. Following the issuance of disciplinary action, the Supervisor of the employee shall meet with the employee to discuss the infraction and inform the individual of the rule or procedure that was violated and the corrective action to be taken.

SITE SAFETY AND HEALTH REPRESENTATIVE

A full-time Safety and Health Representative MUST be assigned to the project for every 25 workers on site. However, based on the complexity of the scope of work and/or the Subcontractor's EMR history, a full-time Safety and Health Representative may be required for less than 25 workers. When applicable, the Subcontractor Site Safety and Health Representative shall be onsite during all scheduled work hours.

The Subcontractor shall submit the name(s), qualifications and resume of the Subcontractor's proposed Site Safety and Health Representative to the BBC'S SH&E Manager, Project Manager and Superintendent for approval fifteen (15) days prior to the start of onsite activities. The documentation shall include, but not be limited to specific safety and health classes and courses the proposed Site Safety and Health Representative has completed. It is the Subcontractor's sole responsibility to determine the safety and health training has been provided by industry recognized and qualified instructors.

The Site Safety and Health Representative shall have a minimum of five years of experience in construction, possess appropriate skills and experiences related to construction occupational safety and health and have the authority to take prompt corrective measures to correct at risk worker behaviors and/or unsafe working conditions, and also specific knowledge and expertise in how to prevent their recurrence.

At the discretion of the BBC Project Manager, the Subcontractor Site Safety and Health Representative duties may be shared with other duties. However, safety and health responsibilities shall take precedence over any other assigned duties. The Site Safety and Health Representative shall be responsible for, but not limited to:

- The safety and health of the personnel of the Subcontractor and their tiers, suppliers, and vendors.
- Implementing the Subcontractor's Site Specific Safety and Health Program and Injury, Illness & Prevention Program.
- Delivering Project Orientation to personnel on the project under the Subcontractor's contract.
- Ensuring employee compliance with all project requirements.
- Completing and documenting SH&E inspections of the Subcontractor's work area.
- Conducting the Subcontractors' weekly tool box safety meetings.
- Submitting reports and documentation.
- Implementing and overseeing provisions for protection of the public.

SUBSTANCE ABUSE REQUIREMENTS

The Owner, BBC and their representatives have a vital interest in maintaining safe, healthful and efficient working conditions for all Subcontractors', tiered subcontractors, suppliers' and vendors' employees.

Possession or use of illegally obtained and/or illegal drugs or a third person's prescription medication and the possession of alcohol are prohibited on the jobsite. All Subcontractors must have a drug policy that is substantially similar to that of BBC's. Pursuant to the applicable jurisdictional laws and the BBC Drug and Alcohol Program, BBC reserves the right to test any employee of any Subcontractor at any time. The BBC Drug and Alcohol program is available upon request from the Project Manager. Alcohol, illegal drugs or substance abuse poses a serious threat to workplace safety and health. Employees who abuse alcohol and/or drugs are a danger to themselves, co-workers, other Subcontractors and the public.

Subcontractors shall maintain an Alcohol and Drug Free Workplace. This will include requiring ALL EMPLOYEES IMMEDIATELY before they are assigned to this project to pass a National Institute on Drug Abuse (NIDA) approved substance abuse test with a negative test result. Alcohol and substance abuse testing is required for employees assigned to this project prior to the start of work and IMMEDIATELY following all injury/illness incidents including near hits or misses, and fitness for duty exams for employees returning to work from a non-work related injury/illness. All employees with positive test results will be barred from working at this project.

Head Protection

ANSI Z89 HEAD PROTECTION IS REQUIRED 100% OF THE TIME.

Employees shall wear hard hats that are in good condition and meet legislative jurisdictional requirements. Bump hats, metal hard hats, and cowboy-style hard hats are not permitted.

Welding hoods must be worn with a hard hat.

Alteration/painting of hard hats is prohibited. Hard hats shall be worn in the manner prescribed by the manufacturer. Only head apparel designed to be worn under a hard hat will be allowed.

Hard hats will not be required to be worn while personnel are inside the office trailers or inside vehicles/equipment with all windows and doors/hatchways closed, or while within fenced-off designated break areas that have been sanctioned and authorized by BBC.

Hearing Protection

Hearing protection devices shall be used when noise level are at 85 dBA or above. Typical rule of thumb is employees should be using hearing protection if they are unable to hear normal conversation within three feet.

Eye and Face Protection

ANSI Z87.1 EYE PROTECTION IS REQUIRED 100% OF THE TIME.

ALL COMPONENTS OF PRESCRIPTION GLASSES USED FOR EYE PROTECTION INCLUDING SIDE SHIELDS MUST MEET ANSI Z87.1 STANDARD.

OVER-THE-GLASS SAFETY GLASSES OR GOGGLES ARE REQUIRED FOR PRESCRIPTION GLASSES THAT DO NOT MEET ANSI Z87.1 STANDARD.

Workers must wear properly fitting eye and face protection. Only clear or indoor/outdoor safety glasses are allowed during interior work. Face and eye protection shall be kept clean and in good repair.

Face protection must be worn during:

- Grinding;
- Chipping;
- Cutting;
- Splashing;
- Or any other work that causes a projectile hazard.

During gas welding and cutting operations, tinted safety glasses are inadequate—appropriate eye protection for welding operations are required. Cutting goggles must be worn with oxyacetylene cutting activities.

When using lasers, appropriately rated laser-safety goggles/glasses must be worn for the wavelengths of laser used.

Hand and Arm Protection

Cut-resistant gloves shall be worn at all times by all persons on site except when advised against by a tool manufacturer for reason that gloves may create a greater hazard (i.e., entanglement in moving parts, belts, or shafts).

All gloves shall have a minimum cut level of A3 (ANSI Cut Level 3 at 1,000-1499 grams to cut).

Each task shall be analyzed to determine the appropriate type of glove needed since specialty gloves may be required for exposure to sharp materials, chemicals, hot work, electricity, etc.

All gloves must be in good condition and fully intact -- the fingers of gloves may not be cut off.

When arms may be exposed to sharp objects, adequate protective sleeves must be worn (i.e., drywall track, sheet metal, metal framing, demo work, etc.)

Body Protection

Employees shall come properly dressed to perform work activities with long pants and shirts with at least four-inch sleeves. Shorts and sleeveless shirts are prohibited at all times.

Additional body protection may be required depending on the task and potential hazards. For example, a protective apron is required by the operator during mortar mixing operations.

Personnel are required to wear high visibility clothing. Workers performing flagging operations must wear the proper class high visibility clothing based on the traffic conditions. During welding, cutting, or other hot work activities, personnel engaged in the hot work task are exempt from wearing high visibility clothing that is not rated for hot work.

All Subcontractors' employees shall wear high visibility apparel meeting at minimum, ANSI/ISEA 07-2004 Performance Class 2 Requirements during hours of light and ANSI/ISEA 07-2004 Performance Class 3 Requirements during hours of darkness. The apparel background material color shall be fluorescent yellow-green or orange (if required.) When choosing color, optimization of color conspicuity between the wearer and work environment shall be considered.

If any or all of the following conditions exist, a determination shall be made by the Project Manager and Subcontractor based on a risk assessment, as to whether Performance Class 3 high visibility apparel is needed for higher visibility of workers. If so, they shall be worn by Subcontractor employees when:

- Employees are exposed to vehicular or equipment traffic in excess of 45 MPH.
- Reduced visibility conditions exist due to weather conditions, illumination, or visually complex backgrounds where ambient visibility is less than 50 feet or employees are performing tasks which divert attention from approaching vehicular traffic, traveling in excess of 45 MPH, as posted.

Foot and Leg Protection

All personnel must wear sturdy boots with ankle protection and hard soles. No running shoes of any kind are permitted on work sites. NO SAFETY-TOE TENNIS SHOES ALLOWED.

Personnel exposed to struck-by or crushing hazards that may potentially injure their feet must wear metatarsal protection (i.e., the use of a whacker or jackhammer requires shoe covers).

Personnel exposed to chemical hazards that may potentially injure their feet must wear impervious shoe protection.

Full-length protective chaps are required to be worn when using chainsaws, demo/chop/cut off/gas-powered saws.

GENERAL SITE REQUIREMENTS

1. The Subcontractor shall take all precautions necessary to prevent injury/illness to the public, or damage to property of others. For the purposes of this document, the public shall include all persons not employed by the Subcontractor. When the construction area is adjacent to public occupied areas, the Subcontractor shall be responsible for conducting air monitoring, inside the public occupied areas, for airborne contaminants (chemicals, asbestos, welding fumes, lead dust/fumes, mold spores, nuisance dusts, etc.), vibrations generated by construction activity. The Subcontractor shall provide a qualified, independent testing consultant to conduct such air monitoring.
2. The Subcontractor shall ensure that monitored levels of chemicals and/or dusts or other contaminants are below established Permissible Exposure Limits as set forth in 29 CFR 1926, Subpart D. The Subcontractor shall submit air monitoring test results to the BBC Project Manager within seventy-two (72) hours after testing.
3. The use of equipment that generates harmful fumes is prohibited inside buildings after close-in, unless scrubbers and/or ducted ventilation are used.
4. Adequate ventilation and monitors are required when using propane/gas-fired devices indoors or in confined spaces.

5. The Subcontractor shall prevent building materials, debris, excavated and / or backfill material, etc. from migrating into or onto public or private areas.
6. The Subcontractor shall provide temporary lighting where required to maintain illumination levels in work areas, storage areas and walkways as set forth in Title 8, Chapter 4, subchapter 4, Article 3, Section 1523 of the California Construction Safety Orders. Subcontractors shall be required to provide task specific lighting for areas not meeting the above site requirements.
7. Specifically prohibited from being brought onto this project are the following: pet animals of any kind, radios, including head set radios, Tape/CD/DVD/Electronic Chip players, iPods, MP3 players, televisions or microwave ovens. *Exception:* TV's and microwave ovens will be in a controlled environment such as a jobsite trailer. Any variance from this must have the written approval of the BBC Project Manager, BBC SH&E Manager and/or BBC Superintendent
8. All impalement hazards must be guarded against any object that is of sufficient shape and dimensions that in the event a worker falls onto or strikes against it could result in that object being driven or forced vertically or horizontally into the employee's body. A partial listing of common impalement hazards that must be guarded against are: reinforcing steel, steel stakes or rods, anchor-bolts, wooden survey stakes, small diameter pipe (less than 4 1/2 inches) and electrical conduits. Simply stated, when an object has the potential of impaling workers, that object must be properly guarded. For example, rebar caps, stake caps, wooden blocks, etc. Rebar caps must fit correctly without being forced into place. Damaged caps are not permitted.
9. Falling materials pose a significant hazard to all individuals on this site. Access to areas barricaded by chains, warning signs, and red or yellow tape will not be allowed without permission from the BBC Project Manager, BBC SH&E Manager and/or BBC Superintendent Subcontractor shall be fully responsible to erect the most robust system of exclusion as necessary to prevent workers from entering this exclusion zone. Yellow or red barricade tape is not permissible for exclusion zones.
10. Worker visibility is important in all construction areas. Fluorescent clothing, vests, flags, cones or barricades must be used at this site to establish a visible safe work zone. Workers must be assigned to direct traffic as needed.

SCOPE-SPECIFIC REQUIREMENTS

AERIAL WORK PLATFORMS

Precautions

- Only authorized and qualified persons shall operate an AWP.
- Operators must be familiar with emergency controls and operation.
- The Manufacturer's Operation and Safety Manual shall be located in a weather resistant compartment on the unit.
- Operators must read, understand and comply with the Manufacturer's Operation and Safety Manual and applicable Federal, State and Local regulations.
- Operators must use the AWP according to manufacturer's instructions.
- Inspections shall be conducted according to manufacturer's instructions at the beginning of each shift. If any malfunctioning devices/controls, warning devices, safety devices, damaged equipment, missing or illegible decals and placards are discovered during this inspection, the unit must be taken out of service until repairs are completed.
- Daily inspections must be documented. For a sample checklist, please see attached [AWP Daily Inspection Checklist](#).
- Immediately before operation, the path of travel and work area must be checked for overhead obstructions, holes, slopes, excavations, bumps, ground conditions, floor obstructions, debris, power lines, and other potential hazards. All hazards discovered must be eliminated or protected prior to operation.
- Unstable objects such as tools, materials and debris shall not be allowed to accumulate on the platform's floor.
- At least one fire extinguisher 3A:40:BC (UL rating) must be located within 5' of the control panel.
- When operating aerial work platforms near or over water, lift occupants are not required to tie off because in the event that an error occurred that resulted in the employees being in the water, being tied-off would exacerbate the drowning hazard. Fed OSHA Subpart CC 1926.1431 (K)(10)(i). Letter of interpretation amended June, 18 2014. Letter # 20090601-9068.

Operating Requirements

- AWP's shall only be used for positioning personnel, their tools, and equipment.
- Operators shall use wheel chocks when using or parking an AWP on an incline.
- Operators shall bring the AWP to a complete stop before using cell phones or two way radios.
- Traveling with the platform elevated should be minimized unless a spotter is used. Ensure that traveling speed is at the manufacturer's "creep" speed or not more than 0.5mph where manufacturer's speed is not known.
- A spotter is mandatory when view is obstructed by load and during travel of aerial work platforms. Scissor lifts require spotters during movement in congested and/or hazardous areas.
- Ensure that the AWP travels on gradients within the manufacturer's recommendations. In the absence of such recommendations, ensure the gradient is not over 3 degrees.
- Aerial baskets shall not be supported by any structure or object at any time.
- Operators shall not "slam" a control switch or lever through neutral to an opposite direction. Switch and levers shall always be returned to neutral and stop before moving the switch or lever to the next function.
- Outriggers on an AWP must be retracted before movement.
- Do not use the rails of an AWP to transport materials unless approved by the manufacturer.
- AWP's shall never be used in vehicular travel paths without hard barricades or BBC approved administrative controls in place to protect the unit from inadvertent contact.
- Ground personnel shall not use ground controls with personnel in the platform except for emergencies.
- Operator's must lower the platform and shut off all power before leaving an AWP.
- When lifts are used inside buildings, consideration must be given to carbon monoxide emissions.
- Lifts must not be operated while batteries are being charged.

Fall Prevention

- Prior to operation, ensure all gates and rails are fastened and secured in their proper position
- Enter and exit platforms through the gate
- Operators shall face the AWP and maintain three points of contact when entering/exiting platform
- Use extreme caution when entering or leaving the platform
- Operators may only exit an elevated platform if it is an emergency or approved by BBC and the manufacturer. When exiting an elevated platform, 100% fall protection is required.
- Never climb an AWP arm or boom
- Fall Protection equipment shall be used according to manufacturer's recommendations
- Use manufacturer's approved fall protection anchorage points when attaching a lanyard.
- In the Southwest Division, personnel are required to tie off in aerial lifts that have anchorage points. If aerial lifts are not equipped with anchorage points, the lift must be replaced with one that is equipped with manufacturer-installed anchorage points. Restraint lanyards must be used to tie off to anchorage points.
- Keep oil, mud, and slippery substances cleaned from footwear
- Ensure that the platform is fully lowered when exiting the platform
- Operators shall always stand firmly on the floor of the basket and never sit or climb on the edge of the basket, or use planks, ladders or other devices to obtain additional height

Electrocution Prevention

Operators shall maintain distance from electrical lines, apparatus, or any energized (exposed or insulated) parts according to the following. Electrical line sway, tools, and equipment must also be taken into consideration when determining the Minimum Safe Approach Distance.

Voltage Range (phase to phase)	Minimum Safe Approach Distance
0 to 50KV	10'
Over 50KV to 200KV	15'
Over 200KV to 350KV	20'
Over 350KV to 500KV	25'
Over 500KV to 750KV	35'
Over 750KV to 1000KV	45'

Electrical lines >50,000 volts require one foot additional clearance for every additional 30,000 volts

Tip-Over Prevention

- AWP's shall not be operated in high winds as defined by the manufacturer in the Operation and Safety Manual
- Operators shall ensure that the ground conditions are adequate to support the maximum tire load indicated on the tire load decals located on the chassis adjacent to each wheel
- Tire pressure shall be checked prior to every shift
- Operators shall not operate a raised AWP on a slope, uneven, or soft surface
- Material and equipment must be kept within the confines of the platform at all times
- Rigging shall not be used from an AWP to pick up and move material
- Operators shall not secure an AWP to an adjacent structure
- Safe working load limits and platform capacities shall not be exceeded
- Extreme caution must be exercised when traveling down a slope

Crushing/Collision Prevention

- All telescoping/articulating aerial work platforms (telescoping boom lifts) shall be equipped with secondary guarding that provides crush/entrapment protection.
- Hardhats must be worn at all times

- Operators shall keep their body and extremities inside the platform and off the railing during operation
- AWP's must not be operated when the operator's vision is obstructed
- Operators shall always face in the direction of travel
- Operators shall always check clearances above, on sides, and bottom of the platform before raising and lowering the platform
- Operators must take appropriate measures to protect pedestrians below overhead work by establishing a controlled access zone.

Personal Protective Equipment Requirements

- Workers using AWP's should wear personal fall protection equipment in the form of a full body harness and lanyard attached to the manufacturer's prescribed anchorage point. The lanyard should be configured to prevent excess slack and must not be attached to an adjacent pole, structure, etc.
- Operators shall use personal fall protection equipment according to manufacturer's recommendations.

Training Requirements

- Contractors whose personnel operate AWP's must provide adequate documentation of training.
- Operator training must cover at a minimum:
 - Use and limitations of the controls in the platform and at the ground, emergency controls and safety features
 - Control labels, instructions and warnings on the machine
 - Rules of their employer and governmental regulations
 - The care and safe use of approved fall protection
 - Enough knowledge of the mechanical operation of the AWP to recognize a malfunction or potential malfunction
 - The safest means to operate the machine where overhead obstructions, other moving equipment and obstacles depressions, holes and drop-offs exist
 - Means to avoid the hazards of unprotected electrical conductors
 - Specific job requirements or machine application (hands-on training with specific model of AWP)
 - Reading and understanding the Operation and Safety Manual
 - The nature of hazards associated with the equipment such as trip and falls, electrocution, tipping, and crushing and collision

BIOLOGICAL HAZARDS (SNAKES, INSECTS, ANIMALS, ETC)

1. Personnel at the site should avoid coming in contact with snakes, ticks and stinging insects that may from time to time be present. Heavy boots and clothing covering the trunk, arms and legs are required for activities taking place in potentially snake infested areas and along project right-of-ways.
2. Insect repellent or other preventative measures should be used when necessary. The wearing of high top boots with hard soles and long sleeved shirts is recommended. Long pants are mandatory.
3. Insect stings or animal bites must be treated like any other safety incident and reported and treated if necessary. Testing for rabies may be required.
4. All wild animals are to be avoided if possible. Unless an animal presents an immediate hazard to humans it shall not be harmed.

CONCRETE & MASONRY

Subcontractors who will engage in concrete and masonry work shall submit adequate safety documentation including:

- Job/Activity Hazard Analysis that includes thorough provisions for the protection of personnel and the public from hazards associated with their work.

- Respiratory Protection Program, Fit Testing, Training, etc.
1. All vertical and horizontal rebar, form stakes, conduit, or small pipe stub-ups shall be capped or otherwise protected from exposing personnel to impalement and injury. Rebar caps must fit correctly without being forced into place. Damaged caps are not permitted.
 2. Prior to cutting concrete, Underground Utility and Excavation procedures shall be followed to prevent striking a utility or post-tensioned cable(s).
 3. A transition cover or back end cover shall be used on the concrete pump.
 4. Footing pads shall be placed under outriggers of concrete pumps that are adequate to support the load of the outrigger. The underground structure and/or ground conditions should be evaluated before setting a pump. Outriggers shall be fully deployed where feasible.
 5. Double ended hoses must not be used as a whip hose off the boom of a concrete pump.
 6. Velocity reducers or S tubes must not be placed on the whip hose since they may pose a struck-by hazard if the whip hose jerks.
 7. Prior to operations where a boom will be used, overhead utility hazards must be reviewed and controlled.
 8. Dead man controls shall be provided and maintained in an operable condition on rotating-type, powered concrete trowels.
 9. Mixing machines must have guards in place to prevent personnel from being caught in machinery.
 10. Concrete buggy handles must not extend beyond the wheels on either side of the buggy.
 11. Concrete buckets must be equipped with a device that will allow an employee to operate it without being exposed to the load. Buckets must also be equipped with safety devices to prevent premature or accidental dumping, and ensure that the release is self-closing.
 12. When feasible, mechanical screeds should be used for finishing operations.
 13. Exclusion/controlled access zones must be established prior to the construction of a masonry wall and shall be established on the side of the wall that is un-scaffold. The width of the zone shall be equal to the height of the wall to be constructed plus four feet (measured perpendicular from the base of the wall on the un-scaffold side). Entry must be restricted to authorized personnel. Bracing shall remain in place until the wall has been tied into the structure.
 14. When tensioning or cutting slabs with Post-Tension Cables, the area should be kept clear of personnel. Also, personnel engaged in tensioning must keep clear of the area behind the jack. Signs and barricades shall be erected to limit employee access to the post-tension area during tensioning operations.
 15. Follow safe rigging practices when handling concrete buckets.
 16. Inspect the area before using bull floats for energized equipment or power lines nearby that the handles could touch.
 17. Pre-fabricated forms and form making material will be stacked neatly at all times. When stripping concrete forms, all material will be immediately removed and stacked in an orderly manner. Forming material or debris shall not present a hazard due to protruding nails or blocked walkways and aisles. Rebar, tie-wire and other debris shall be removed from the work area daily.
 18. No employee is allowed to ride a concrete bucket.
 19. Spotters and/or back-up alarms must be used when backing trucks or equipment.
 20. Ensure coiled wire mesh is adequately secured to prevent uncoiling.

21. Reinforcing steel and forms for walls, piers, columns, stairs and similar structures are adequately supported to prevent overturning and collapse.
22. Shores must be secured from displacement.
23. Finishers shall wear kneepads and gloves when the concrete is hard. When in a plastic state, impervious gloves should be worn when hand-finishes concrete.
24. Workers that are exposed to wet concrete and/or masonry dust, who operate vibrators, pump nozzles and concrete buckets will wear appropriate eye, hand, and foot protection. It is highly recommended that long sleeve shirts, aprons, and face shields be worn to protect against exposure of concrete to the bare skin and the possibility of concrete burn and contact dermatitis.
25. Protective clothing needs to be worn, and care needs to be taken to avoid contact with wet concrete. If clothing against the skin gets wet with concrete, it should be removed as soon as possible.
26. Workers engaged in vertical rebar assembly shall comply with the project's fall protection rules. Positioning devices alone are not approved fall protection, but can be used in addition with personal fall protection equipment.
27. When using a gas-powered cut off saw (typically used to cut block), chaps must be worn. For example, [these chaps](#) have been proven effective.
28. Respirators must be maintained and worn properly if exposed to dust. Operations where personnel are exposed to dust may consist of pouring bags of dry cement/mortar/grout/etc, mixing, cutting, grinding, and chipping.
29. Dust shall be controlled with wet methods as feasible to prevent exposing personnel and members of the public within or adjacent to the work area.
30. For reference, subcontractors may use the attached "[Concrete Pumping Checklist](#)" and "[Coring and Saw Cutting Checklist](#)."

CONFINED SPACES

Subcontractors who perform work in confined spaces shall comply with [California's Confined Space Standard](#) and shall submit the following documentation to the BBC Project Team for review and approval:

- Site-Specific Confined Space Program (including rescue and emergency procedures)
- Job/Activity Hazard Analysis
- Proof of personnel training
- Competent Person experience form

Subcontractors shall have a confined space competent person on site during all confined space work. Subcontractors shall have adequate equipment available as needed such as ventilation fan(s), life lines, lanyards, retrieval equipment, PPE, monitoring equipment, lighting equipment, communication equipment, Lockout/Tagout devices, barricade equipment, firefighting and prevention equipment, permit documentation, other equipment required for the work.

Subcontractors shall conduct fit testing and medical evaluation of all their employees who are required to use respirators and/or self-contained breathing apparatus (SCBA).

Subcontractors shall determine confined spaces to be free of dangerous gases as indicated by an approved testing device prior to entering the space. Tests are to be repeated and documented at regular intervals to ensure that dangerous gases are not collecting in the confined space. Proof of current air test device certification and calibration shall be readily available upon request.

Subcontractors shall provide proper ventilation as required for their employees during any work activities in the confined space. If space is identified to have explosive, fire, or asphyxiation hazards over the OSHA action level or permissible exposure limit, a full permit-required confined space program/entry must be implemented.

Permit-required confined space entry shall be conducted under a permit in accordance with local, state, and federal regulations. Subcontractors shall provide a copy of the permit to the BBC Project Team. Upon completion of the entry, the permit shall be closed/signed-off by the competent person. For reference, please see the attached "[Confined Space Entry Permit](#)."

CRANES

Lift Categories

In order to categorize and specify requirements for safe lifting operations, all lifts will be categorized as "Standard", "Critical", or "Engineered" lifts. Project management, rigging superintendent, or lift specialist may move a lift into a more stringent category. Reasons for this may include:

- A lift that may involve a potential risk to human safety;
- Complexities of the lift operation;
- Operational considerations concerning risk management of the lift; and
- Environmental factors or administrative considerations.

Standard Lift Criteria

All lifts that are not categorized as critical or engineered will be classified as standard except for personnel basket lifts.

Critical Lift Criteria

Critical lifts with mobile cranes can be extremely hazardous and require special care and attention. Before attempting lifts in this category, the project manager or superintendent must verify that a properly documented lift plan is prepared by a qualified person. The crane must be provided with a wind anemometer (or access to site wind speed indicator). The weight of the lifted object is verified prior to a critical lift.

Critical lifts include at least one of the following criteria:

- Any lift exceeding 75% of the machine's maximum chart capacity at the specified lifting radius;
- Lifts where loads must be maneuvered over existing facilities or where the boom or load does not maintain a minimum safe distance to objects as required by code and operating conditions at any stage during the lift operation;
- Lifts that require unusual or complicated rigging and/or nonstandard crane configurations;
- Lifts performed on undesirable ground conditions or during adverse weather conditions;
- Lifts where cranes operate from barges;
- All lifts requiring the coordination of multiple (2 or more) cranes working in unison, unless otherwise given written approval by district management;
- Any lift involving two cranes lifting the same load simultaneously where the load on any one crane during its entire lift operation may exceed more than 75% of that crane's lifting capacity as measured on the lifting chart; and
- All lifts where a crane must travel with a suspended load above 50% of the crane's capacity.

Engineered Lift Criteria

Engineered lifts with mobile cranes are defined as any lift exceeding 90% of the machine's maximum chart capacity at the specified lifting radius. Engineered lifts are strongly discouraged.

Any lift over 95% of the machine's maximum chart capacity must be accompanied by notification to the operations manager and division president.

Before attempting lifts in this category, the project manager or superintendent must verify that a properly documented lift plan is prepared by a qualified individual and is approved by a professional engineer. Additionally, the lift operation must be attended on site by a qualified person.

Crane Pick Plan Requirements:

All crane activities require a documented pick plan. Contractors may use their own Pick Plan format, but it must contain the same elements, at a minimum, as the attached [Crane Pick Plan](#).

Pre-Lift Meeting Requirements:

A pre-lift meeting will be held prior to crane activities. The attendees will consist of the workers and supervision involved in the lift. During the meeting, the Lift Plan and responsibilities will be reviewed.

General Crane Safety

Cranes shall always be operated within the manufacturer's specifications and take into consideration the following elements:

- Proximity to power lines;
- Proximity to other cranes or structures;
- Wind velocity;
- Temperature extremes;
- Ground conditions;
- Level of crane;
- Boom angle and working radius;
- Weight of load including rigging; and
- Proximity of workers.

Loads must never be swung over personnel or the public. Exclusion/controlled access zones must be established to control foot traffic.

Operators shall only take signals from the designated signaler identified during the pre-lift meeting. If the operators do not have a clear view of the designated signaler, they must use a radio and designated radio channel.

The operator of a crane that is lifting a load must verify the hoisting line is in a vertical position over the center of gravity of the load unless accounted for by the appropriate Lift Specialist (as in the case of fleeting of the load line). Any side load on a boom/jib shall be limited so that it is always within the Manufacturer's specifications.

Baskets/containers that are hoisted must be designed and engineered for that purpose.

The operator shall not leave the controls while a load is suspended except in the case of an emergency that requires evacuation of the operator where the operator shall secure the load before leaving.

All loads shall be free and clear of obstructions to avoid the possibility of shock or impact loading of the crane.

No hoisting operation shall be performed during hours of darkness or poor visibility unless the crane operator has a clear and unobstructed view of the load, boom tip and operational area or is directed by the signal person who has a clear view and communicates with the operator.

Where feasible, hydraulic cranes shall be parked so that no damage would occur if the boom were accidentally lowered.

Load weights shall be determined by one of the following methods:

- Certified scale (if available);
- A calibrated load weight indicator;
- Calculated weight (manufacturer-supplied weight); or
- Published standard weight tables.

Hoisting operations shall be suspended at outdoor temperatures specified by the manufacturer.

When operating in cold weather, the Lift Director shall verify that cold weather crane ratings are obtained from the manufacturer, posted, and made available when requested. These ratings shall be applied for lifting in cold weather conditions.

At least one anemometer should be attached to the crane boom tip when using crane booms over 150 ft. long on a project. Alternately, a project wind speed indicator positioned at greater than 100 ft. elevation must be available and accessible by the crane operator.

Load-monitoring devices shall be calibrated prior to starting work on a project, whenever the crane configuration changes, annually, or per manufacturer specifications-- whichever is more stringent.

Hydraulic and conventional boom cranes shall be equipped with "Anti-two-block" and/or warning devices and shall have all load lines that are in use protected by these devices.

A fire extinguisher is required on every crane.

An accurate method of measuring the crane radius must be provided.

Printed copies of the crane charts and operator's manual shall be kept in the crane.

Crane Inspection and Testing

Cranes shall be operated, inspected, and maintained per federal, state, and local requirements. For sample forms, please see the attached "[Mobile Crane Inspection Checklist](#)" and "[Tower Crane Inspection Checklist](#)."

Each crane that requires site assembly must receive a complete mechanical and structural inspection.

Cranes involved in incidents that result in shock loading of the boom or other components shall be removed from service and subjected to a complete inspection and recertification prior to resuming work.

Annual inspections must be done by a third party agency and a professional engineer must stamp the certificate of inspection. Mobile cranes used for short duration work with frequent access/egress from the project site will not be required to be certified every time it arrives to provide service. Note: This does not apply to conventional crawler or truck mounted lattice boom cranes requiring site assembly.

The operator shall complete and document a daily inspection.

Repairs

All repairs or modifications to cranes shall be:

- Performed per the manufacturer's specifications and inspected by a professional engineer; and
- Tested and certified to be not less than the original capacity.

Crane Flagging and/or Barricading

The swing radius of the crane's counter weight (tail swing) shall be barricaded. Only operators and oilers are permitted to enter this barricaded area.

If feasible, areas under/around lifts should be designated as exclusion/controlled access zones.

Requirements for Signal Persons

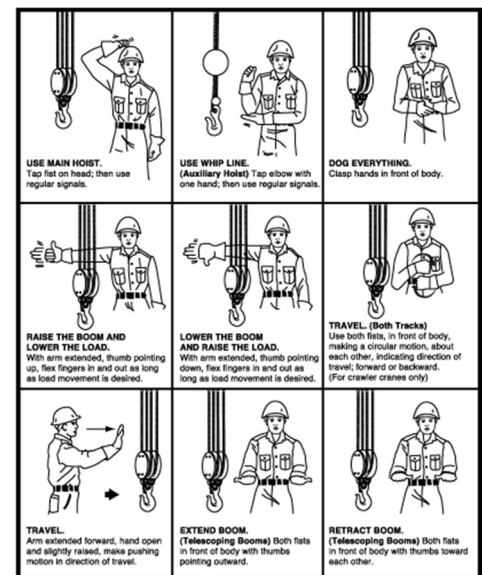
Signaling is an important part of the crane operation. Designated signal persons shall be used when:

- The operator cannot see the load;
- The operator cannot see the loads landing area;
- The operator cannot see the path of travel of the load or of the crane;
- The operator is too far away from the load to make judgment of distance difficult;
- The crane is working within a boom's length of the approach limits to power lines or electrical equipment;
- The client or jurisdictional authority requires it; and
- Loads are picked up at one point and lowered at another. Two signalers may be required – one to direct the lift and one to direct the descent.

Hand signals should be used only when the operator has a clear view of the signaler. The international hand signals for hoisting shall be used.

In all other cases, radio communications between signaler(s) and operator shall be used.

The signal person shall be clearly identified to the crane operator that he is the signaler. Signal persons must be able to speak clear English.



Auditory signals:

- Must be communicated by radio.
- Must be determined during the pre-lift meeting.
- Radios must be tuned to a frequency that does not interfere with other radio users.
- Radios must be tested prior to the lift, and squelch adjustments made to attain the best possible reception.
- Auditory signals must be given continuously during the lift procedure or when the load is lowered into, or raised out of, the blind lifting area.

Blind Lifts

Hoisting where the crane operator does not have a continuously clear view of the load or hook is considered a blind lift. When the crane operator does not have clear line of sight to the signal person, then radios shall be used.

Communication between the signal person and the crane operator must be done by either visual (hand signals) or auditory means (radio communication).

The signal person must be positioned so load or hook is in clear view at all times while the hook, boom or load is moving. Signals must be given continuously during a lift or when the hook is being lowered into, or raised out of the blind lifting area.

CAUTION: If radio contact is lost, the crane must immediately stop until communication is restored. Preferably, back-up radios/batteries should be available when blind lifts are encountered. Even a 2 or 3 second loss or lack of communication can be critical. **If at any time the auditory signals cease to be communicated, the crane operator must cease all movement of the hook or load and wait for further instructions.**

When practical, all attachments such as slings, chains, spreader bars and other such equipment must be removed from the hook before being raised or lowered from the blind lift area.

Crane Travel

Crane travel around the project site shall follow manufacturer, federal, state, and local requirements and will be planned in accordance with the site logistics plan. The operator of a crane that is traveling with a load must verify that the load is secured and positioned as close to the ground or grade as possible.

The travel routes will have appropriate 10 ft. clearances from other vehicles and equipment, structures, high lines, etc.

Taglines

Tag lines should be used when required to control the load and to provide worker separation from the load.

Operators of cranes shall verify tag lines are used to control loads.

The operator and riggers shall verify that tag lines do not create a hazard such as becoming caught on equipment/material during hoisting of any load.

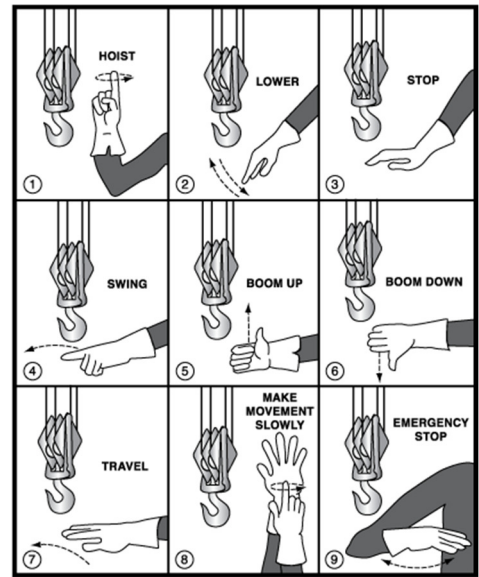
As a best practice, taglines will be preferably bright red or yellow, min 5/8" standard manila or nylon rope with ends burned to prevent fraying.

All tagline length shall be sized for purpose to verify that it will not get entangled during lifting and also allow sufficient length to control the load.

Outrigger Requirements

Where cranes are to be placed, the ground must be surveyed to determine stability. A geotechnical survey may be required to determine stability.

Cranes lifting beside excavations or adjacent to below grade structures shall be checked for ground and structure's stability prior to setting up the crane.



Where mobile cranes are to be placed on a structure, an analysis to determine the capacity of the structure to support the weight as well as shoring requirements must be undertaken. An analysis is required for all crane operations including when the crane is parked and in service as well as when the crane is in motion (travelling).

Where mobile cranes are situated adjacent to excavations or below grade structures, minimum clearance from the closest bearing edge of the crane to the excavation or structure should be maintained. If the project requirement calls for a mobile crane to be situated closer than outlined in the following sketches, a professional geotechnical engineer (and a professional structural engineer as required) should be consulted for guidance.

Tower Crane Requirements

Safe working loads must be clearly marked on the crane and must not be exceeded. After erection or climbing and before use, the crane must be inspected, overload tested in accordance with the manufacturer's instructions and stated sequence and witnessed by an independent engineer who, together with the Designated Person, must sign the crane log book. If the crane is equipped with an anti-collision system, it must be subject to a functional test witnessed by the Designated Person before use. All tower cranes on Balfour Beatty projects are required to:

- have cameras installed to aid the driver
- have inclined access ladders, rest platforms every two vertical sections and double guardrails fitted at all open edges
- be under 10 years old or, if older, are subject to a non-destructive testing regime as agreed by the supplier and Balfour Beatty Construction.

The Designated Person must obtain the necessary certificates (where appropriate) from the crane supplier before handover for operation. These should include:

- evidence of pre-delivery inspection (including non-destructive testing if appropriate)
- proof load test
- thorough examination
- anti-collision system certificate
- rope test certificate
- loose lifting tackle certificates
- crane operator induction (competency, medical, daily / weekly checks, emergency escape, etc)
- certification for emergency evacuation and rescue equipment
- operator manual in cab
- maintenance log book in cab
- information board (show crane type, model, maximum SWL, wind speed restrictions etc).

The crane operator must:

- carry out daily tests and inspections on the crane within accordance of the manufacturer's instructions and record the results in the crane log book
- carry out functional daily checks on any fitted anti-collision systems
- inform the crane supervisor immediately if there is a breakdown or fault.

The Designated Person must ensure the following are completed:

- daily crane foundation checks during the first week of operation
- weekly visual inspections
- weekly level checks for rail- / track-mounted tower cranes
- monthly checks for cranes mounted on reinforced concrete foundations
- examination of safety-critical items (e.g. bolts and welds) at least every three months or in accordance with manufacturers' instructions, whichever is the most frequent.

The Designated Person must ensure the planned maintenance program is completed and includes:

- pre-erection checking of the crane, including a program of non-destructive testing of mast bolts and other safety-critical items
- post-erection overload testing
- post-erection thorough examination by an Independent Competent Person in accordance with local regulations. The Competent Person must sign the crane log book and issue a certificate of statutory thorough examination
- 12-monthly ongoing thorough examination (or six-monthly if the crane is used to carry personnel)
- operator daily and weekly checks
- checks on fire fighting and emergency rescue equipment
- periodic maintenance, inspection and servicing in accordance with the crane manufacturer's maintenance manual.

The Designated Person must ensure that all applicable crane records are retained on the site. These generally include:

- post-erection test certificate
- four-year test certificate (if the crane is on site for an extended period)
- thorough examination certificate (initial plus 12-monthly or six-monthly if transporting personnel)
- rope certificates
- crane log book
- safety harnesses
- lifting tackle
- anemometers (hand-held)
- competency and medical certificates.
- communication equipment e.g. radios
- zoning and anti-collision certification
- over sailing licenses and 3rd party approvals
- details of any breakdowns or faults and the actions taken.

Override keys used with mechanical safe systems must be readily available and only used with the approval of the Designated Person and should only be used for maintenance, testing, commissioning and during emergencies.

Safety devices must not be tampered with or overridden.

Non-compliant or unserviceable plant and equipment must be immediately removed from use, tagged, isolated and remain unused until made serviceable or replaced.

All activities involving tower cranes must be planned and appropriately supervised.

Cranes must not be left in a part-erected condition overnight (i.e. jib partially folded back), unless allowed by the manufacturer.

Clearance must be allowed between cranes and structures to prevent trapping and to allow access for maintenance and erection / dismantle.

Tower cranes must be left in free slew when out of service (accounting for any property or infrastructure restrictions) to allow them to "weathervane" to ensure that the out-of-service foundation loads are not exceeded.

The Appointed Person must be aware of the wind speed action levels for the particular crane in use and must ensure the wind speed is monitored.

Tower cranes must only be used for vertical lifting of free loads and must not be used for tandem lifting, multiple lifting, demolition or piling duties.

Travelling tower cranes must not perform slewing and travelling motions simultaneously. If the crane is to travel, the jib must face the direction of travel and the load suspended as low and as close to the mast as possible.

In the event of any of the following, the crane must be stood down immediately and the incident reported in person or by telephone to the Balfour Beatty Lead Organization and to the crane supplier:

- loose or missing mast bolts or nuts
- parts fitted to the crane found not to be in accordance with the manufacturer's specification
- any repairs required to any parts of the crane structure
- cracks in the mast or jib sections including in the structure or welds
- dropped loads including where there is evidence of brake failure or operator error
- failure of load-bearing parts
- damage to internal tower ladders
- crane collisions (with buildings or cranes) or near misses
- failure of the anti-zoning and anti-collision system.

Dependent on local regulations, these may also need to be reported to specific regulatory authorities.

The crane can be returned to service only when the crane supplier has confirmed that it is safe to do so.

Where conditions change or planned controls are not met, the activity must be immediately stopped and reassessed.

Helicopter Lift Requirements

Subcontractors shall:

- comply with all regulations and conditions set forth by Authority Having Jurisdiction (AHJ) applicable to the lift activities. This includes compliance responsibility for all subcontractors and service providers employed by the Subcontractor for the lift activities, including the Airlift Company.
- communicate and coordinate with all affected trades and properties.
- schedule and facilitate pre-lift meetings.
- provide a written lift plan.
- provide all required traffic controls necessary for the lift activities, including obtaining all required street/road closure permits.
- provide all required security and pedestrian/public control necessary for the lift activities.

Basic Requirements for Helicopter Lifts

Prior to the start of any operation involving the use of a helicopter, a thorough survey of the conditions and hazards on the job site shall be made by BBC and applicable contractors in conjunction with the pilot or pilot's representative to ensure a safe operation. This survey should be documented via the **Helicopter Lift Pre-Planning Checklist** in lieu of the typical Job/Activity Hazard Analysis.

A Code of Safe Practices shall be formulated and enforced for operations involving the use of a helicopter.

The Risk Assessment and Control Measures Review shall be addressed prior to starting work each day. This briefing shall include planning to minimize possible hazards of the day's operation and all personnel exposed shall be informed and directed as to safeguards and escape procedures.

If the helicopter pilot in command for any reason believes that a lift or operation cannot be performed safely, then that lift or operation shall not be attempted.

Helicopter operations shall not be performed beyond the helicopter's approved external load capacity or pilot's certification. The pilot's employer shall ascertain before operations begin that the pilot is properly certified by the F.A.A. and qualified to perform the planned operations.

The Subcontractor is to provide a written Helicopter Lift Plan to the BBC Lift Coordinator not less than one week prior to the lift. Failure to provide this document as required may result in cancellation of the planned lift activities.

The Subcontractor and Airlift Company are each to provide a current Certificate of Insurance and Hold Harmless Agreement to the BBC Lift Coordinator not less than one week prior to the planned lift activities. Failure to provide these documents as required may result in cancellation of the lift activities.

Cancellation of Planned Lift Activities

- BBC may cancel planned lift activities or stop ongoing lift activities at any time if the Subcontractor fails to comply with the provisions of this procedure. Such action does not provide the Subcontractor with grounds for recourse or recovery.
- BBC may cancel planned lift activities up to 24 hours prior to the scheduled arrival time of the helicopter for reasons relative to the safe operation of the Project Site. Such action does not provide the Subcontractor with grounds for recourse or recovery.

DEMOLITION

Subcontractors engaged in demolition must submit the following documentation to the BBC Project Team:

- abatement programs,
 - air monitoring,
 - equipment operator certifications, etc.
 - fit testing, medical evaluations,
 - Job/Activity Hazard Analysis
1. Demolition activities shall be conducted under a survey and plan prepared by a Registered Professional Engineer.
 2. Subcontractors shall attain a permit issued by CalOSHA for the demolition of structures greater than 36'.
 3. At all times, demolition work shall be under the immediate supervision of the subcontractor's qualified person whom has the authority to ensure safety for anyone who may be potentially exposed to the activity. The qualified person must ensure that the demolition plan is in place, adequate, and followed by all personnel engaged in the activity.
 4. Workers engaged in demolition must wear adequate PPE such as cut-resistant forearm sleeves and gloves.
 5. Walls, which serve as retaining walls to support earth or adjoining structures, shall not be demolished until the hazard from moving ground has been eliminated by sloping, shoring or, where necessary, adjoining structures have been properly underpinned.
 6. Walls, which are to serve as retaining walls against which debris will be piled, shall not be so used unless determined to be capable of safely supporting the imposed load.
 7. During demolition, continuous inspections shall be made as the work progresses to detect hazards resulting from weakened or deteriorated floors or walls, or loosened material.
 8. Personnel shall not be permitted to work where such hazards exist until they are corrected by shoring, bracing, or other effective means.
 9. All persons on demolition projects shall be protected from falling material at employee entrances to multi-story structures being demolished, by sidewalk sheds or canopies or both, providing protection extending from the face of the building for a minimum of 8 feet.
 10. For a sample [Demolition Safety Checklist](#), please see the attachment.

Protective measures must be in place to prevent drop hazards from falling and potentially causing harm where work is being conducted at heights. Drop hazards may consist of persons, tools, material, equipment, or other objects.

Pre-Planning

- Dropped/falling object protection must be addressed Pre-Task Plans, Job/Activity Hazard Analyses, and safety programs as applicable.

Edge Protection

- For guardrail systems where personnel may be present below, screening/paneling/mesh/netting must be in place from the walking/working surface to the top of the guardrail or higher.
- Elevator lobbies or shaft openings must be completely blocked-off, where feasible.
- When finished surfaces may not be damaged, guardrails may need to be installed, so that personnel will not need to lean into the opening to install/remove the guardrail.

Storage of Drop Hazards

- Trash and waste must be properly contained in buckets/pouches/containers that have the ability to be closed to prevent spillage.
- Work areas, tools, and materials must be maintained in an orderly fashion.
- Unless guardrails with screening or paneling have been erected, materials must not be stored within ten (10) feet of a leading edge.
- Stacked materials must be stable and self-supporting.
- Secure potential drop hazards to prevent them from being wind-blown.

Tethering/Securing of Drop Hazards

- Tools and materials must be tethered when working at height near the exterior/leading edge of a structure where screening will not prevent a drop hazard.
- Prior to selecting a tool lanyard, a proper attachment point must be established on the tool and the person/belt/harness. Attachment points must be manufactured for the purpose of tethering or certified as third-party tested for dynamic load by the manufacturer. Attachment points must be tested to an adequate load rating for the intended use of the tool.
- Tethers/lanyards shall be inspected prior to use. Excessively worn or damaged tools or materials must be immediately removed from service and replaced.
- Tools weighing more than five pounds may not be tethered directly to a person's body or wristband.
- For some tools and objects, a tool holster or tool pouch may be appropriate. Tools used in these holsters should weigh less than or equal to the manufacturer-stated load-rating for the holster/pouch.
- Wristbands used for tethering must be certified by the manufacturer as having been third-party tested for dynamic load.
- Positive tool transfer must be utilized. (When transferring a tethered tool from one person to another, "100% tie off" must be engaged. The tool must be tethered to the passing person. Prior to handing off, the receiving person must connect their tether to the tool as well. After positive connection has been completed, the passing person may disconnect their tether from the tool.)
- For the safe transportation of tools and materials, buckets may be utilized only if they are manufactured with a closure system which allows the user to secure the contents of the bucket from potential spills and must be load rated by the manufacturer and third-party tested for static load.

Safety Nets

- In applications where safety nets are used, nets must be designed with specific sized webbing approved by the manufacturer for use based on the specific task, location and type of tools/materials being used.

- Forged steel safety hooks or shackles must be used to fasten the net to its supports. Nets should be installed as closely below the work in progress as is deemed practicable, but never more than 25 feet below (30' for Fed/OSHA projects). Safety nets shall be hung, maintained and tested in accordance with the manufacturer's instructions as well as the requirements set forth by the Occupational Safety and Health Administration found in CFR 1926.502.
- Nets designed for use to prevent falling objects shall not be used as fall protection for human beings (falling-object nets may be deployed below fall protection nets in these cases). When falling-object nets are used alone, signs must be posted informing persons that "Fall Protection is still required in work areas above placed netting."
- Inspections of safety netting must occur weekly and defective netting may not be deployed.

Overhead Protection

- Provide a perimeter system that restricts personnel from entering and exiting a structure except at entrances and exits with overhead protection.
- Overhead protection must be provided at all designated building access points, setbacks, and over or near any public interface (combined with appropriate controlled access zones).
- Overhead protection must be free of gaps.
- Protective canopies in a public right-of-way must be constructed in accordance with applicable local jurisdictions.
- The top of the canopy should consist of secured chain link fencing sandwiched between two sheets of ¾" plywood. Canopy tops must be tightly planked/covered to minimize any gaps.
- Canopy roofs must sustain a 300lb live load (in order to prevent dropped items from penetrating) when constructed near a building that is taller than 100 feet. For buildings shorter than 100 feet, the canopy top must be able to support a live load of 150 lbs.
- Canopies must be designed and have plans stamped by an engineer.

Controlled Access Zones (CAZs)

- CAZs and/or designated spotters must be in effect unless measures are in place to prevent drop hazards (i.e., screening, netting, etc.).
- CAZs must be clearly marked with barricades or danger tape to restrict access to unauthorized personnel. When a CAZ is no longer in effect, the barricades/tape must be taken down.
- CAZs must have signage posted that identifies who the CAZ belongs to, what the hazard is, and the person to contact for permission to access the area.
- CAZs must be of adequate size to effectively mitigate the risk from falling or ricocheting material.
- Persons authorized to work in CAZs (i.e., scaffold erection/dismantling, concrete deck forming, installation/removal of perimeter protection, etc.) must pay attention to what is going on above them and use spotters when needed.
- CAZs must be in place below hoisting activities.

ELECTRICITY & ELECTRICAL WORK

1. Ground Fault Circuit Interrupter (GFCI) protection is required for all 120v, 15 & 20 Amp receptacles, electrical extension cords and tools, including for those plugged into permanent power, portable generators and welding machines.
2. Electrical extension cords must be three-wire, 14 gauge minimum, rated for hard or extra hard usage, and rated for the tool/equipment's required amperage. If required by the manufacturer, electrical cords must not be plugged into one another.
3. Extension cords must be elevated and/or keep to the side of walkways to reduce exposure to damage. Cords are not to be routed through closed doorways/pinch points or in contact with metal or conductive objects/surfaces (unless protection is provided to avoid damage). Extension cords shall not be fastened with staples, hung from nails, or suspended by wire. Temporary power cords must be protected from damage. Those run overhead shall be adequately secured (with a non-conductive means) at or above 7 feet from floor level.

4. Only authorized personnel are allowed to enter electrical closets and power panels.
5. Work on energized equipment is strictly prohibited.
6. Electrical-panel covers must be in place on energized panels.
7. Damaged electrical equipment must be tagged and removed from the work area and be repaired by a qualified person.
8. Surge Strips are not allowed and Splitters must be rated for heavy usage, not home-receptacle type.
9. Work in wet or damp work locations must not be performed until all efforts to abate the hazard have been exhausted.

ELEVATED WORK (WORK AT HEIGHTS)

1. Fall protection shall be used by all employees when working six (6) feet or more above the ground/floor or whenever working in a precarious position, unless other adequate fall prevention (guardrails or safety nets) are provided.
2. A Site-Specific Fall Protection Plan (SSFPP) must be developed by each Subcontractor for all work with a fall exposure of six (6)-feet or greater when conventional fall protection will not be used. The SSFPP shall be submitted to the BBC Project Manager, BBC SH&E Manager and/or BBC Superintendent for approval fifteen (15) days prior to commencing work that will involve fall exposure. SSFPPs may be generated using the attached document titled "[Site-Specific Fall Protection Plan Template](#)". If subcontractors choose to use their own form, it shall have the same content at a minimum.
3. Workers engaged in working at heights are responsible for following their employer's safety plan and site-specific fall protection plan.
4. Foremen are responsible for ensuring JHAs and daily Pre-Task Plans are completed, understood, and followed by their crew members.
5. Competent persons are responsible for completing daily safety inspections and ensuring that their site-specific fall protection plan is adequate, amended as needed, communicated, and followed by crew members.
6. Subcontractors shall provide copies of the fall protection manufacturer specifications prior to the start of work.
7. "Monitor-Type Systems" are NOT permitted.
8. Personnel whom create a potential fall hazard or tear down, remove, or damage a fall-hazard control shall be fully responsible to correct the hazard immediately. A competent person in fall protection shall inspect the correction to ensure adequacy.

Personal Fall Arrest Systems

- Body belts shall not be used as part of a personal fall arrest system. Only full-body safety harnesses are approved for use as a part of a personal fall protection system.
- Shock absorbing lanyards must be used unless a Self-Retracting Lanyard is in use.
- Wire rope lanyards shall not be used as connectors in a personal fall arrest system unless a wire rope lanyard with an energy absorber is required due to the type of work being performed (welding, cutting, etc.).
- On suspended scaffolds or similar work platforms with horizontal lifelines which may become vertical lifelines, the devices used to connect to a horizontal lifeline shall be capable of locking in both directions on the lifeline.
- Horizontal lifelines shall be designed, installed, and used, under the supervision of a qualified person, as part of a complete personal fall arrest system, which maintains a safety factor of at least two.
- Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds.
- When vertical lifelines are used, each employee shall be attached to a separate lifeline.
- Fall arrest equipment shall be protected against being cut or abraded. Padding, softeners, etc. must be used to protect equipment from sharp edges.

- Self-retracting lifelines and lanyards which automatically limit free fall distance to 2 feet or less shall be capable of sustaining a minimum tensile load of 3,000 pounds applied to the device with the lifeline or lanyard in the fully extended position. When used for leading edge work, lifelines must be protected from sharp edges.
- Anchorages shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds per employee.
- Personal fall arrest systems shall:
 - limit maximum arresting force on an employee to 900 pounds
 - be rigged such that an employee can neither free fall more than 6 feet, nor contact any lower level.
 - have the anchor end of the lanyard secured at a level not lower than the employee's waist.
 - bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet.
 - have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of 6 feet, or the free fall distance permitted by the system, whichever is less.
- The attachment point of the body harness shall be located in the center of the wearer's back near shoulder level, or above the wearer's head.
- The employer shall plan and provide for prompt rescue of employees in the event of a fall or shall assure that employees are able to rescue themselves.
- Personal fall arrest systems shall not be attached to hoists, nor shall they be attached to guardrails.
- When a personal fall arrest system is used at hoist areas, it shall be rigged to allow the movement of the employee only as far as the edge of the working level or working area.
- Each personal fall arrest system shall be inspected not less than twice annually by a competent person in accordance with the manufacturer's recommendations. The date of each inspection shall be documented.
- Personal fall arrest systems shall be inspected prior to each use for wear, damage, and other deterioration, and defective components shall be removed from service.

Positioning Device Systems

Positioning device systems and their use shall conform to the following provisions:

- shall be rigged such that an employee cannot free fall more than 2 feet.
- when working over 6', must be used in conjunction with a personal fall arrest system.

Personal Fall Restraint

- All Lanyards used for fall restraint are to be as short as possible and will prevent an employee from reaching a leading edge.
- When a fall restraint system is used for fall protection from an aerial lift or a boom-type elevating work platform, the lanyard and anchor must be arranged so that personnel are not potentially exposed to falling any distance.
- Anchorage points used for fall restraint shall be capable of supporting 4 times the intended load.

Additional fall protection requirements

- During break periods, personnel shall fully remove and properly store full-body harnesses.
- All fall arresting, descent control, and rescue equipment shall be used in accordance with the manufacturer's recommendations.
- Any fall protection equipment subjected to a fall shall be immediately removed from service and shall not be used again.
- Lifelines and anchorages shall be capable of supporting a minimum dead weight of 5000 pounds.
- Safety net systems and their use shall comply with applicable Federal, State, and Local Regulations.

- Control measures must be established to prevent material, equipment, tools, etc from falling to lower levels where personnel may potentially be struck. Tool tethers/leashes and restricted areas below overhead work are acceptable means of protection from falling objects.

Guardrails

Guardrails must be provided at floor openings, open sides, and/or leading edges or personal fall protection must be used. Guardrails or wire cables must follow these requirements:

- Top edge height of top rail/cable must be 42" + or – 3". (In California, top rails must be 42-45 inches).
- The maximum deflection for the top rail when a load of 200 pounds is applied in any direction at any point on the top rail shall not exceed 3 inches in any direction.
- Mid-rail/cable and toe boards must be installed and able to withstand 150lbs impact force.
- Guardrails or wire cables will not be used for anchoring personal fall arrest/restraint.
- Upright supports for a wood guardrail system shall be spaced no greater than every 8 ft. on center.

Wire Rope Guardrails

- All connections and splices shall be loop-type connections. If the loop is formed to splice two pieces of wire rope together, thimbles shall be used in the eyes formed by the loops and the forged wire rope clips are to be installed in accordance with the manufacturer's recommendations, including torqueing the nuts on the wire rope clips to the specified foot-pounds.
- Top rails must have flagging every six feet for visibility purposes.
- Wire rope guardrail runs shall be erected to allow sections to be removed without jeopardizing the entire perimeter when other workers could be exposed to falls.
- The saddles of all wire rope clips used shall be constructed of forged steel rather than malleable steel in accordance with ASME B30.26-2004.
- The installer of the wire rope system must carefully follow the manufacturer's instructions and specifications regarding the number of clips, spacing, clip size for a particular wire rope size and type, rope lay, and torque values.

Training

Subcontractors shall train each employee exposed to fall hazards in the following areas:

- The nature of fall hazards in the work area;
- The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used;
- The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, controlled access zones, and other protection to be used;
- The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs;
- The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection; and
- The role of employees in fall protection plans;

Certification of training

Fall protection certificates shall contain the name or other identity of the employee trained, the date(s) of the training, and the signature of the person who conducted the training or the signature of the employer.

Retraining

Circumstances where retraining is required include, but are not limited to, situations where:

- Changes in the types of fall protection systems or equipment to be used render previous training obsolete; or
- Inadequacies in an affected employee's knowledge or use of fall protection systems or equipment indicate that the employee has not retained the requisite understanding or skill.

Subcontractors whose scope involves excavation/trenching work shall submit the following documentation prior to engaging in excavation activities:

- IIPP with Excavation Program
- Competent/Qualified Person certifications and proof of training
- JHA(s)
- Applicable permits (i.e., Cal/OSHA excavation permit)
- For excavations four (4) feet or more in depth, a detailed excavation plan showing the protective system to be used for the protection of personnel including, but not limited to the following: trench shield, shoring system, bracing, sloping, de-watering provisions, etc.

Subcontractors shall:

- Conduct site evaluation prior to starting work
- Attend a pre-dig meeting on site
- Understand and work in accordance with their Job/Activity Hazard Analysis
- Complete daily Pre-Task Plans
- Complete a [Daily Excavation Inspection Checklist & Log](#) (see attachment for sample form)
- Complete an [Excavation Utility Permit](#) (see attachment) as required by the BBC Project Team

Inspection Requirements

The competent person responsible for the excavation(s) must be on site during all operations relating to the open excavation. Inspections shall be conducted by the competent person, documented, and a copy of the inspection provided to the BBC Project Team—see attachment titled “[Daily Excavation Inspection Checklist & Log](#).”

The competent person shall classify the soil and shall inspect excavations:

- i. before entry:
- ii. at the start of each shift
- iii. as needed throughout the shift
- iv. after rain showers or heavy rains
- v. after freezing and/or thawing temperatures occur
- vi. after any condition that can cause change to the integrity of the soil
- vii. after nearby traffic, vibrations or earthquakes occur
- viii. after any significant modification to the support system

General Requirements

Excavations four feet or greater in depth;

- require protective systems (i.e., trench shield, shoring system, sloping, benching, etc.);
- must have a stairway, ladder, ramp or other safe and equivalent means of access and egress within twenty-five (25) feet of any employee working inside of the excavation; and
- where hazardous material may exist, the atmosphere in the excavation must be tested.

The Subcontractor shall obtain and maintain on site a Cal/OSHA Excavation Permit for excavations five (5) feet or greater in depth and shall in way of submittal, transmit copies of permits to BBC Project Management & Supervision prior to the start of any excavation requiring a permit.

If the Subcontractor has an Annual Cal/OSHA Excavation Permit, the Subcontractor is required to fax a Job Notification to Cal/OSHA prior to the start of any digging or excavating. A copy of the Job Notification form shall be submitted to BBC Project Management & Supervision before any digging or excavation work starts.

Where appropriate, barriers must be erected to prevent unauthorized access to an excavation.

All excavation material and stockpile material must be placed a minimum four (4) feet away from the edge of the excavation. Loose soil or rocks shall be removed from the side of the excavation walls and placed in a manner that the material does not have the potential to roll or become accidentally knocked back into the excavation.

For excavations over twenty (20) feet in depth or greater, all shoring, sloping, benching or any other protective means must be designed by a Registered Professional Engineer with means of verification.

The number of workers in the excavation shall be limited to the number needed to perform work.

Water shall not be allowed to accumulate in the excavation at any time. Pumps, drains or other means shall be used to remove water on a continuous basis or as needed.

Emergency rescue equipment shall be readily available.

While the excavation is open, the Subcontractor shall protect underground installations and utilities by supporting, or removing as necessary. When excavations must be left open for periods of time protective guardrails and/or hard barricades must be installed to prevent workers from falling into excavation.

Underground Utility Location and Potholing Procedures shall be followed to prevent damage to the identified underground utilities.

Subcontractors who will be working on preexisting sewage pipes must have their personnel; vaccinated from Hepatitis B or have signed waivers; trained on the applicable hazards including potential hepatitis B exposure; and must properly equip their personnel with protective equipment.

Equipment Operations

- Where lifting equipment is required to lift materials in / out of an excavation, consideration must be made of the ground conditions, anticipated loads, and surrounding structures e.g. overhead power lines.
- Where equipment e.g. a dump trucks are required close to an excavation, appropriate stop blocks must be used to prevent equipment from traveling into the excavation.
- Operations shall stop upon observation of any suspected unsafe soil conditions or if there are signs of previously disturbed soil, water seepage, or fissured soil.
- Vibration must be taken into consideration. Heavy equipment or nearby road traffic may also cause damage or disturb the excavation.
- No personnel shall be permitted underneath loads handled by lifting, excavating equipment, or dump trucks-- workers shall wait on top until load delivery is complete. Personnel are prohibited in areas where loads are being moved and/or placed.

Fall protection

- Where any personnel are exposed to fall hazards around trenches or excavations that are six feet or greater in depth, fall prevention measures must be addressed.
- Proper guardrails and toe boards shall be maintained at the top of the excavation when required for fall protection.
- Walkways with guardrails shall be used where personnel cross over excavations.

Trench Excavation Protective Systems

- Where buildings and other items are sufficiently close to risk surcharging of the excavation's sides, temporary support must be strengthened.
- Stability of adjacent structures shall be evaluated before starting an excavation and monitored daily thereafter.

- For excavations less than 20 ft. (6m) in depth, the maximum slope shall be 34 degrees measured from the horizontal (1-1/2 horizontal to 1 vertical) unless suitable protective systems are utilized.
- All support systems or shoring systems such as pre-engineered hydraulic systems shall have tabulated data on site and shall follow the guideline as stipulated within.
- Materials and equipment used for protective systems shall be free from damage or defects that might impair their proper function.
- Support systems shall be installed and removed in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support system.
- Removal of support systems shall begin at the bottom of the excavation and progress in an upward manner. Members shall be released slowly so as to note any indication of possible failure of the remaining members of the structure or possible cave-in of the sides of the excavation.
- All excavations less than 20 ft. (6m) in depth which have vertically lowered portions shall be shielded or supported to a height at least 18 inches (.5m) above the top of the vertical side with a maximum allowable slope of 1-1/2:1.
- If a trench shield or trench box does not extend up to ground level, then the dirt above the top of the trench shield/box must be sloped. The slope must start at least 18 inches below the top of the box. When a trench box extends above the soil line, soil shall be placed on the sides to prevent workers from falling between the trench box and the excavation. End plates shall be used at both ends of the trench boxes as deemed necessary. THE TRENCH BOX/SHIELD MANUFACTURER'S TABULATED DATA SHALL BE FOLLOWED AND READILY AVAILABLE ON SITE.
- Protective systems in excavations over twenty (20) feet deep must be designed, stamped and signed by a registered professional engineer and be submitted to BBC Project Management & Supervision. EXCEPTION: If the manufacturer of the shoring system (hydraulic shores, trench boxes, trench shields, slide rail systems, etc.) allows the use of its equipment to depths greater than 20 feet, the Manufacturer's Tabulated Data shall be submitted to BBC Project Management & Supervision, and the Subcontractor competent person for trenching & excavation shall have a copy on the job site.
- Excavations of earth material to a level not greater than 2 feet (.61 m) below the bottom of a shield shall be permitted, but only if the shield is designed to resist the forces calculated for the full depth of the trench, and there are no indications while the trench is open of a possible loss of soil from behind or below the bottom of the shield.

Shield Systems

- Shield systems or trench boxes shall be used to protect employees from forces imposed such as possible cave-in.
- Shield systems shall not be subjected to loads exceeding those which the system was designed to withstand.
- Shields shall be installed in a manner to restrict lateral or other hazardous movement of the shield in the event of the application of sudden lateral loads.
- Employees shall be protected from the hazard of cave-ins when entering or exiting the areas protected by shields.
- Employees shall not be allowed in shields when shields are being installed, removed, or moved vertically.

Training

Supervisors must be adequately trained in safe excavation principles and assessed for competency. Competency consists of:

- number of years of experience in the relevant field
- qualifications
- training (Competent person training for Excavation, OSHA 30, First Aid, CPR)
- familiarity with appropriate techniques and equipment
- recognition of risks

Additionally, operators of equipment must have been trained on the specific piece(s) of equipment. Also, depending on the hazards to be encountered, other required training may consist of confined spaces, respiratory protection, hazmat, rigging & signal person, flagger, fall prevention, etc.

FORKLIFTS & TELE-HANDLERS

This section applies to all operations that require the use of powered industrial trucks which may include forklifts, tele-handlers, rough-terrain lifts, straight mast, motorized hand trucks, tractors, platform lift trucks, and other specialized industrial trucks powered by electric or internal-combustion engines.

1. Daily inspections shall be documented and include, at a minimum, the items listed on the attached [Heavy Equipment, Forklift, Tele-Handler Daily Inspection Checklist](#)—the checklist is an optional form that subcontractors may use if they don't have their own form. Any malfunction must be taken care of before the piece of equipment is put back into service.
2. Operators or their employer must provide a copy of their current certification. If they cannot produce one, they will not be allowed to operate the equipment until certification is attained.
3. Operators must pass the attached Forklift Quiz prior to operating on a BBC project. Only trained and authorized operators are allowed to operate forklifts. [Tele-Handler Forklift Evaluation English](#). [Tele-Handler Forklift Evaluation Spanish](#)
4. A PTP must be completed each day that includes a listing of the weights of material to be moved and where in the load charts the weights fall.
5. “Free Rigging”, the practice of hoisting equipment/material from forks, is not allowed-- Only manufacturer-approved attachments such as “truss-boom” attachments that have a load chart are permitted.
6. Chains, slings, and rigging used for hoisting must be inspected, tagged, and properly rated for the capacity to be lifted.
7. Forklifts must be equipped with approved overhead protection at all times in addition to roll-over protection (ROPS).
8. Telescoping boom forklifts must be equipped with a convex rear view mirror on the blind side of the machine.
9. Operators manual must be available for review by operators and supervisory personnel.
10. Capacities must be marked on the lift so it is clearly visible to someone in the operator's seat.
11. No use of propane-powered forklifts indoors or in confined spaces without adequate ventilation and air monitoring. The operation of fuel-powered industrial trucks indoors or in enclosed areas must be done with adequate ventilation and air monitoring for poisonous gases such as Carbon Monoxide (CO).
12. All equipment with a field of vision less than 270 degrees (i.e. rough terrain/all-terrain forklifts) will have a proximity alarm (this is different than the back-up alarm requirement). This alarm will have an audio and visual component. Proximity alarms will be installed in a position to best mitigate blind spots.
13. Controlled Access Zones must be set up around overhead/lifting activities.
14. Spotters must be used when traveling through congested areas, around blind spots, and at any time when the operator's vision may be hindered.
15. Operators must follow these rules:
 - Stop at all intersections.
 - Yield to pedestrians.
 - Face the direction of travel.
 - Reduce speeds when turning.
 - Sound your horn at blind corners.
 - Keep a safe distance behind other trucks, do not drive side-by-side.
 - Stop completely before backing up.

- Never park closer than 8 feet from the center of railroad tracks.
- Cross rail road tracks diagonally.
- When parking, place the forks on the ground and tilted forward. Set the parking brake and remove the key.
- When carrying a large of bulky load that obstructs visibility, the forklift is to be operated in reverse. Look where you are going.
- Do not lift unstable loads.
- Do not add counter weights to the forklift.
- Follow the manufacturer's instructions when driving up and down ramps. Keep the load uphill.
- Never turn while still on a ramp.
- No riders are allowed.
- Never allow anyone to walk or stand under the uprights or a load.
- Note low clearance hazards such as pipes, sprinkler heads, doorways, etc.
- Do not push or carry another disabled forklift with your forklift.
- Be aware of carbon monoxide hazards and if in an enclosed area subject to accumulation of carbon monoxide get an air monitor and test the air continuously.
- Before entering a truck trailer or railroad car, make sure its brakes are set and wheels chocked.
- Trailers not coupled to a tractor must have, in addition to its landing gear, fixed jacks.
- Always use a proper dock board with feet and handles. Steel plates can shift and are dangerous.
- Avoid parking on an incline if possible. If necessary, wheels must be chocked.
- If a forklift is to be used to elevate a work platform, use an approved safety platform with top rail, midrail, toe board, and attach platform properly with the moving parts of the mast protected. All other provisions as defined in the OSHA standards must also be followed.
- Forklifts shall be equipped with back up alarms, and if operating on roads, a yellow warning light and slow moving vehicle sign.
- A 10 lb. ABC fire extinguisher must always be within reach of the operator.
- If the powered industrial truck is unattended, the operator shall not exceed a distance of 25' away and the load must be lowered, controls in neutral, brakes set, and power shut off.
- Seat Belts must be worn at all times while in the operator's seat. Personnel working in the vicinity of powered industrial trucks must wear reflective vests.

HEAVY EQUIPMENT

1. Pre-Task Plans and Job/Activity Hazard Analyses must identify heavy equipment to be used, associated hazards, and controls. Equipment operators must address the presence of personnel on foot in the areas of their operations. Likewise, personnel on foot in areas with moving equipment must address the equipment hazard in their planning.
2. Personnel should not be within ten feet of moving vehicles without adequate protective measures such as hard barriers (k rails, jersey barriers, etc).
3. Personnel shall not alter any equipment or systems without prior approval from the equipment/tool manufacturer and BBC Project Management/Supervision.
4. Cell phone use is not allowed while operating equipment.
5. A valid driver's license is required for operating any vehicle or heavy machinery on the job site or corresponding right-of-way.
6. The speed limit on site, including parking lots, is 10 M.P.H. unless otherwise posted.
7. Engines must not be allowed to idle on BBC Projects. Vehicle engines shall not be allowed to run in closed garages or other enclosed places, unless vents are provided which effectively remove the exhaust gases from the building.
8. Combustible and flammable materials shall be removed from the immediate area prior to operations.

9. Equipment shall be equipped with a fire extinguisher having a 5 BC rating or higher.
10. Whenever the equipment is parked, the parking brake shall be set. Equipment parked on inclines must have the wheels chocked and the parking brake set.
11. Equipment must have sufficient drip tubs to prevent leaks from contacting the soil. Leaks must be corrected IMMEDIATELY upon observation.
12. If equipment will be leaving the site, track out must be prevented by adequate means.
13. Where vehicles are operated, temporary covers for conduits, trenches and manholes and their supports, when located in roadways and vehicular aisles, shall be designed to carry at least 2 times the maximum intended vehicular live load and they shall be designed and installed as to prevent accidental displacement.
14. No equipment having an obstructed view to the rear will be allowed unless:
 - The vehicle has a reverse signal alarm audible above the surrounding noise level.
 - The vehicle is backed up only when a flagger, signal person, or spotter signals that it is safe to do so.
 - The vehicle is equipped with a back-up camera.
 - The operator follows a hands-off-the-controls/levers method when personnel are on foot in the area if feasible.
15. Tools and material shall be secured to prevent movement when transported in the same compartment with employees.
16. When mounting or dismounting a piece of equipment, personnel must maintain three points of contact and face the equipment. Non-slip surfaces should be in place on equipment.
17. Where a hazard exists to personnel because of traffic or haulage conditions at work sites that encroach upon public streets or highways, a system of traffic controls in conformance with the latest edition of "Manual on Uniform Traffic Control Devices for Streets and Highways" shall be required so as to abate the hazard. Additional means of traffic control, such as continuous patrol, detours, hard barricades, or other techniques for the safety of employees may be employed.
18. Slow-moving vehicles (less than 25 mph) driven on public roadways shall be clearly identified by posting a triangular emblem, colored fluorescent yellow-orange with dark red reflective border.
19. Equipment that must pass under overhead utilities must be fully lowered.

Roll-Over Protective Structures (ROPS) and Cab Protection

1. ROPS and seat belts shall be installed and used on all equipment that was provided with a ROPS by the manufacturer. ROPS shall provide operator protection against the hazard of falling objects. ROPS system manufacturer's labels must be intact and legible.
2. All cab glass shall be safety glass, or equivalent, that introduces no visible distortion affecting the safe operation.
3. All vehicles with cabs shall be equipped with windshields and powered wipers. Cracked and broken glass shall be replaced. Vehicles operating in areas or under conditions that cause fogging or frosting of the windshields shall be equipped with operable defogging or defrosting devices.
4. All haulage vehicles, whose pay load is loaded by means of cranes, power shovels, loaders, or similar equipment, shall have a cab shield and/or canopy adequate to protect the operator from shifting or falling materials.

Required Components

1. All vehicles shall have a service brake system, an emergency brake system, and a parking brake system. These systems may use common components, and shall be maintained in operable condition.
2. Whenever visibility conditions warrant additional light, all vehicles, or combinations of vehicles, in use shall be equipped with at least two headlights and two taillights in operable condition.
3. All vehicles, or combination of vehicles, shall have brake lights in operable condition regardless of light conditions.
4. Proximity Alarms – As a best practice, all equipment with a field of vision less than 270 degrees (i.e. rough-terrain/all-terrain tele-handlers) should be equipped with an operational proximity alarm (this is different than the back-up alarm requirement). This alarm will have an audio and visual component. Proximity alarms will be installed in a position to best mitigate the blind spot hazard.

5. Quick Hitch Releases – All equipment having quick hitch release mechanisms to change buckets or features on the equipment will be thoroughly reviewed and operators must provide evidence of training and knowledge, of their use and verify safety devices are engaged and fully locked.
6. All vehicles must be equipped with an operable audible warning device (horn) at the operator's station.
7. The wearing of seatbelts is mandatory on all equipment at all times. Riding in the beds of trucks, trailers or in/on any vehicle that does not provide safe seating for passengers is prohibited. Seat belts and anchorages meeting the requirements of 49 CFR Part 571 (Department of Transportation, Federal Motor Vehicle Safety Standards) shall be installed in all motor vehicles.
8. Vehicles used to transport employees shall have seats firmly secured and adequate for the number of employees to be carried.

Inspection Requirements

1. All heavy equipment shall have a documented inspection at the beginning of each shift to ensure that the equipment is within safe operating conditions as required by the manufacturer and free of apparent damage that could cause failure while in use. All defects shall be corrected before the vehicle is placed in service. For a sample inspection form that may be used, see the Equipment Inspection Checklist.
2. Mobile equipment without the proper safety devices shall be reported to the person in charge of equipment maintenance for correction.

Maintenance

1. Maintenance of heavy equipment must be in accordance with manufacturer and other applicable requirements. Only qualified personnel are allowed to maintain equipment and must abide by the BBC Project's requirements and have provisions for lone working. Maintenance personnel must have and follow written Lock Out Tag Out procedures (or block out procedures). Waste materials and liquids must be properly disposed of.
2. Except for emergency field repairs, a safety tire rack, cage, or equivalent protection shall be used when inflating truck or equipment tires after mounting on a rim, if such tires depend upon a locking ring or similar device to hold them on the rim.

Flaggers

1. A flagger or flaggers shall be utilized at locations on a construction site where barricades and warning signs cannot control the moving traffic. Flaggers shall be utilized in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways published by the State Department of Transportation.
2. Flaggers shall be trained by persons with the qualifications and experience necessary to effectively instruct the employee in the proper fundamentals of flagging moving traffic. [Online training](#) resources are available for flagger certification. Certification of flaggers is available for look up by anyone and is [stored online here](#).
3. Flaggers must be certified and shall wear warning garments such as vests, jackets, or shirts manufactured in accordance with the requirements of the American National Standards Institute (ANSI)/International Safety Equipment Association (ISEA) 107-2004, High Visibility Safety Apparel and Headwear. During the hours of darkness, flaggers' stations shall be illuminated such that the flagger will be clearly visible to approaching traffic and flaggers shall be outfitted with reflectorized garments manufactured in accordance with the requirements of the American National Standards Institute (ANSI)/International Safety Equipment Association (ISEA) 107-2004, High Visibility Safety Apparel and Headwear. The retroreflective material shall be visible at a minimum distance of 1,000 feet. White outer garments with retroreflective material that meets the above requirements may be worn during hours of darkness but not during snow or fog conditions, in lieu of colored vests, jackets and/or shirts.

HAZARDOUS MATERIAL

1. All known or suspected hazardous substances in the workplace will be properly labeled, including secondary containers.

2. Necessary, appropriate, protective equipment and devices shall be furnished by subcontractors for their personnel working with or exposed to hazardous substances.
3. Material usage and disposal shall be accomplished with strict adherence to applicable State and Federal Regulations and to manufacturers' warnings on the Safety Data Sheets (SDS) and product container labels.
4. The Subcontractor performing the removal of hazardous materials, shall be solely responsible for providing qualified and trained personnel to remove, store and transport the hazardous materials.
5. The Subcontractor shall refer to the definitions included in Sub-parts Z of 29 CFR 1926, for hazardous and toxic materials/substances and to others as additionally defined in Federal Standard 313A. Those most commonly encountered hazardous and toxic materials/substances include asbestos, polychlorinated biphenyl (PCB), Chromium VI, and lead-based paint or material, but may include others. The products most likely to contain asbestos are sprayed-on fireproofing, insulation, boiler lagging and pipe covering, pipe, flooring materials, and lamp gaskets. Products likely to contain PCB are transformers, capacitors, voltage regulators and oil switches.
6. Where Asbestos Containing Building Materials (ACBM) lead paint or mold are abated, the Subcontractor, Subcontractors Tiers, Supplier, Vendor shall provide the Project Manager with clearance certificates, signed by a Certified Asbestos / Mold / Lead Consultant, once asbestos / lead / mold abatement has been completed.
7. The Subcontractor shall bring to the attention of the BBC Project Manager and BBC Safety Manager any material suspected of being hazardous encountered during execution of work. A determination will be made by the BBC Project Manager as to whether the Subcontractor shall perform tests to determine if the material is hazardous and/or what measures will be taken to confirm that the material is hazardous and what abatement measures will be undertaken and by whom.
8. The Subcontractor shall provide the proper copies of the proper paperwork, shipping and disposal manifests to prove the hazardous materials were abated, stored, transported and disposed of in accordance with current local, state and federal requirements.
9. Empty aerosol spray cans shall be disposed of in proper containers identified by the BBC Project Manager or Superintendent.
10. Paints and solvents shall be washed from tools in an approved washout location. Washout to be provided and maintained by Subcontractor.

HEAT ILLNESS PREVENTION

Subcontractors shall comply with [California's Heat Illness Prevention Standard](#). California subcontractors are required to take these four steps to prevent heat illness:

1. Training: Train all employees and supervisors about heat illness prevention.
2. Water: Provide enough fresh water so that each employee can drink at least 1 quart per hour, *and encourage them to do so.*
3. Shade: Provide access to shade and encourage employees to take a cool-down rest in the shade for at least 5 minutes. *They should not wait until they feel sick to cool down.*
4. Planning: Develop and implement written procedures for complying with the Cal/OSHA Heat Illness Prevention Standard.

In addition to California's HIP requirements, subcontractors shall provide the BBC project team with their company's Heat Illness Prevention Program/written procedures (HIPP) not less than two weeks prior to their start of work on a project. Also, each subcontractor must provide proof of personnel training on their HIPP. Proof of training may consist of the following:

- a list of trained workers on subcontractor's letterhead,
- a class roster with the company name, or
- employee training cards.

Lastly, subcontractors must identify heat related exposures on their JHA(s) and PTP(s) to ensure control measures are in place and enforced. Subcontractor workers will be responsible for following the requirements set forth in their company's HIPP as well as following control measures identified on their JHAs and PTPs.

HOT WORK

1. Hot Work includes any work involving burning, welding, or similar operations that is capable of initiating fires or explosions.
2. Subcontractors who perform hot work activities must have a Hot Work Program that is either equal to or greater than BBC's Hot Work Program.
3. Only authorized and trained individuals shall be permitted to perform hot work operations.
4. Hot Work shall be permitted only after all precautionary steps have been completed as indicated on the Hot Work Permit. See the attached "[Hot Work Permit](#)."
5. At least one fully charged and operable fire extinguisher that is appropriate for the type of possible fire must be immediately available at the hot work location. Balfour Beatty Construction ensures that general duty fire extinguishers are provided and maintained per OSHA Standards, however, subcontractors must provide their own activity-appropriate type and size fire extinguisher protection as applicable.
6. Fire watch personnel must be trained in the use of fire extinguishing equipment and be familiar with the Project Specific Fire Prevention Plan. Personnel performing hot work activities must have adequate training and experience to perform their duties safely. Personnel operating arc welding equipment and gas-shielded welding equipment must be competent. Personnel handling fuel gas must be instructed on safe practices.
7. A Fire Watch shall be maintained in the area of the hot work operations during hot work operations and for at least 30 minutes after the hot work has ceased. NOTE: Some projects may require a Fire Watch to remain in place for a longer period of time. BBC's Project Manager or Superintendent will identify the areas/projects where the Fire Watch has to remain on station longer than 30 minutes.
8. All combustible materials shall be removed from the vicinity of any spark producing or open flame activity. Dumpsters must be located twenty (20) feet or more from buildings except when located beneath a trash chute.
9. No welding, cutting or spark producing activity shall take place within fifty (50) feet of flammable fuel storage or fueling operations, or within (25) feet of combustible materials.
10. Personnel engaged in hot work activities shall cover all wood planking, scaffolds, wooden forms, and flammable and/or combustible materials or liquids that are within 35 feet of the work area that cannot be removed, with approved fire-retardant blankets, pads, curtains, covers and/or shields.
11. Combustible floors are protected with approved fire-retardant blankets, pads, curtains, covers and/or shields.
12. Special precautions should be taken for heating pipes or other metal that is in contact with combustibles, walls, partitions, ceilings, or roofs.
13. When hot work is performed at an elevated location, sparks or slag that could fall and land under the hot work operation shall be adequately protected against.
14. Adequate ventilation is required for all hot work operations.

15. The floor shall swept clean within 35ft. of the work area.
16. The Subcontractor shall erect flash screens or suitable fire resistant barriers where there is the possibility of exposing personnel or the general public to radiation emitting from arc welding or similar operations.
17. Cylinders containing oxygen or oxidizing gases shall be separated from cylinders in storage containing fuel gases by at least 20 ft. or by a fire resistive partition having at least a ½ hour rating that is at least five feet high or 1 foot higher than the cylinders, whichever is taller. Note: According to EM385-1-1, 20.D.03d storage of fuel gases must maintain by at least 20 feet or by a fire restive partition having at least a 1 hour rating.
18. All compressed gas cylinders in service shall be secured upright in substantial fixed or portable racks or hand trucks.
19. Compressed gas cylinders shall be secured in an upright position at all times, except when being hoisted (except acetylene cylinders shall never be laid horizontal).
20. If propane cylinders are to be used on this project proper storage must be provided by the Subcontractor. This storage must be secured and kept a minimum of 50 feet away from any building or structures. This storage must be protection from vehicular/equipment traffic and no smoking within 50 feet signs shall be posted.
21. Sprinkler heads and/or sensors must be protected if hot work is done in close proximity to an automatic fire detection or suppression system. Systems may need to be placed in test mode during hot work activities.
22. Hot work is not allowed in the following areas:
 - In areas not authorized by BBC Management
 - In the presence of explosive atmospheres (e.g. gases, vapors, liquids, or dusts)
 - In areas where explosive atmospheres could potentially develop
 - In areas with an accumulation of combustible dusts
23. Hot Work Permits (HWP) shall be completed:
 - For welding, cutting, grinding, and other hot-work activities.
 - Prior to hot work activities commencing.
 - For up to one work shift with the exception of exterior construction such as steel erection or reinforcing steel which may be completed for up to one week.
24. HWP Process
 - i. Personnel who are to engage in hot work obtain a permit from BBC
 - ii. Personnel completes permit section 1
 - iii. Personnel gives completed permit to BBC Supervisor
 - iv. BBC Supervisor verifies adequacy of the permit
 - v. BBC Supervisor and personnel sign Part 1
 - vi. BBC Supervisor retains Part 1
 - vii. Personnel takes Part 1A and retains it for records
 - viii. Personnel fills out and displays permit at the location of the hot work
 - ix. After fire watch is complete, personnel sign bottom of Part 2
 - x. Personnel returns Part 2 to BBC Supervisor.
 - XI. BBC Supervisor to retain HWP until conclusion of the project/activity

HOUSEKEEPING

1. All work areas shall be maintained in a “broom swept” condition at all times to the greatest possible extent. This shall include packing materials, demolition debris, and scrap material, unused or unusable excavated material. If the Subcontractor fails to comply, the Project Manager or designee will remedy the non-conforming situation and deduct costs incurred from monies owed the Subcontractor.

2. Debris will not be allowed to accumulate. All trash shall be removed and cleaned up from the site or contained in suitable covered dumpsters, trash bins or similar containers.
3. Loose materials shall not be stored around the floor perimeter edge or perimeter of floor openings where they can be easily knocked off. All materials shall be maintained in neat stockpiles for ease of access. Keep aisles and walkways clear of loose materials and tools. Materials shall not be placed within six feet of any hoist way or floor openings or within ten feet of any exterior wall that does not extend above the material stored.
4. Clean up loose materials, waste, etc., immediately. This is especially important in aisles and in the vicinity of ladders, ramps, stairs, and machinery. Tools and loose materials should be removed immediately if a hazard is created. Protruding nails should be removed or bent over as the material is removed. Cleaned lumber should be stacked in orderly piles. Workmen performing this task should wear heavy gloves and puncture-proof insoles.
5. Empty bottles, containers and papers should not be allowed to accumulate where lunches are eaten on the jobsite. Trash disposal cans shall be provided. Glass bottles are not allowed on the construction site.
6. Any debris that is dropped more than 20 feet to any point outside the exterior walls of the structure shall be done with the use of a chute or slide. The chute or slide must be enclosed on all sides. Employees and general public shall be protected by flying debris by barricade or other protective means as necessary. A lockout/tagout program, fall protection or other requirements for the removal of clogged material may be required. Before removal of clogged material, a competent person shall review the operation and applicable JHA.
7. Spilled liquids shall be cleaned up immediately.
8. Sanitation will be in accordance with OSHA Subpart D 1926.51 (Sanitation). This references drinking water, toilet facilities, and hand washing stations.
9. All stairways, passageways, gangways, and crossways, must be kept free of material, supplies, and obstructions at all times.
10. Containers shall be provided for the collection and separation of waste, trash, oily and used rags, and other refuse. Containers used for oily, flammable, or hazardous wastes, such as caustics, acids, harmful dusts, etc., shall be equipped with labels and covers.
11. All trash and debris will be removed from all work areas daily. Trash receptacles shall be emptied as needed. All trash/debris must be cleaned up and disposed in the appropriate dumpsters and covered nightly. This includes lunch/break trash. Work areas must be cleaned every day by trades that generate the debris and maintained in a safe working condition. Housekeeping is a condition of employment
12. Sweeping compound shall be used when sweeping is conducted indoors.
13. Any alterations/renovations in finished areas shall require adequate dust control methods such as temporary dust protection or tools/vacuums with HEPA filters to collect dust generated.
14. Dry sweeping and the use of compressed air for the cleaning of floors and other surfaces shall be prohibited. If vacuuming is used, the exhaust air shall be HEPA filtered to prevent generation of airborne respirable dust. Gentle wash down of surfaces is preferred.
15. Strict compliance with the project specific Construction Waste Management Plan is required. Recycled materials include but are not limited to wood, scrap metal, concrete, asphalt, cardboard, and drywall. Construction waste shall only be placed in the appropriately labeled dumpster.
16. Extension cords, hoses, welding leads, etc., must be run overhead when possible in stairways, aisles, and exit areas.
17. NO Tobacco or sunflower seeds are allowed on jobsites, (except in designated areas).

18. No eating in buildings (except BBC designated lunch areas identified by the site logistics plan).
19. The floor of every workroom shall be kept as dry as possible. Drainage shall be maintained where wet processes are used, and false floors, platforms, mats, or other dry standing places shall be provided, when possible.

LADDERS

Ladders should be considered as a last resort to gain access to work areas and/or work positions. Subcontractors shall eliminate the use of ladders as much as feasible by supporting the use of alternate methods for reaching work areas at various heights. For example, in lieu of ladders, a subcontractor may choose to use mechanical and mobile lifts such as elevated work platforms with guardrails. However, in various situations where ladders need to be used, Subcontractors shall ensure that safe ladder practices are followed.

Ladder users shall be trained on the following:

- Importance of using ladders safely including injuries due to falls from ladders.
- Selection of ladders, including types, proper length, maximum working loads, and electrical hazards.
- Maintenance, inspection, and removal of damaged ladders from service.
- Erecting ladders including footing support, top support, securing, and angle of inclination.
- Climbing and working on ladders including user's position and points of contact with the ladder.
- Causes of falls, including haste, sudden movement, lack of attention, footwear, and user's physical condition.
- Prohibited uses including climbing on cross bracing, uses other than designed, exceeding maximum lengths, and not meeting minimum overlap requirements.
- All manufacturer requirements and instructions

Safe Ladder Practices - General

- Only the following ladder types shall be used:
 - Type 1 (250 lbs maximum rated capacity),
 - Type 1A (300 lbs maximum rated capacity),
 - Type 1AA (375 lbs maximum rated capacity)
- Ladders must not be loaded beyond the manufacturer's rated capacity
- Ladders constructed primarily of metal shall not be used
- Manufactured-wood or trestle ladders shall not be used
- Ladders shall be used according to their intended design
- Specialty ladders shall only be used with BBC approval
- Fall protection is required when the worker is at a standing height greater than six feet (6') above the adjacent surface. A retractable device is recommended for connecting to an anchor point for ladder use.
- A fall protection system shall be used when a worker is exposed to other potential fall hazards such as leading edges, open floor/wall holes or window openings while working and/or ascending or descending from a ladder.
- Access Ladders - A fall protection system is required for access ladders (including scaffold access ladders) where the top landing is greater than twenty feet (20') above the adjacent surface (within a 6' radius).
- Only ladder rungs, not the side rails, shall be used while ascending or descending ladders
- Users shall keep their body in between the side rails of a ladder and not overreach
- Do not carry equipment or materials while ascending or descending ladders
- Users must face ladders and maintain 3 points of contact at all times while working and/or ascending or descending from a ladder
- Ladders must be equipped with non-skid safety feet
- Ladders shall be placed on a stable and level footing at all times
- Ladders shall not be used on ice, snow or slippery surfaces
- Do not place ladders in passageways, doorways, driveways, or any location where they may be displaced by other work activities, unless protected by barricades or someone dedicated to watch and warn both the user and others that might approach the work area
- Ladders shall not be placed on boxes, barrels, or other unstable bases to obtain additional height
- Ladder feet shall not be wrapped with plastic or carpeting

- At the base of a ladder, the landing surface must be clear and smooth (for example, when ladders are used to access rebar mats in an excavation, a piece of secured plywood would be an adequate landing).
- Avoid excessive pulling and pushing while on a ladder.
- Job-built ladders should only be built by qualified carpenters and according to OSHA and ANSI standards.
- Get help when moving large/heavy ladders.
- Never store material or tools on the steps of a ladder.
- Employees shall be trained on ladder use/safety as part of their employer's safety program.

Inspection / Maintenance

- Inspect ladders prior to use. Never use ladders with broken, bent or missing rungs or steps, broken or split side rails, missing labels, or other faulty or defective construction. Ensure movable parts operate freely without binding or undue play.
- Damaged ladders shall be tagged as defective and removed from service.
- Ensure the side rails, cleats, and/or rungs of ladders are kept clear and free of lines, hoses, cables, wires, oil, mud, ice, grease, and debris.
- Ensure areas around the top and bottom of ladders are kept clear of materials, tools, equipment and debris.

Safe Ladder Practices - Extension Ladders

- Extension ladders shall be setup at a 1:4 base to height ratio
- Side rails must extend at least 3 ft. above the upper landing
- Tie, block, or otherwise secure ladders to prevent them from being displaced or moved
- Extension ladders shall only be adjusted while standing at the base
- Workers shall not stand on the top three rungs of an extension ladder
- Extension ladders shall only be used with the rung locks engaged
- Always be aware of overhead hazards when setting up an extension ladder
- For heavier ladders, two people are required to erect and move the ladder
- A step-through system should be used when possible at the top of ladder landings

Safe Ladder Practices - Stepladders

- Always fully open and lock side braces when using stepladders
- Stepladders shall not be used for access and egress to elevated work areas
- Step ladders shall not be used as a straight ladder or in the partially closed position
- Do not place planks on the top or on any step of a stepladder
- Never stand on the top two steps or top cap of a stepladder
- Never climb on the rear side of a one-sided stepladder
- Never straddle a stepladder
- Place all four feet of the ladder on even and solid footing
- Do not "walk" ladders.

Safe Ladder Practices - Job-Built Ladders

- Job-built ladders must be constructed in accordance with ANSI Standard A14.4 1979
- Job-built ladders must be constructed for intended use and must safely support the intended load.
- If a ladder is to provide the only means of access or exit from a working area for 25 or more employees, or simultaneous two-way traffic is expected, a double-cleated ladder shall be installed.
- Double-cleated ladders must not exceed 24 ft. in length
- Single-cleat ladders must not exceed 30 ft. in length
- The width of single-cleat ladders shall be at least 15 inches, but not more than 20 inches, between rails at the top.
- Rail splicing is permitted only when there is no loss of strength to the rail
- Rails must be made from select Douglas fir without knots
- 2x4 inch lumber shall be used for side rails of single cleat ladders up to 16 feet long; 2x6 inch lumber shall be used for single-cleat ladders from 16 to 30 feet in length.
- 2x4 inch lumber will be used for side and middle rails of double-cleat ladders up to 12 feet in length; 2x6 inch lumber for double-cleat ladders from 12 to 24 feet in length.
- Inset cleats into the edges of the side rails ½ inch, or filler blocks shall be used on the rails between the cleats. Secure the cleats to each rail with three 10d common wire nails or other fasteners of equivalent strength. Uniformly space cleats at 12 inches top-to-top.

LOCK OUT TAG OUT (LOTO)

It is the policy of BBC to strictly **prohibit work on energized circuits and equipment**. The requirement for lock-out tag-out (LOTO) applies to all sources of hazardous energy including electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Subcontractors and their tier-subcontractors who perform authorized hazardous energy work are responsible for their LOTO activities and must provide the BBC Project Team with their LOTO program, applicable procedures, and proof of training. Specific LOTO procedures* for the task(s) to be conducted on the BBC project must be included on or with the Subcontractors' and their tier-subcontractors' respective job hazard analysis and will be reviewed by the BBC project team. All major equipment, i.e. hoists, backup generators, air compressors, etc., must have a specific written procedure for LOTO and energy isolation.

All LOTO must be coordinated with the BBC SH&E Manager, Superintendent and/or Sr. Project Manager. No equipment shall be taken out of service without notification to the BBC SH&E Manager, Superintendent and/or Project Manager. It is the Subcontractor and their tier-subcontractors responsibility to supply their own LOTO devices (e.g., tags, locks and point of contact--name and telephone number). Additionally, static/grounding cables must be used to prevent static spark anytime equipment is cut out or unbolted and removed where a hazardous atmosphere may be present.

*LOTO procedures shall be developed, documented and utilized for the control of potentially hazardous energy when employees are engaged in the activities covered by this standard. The procedures shall clearly and specifically outline the scope, purpose, authorization, rules, and techniques to be utilized for the control of hazardous energy, and the means to enforce compliance including, but not limited to, the following:

- Specific statement of the intended use of the procedure
- Specific procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy
- Specific procedural steps for the placement of lock out or tag out devices and the responsibility; and
- Specific requirements for testing a machine or equipment to determine and verify the effectiveness of lockout devices, tagout devices, and other energy control measures.

Placement of Locks

A member of the BBC Project Management Team and the property owner or their representative(s) must be notified and have given approval to shut down and lock out the system or equipment before attaching the locks to the isolating devices.

It is the responsibility of each person working within the "LOCK-OUT" area to place his/her own lock or tag on upstream lockout points. Use of another person's lock or tag (i.e. working in the area under the security of another person's lock) is **STRICTLY FORBIDDEN**. During construction and prior to check out of the system, the supervisor in charge of the installation of equipment may attach a single lockout device as a means of control, but employees are still required to lock and or tag to assure their own safety.

If a job extends over a change in shifts, the person coming on the job shall put his/her lock on all the lock-out points and the person leaving shall remove his/her locks.

When more than one employee may be exposed to the hazard of re-energizing a de-energized circuit, each exposed employee must apply their own lock. A lock-out scissors, cable or other such multiple lock devices shall be used.

A stop button or electrical interlock must never be used as a substitute for "LOCKOUT".

All persons having the need to enter a locked out area or system will be issued as many locks as necessary to perform the expected tasks of the job. "LOCKOUT" locks will be identified with the individuals' number and name. One key will be issued with each lock. Any remaining keys will be forwarded to the project office.

If a job extends over a change in shifts, the person coming on the job shall put his/her lock on all the lock-out points and the person leaving shall remove his/her locks.

Use of another person's lock (i.e. working in the area under the security of another person's lock) is **STRICTLY FORBIDDEN**.

When more than one employee may be exposed to the hazard of re-energizing a de-energized circuit, each exposed employee must apply their own lock. Lock-out scissors, cable or other such multiple lock devices shall be used.

Removal of Lockout- Restoring Equipment to Service

When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps shall be taken:

- Check the machine or equipment and the immediate area around the machine or equipment to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.
- Notify workers of intent to re-energize
- Check the work area to ensure that all employees have been safely positioned or removed from the area.
- Inspect the work area to confirm tools, support or test equipment are clear of danger.
- Verify that guards, interlocks, etc. have been re-installed when applicable.
- Verify that the controls are in neutral.
- Remove electrical jumpers, bypass lines and other such devices.
- Remove the lockout devices and re-energize the machine or equipment. Note: The removal of some forms of blocking may require re-energizing of the machine before safe removal.
- Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.
- When the person who applied the lockout is not available to remove it, due to lost key, absence, or any other reason, the abandoned lock procedure must be utilized. The removal of a lockout device has serious consequences and must not be taken lightly.
- Re-energize
- Confirm the system is operating properly and safely.

Abandoned Lock Policy

Due to potentially serious implications, a member of the BBC Project Team must authorize the removal of a lockout device without a key. The [Abandoned Lock Form](#) is to be completed and followed for this purpose (see attachment).

Other Energy Sources

Lock-out tag-out must be used isolate hazards associated with energy sources such mechanical, hydraulic, pneumatic, etc.

1. For piping systems, lock out both inlet and outlet valves. Relieve pressure by bleeding or flushing. Ensure lock out prevents buildup of pressure.
2. For mechanical systems, place the equipment in the relaxed position or block the equipment to prevent movement. Use lock out devices to secure the block.

Coordination of LOTO among multiple trades

When more than one trade will be affected by LOTO, coordination must take place. BBC Project Management & Supervision will ensure that coordination has occurred and is properly documented on a written procedure, job hazard analysis, and pre task plan.

LONE WORK

Whenever personnel work alone, such as in a confined space or an isolated location, the supervisor must account for each worker by sight or by verbal communication throughout each work-shift at regular intervals appropriate to the job assignment; and, at the end of the job assignment or at the end of the work-shift, whichever occurs first.

Supervisors must assess the hazards of the workplace; talk to the workers about their work and get their input on possible solutions; avoid having a lone worker whenever possible, especially for jobs with a recognized risk; take corrective action to prevent or minimize the potential risks of working alone; provide appropriate training and education; establish a check-in

procedure; ensure regular contact is kept with all workers; establish ways to account for people (visually or verbally) while they are working; schedule high-risk tasks to be done during normal business hours, or when another worker is capable of helping when an emergency is present. Supervisors shall ensure rapid assistance to workers in the event of an emergency.

It is important that a check-in procedure be in place. The supervisor will decide if a verbal check-in is adequate, or if the employee must be accounted for by a visual check. Supervisors must make sure the plan is appropriate for both regular business hours as well as after main office hours.

Supervision and/or designated representatives must account for personnel by visual or verbal communication. Acceptable means of visual communication may include video surveillance or in-person visual contact. Acceptable means of verbal communication may include the use of mobile phones, two-way radios (walkie-talkies), in-person talking, or intercom systems.

MATERIAL HANDLING

1. Personnel engaged in rigging loads must be certified and trained accordingly. Personnel who perform multiple-lift rigging must be provided training on the specific hazards of multiple lifts, the procedures, and equipment. Equipment operators must be trained on the specific piece of equipment, its limitations, and appropriate attachments.
2. Material handling must not be conducted overhead of personnel or the public. A Controlled Access Zone (CAZ) must be established to restrict access.
3. Occupied buildings must be vacated if there is a potential for suspended loads to be dropped.
1. Horns, whistles, or other audible warnings should be sounded to warn personnel when loads are to be moved overhead.
2. Free-rigging, picking / suspending a load with a single fork while using tele-handlers such as rough terrain forklifts will not be permitted. Approved / Engineered lifting systems for this type of operation must be utilized.

General Material Handling Requirements:

- Make eye contact with all operators on powered material handling equipment
- Do not attempt to catch falling objects
- Tag lines must be used if loads could possibly swing or need to be manipulated by hand
- Wire rope shall not be burned off with heat. Any wire rope with welding damage must be discarded
- All loads must be made secure before moving or transporting
- Mark special custom-design grabs, hooks, clamps, or other lifting accessories to indicate the safe working loads.
- Lifting devices must be rated with limits, and equipment they are attached to (e.g. forklifts) must be designed and approved for those attachments
- All rigging equipment will be designed, proof tested and certified with a 5:1 safety factor
- Only drop-forged shackles and wire rope clips are permitted
- Job-made/custom-fabricated lifting hardware and attachments are prohibited unless designed by a Registered Professional Engineer and BBC is provided with documentation.
- Palletized loads are not to be lifted with rigging (only lifted by forks)
- When workers could be exposed to injury from rigging failure, a pick plan must be developed with a rigging diagram illustrating component capacity. The capacities of rigging hardware must be marked on the device, and not exceeded
- Rigging hardware must be designed for the application and environment in which it will be used
- When not in use, rigging equipment must be stored properly
- Never block an aisle or walkway with materials or equipment
- Loads must not be swung or suspended over workers
- Equipment removed from service must be tagged with an "Out of Service" tag
- Load-line fittings are not allowed to contact the rigging block sheave
- Lifting will not take place if winds exceed 25 mph unless discussed with and approved by the lift director

Slings

- When slings are applied to sharp-edged loads, the sharp edges must be protected with softeners sized appropriately to prevent damage to the slings.
- All slings must have legible tags. If the tags are no longer legible, slings must be discarded so they cannot be used again.
- Slings should be double-wrapped when used in choke applications. Softeners shall also be used to prevent slippage.

Hooks

- All hooks shall have functioning safety latches. Hooks and other rigging components shall be attached in a secure manner. Hooks and other lifting attachments on the buckets of front-end loaders, and backhoes are prohibited from use unless used in accordance with the manufacturers specifications designed and certified by a professional engineer.
- Open hooks shall only be used when attaching or disconnecting the hook would place a worker in a dangerous position. A Job/Activity Hazard Analysis must be used to establish the hazards and methods to protect against those hazards involved in the use of open hooks.
- Hooks shall be visually inspected prior to use to verify safe working condition. Hooks shall be removed in accordance with the hook manufacturer's specifications, some criteria for removal from service are:
 - Evidence of cracks;
 - Wear exceeding 10 percent of original dimension;
 - A bend or twist exceeding 10° from the plane of the unbent hook;
 - Increase in throat opening exceeding 15 percent of original dimension;
 - Missing or improperly functioning safety latch;
 - Any modification, i.e. grinding or welding.

Come-Alongs and Chainfalls

Come-alongs and chainfalls shall be used in accordance with manufacturer specifications and legislative jurisdictional requirements. When chainfalls are used as a rigging component with a mobile crane, the lifts shall be deemed a critical lift.

Come alongs and chainfalls shall:

Be inspected for internal/external wear and be proof tested prior to use and every 12 months thereafter;

- Have the capacity identified;
- Have all components, including the hook, rated in consideration of the required safety factors, of a sufficient capacity for the hoist;
- Not have the chain wrapped around the load for hoisting; and
- Have load limiters, if so equipped, set at or below the safe working load
- Come-alongs and chainfalls shall be removed from service if there is:
 - Any evidence of slipping or failure;
 - Any evidence of cracks, damage or other defects on the body or handles;
 - Excessive wear, stretch or deformity in the chain; or
 - A direction or recall from the manufacturer.

Inspection and Testing of Rigging Components

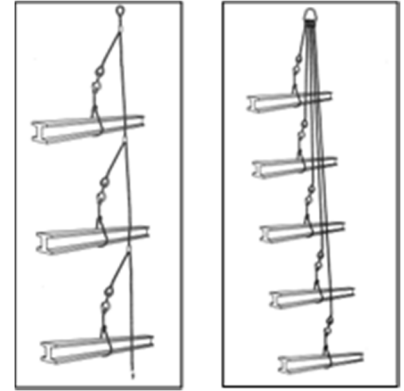
- Rigging components shall have a documented inspection prior to initial use on the project and defective rigging shall be tagged and removed from service.
- All spreader bars, lifting beams, links and other rigging components designed and certified/stamped by a professional engineer will be tested/inspected prior to initial use.
- Proof test all below-the-hook rigging devices prior to initial use to 125 percent of their rated load.

- Daily inspections must be performed and documented on all rigging and material handling equipment by a qualified person. For a sample form, please see the attached [Daily Rigging Inspection Checklist](#).

Multiple-lift rigging procedure

A multiple lift is only to be performed if the following criteria are met:

- A multiple lift rigging assembly/bridle is used (one device with one eye attached to the hook);
- A maximum of five members are hoisted per lift;
- The multiple lift rigging device has a capacity based on the manufacturer's specifications with a five to one safety factor for all components;
- Only beams and similar structural members are lifted (no bundles of decking); and
- All employees engaged in the multiple lift have been trained in these procedures.



The multiple lift rigging assembly must be rigged with members:

- Attached at their center of gravity and maintained reasonably level;
- Rigged from top down; and
- Rigged at least seven feet (2.1 m) apart.

The members on the multiple lift rigging assembly must be set in place from the bottom up.

PRESSURE TESTING

Subcontractors engaged in hydrostatic or pneumatic pressure testing of lines must submit a detailed plan and completed [Pneumatic Test Permit](#) (for Pneumatic Testing—not hydrostatic) to Balfour Beatty Construction (BBC) prior to any pressurization of piping systems and/or the use of pneumatic plugs.

Pressure Testing – Subcontractor Plan Requirements

The plan must, at a minimum, address the following:

- Reason for Pressure Test – Reference applicable contract requirements specification.
- Planned Test Pressure
- Planned Duration of Test
- Lock Out / Tag Out Program
- Written procedure for test which includes:
 - Test site preparations and related precautions including removal of unauthorized personnel, isolation of test site and a determination of the restricted distance for the pressure test. The restricted distance is the distance from the item(s) under test at which barriers and warning signs are placed to prohibit access.
 - Automatic pressure relieving device (pressure relief safety valve), which must be sized to handle the maximum output of the pressure source and set at not more than 110% of planned test pressure to prevent excessive pressure during testing.
 - Restraint Methods of Piping System
 - Names of test supervisor, participants, and their qualifications/training
 - Ratings of connections and fittings, including those used for solely for testing purposes must be rated for pressure equal or greater than the system piping.
 - Activity/Job Hazard Analysis (AHA/JHA) and Pre Task Plan (PTP) written for the activity, reviewed with BBC and test crew immediately prior to testing.

RESPIRATORY PROTECTION

Subcontractors are required to develop and implement a written respiratory protection program for situations in which permissible exposure limits of airborne contaminants could be exceeded or when the subcontractor requires use of respirators by workers.

The written program shall be submitted to the BBC Project Team and shall address voluntary respirator use; respirator selection; medical evaluations; fit-testing; use of respirators; user seal checks; maintenance and care of respirators; identification of filters, cartridges and canisters; employee training; and program evaluation. The standard requires the respiratory program to be administered by a program administrator and updated to reflect the changing workplace conditions that affect respirator use. Applicable federal and state requirements should be addressed to ensure adequacy of written respiratory protection programs.

When subcontractor employees voluntarily wear respiratory protection, the subcontractor shall establish and implement written respiratory program components related to the medical evaluation of a worker's ability to wear the respirator safely. Elements relating to cleaning, storing and maintaining respirators must be addressed, as well. Applicable federal and state requirements should be addressed regarding requirements for employees who voluntarily wear respiratory protection.

Medical Evaluations

Respirator use puts a physical burden on the human body; prior to use of a respirator, a worker must be declared medically fit to wear one through a medical evaluation.

Fit Testing

Fit testing is required before any employee wears a respirator. Either a quantitative fit test (QNFT) or qualitative fit test (QLFT) must be conducted to ensure the proper make, model, size and style of respirator is selected by an employee. Applicable federal and state requirements provide protocol that must be followed when conducting the fit testing.

Additional fit tests are required:

- When a different face piece, size, make or model is used
- When the employee reports or the contractor, PLHCP, supervisor or program administrator observes changes in the employee's physical condition that could affect the fit of the respirator
- At least annually

Record Keeping

Medical evaluations must be kept by a contractor for 30 years, in accordance with federal and state requirements. Fit-test records should be kept for the current year. When a new fit test is performed, the old fit test may be discarded.

Each employee required to wear a respirator must be trained before the first use. The training must be comprehensive, hazard/task specific, and repeated annually or more often if necessary. This training must include:

- Limitations and capabilities of the respirator
- Respirator use during emergencies or when a respirator malfunctions
- Reasons why respirators are required
- How improper fit, usage and maintenance can adversely affect the respirator
- How to inspect, put on and remove, use and check the seals of the respirator
- Maintenance and storage procedures
- How to recognize medical symptoms that limit or prevent the use of respirators
- The requirements of applicable federal and state regulations

Required Submittals for Scaffolding Erectors & Suppliers:

- Site-Specific Safety and Health Program that includes Scaffolding
- Pre-Task Plan (PTP) and Job/Activity Hazard Analysis (J/AHA)
- The name(s) of the Qualified Person designated by the Subcontractor. Documentation of the Qualified Person's training, experience and knowledge of the type of scaffolding being erected by the Qualified Person.
- The name(s) of the Competent Person. Documentation of the Competent Person's training, experience and knowledge of the scaffolding to be erected.
- Valid documentation from the manufacturer of the scaffolding that proves through specific signed and stamped documentation that the scaffold complies with applicable scaffold regulations. The documentation shall include, but not be limited to:
 - a) Testing performed in accordance with the Scaffolding Shoring & Forming Institute's SC 100-05/2005 (or most current test standard) recommended testing standard. Information on the SSFI SC 100-05/2005 standard can be found at www.ssfi.org.
 - b) Testing other than SSFI SC 100-05/2005 shall be equivalent and performed under the supervision of a qualified registered Professional Engineer who is licensed in the State where the testing was performed and where the scaffold is to be used.
 - c) Based on valid testing, the Subcontractors scaffold provider and/or erector shall provide the Maximum Allowable Loading per scaffold leg or per scaffold frame.
- Scaffolds manufactured *outside* of the continental United States shall have valid documentation to prove the scaffolding meets applicable regulations and has been tested in accordance with the Scaffolding Shoring & Forming Institute's (SSFI) SC 100-05/2005 recommended testing standard. Valid testing documentation must be submitted indicating that the paint and/or coating(s) on the scaffold components do not contain any hazardous materials such as lead, chromium, etc.
- Scaffolds that are designed by a qualified registered Professional Engineer (P.E.) shall include, at a minimum, the following documentation:
 - b) Drawings of the bracing pattern(s) for the scaffolding;
 - c) Drawings of the types and locations of the ties between the scaffold and the structure (tension, compression and sway ties);
 - d) Written instructions on how to erect the scaffolding;
 - e) Written instructions on how to inspect the scaffolding;
 - f) The maximum allowable loading per scaffold bay and scaffold tier;
 - g) Any other information the P.E. deems necessary to erect, inspect and maintain a safe scaffold;
 - h) The allowable deflection in a scaffold leg (when the leg is measured from the uppermost frame to the bottom of the supporting frame at ground, deck or floor level).
 - i) The method of accessing each working level (tier).
 - j) The areas where the scaffold can be enclosed with a tarp or other approved enclosure material.
 - k) The locations and types of ties to be used when a scaffold is fully or partially enclosed.

Required Submittals for Scaffold Users:

- Site-Specific Safety and Health Program that includes Scaffolding
- Pre-Task Plan (PTP) and Job/Activity Hazard Analysis (J/AHA)
- The name(s) of the "Competent Person" and/or "Qualified Person" designated by the Subcontractor

- Proof of scaffold awareness training for all users

Scaffolding Erection & Dismantling Requirements:

- Scaffolds are to be erected, modified or altered and dismantled under the supervision of a Competent Person and with good engineering practices.
- Erecting and dismantling of scaffolding shall be performed using fall protection systems at an elevation of six feet or greater unless approved in writing by BBC. Scaffold erection must be done with 100% fall protection.
- Erectors must have training on fall awareness, site-specific fall hazards, fall protection equipment to be used, and rescue procedures.
- If erectors tie off to scaffold components, written approval must be granted by scaffold manufacturer.
- *It is highly recommended* that interior drop-down ladders or exterior stair towers be used in lieu of typical exterior ladders. See the attachment for [Ladder and Scaffold Alternatives](#).
- Scaffolds must be fully planked with scaffold-grade planks. Planks shall overhang the ledger or support by a minimum of 6" and a maximum of 18".
- Scaffolds more than 4x higher than they are wide must be stabilized.
- Pins must be in place at all connections throughout the scaffolding.
- Scaffolds must be setup level and on a firm foundation.
- Handrails, mid rails and toe boards must be provided on all scaffold types, walkways, and bridges where the platform height is 2' or higher above an adjacent surface and within six feet (6') horizontally. When handrails and mid rails are not in place, an alternative fall protection system is required.
- All guardrail systems shall include toe boards throughout the entire system. Toe boards must be installed with a minimum of 1"x 4" inches nominal height. If an exterior screen extends from the ground to the top platform of the scaffolding, toeboards are not required.
- Cross braces will NOT be used as a top or mid-rail. Horizontal members must be installed on all guardrail systems where the scaffold platform is elevated six feet or greater.
- Rolling scaffolds shall be equipped with locking wheels, guardrails, diagonal bracing (if applicable) and outriggers (when applicable).
- Each scaffold shall be designed and constructed using a dead load safety factor that will ensure the scaffold supports, without failure, its own weight and 4 times the maximum intended working (live) load applied or transmitted to it.
- Scaffold planks shall meet the current safety criteria in ANSI A10.8, 29 CFR 1926 Subpart L, Southern Yellow Pine Inspection Bureau, West Coast Inspection Bureau and/or manufacturer's recommendations.
- Scaffolds shall be erected in accordance with the scaffold manufacturer's recommendations.
- Scaffolds that cannot be erected in accordance with the scaffold manufacturer's recommendations shall be designed and evaluated by a Qualified Registered Professional Engineer who is registered in the State where the work is being performed.
- Controlled Access Zones must be established around scaffolding erection/dismantling areas to prevent other personnel from being exposed to potential struck-by hazards.
- When scaffold trusses (put logs) are used in conjunction with the scaffolding, the Subcontractor/scaffold company/scaffold erector shall provide:
 - The Maximum Allowable Loading per bay or per square foot that is supported by the trusses (put logs).
 - Installation, use and inspection requirements (in accordance with the manufacturer's recommendations and qualified engineering services).

- Specialized conditions and/or situations will have to be identified prior to submitting the scaffold bid. These conditions will be identified and the bidder shall provide valid documentation that the scaffold set up and use is in compliance with applicable regulations and scaffold manufacturer's recommendations.
- All scaffold components shall be installed by the Competent Person per manufacturer specification.
 - Scaffolding that has not been erected in a manner that allows for all its parts to fit together as was originally intended by its manufacturer shall not be utilized.
 - Tie wire shall not be utilized as a method for securing scaffold sections or components together unless expressly recommended and indicated in writing as being approved by the scaffold manufacturer. Tie wire shall not be used to take the place of the scaffold manufacturer's standard guardrail system components.
 - Not all types of scaffolding will work for any given geometrical configuration. For example, Tubular Weld sectional scaffolding would not be the proper choice for the Competent Person to erect around a circular structure-- tube and clamp (coupler) would be the appropriate selection for that configuration.

Scaffolding Inspection & Tagging Requirements:

- The following requirements for inspecting and tagging shall be used for all types of scaffolding including all rolling and portable scaffolds.
- Scaffolds must have a documented inspection by each Subcontractor's competent person;
 - daily before each shift; or
 - after any occurrence that might compromise its structural integrity.
- After inspection, if the scaffold is deemed safe, each Subcontractor's competent person must sign and date a green tag at the base of each scaffold ladder or access way to indicate the scaffold is safe to access and use.
- After inspection, if the scaffold is deemed unsafe, each competent person must place a red tag at each ladder or access way to indicate the scaffold is not currently safe to be accessed.
- All scaffolds will be red tagged every evening or at the end of the work shift and green tagged before use.
- Please see the attachment for a sample [Scaffold Inspection Checklist](#).

Scaffolding Use Requirements

- No objects and/or equipment shall be used on top of scaffold platforms to increase work height.
- Never leave a scaffold in an unsafe condition.
- Never climb scaffold braces or guardrail systems-- use the proper ladders and stairs.
- Check for capacities and do not overload.
- Rolling scaffolds wheels shall be locked when work is being performed. Surfing, skating, and riding is prohibited unless proper braking mechanisms are installed and the floor is free of surface encumbrances or obstacles.
- Perry type and other similar types of rolling scaffolds platforms shall have guardrails installed when used as a working platform.
- Prior to any modification of scaffolding (i.e. guardrail removal) the competent person who owns control of the scaffolding must be notified and approve any modifications of the scaffolding. The Competent Person must red tag the scaffold prior to and during the course of modifications. Also, the subcontractor's competent person must ensure that affected personnel are notified.
- When forklifts/tele-handlers are used to hoist equipment/material onto scaffolding, a Controlled Access Zone must be established around the forklift to prevent other personnel from being exposed to potential struck-by hazards.
- Covered walkways shall be provided to protect personnel entering / leaving the building(s) from falling materials during construction.

STEEL ERECTION

Steel erection activities include hoisting, connecting, welding, bolting, and rigging structural steel, steel joists and metal buildings; installing metal deck, siding systems, miscellaneous metals, ornamental iron and similar materials; and moving from point-to-point to perform these activities.

Subcontractors engaged in steel erection shall attend the Steel Erection Preconstruction Meeting and shall complete and submit to the BBC Project Team a Site-Specific Steel Erection Plan that meets or exceeds the content on the [Site-Specific Steel Erection Plan Outline](#).

Personnel must be trained according to the tasks they're engaging in. Typically, most steel erection personnel will need at least one of the following trainings/certifications:

- Certified crane operator
- Certified rigger
- Certified signal person
- Aerial work platform training
- Welding certification as applicable
- Connector training
- Steel erection training requirements:
 - Multiple lift rigging procedures
 - Connector procedures
 - Controlled decking zone procedures
- Ladder selection and use
- Fall Hazard Training:
 - Recognition and identification of fall hazards in the work area
 - The use and operation of guardrail systems (including perimeter safety cable systems), personal fall arrest systems, positioning device systems, fall restraint systems, safety net systems, and other protection to be used
 - The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used
 - The procedures to be followed to prevent falls to lower levels and through or into holes and openings in walking/working surfaces and walls; and the fall protection requirements for structural steel erection
 - Procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used
 - Site-specific fall prevention plan

UTILITIES UNDERGROUND

Utility Locating Requirements

Subcontractors whose scope of work involves the penetration of the ground whether by hand or mechanical means shall locate and identify all utilities prior to the start of penetration. Activities covered by these requirements range from saw cutting, jackhammering, coring, trenching, excavating, demolition, boring, drilling, grading, mass excavation, etc.

For excavation activities, please also refer to [Excavation](#). When utilities will be shut down/isolated/de-energized/etc, [lock out tag out procedures](#) must be followed.

Subcontractors shall:

1. Attain as-built drawing(s) if available.
2. Contact Dig Alert by calling 811. The website for Dig Alert is www.digalert.org.
3. Hire a ground-penetrating radar company to verify utility locations of ALL surfaces to be penetrated.

Required Submittals for Subcontractors

For activities involving the penetration of the ground's surface, the Subcontractor shall submit the following in addition to typically required safety documents prior to starting work:

- the name(s) of the designated "Competent Person" with supporting documentation indicating training and competency. (No excavating or work in excavations will be allowed without the Competent Person onsite and supervising these operations at all times).
- A Job Hazard Analysis that adequately addresses the task(s) involving penetration of the ground's surface and safe measures for preventing utility strikes.

Pre-Dig Meeting

A mandatory pre-dig meeting will be held for any scope of work involving the penetration of the ground whether by hand or mechanical means. The meeting should be held no later than two weeks prior to the start of work.

Each applicable subcontractor shall ensure the attendance at this meeting by their foreman, operator, and crew.

Strike Prevention Procedures

Every effort must be made to **remove or de-energize utilities as the first** order of business.

If a utility is properly identified, shut down, and "safed off" via lock out tag out, and the utility is struck during an activity, BBC does **not** consider the event a utility strike, but it **would be considered property damage** and must be repaired by the party responsible for the damage.

Note, **lock out tag out must be performed by a qualified person and testing must verify a zero-energy state for the utility.**

When within three (3) feet or 36 inches in any direction of known utilities that are energized, hand digging or vacuum excavation is required.

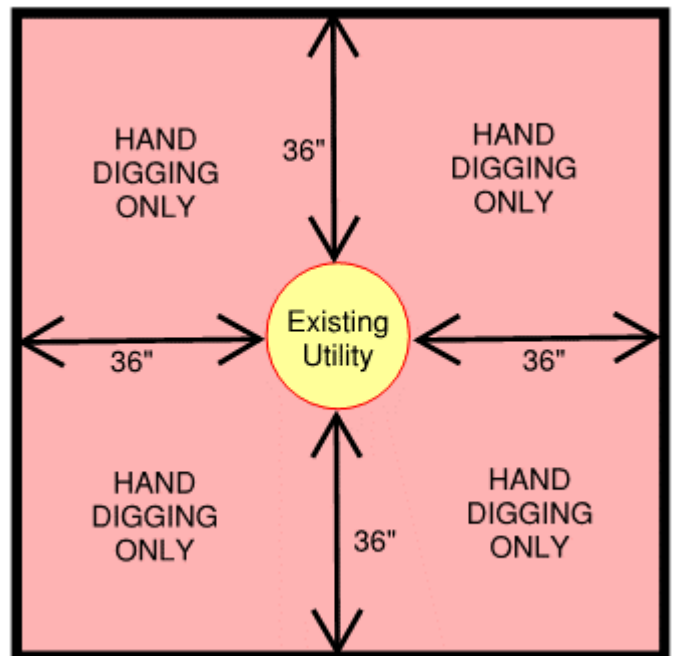
Potholing Procedures

Potholing is performed to verify the location and depth of utility lines and potholing procedures shall be followed to prevent damage to the identified underground utilities. Before ground-penetrating activities begin, potholing for the utilities will take place. Potholing will be done using hand labor or a vacuum excavation system. NOTE: Utilities typically identified by locate services have a three-foot safe zone. In other words, the utility should be within a three-foot zone of either side of the markings.

Potholing will be performed to locate the utility. The utility **MUST** be found prior to the start of excavation operations.

The soil must be excavated in 6" lifts (approximately) by hand to verify that no utilities are present. If utilities are located, then the utilities must be exposed by hand. The proper tools that can be used for handwork are shovels and pry bars (or other tools of this nature), OR vacuum excavation systems. At no time should a pickaxe or other similar tools be used. Before using a vacuum excavation system, contact the utility owner to determine if the utility owner will allow the use of a vacuum system. Not all utility owners allow the use of vacuum systems for locating the utility.

Do not assume that the utility will continue on the same line and grade. If any damage occurs to any line, contact the utility company, the utility engineer and the project superintendent IMMEDIATELY. An Incident Report must be completed IMMEDIATELY by the BBC Project Team. **All existing utilities will be located, marked and visually verified prior**



to starting any operation. Locate markings must be protected as applicable. It is recommended that time-stamped photos be taken of markings prior to breaking ground.

Underground Utility Pothole Spacing and Frequency - Any deviation from this procedure will require approval from the BBC Project Manager. The following spacing and frequency requirements will be followed on all projects:

Life threatening utilities such as gas, forced sewer mains, water mains and electrical services will be exposed through the entire length of the excavation.

Gas and electric lines within 25 feet of your work area will be potholed and marked every 25 feet to verify that the line has not changed directions.

Gas and electric lines outside the 25 feet of the work zone will be potholed at least once on each end of the limits of the excavation to verify Underground Service Alert and the utility plans.

Communication Lines- **Fiber-optic lines** will be potholed **every 25 feet** within the work area. **Telephone/Cable lines** will be potholed **every 50 feet** within the work area. IF there is any damage to a fiber optic line, **DO NOT LOOK INTO THE FIBER OPTICS. THE LIGHT WAVES GOING THROUGH THE FIBER OPTICS CAN CAUSE SERIOUS EYE INJURIES.**

Other Utilities:

Will be potholed every 25 feet for lines less than 8" in diameter.

Will be potholed every 50 feet for lines 8" though 24" in diameter.

Will be potholed every 100 feet for lines greater than 24" in diameter.

At least two (2) potholes must be obtained for each utility within the work zone regardless of the size of the work area.

Utilities in Roadways

Utilities that are located within the roadway will be potholed.

Street plates will be obtained to cover a pothole when there is live traffic on the roadway. The street plates shall be of sufficient size and thickness to allow traffic to safely drive over them by pre-grind to allow the trench plates to be flush with the horizontal plane. The street plates shall be secured in place in accordance with the local, state and/or federal requirements.









For roadway work not scheduled to be excavated in the current operation, an asphalt patch will be placed over the pothole. This will be done after all pothole information has been recorded and the pothole has been offset using stakes and ribbon.

Utility Locating

Subcontractors shall locate and identify all utilities prior to the start of ground-penetrating activities. Equipment operators must understand the locations and types of utilities.

Prior to the start of any excavation a utility locate service must be contacted. Each state has a different locate service with specific rules outlining their services. It is very important to understand the state or local guidelines in advance of your excavation. Typically locate companies require 2 days advanced notice before performing a locate. Before calling for locate services, the excavation area must be pre-marked with white paint, stakes or flags. In addition, newly constructed work IS NOT covered (i.e. drainage, electrical subcontractor new installations, etc.) and shall be located by other means. The Subcontractor engineer, foreman, or superintendent responsible for this work will be contacted to verify what has been constructed and an appropriate as-built requested. The One Call service can be contacted by calling 811. The website for Dig Alert is www.digalert.org. **Ground penetrating radar WILL be used to verify utility location prior to digging/cutting ALL surfaces.**

Utility Color Markings - The following colors and symbols have been adopted by all utilities for marking underground utilities:

	Blue	Water
	Orange	Telephone, Railroad, Cable TV
	Green	Sewer, Storm Drain
	Red	Street Lighting, Electric, Traffic Signals (may be orange)
	Yellow	Gas
	Pink	Survey
	White	Proposed Excavation
	Purple	Reclaimed Water, Irrigation, and Slurry Lines

Dig Permits

A [Dig Permit](#) is required for all operations which penetrate the original ground surface. The Subcontractor foreman of each operation is responsible for ensuring that the Dig Permit, Job Hazard Analysis (JHA) and Pre-Task Plan (PTP) and all necessary drawings are available at the operation and in the cab of the excavator, backhoe, etc. The operator is ultimately responsible and will be held accountable to ensure the operation does not proceed without a valid Dig Permit. The BBC Superintendent will verify that the Dig Permit has been properly completed. The following documents will be attached before being distributed to the foreman and operator:

- A signed copy of the Job Hazard Analysis (JHA).
- A Pre-Task Plan (PTP) must be completed by the crew and signed by all members.
- The page of the Topography & Utility Plan sheets for the work zone that the permit covers. Any utility relocations that have been completed before the start of the operation must be clearly noted on these drawings.
- A copy of the Utility Plan sheets for the work zone the permit covers. Notes and highlights must be made on these drawings to indicate which runs have been installed.

Unintentional Uncovering of a Utility (known or unknown utility)

If during the course of excavation a utility has been exposed, it is the Subcontractors' responsibility to inspect and support these facilities prior to backfilling. If damage of any kind is discovered, or any suspicion of damage exists, call the utility engineer so documentation can take place. The utility engineer will then notify the utility owner.

All unidentified underground utilities that are discovered during the course of excavation activities shall be marked on the As Built Plans and the BBC Project Manager shall be IMMEDIATELY notified.

Reporting Requirements

If a utility strike/hit does occur, several reporting steps are required:

- First and foremost, clear and secure the area if there is potential for further exposure to hazardous environments.
- Contact the appropriate utility owner to inform them of the damage so they can inspect and repair, if necessary.
- Notify the Utility Engineer and BBC Project Superintendent.
- The Subcontractor shall complete the Incident Report Form and transmit it to the BBC Project Manager.

UTILITIES OVERHEAD

1. Any equipment having the ability to work under, cross underneath, and/or reach over overhead electrical lines will follow the guidelines set forth by OSHA in 1926.1408, 1926.1411, & 1926.600. BBC recommends that equipment working in close proximity to overhead electrical lines be equipped with a Proximity Warning Device (PWD) to notify the operator and/or operatives surrounding the equipment of the proximity to the danger zone.

2. If working near overhead electrical lines, the Subcontractor shall install "DANGER OVERHEAD POWERLINES" signs at all designated equipment crossings. This sign must state the voltage of the overhead line. For all other utilities, the Subcontractor will install "DANGER OVERHEAD UTILITY" signs to warn of the overhead hazard. For all other equipment traveling underneath overhead utilities, to include use of on-road or off-road haul trucks transporting dirt / materials to the project a "NO DUMP ZONE" will be established to eliminate dumping within 50' of either side of the overhead line. The Subcontractor will identify the "NO DUMP ZONE" through the use of signage.
3. Subcontractors shall provide full-time spotter(s) whenever any equipment has the ability to work under, cross underneath, and / or reach over overhead utility lines, for example, electrical, cable, phone, fiber-optic, etc. This spotter will assume no other duty and be equipped with air horn, reflective vest, and red flag.
4. Subcontractor will limit equipment travel underneath overhead utilities to designated areas only. To prevent equipment from traveling underneath lines the Subcontractor shall install the most substantial means of protection. At a minimum, yellow protection will consist of poly rope with red flagging.
5. Subcontractors shall protect all guy wires and utility poles from contact with equipment operating in the area through the use of barricades (water-filled barricade, temporary concrete barrier, or pipe bollards). If installed on a road project and within the clear zone of an active travel lane, all barriers must be installed per the Department of Transportation (DOT) Index & Manual on Uniform Traffic Control Devices (MUTCD).
6. Special attention must be given to identify & safeguard utility cabinets, transformers, in ground utility boxes, etc. Means of identification and protection shall be at a minimum of posts with orange fence installed around the utility.
7. Each day, prior to working in close proximity to overhead utility lines, the Subcontractor shall review and complete an "[Overhead Utility Permit](#)"-- This permit, the Job Hazard Analysis and the Pre-Task Plan must be submitted for review by the BBC Project Team prior to commencing any work where overhead utility strikes are possible.
8. Subcontractors who will enter the Minimum Safe Approach Distance of energized or potentially energized electrical equipment shall provide an acceptable non-conductive plan that is approved by an officer of BBC.
9. Subcontractors shall maintain distance from electrical lines, apparatus, or any energized (exposed or insulated) parts according to the following. Electrical line sway, tools, and equipment must also be taken into consideration when determining the Minimum Safe Approach Distance.

Minimum Safe Approach Distance Chart on next page...

Voltage Range (phase to phase)	Minimum Safe Approach Distance
0 to 50KV	10'
Over 50KV to 200KV	15'
Over 200KV to 350KV	20'
Over 350KV to 500KV	25'
Over 500KV to 750KV	35'
Over 750KV to 1000KV	45'

Electrical lines >50,000 volts require one foot additional clearance for every additional 30,000 volts

VEHICLES

1. A valid driver's license is required for operating any vehicle or heavy machinery on the job site or corresponding right-of-way.
2. The wearing of seatbelts is mandatory on all equipment at all times. Riding in the beds of trucks, trailers or in/on any vehicle that does not provide safe seating for passengers is prohibited.
3. Posted speed limits must be followed.

4. Cell phone use is not allowed while operating equipment.
5. On-site parking may not be available. Subcontractors are responsible for securing adequate parking for their employees.

WORKING OVER/NEAR WATER

Subcontractors whose personnel are or may be potentially exposed to working over/near water shall have and follow an adequate Site-Specific Working over Water Plan (WOW Plan). Subcontractors are required to submit the following documentation to BBC Project Management & Supervision:

- Site-Specific WOW Plan
 - Job/Activity Hazard Analysis (J/AHA)
 - Pre-Task Plan (PTP)
 - Competent Person
 - Responsibilities
 - Rescue equipment and procedures
 - Lifesaving equipment to be used
 - Fall protection measures
 - Proof of training on:
 - The employer's safety programs and procedures
 - Fall awareness for working over water
 - Equipment to be used (use, installation, maintenance, storage, etc)
 - Competent person
 - OSHA 30
 - CPR and First Aid
 - Site-specific hazards
 - Rescue equipment and procedures
 - Lifesaving and personal protective equipment

Workers engaged in working over water are responsible for following their employer's safety program, procedures, and WOW Plan. Foremen are responsible for ensuring JHAs and daily pre-task plans are conducted, understood, and followed by their crew members. Competent persons are responsible for ensuring that their WOW Plan is adequate, amended as needed, communicated, and followed by crew members.

ENVIRONMENTAL REQUIREMENTS

AIR QUALITY MANAGEMENT

Subcontractors must furnish all applicable Air Quality Permits required by the California Air Resources Board, South Coast Air Quality Management District or other local regulatory body for specific operations or equipment being used on site.

Indoor Air Quality

- Safety Data Sheets (SDS) and VOC content of all adhesives, sealants, coatings, paints, carpets, composite woods, etc. must be submitted for review by the BBC Project Management Team prior to these products being brought on site.
- Mix, measure, and store materials that emit harmful vapors outside enclosed structures.
- The use of equipment that generates harmful fumes is prohibited inside buildings after close-in, unless scrubbers and/or ducted ventilation are used.
- Adequate ventilation and monitors are required for the use of propane or other gas fired devices indoors or in confined spaces.
- Stored material must be covered, stored off of the deck, and kept in a dry environment. Quantities should be limited to what can be installed in a reasonable time (e.g. two weeks or less).

- Changes in finished areas should be treated as renovations.
 - For dust-generating operations, HEPA filtration and negative air pressure should be used.
 - Tools fitted with HEPA filters may be used to control dust.
- All subcontractors will be required to use sweeping compound.
- All cleaning products used on the project must comply with Green Seal Standard GS - 37 for Industrial and Institutional Cleaners.
- Mold and moisture control is key to proper indoor air quality. Store all absorptive materials to prevent moisture infiltration.

GENERAL ENVIRONMENTAL

1. Use dust control if fugitive dust is observed.
2. Comply with all applicable vehicle and operational air emissions requirements.
3. Save water-- reduce the use of clean water by harvesting and reusing water as much as possible, fix leaks in hoses or water source when observed.
4. Conserve energy usage as much as possible to perform your work activities. To reduce CO2 emissions, using equipment that runs on propane, natural gas, electricity, or batteries is encouraged.
5. Site personnel are encouraged to carpool to reduce CO2 emissions, minimize site disturbance, and maximize the use of available space.

STORMWATER COMPLIANCE

1. Subcontractors shall;
 - a. comply with Stormwater Pollution Prevention Plan (SWPPP) to prevent any pollutants into the storm drain conveyance system or infiltrating into the soil;
 - b. ensure their materials are covered and off the ground at the end of the day or prior to a rain event, and trash and debris is cleaned up as they work;
 - c. ensure their operations use effective and compliant Best Management Practices (BMPs).
 - d. report damaged BMPs such as gravel bags, silt fence, or inlet protection to project supervision.

In order to comply with Balfour Beatty Construction's environmental policy, as well as maintain the ecological integrity of our communities, subcontractors shall, at a minimum, comply with all Federal, State, and Municipal stormwater regulations.

2. Property owners who disturb one or more acres of soil or disturb less than one acre, or are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity [Construction General Permit Order 2009-0009-DWQ](#). Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation. The California State Water Resources Control Board issues a Waste Discharge Identification Number to each site, and all site are required to adhere to the Construction General Permit.
3. Subcontractors shall use all best management practices (BMPs) prescribed in the Construction General Permit to minimize the pollutants discharged from construction site into surface water and MS4 systems. These pollutants and best management practices include but are not limited to:
 - Sediment – BMPs such as gravel bags, silt fence, fiber rolls shall serve as effective site perimeter and storm drain protection to prevent sediment from entering surface water or MS4 systems.
 - pH – Concrete, mortar, and stucco wash water have extremely high pH and impair both water and soil quality. The Permit prohibits wash water from contacting the soil or entering storm drains. Watertight washout must be used at all times and switched out when observed to be leaking or %75 full.

- Concrete washout station shall be provided and maintained by Subcontractor. Subcontractors using concrete, stucco, mortar shall also provide for washout and disposal.
- Masons – Any trade using a mixing operation must use a contained and bermed area for mixing area to prevent concrete/mortar/stucco from contacting the soil. Prior to application of stucco/mortar to building, 10mm plastic must be laid at the base of the building to prevent stucco/mortar from contacting the soil.
- All pollutant sources – Concrete, paints, fuels, form oils and any other source of pollution must be prevented from contacting storm water. Such material must be covered and raised, or completely enclosed in a storage container.
- All subcontractors who store equipment on site must have sufficient drip tubs for their equipment to prevent leaks from contacting the soil, must fix leaks IMMEDIATELY if observed, and must properly dispose of oil/fuel residue prior to and after rain events.
- Any subcontractors who damage BMPs are responsible for repair or replacement.
- All subcontractors are responsible for cleaning up their trash and construction waste as they go and disposing of properly.
- If BMPs are deemed not sufficient by Balfour Beatty Construction Supervision, the subcontractor shall replace or implement the BMPs to meet the required standards.

Erosion and Sediment Control Requirements

- Depending on the location of the project, the local Municipality may be required to review the SWPPP.
- Erosion and Sediment Controls must be installed prior any phase of land disturbance. Example – Perimeter controls, inlet protection, and a stabilized construction entrance/exit must be installed prior the start of grading.
- Perimeter Control must be installed on all areas of the site with slopes or that will receive storm water run-on or contribute to storm water run-off. Example – Fiber roll, silt fence, gravel bags.
- Minimize sediment track-out onto off-site streets and sidewalk from vehicles exiting the site by implementing the following:
 - Restrict vehicle use to only stabilized construction entrances/exits.
 - Utilize effective best management practices at the construction entrances/exits; such as tracking plates, appropriate length of 3" gravel, and tire wash areas.
 - When track-out is observed, it must be removed by the end of the work day by shovel, sweeping, or vacuuming.
- Control discharges from stockpiled sediment or soil by implementing the following:
 - Locate the piles away from any storm drain inlets or surface waters.
 - Provide perimeter controls such as gravel bags, fiber rolls, or silt fence to sediment from flowing outside the stockpile area.
 - Provide cover when possible or stabilization with seed or hydraulic mulch to prevent contact with storm water as well as wind erosion
- Provide dust control at all times through the use of water, vegetation, hydraulic mulch, or non-toxic soil binders.
- Stabilize disturbed slopes through use of fiber rolls, silt fence, hydraulic mulch, vegetation, and geotextile blankets.
- Install inlet protection that effectively removes sediment from storm water on all inlets on and off site where run-off from the site can flow.
- All erosion and sediment control measures are required to be effective throughout the life of the project through routine maintenance.

Pollution Prevention Requirements:

The following pollutants are prohibited from discharging from the site and contacting the soil to prevent leeching and contacting ground water through the use of watertight washouts, cover, and watertight containment:

- Wastewater from washout of concrete
- Wastewater from washout and cleanout of stucco, paint, form release oils and curing compounds.
- Fuels, oils and other hydrocarbons.
- Soaps, solvents and detergents.
- Other toxic or hazardous substance from a spill or other release.

The following construction products, materials, and wastes must have minimal contact to storm water through use of temporary roofs, tarps, pallets, or interior storage:

- Construction material not meant for outdoor exposure.
- Pesticides, herbicides, fertilizers, and landscape materials.
- Diesel fuel, oil, hydraulic fluids or other hydrocarbons.
- Asphalt sealants, adhesives, paints, concrete, stucco, and mortar mixes

WATER INTRUSION

Balfour Beatty Construction ensures that site operations are performed in a way that minimizes the potential for water damaged materials to be utilized for the project. The following are steps that are taken to minimize the potential for water intrusion:

- Deliveries are sequenced to avoid the storage of large amounts of moisture sensitive material at the site for an extended time period
- Building materials are inspected upon delivery and significantly mold impacted materials are rejected
- Moisture sensitive materials are protected from weather elements during delivery and off-loading activities
- Stored building materials are elevated and covered to protect them from weather elements
- Interior partitions are inspected for moisture and mold prior to being permanently enclosed
- Building penetrations are sealed at the end of the work day to avoid moisture infiltration
- Roof and building envelopes are substantially completed before any porous materials are stored in the building
- Wet porous building materials are dried and inspected for mold growth prior to installation
- Moisture limiting design features, such as roofing, flashing, windows, doors, exterior waterproofing and building envelope components are properly installed according to manufacturer's specifications
- Site workers practice good housekeeping
- Site workers are responsible for reporting any unwanted accumulation of water to site management
- Sub-floors are cleaned and dried prior to carpet installation
- Construction debris is removed from within HVAC systems and associated ductwork
- Existing duct work that is to remain in place during renovation activities is sealed with polyethylene sheeting and tape to prevent dust and debris from entering
- HVAC condensate collection and drainage systems are checked to ensure that they are functioning properly

Regular inspections are performed and documented during construction to identify leaks, ponded water and/or sources of water entry

- Moisture/water leaks are responded to within 24 to 48 hours of discovery
- Good communication is maintained between general contractor and other site contractors to remind them of this program and to discuss any water intrusion/mold issues
- HVAC, plumbing and mechanical systems are tested before enclosure

END OF REQUIREMENTS

ATTACHMENTS – TABLE OF CONTENTS

- [Abandoned Lock Form](#)
- [Aerial Work Platform Daily Inspection Checklist](#)
- [BBC's Code of Safe Work Practices](#)
- [Competent Person Acknowledgement Form](#)
- [Concrete Pumping Safety Checklist](#)
- [Confined Space Entry Permit](#)
- [Coring and Saw Cutting Checklist](#)
- [Crane Pick Plan](#)
- [Daily Excavation Inspection Checklist & Log](#)
- [Daily Rigging Inspection Checklist](#)
- [Demolition Safety Checklist](#)
- [Dig Permit](#)
- [Disciplinary Action Form](#)
- [Heavy Equipment, Forklift, Tele-Handler Daily Inspection Checklist](#)
- [Hot Work Permit](#)
- [Incident Report Form](#)
- [Job/Activity Hazard Analysis \(J/AHA\)](#)
- [Ladder & Scaffold Alternatives](#)
- [Mobile Crane Inspection Checklist](#)
- [Overhead Utility Permit](#)
- [Pneumatic Test Permit](#)
- [Pre-Task Plan – English](#)
- [Pre-Task Plan – Spanish](#)
- [Project Orientation Checklist](#)
- [Project SH&E Checklist](#)
- [Qualified Person Acknowledgement Form](#)
- [Scaffold Daily Inspection Checklist](#)
- [Site-Specific Fall Protection Plan Template](#)
- [Site-Specific Steel Erection Plan Outline](#)
- [Subcontractor SH&E Submittal Checklist](#)
- [Tele-Handler Forklift Evaluation English](#)
- [Tele-Handler Forklift Evaluation Spanish](#)
- [Tower Crane Inspection Checklist](#)



DOCUMENT 00950 UTILITY STRIKE PREVENTION PLAN



SH&E ALERT

UTILITY STRIKE PREVENTION

Action required for BBC Project Teams and Subcontractors:

- Please review our [Utility Strike Prevention Procedures](#) (on the following pages).

**Review
subcontractor
safety submittals
and JHAs**

**Schedule pre-dig
meetings two
weeks in advance**

**Create a site-
utility plan and
overlay ALL
ground-
penetrating
scopes of work**

**Plan utility shut
downs with
property/utility
owners (following
lock out tag out
procedures)**

**Physically ensure
that contractors
pothole as
required and
complete
adequate PTPs**

1.0 Purpose

This standard has been developed to ensure that work in close proximity to utilities is carried out in a manner that supports our goal of Zero Harm.

2.0 Scope

Any scope of work that involves the penetration of the ground or a structure whether by hand or machine or is located in proximity to overhead utilities must be executed in accordance with this standard. Activities covered by this standard range from saw cutting, jackhammering, coring, trenching, excavating, demolition, boring, drilling, grading, mass excavation, etc.

For excavation activities, please also refer to [Excavation](#). This standard is in addition to the [Playbook's SOPs on Overhead Utilities and Excavation](#). When utilities will be shut down/isolated/de-energized/etc, please ensure [BBC lock out tag out procedures](#) are followed.

3.0 Responsibility

3.1 BBC Project Management & Supervision

BBC Project Management & Supervision are responsible for:

- ensuring compliance with this standard;
- acquiring safety submittals from subcontractors;
- setting up and hosting pre-dig meetings;
- ensuring completion and filing of "Dig Permits" and "Overhead Utility Permits"

3.2 Subcontractors

Subcontractors are responsible for following the requirements of this program, submitting required submittals to the BBC Project Team, attending pre-dig meetings, and completing "Dig Permits" and "Overhead Utility Permits".

4.0 Definitions

Proximity – nearness in place

Strike – Unwanted contact with an energized utility

Overhead Utility – Typical overhead utilities are power lines such as those running along sidewalks

Underground Utility – Typical underground utilities are gas, water, sewer, storm drain, and communications

Potholing – The act of digging with only hand tools or vacuum/water extraction methods

Proximity Warning Device – A piece of equipment that assists operators who may become distracted or unable to see the dangerous overhead high voltage power lines in their work area

5.0 Underground Utilities Procedure

Required Submittals for Subcontractors

For activities involving the penetration of the ground's surface, the Subcontractor shall submit the following in addition to typically required safety documents prior to starting work:

- the name(s) of the designated "Competent Person" with supporting documentation indicating training and competency. (No excavating or work in excavations will be allowed without the Competent Person onsite and supervising these operations at all times).
- A Job Hazard Analysis that adequately addresses the task(s) involving penetration of the ground's surface and safe measures for preventing utility strikes.

Pre-Dig Meeting

A mandatory pre-dig meeting will be held for any scope of work involving the penetration of the ground whether by hand or mechanical means. The meeting should be held no later than two weeks prior to the start of work.

Attendees of the meeting will consist of:

V.P. of Operations/Director of SHE/representative appointed by Division President,
Project Executive,
Project Superintendent,
Project Manager,
Project Loss Prevention Manager
Subcontractor foreman/operator/crew

Sample agenda for Pre-Dig Meetings:

- 1) Discuss scope of project – "What are we building?"
- 2) Discuss scope of excavation activities
- 3) Review drawings/logistics plan that shows as-built utility locations, GPR'd utility locations, shut-off locations, etc
- 4) Discuss pothole plans
- 5) Review subcontractor's JHA
- 6) Protective measures to be taken (i.e., utility shut-downs, lock out tag out procedures, guide wires, pole protection, equipment routes, designated dump zones, access roads, haul roads, etc.).

Strike Prevention Procedures

Every effort must be made to **remove or de-energize utilities as the first** order of business.

If a utility is properly identified, shut down, and "safed off" via lock out tag out, and the utility is struck during an activity, BBC does **not** consider the event a utility strike, but it **would be considered property damage** and must be repaired by the party responsible for the damage.

Note, lock out tag out must be performed by a qualified person and testing must verify a zero-energy state for the utility.

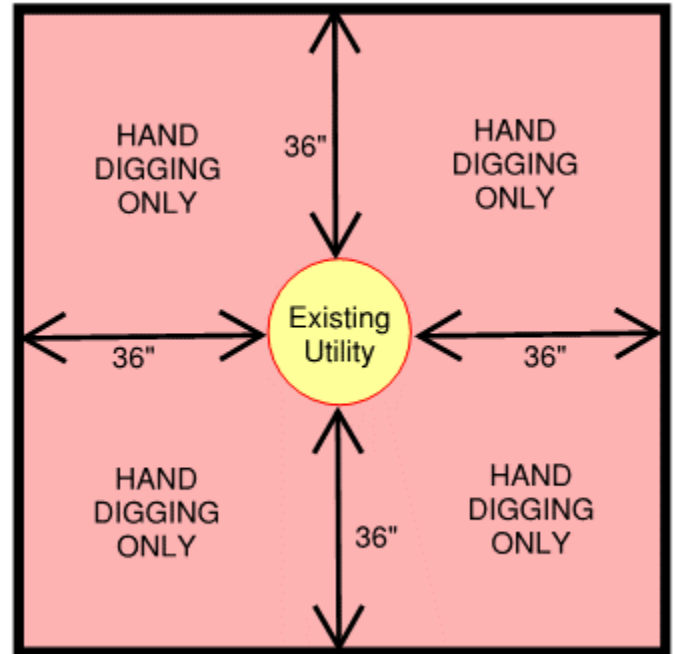
When within three (3) feet or 36 inches in any direction of known utilities that are energized, hand digging or vacuum excavation is required.

Potholing Procedures

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Utility Locating

Subcontractors shall locate and identify all utilities prior to the start of ground-penetrating activities. Equipment operators must understand the locations and types of utilities.

Prior to the start of any excavation a utility locate service must be contacted. Each state has a different locate service with specific rules outlining their services. It is very important to understand the state or local guidelines in advance of your excavation. Typically locate companies require 2 days advanced notice before performing a locate. Before calling for locate services, the excavation area must be pre-marked with white paint, stakes or flags. In addition, newly constructed work IS NOT covered (i.e. drainage, electrical subcontractor new installations, etc.) and shall be located by other means. The Subcontractor engineer, foreman, or superintendent responsible for this work will be contacted to verify what has been constructed and an appropriate as-built requested. The One Call service can be contacted by calling 811. The website for Dig Alert is www.digalert.org. **Ground penetrating radar WILL be used to verify utility location prior to digging/cutting ALL surfaces.**

Utility Color Markings - The following colors and symbols have been adopted by all utilities for marking underground utilities:

	Blue	Water
	Orange	Telephone, Railroad, Cable TV
	Green	Sewer, Storm Drain
	Red	Street Lighting, Electric, Traffic Signals (may be orange)
	Yellow	Gas
	Pink	Survey
	White	Proposed Excavation
	Purple	Reclaimed Water, Irrigation, and Slurry Lines

Dig Permits

A [Dig Permit](#) is required for all operations which penetrate the original ground surface. The Subcontractor foreman of each operation is responsible for ensuring that the Dig Permit, Job Hazard Analysis (JHA) and Pre-Task Plan (PTP) and all necessary drawings are available at the operation and in the cab of the excavator, backhoe, etc. The operator is ultimately responsible and will be held accountable to ensure the operation does not proceed without a valid Dig Permit. The BBC Superintendent will verify that the Dig Permit has been properly completed. The following documents will be attached before being distributed to the foreman and operator:

- A signed copy of the Job Hazard Analysis (JHA).
- A Pre-Task Plan (PTP) must be completed by the crew and signed by all members.
- The page of the Topography & Utility Plan sheets for the work zone that the permit covers. Any utility relocations that have been completed before the start of the operation must be clearly noted on these drawings.
- A copy of the Utility Plan sheets for the work zone the permit covers. Notes and highlights must be made on these drawings to indicate which runs have been installed.

Unintentional Uncovering of a Utility (known or unknown utility)

If during the course of excavation a utility has been exposed, it is the Subcontractors' responsibility to inspect and support these facilities prior to backfilling. If damage of any kind is discovered, or any suspicion of damage exists, call the utility engineer so documentation can take place. The utility engineer will then notify the utility owner.

All unidentified underground utilities that are discovered during the course of excavation activities shall be marked on the As Built Plans and the BBC Project Manager shall be IMMEDIATELY notified.

Reporting Requirements

If a utility strike/hit does occur, several reporting steps are required:

- First and foremost, clear and secure the area if there is potential for further exposure to hazardous environments.
- Contact the appropriate utility owner to inform them of the damage so they can inspect and repair, if necessary.
- Notify the Utility Engineer and BBC Project Superintendent.
- The Subcontractor shall complete the Incident Report Form and transmit it to the BBC Project Manager.

6.0 Overhead Utilities Procedure

Any equipment having the ability to work under, cross underneath, and/or reach over overhead electrical lines will follow the guidelines set forth by OSHA in 1926.1408, 1926.1411, & 1926.600. BBC recommends that equipment working in close proximity to overhead electrical lines be equipped with a Proximity Warning Device (PWD) to notify the operator and/or operatives surrounding the equipment of the proximity to the danger zone.

If working near overhead electrical lines, the Subcontractor will install **"DANGER OVERHEAD POWERLINES"** signs at all designated equipment crossings. This sign must state the voltage of the overhead line. For all other utilities, the Subcontractor will install **"DANGER OVERHEAD UTILITY"** signs to warn of the overhead hazard. For all other equipment traveling underneath overhead utilities, to include use of on-road or off-road haul trucks transporting dirt / materials to the project a **"NO DUMP ZONE"** will be established to eliminate dumping within 50' of either side of the overhead line. The Subcontractor will identify the **"NO DUMP ZONE"** through the use of signage.

Subcontractor will provide a full-time spotter(s) whenever any equipment has the ability to work under, cross underneath, and / or reach over overhead utility lines, for example, electrical, cable, phone, fiber-optic, etc. This spotter will assume no other duty and be equipped with air horn, reflective vest, and red flag.

Subcontractor will limit equipment travel underneath overhead utilities to designated areas only. To prevent equipment from traveling underneath lines, the Subcontractor will install a means of protection. At a minimum, protection will consist of yellow poly rope with red flagging.

Subcontractor will protect all guy wires and utility poles from contact with equipment operating in the area through the use of barricades (water-filled barricade, temporary concrete barrier, or pipe bollards). If installed on a road project and within the clear zone of an active travel lane all barriers must be installed per the [Department of Transportation \(DOT\) Index & Manual on Uniform Traffic Control Devices \(MUTCD\)](#).

Special attention must be given to identify & safeguard utility cabinets, transformers, in ground utility boxes, etc. Means of identification & protection will be at a minimum of posts with orange fence installed around the utility.

Each day, prior to working in close proximity to overhead utility lines, the Subcontractor shall review and complete an "Overhead Utility Permit"-- This permit, the Job Hazard Analysis and the Pre-Task Plan must be submitted for review by the BBC Project Team prior to commencing any work where overhead utility strikes are possible.

7.0 Hazards

The accidental exposure to utilities could result in an injury or even fatality. Injury could be caused by explosion, fire, electrical shock, asphyxiation, struck-by hazards, and more.

7.1 Hazard Controls

If utility conflicts are found, a potential option for hazard elimination would be to change the plans to avoid being in proximity with existing utilities. Effort must be taken to have the utility conflicts related to the scope of work removed or relocated prior to commencing work. If, after contacting the appropriate utility companies, the utility cannot be removed or relocated prior to commencing, then additional means and methods shall be employed following the hierarchy of controls identified below.

7.1.1 Engineering Controls

If utilities in proximity of the work cannot be eliminated/relocated, then the next preferred control is to raise the height of overhead utilities or insulate the wires.

7.1.2 Administrative Controls

Administrative controls could be the installation of warning signs, use of spotters, use of protective barricades, proximity warning/control devices for equipment, and/or use of technology to visually identify utilities.

7.1.3 Personal Protective Equipment

Personal Protective Equipment controls could consist of grounded cabs on equipment, insulated/rated gloves, rated face shields, and/or reflective vests.

7.1.4 Training

BBC Operations personnel and all subcontractor personnel engaged in excavation or work in proximity to overhead lines must be trained on this standard and BBC's Utility Strike Prevention Program.

Subcontractor employees engaged in excavation activities must be "Dig Safe" trained before working on an excavation operation. This training is also required for personnel involved in the completion of the Dig Permit.

8.0 References

[OSHA 1926.1408](#)

[OSHA 1926.1411](#)

[OSHA 1926.600](#)

[Cal/OSHA T8CCR1541, General Requirements for Excavations](#)

[Playbook's SOPs on Overhead Utilities and Excavation](#)

[BBC lock out tag out procedures](#)

9.0 Attachments

[Dig Permit](#)

[Overhead Utility Permit](#)

[Standard 004 – Avoiding Risk from Underground Utilities](#)

[Subcontractor SH&E Performance Requirements](#)

Types of Excavation Activity (CHECK ALL THAT APPLY)

- | | | | |
|--|---|---|--|
| <input type="checkbox"/> Site Grading | <input type="checkbox"/> Hand Digging | <input type="checkbox"/> Directional Boring | <input type="checkbox"/> Drilling/Augering |
| <input type="checkbox"/> Mass Excavation | <input type="checkbox"/> Trenching < 4' | <input type="checkbox"/> Trenching > 4' | <input type="checkbox"/> Other |

Dig Location (SHOW LOCATION ON SITE LOGISTICS PLAN ATTACHED) _____

Company Name _____

A. Utility Locates Prior to Excavation

Public Utility Locate (i.e. One Call, Miss Utility, etc.) Ticket # _____ Exp. Date _____

Private Locating Company Name: _____

Public and Private Utilities identified in my excavation area:

Electrical _____ Water _____ Sewer _____ Gas _____ Fuel _____ Fiber Optic _____ Control _____ Oxygen _____

HVAC Piping _____ HVAC Duct _____ Interior Plumbing _____ Communication _____ Other _____

(Y) (N) (N/A)

- | | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I have reviewed field locates and markings and confirmed locations with: |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Existing As-built utility drawing(s) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Current Construction utility drawing and verified their location(s) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Existing monuments, manholes, valves, meters, transformers, etc. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I will treat all utilities encountered as "Live" |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I will confirm utilities are abandoned prior to removing. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I will hand dig and visually verify utilities at all utility crossing according to Local/State Federal requirements |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I will accurately "as-built" any changes to utilities made under this permit and submit same to BBC |

B. Soil Conditions Prior to Excavation

- | | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I have identified the soil classification (Type of soil _____) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I will slope/bench the excavation according to soil classification (type) requirements -or- |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I will use an appropriate protective system (Type?) _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I have the engineered drawing for the system and/or tabulated data on site |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is the excavation deeper than 20 feet? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If yes, has a copy of the engineered excavation plan been submitted to BBC? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I have evaluated, and will monitor the soil conditions during our operations. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I will maintain proper slope and/or protection systems at all times. |

C. Digging/Excavation Checklist

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I will control ground water, rain runoff and/or other sources of water in my excavation |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I will have a ladder, ramp or other access means within 25' of workers in a Trench Excavation. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I will eliminate or control falling object hazards. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I will monitor air quality in all excavation 4 - feet or greater as needed. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I will properly backfill, barricade or otherwise guard excavation(s). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I will ensure all Utilities are adequately supported. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I will keep spoil piles, materials and equipment at least 2' from the top edge of excavation. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I will secure excavation equipment to prevent unauthorized access/operation. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Section and Plan views of excavation activities have been submitted and reviewed by BBC |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Applicable JHA(s) have been reviewed, a PTP completed with the crew, and submitted to BBC |

Competent Person	Print Name	Signature	Date	Time
BBC Representative	_____	_____	_____	_____

Form/Template Number: SHE-5340-F	Version Number: 01.00	Issue Date: 5/01/2015
Function Owner: Steve Smithgall	Document Owner: Janet McCord	Page 1 of 2

Insert Site Plan Here

Form/Template Number: SHE-5340-F	Version Number: 01.00	Issue Date: 5/01/2015
Function Owner: Steve Smithgall	Document Owner: Janet McCord	Page 2 of 2



Palomar College North

Bidding Requirements for Grading and Underground Work in On-site Impact Area and Native Area

The following summary of project environmental requirements is intended to facilitate the bidding process, but does not replace those documents. The District and its contractors are required to abide by the project's Environmental Impact Report (EIR) and project permits, including the U.S. Army Corps of Engineers (USACE)'s 404 permit, the Regional Water Quality Control Board (RWQCB)'s 401 Certification, the U.S. Fish and Wildlife Service (USFWS)'s Section 7 Consultation Biological Opinion, and the California Department of Fish and Wildlife (CDFW)'s 1602 Streambed Alteration Agreement. Some of these documents have been amended.

- 1. Contractor(s) are required to comply with project's environmental permits, including the 404 permit, 401 Certification, Section 7 Consultation Biological Opinion, and 1602 Streambed Alteration Agreement, as amended. This includes maintenance of a permit binder on site and providing site access to agency personnel. Permit items relevant to this topic are summarized, below.**

Supporting Information

Palomar Community College District must maintain a copy of the 401 certification, the application, and supporting documentation at the project site at all times for review by site personnel and agencies.

The Applicant shall provide a copy of the 1602 Agreement to all contractors, subcontractors, and the Applicant's project supervisors. Copies of the Agreement shall be readily available at work sites at all times during periods of active work and must be presented to any CDFW personnel, or personnel from another agency, upon demand.

You must allow representatives from the USACE to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished with the terms and conditions of your permit.

The San Diego Water Board or its authorized representative at all times, upon presentation of credentials, must be permitted:

- a) Entry onto project premises, including all areas on which wetland fill or wetland mitigation is located or in which records are kept.
- b) Access to copy any records required to be kept under the terms and conditions of this certification.
- c) Inspection of any treatment equipment, monitoring equipment, or monitoring method required by this certification.
- d) Sampling of any discharge or surface water covered by this Order.

CDFW reserves the right to enter the project site at any time to ensure compliance with terms/conditions of this Agreement.

- 2. Contractor(s) are required to attend a preconstruction meeting, along with the District, archaeologist, paleontologist, and biologist.**
- 3. Staff training is required.**

Supporting Information

Prior to initiation of grading for the project, a Carlsbad Fish and Wildlife Office-approved biologist will meet with the Applicant and the construction crew to conduct an onsite educational session regarding the need to avoid impacts outside of the approved development area. The biologist will explain the access restrictions on site, the importance of remaining within construction zones, the sensitivity of the habitats to federally listed species, and the potential consequences of disregarding or not complying with the access restrictions and impacting biological resources outside the construction zones.

Prior to the start of the project and annually thereafter, Palomar Community College District must educate all personnel on the requirements in the 401 certification, pollution prevention measures, and spill response.

- 4. Contractor(s) are required to notify the team of the schedule (the District needs this information to provide required notices to regulatory agencies and to schedule pre-construction nesting bird surveys).**
- 5. There are certain seasonal restrictions for work. Should work occur February through September, pre-construction nesting bird surveys would be required prior to beginning construction.**

Supporting Information

Project activities resulting in potentially direct impacts to migratory birds, such as clearing and grubbing, shall be restricted during the breeding season for migratory birds (listed in the EIR as “approximately February to September” and by the County as February 1 - September 15). In the event that construction activities occur within the breeding season, a nesting bird survey shall be required in order to avoid direct impacts from grubbing of vegetation. The nesting survey shall be conducted prior to commencement of project activities occurring within the migratory bird breeding season. Nesting bird surveys shall include the entire area affected by project improvements, as well as native habitat located within 300 feet of the project boundary. Nesting bird surveys shall be conducted no more than one week prior to the scheduled start date for project activities impacting native habitat. In the event that nesting birds are detected within the study area, the EIR states that clearing and grubbing activities shall be restricted until the end of the breeding season, and the County restricts work until nesting has ceased.

Direct impacts to white-faced ibis, white-tailed kite, Cooper's hawk, San Diego cactus wren, yellow warbler, yellow-breasted chat, and rufous-crowned sparrow shall be avoided by restricting clearing of vegetation during the breeding season (approximately February to September). Mitigation for impacts to habitats used by these species shall occur as habitat-based mitigation.

To reduce potential indirect impacts resulting from construction activities or resulting noise, no clearing, grading, or trenching shall be conducted within 300 feet of appropriate habitat for least Bell's vireo during its breeding period (March 15 to September 15); appropriate habitat for coastal California gnatcatcher during its breeding period (February 15 to August 31); and within 500 feet of occupied raptor nests.

The Applicant shall not remove vegetation within the stream from February 15 to September 15 to avoid nesting birds. However, the Applicant may remove vegetation during this time period if a CDFW approved biologist conducts a survey for nesting birds within three days prior to vegetation removal, and ensures no nesting birds shall be impacted by the vegetation removal activity. If an active nest is found, a minimum of a 100-foot activity exclusion zone (buffer) will be established and maintained during the period the nest is active. Applicant may consult with the CDFW to discuss a reduced buffer size if species sensitivity and localized conditions (e.g., width and type of screening vegetation between the nest and the proposed activity, terrain, existing level of human activity within the buffer and in the surrounding area) warrant a reduced buffer. If the nest is of a bird species in the orders of Falconiformes or Strigiformes, the exclusion zone will be 500 feet. To avoid a violation of California Fish and Game Code Section 3503.5, the Applicant shall have a CDFW approved biologist inspect vegetation prior to removal or modification for active nesting of species in the orders of Falconiformes and Strigiformes during all periods these species are documented nesting in southern California. The Applicant shall submit the mapped survey results to the CDFW for review and approval prior to vegetation removal or modification to ensure full avoidance measures are in place.

6. Temporary perimeter fencing is required, as described below.

Supporting Information

The limits of grading shall be temporarily flagged and fenced with silt fencing or construction fencing, prior to grading to prevent impacts to areas adjacent to the limits of grading. Prior to clearing of vegetation, a qualified biologist shall inspect the location of the fence to ensure that no vegetation loss occurs from installation of the fence. The fencing shall be temporary and shall only be removed upon the completion of grading, brushing and clearing activities.

Prior to initiation of project activities, a Carlsbad Fish and Wildlife Office-approved biologist will supervise the placement of temporary orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. Prior to clearing of vegetation, the Carlsbad Fish and Wildlife Office -approved biologist will inspect the fence location. All fencing will be removed upon the completion of grading, brushing, or clearing activities.

7. Staging will occur within the work area or an area approved by the biologist.

Supporting Information

All construction activities will take place only within the fenced area. Grading materials will be stored either inside the fenced development area or in an area approved by the Carlsbad Fish and Wildlife Office-approved biologist.

Staging/storage areas for equipment and materials shall be located outside of the stream, except as described in the Streambed Alteration Agreement.

8. Best management practices (BMPs) are required, as described below.

Supporting Information

Construction Limits: The Permittee shall implement the following Best Management Practices (BMPs) as described in the Storm Water Management Plan prepared by RBF (August 2007). Adverse impacts to waters of the U.S. beyond the Corps-approved construction footprint are not authorized. Such impacts could result in permit suspension and revocation, administrative, civil or criminal penalties, and/or substantial, additional, compensatory mitigation requirements including, but not limited to the following:

- a) Clearly mark the limits by installing temporary construction barriers, flagging, or similar means to prevent personnel and mechanized equipment from entering environmentally sensitive areas adjacent to the project area;
- b) Conduct all vehicle maintenance, staging, storage, and refueling within upland staging/assembly areas, a minimum of 50-feet from wetland and/or open water areas and where spills cannot enter waters of the U.S. including via gutters and storm drains;
- c) Prepare a Storm Water Pollution Prevention Plan (SWPPP) including prevention BMPs.
- d) No debris, soil, silt, sand, sawdust, rubbish, cement or concrete washings thereof, oil or petroleum products, from construction shall be allowed to enter into or placed where it may be washed by rainfall or runoff into waters of the U.S. Therefore, the Permittee shall employ all BMPs to ensure that toxic materials, silt, debris, or excessive erosion do not enter waters of the U.S. during project construction. Upon completion of the activities authorized by this permit, any excess material or debris shall be removed from the work area and disposed of in an appropriate upland site.

Palomar Community College District must, at all times, maintain appropriate types and sufficient quantities of materials onsite to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reached a waters of the U.S. and/or State.

Water containing mud, silt or other pollutants from aggregate washing or other activities shall not be allowed to enter a lake or flowing stream or placed in locations that may be subjected to high storm flows.

Erosion control measures shall be utilized throughout all phases of operation where sediment runoff from exposed slopes threatens to enter waters of the State. At no time shall silt laden runoff be allowed to enter the stream or directed to where it may enter the stream.

The extended detention basin must be designed and constructed in accordance with the most recent California Stormwater Quality Association guidance for extended detention basins. The basin outlets must be placed to maximize the flowpath through the facility. The ratio of flowpath length to width from the inlet to the outlet must be at least 1.5:1. The flowpath length is defined as the mean width of the basin. Palomar Community College District must maintain the extended detention basin in accordance to the most recent California Stormwater Quality Association guidance for extended detention basins.

If an excavation site must be dewatered, any muddy, or otherwise contaminated, water shall be pumped into a holding facility or into a settling pond located in flat stable areas outside of the stream channel or pumped up on a stable grassy area where the water clears prior to flowing back into the stream.

Storm drain lines/culverts shall be adequately sized to carry peak storm flows for the drainage to one outfall structure. The storm drain lines/culverts and the outfall structure shall be properly aligned within the stream and otherwise engineered, installed, and maintained to assure resistance to washout and to erosion of the stream bed, stream banks, and/or fill. Water velocity shall be dissipated at the outfall to reduce erosion.

No debris, soil, silt, sand, bark, slash, sawdust, rubbish, construction waste, cement or concrete or washings thereof, asphalt, paint, oil or other petroleum products, or any other substances/materials associated with any project-related activity shall be allowed to contaminate the soil and/or enter into or be placed where they may be washed by rainfall or runoff into a stream or lake. Any of these substances/materials, placed within or where they may enter a stream or lake, by the Applicant or any party working under contract, or with the permission of the Applicant, shall be removed immediately upon observation of their presence. When operations are completed, any excess materials or debris shall be removed from the work area.

The Applicant shall comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws and it shall be the responsibility of the Applicant to ensure compliance.

- 9. Cultural resources monitoring (i.e., an archaeologist and Native American monitor(s)) is required during all earthmoving activities, and certain discoveries may temporarily stop work in that area.**

Supporting Information

A qualified archaeologist and Native American monitor(s) will perform archaeological monitoring of the project site during earthmoving activities. The archaeological and Native American monitor(s) should be onsite during earthmoving activities on a full-time basis. In the event that previously unidentified, potentially significant cultural resources (e.g., either human remains, archeological deposits, or any other type of historic property) are discovered during grading activities, the archaeological and Native American monitor(s) shall have the authority to divert or temporarily halt ground disturbance operations in the area of discovery to allow evaluation of potentially significant cultural resources. The archaeologist or Native American monitor shall contact the District at the time of discovery. The archaeologist or Native American monitor shall determine the significance of the discovered resources. The District must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources, a Data Recovery Program to mitigate impacts shall be prepared by the consulting archaeologist and approved by the District, then carried out using professional archaeological methods.

- 10. Paleontological monitoring is required during earthwork in certain areas with previously undisturbed deposits, and certain discoveries may temporarily stop work in that area. If the construction crew observes bones or fossils, the paleontologist must be notified immediately.**

Supporting Information

A paleontological monitor shall be onsite on a full-time basis during the original cutting of previously undisturbed deposits of moderate paleontological resource sensitivity (i.e., Quaternary river terrace deposits) to inspect exposures for contained fossils. If fossils are discovered, they shall be recovered by the qualified paleontologist or paleontological monitor. In most cases, fossil salvage can be completed in a short period of time, although some fossil specimens (such as a complete large mammal skeleton) may require an extended salvage period. In these instances, the paleontologist (or paleontological monitor) shall be allowed to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for recovering small fossil remains, such as isolated mammal teeth, it may be necessary to set up a screen-washing operation on the recovery site.

Also, if any sub-surface bones or other potential fossils are found anywhere within the project site by construction personnel in the absence of a qualified paleontologist or paleontological monitor, the qualified paleontologist shall be notified immediately to assess their significance and make further recommendations.

- 11. Biological monitoring is required during clearing, grubbing, and grading, and the monitor may stop work to enforce unauthorized biological impacts or ensure compliance with mitigation measures.**

Additionally, a biological monitor is required for project grading and construction in the vicinity of waters of the U.S., and for construction adjacent to areas supporting sensitive habitats or species.

Supporting Information

A qualified biologist shall monitor the limits of grading during clearing, grubbing, and grading activities. The site shall be monitored once a day and reports shall be submitted to the District weekly. The biological monitor shall have the authority to halt construction activities to prevent or avoid the take of any listed species and/or to ensure compliance with all avoidance, minimization, and mitigation measures. Any unauthorized impacts or actions shall be brought to the attention of the District and the Wildlife Agencies within 24 hours.

The Streambed Alteration Agreement does not authorize take, incidental or otherwise, of any protected species. For the purpose of this Agreement, "protected species" means the following: a species fully protected under state law; a species listed as a threatened, endangered, or candidate species under the California Endangered Species Act (Fish & Game Code § 2050 et seq.) and/or listed as a threatened or endangered species under the Federal Endangered Species Act (16 U.S.C. § 1531 et seq.); or any other species for which take is prohibited under state or federal law. No take of any protected species shall occur, except as authorized by a Natural Community Conservation Plan or one or more individual permits that authorize such take.

Prior to construction, the Permittee shall staff a biological monitor on-site during project grading and construction in the vicinity of waters of the U.S. to ensure compliance with all requirements of this permit. The biologist monitor shall document compliance with the General and Special Conditions. The biologist must be trained and qualified to survey for least Bell's vireo and coastal California gnatcatcher.

During construction, the Applicant shall have a CDFW approved biologist monitor areas supporting sensitive habitats or species adjacent to the approved construction limits at least weekly. The biological monitor will: (1) document all activities pertaining to biological resources; (2) provide regular updates to the Applicant; (3) notify the Applicant immediately if unauthorized impacts to biological resources occur; and (4) advise the contractors, as needed, to ensure effective and appropriate implementation of biological mitigation measures for specific site conditions. The Applicant shall make available to the Department, upon request, the documentation prepared by the biologist.

- 12. Project permits contain specific requirements for work near waters of the U.S./Streambed and wetlands, in addition to the biological monitoring noted above. Requirements are copied, below. Many of these requirements are not expected to be necessary, given that most wetland impacts were during construction of a different phase of the project, and a 50-foot buffer has been incorporated along wetlands to the southeast of the work area.**

Supporting Information

Where construction corridors cross drainage features, the Applicant shall install appropriate temporary drainage facilities to avoid interruption of downstream flows. Any such facilities shall be removed at the end of construction, and the area restored to pre-construction condition.

The Applicant shall use temporary construction fencing to identify the agreed limits of disturbance within the stream and adjacent habitat, and shall have a CDFW approved biologist oversee fence installation.

Equipment shall not be operated in wetted areas (including but not limited to ponded, flowing, or wetland areas) without the prior written approval of the CDFW.

When work in a flowing stream is unavoidable, the stream shall be diverted around or through the work area and the work area shall be isolated from the flowing stream. To isolate the work area, water tight coffer dams shall be constructed upstream and downstream of the work area and water diverted, through a suitably sized pipe, from upstream of the upstream coffer dam and discharged downstream of the downstream coffer dam. Cofferdams shall be constructed of a nonerodable material which does not contain soil or fine sediment. Cofferdams and the stream diversion system shall remain in place and functional throughout the construction period. If the coffer dams or stream diversion fail they shall be repaired immediately.

Any equipment or vehicles driven and/or operated within or adjacent to the stream shall be checked and maintained daily, to prevent leaks of materials that, if introduced to water, could be deleterious to aquatic life.

Stationary equipment such as cranes, motors, pumps, generators, and welders located within or adjacent to the stream shall be positioned over drip pans.

Washing, crushing, screening, stockpiling, batching, or other processing operations shall not be conducted on the bed or banks of the stream, or within the area of riparian vegetation along the stream. Fines and silt-laden gravels shall not be placed where they may enter the stream or lake.

Installation of bridges, culverts, or other structures shall be such that water flow is not impaired. Bottoms of temporary culverts shall be placed at stream channel grade and bottoms of permanent culverts shall be placed at or below stream channel grade.

Structures and associated materials not designed to withstand high seasonal flows shall be removed to areas above the high water mark before such flows occur.

No rubbish shall be deposited within 150 feet of the high water mark of any stream or lake.

No equipment maintenance shall be done within or near any stream/lake where petroleum products or other pollutants from the equipment may enter these areas under any flow.

13. Unauthorized impacts/discharges to WUS must be reported to the District and clean-up measures should be initiated immediately after impacts/discharges are observed, under direction of the biological monitor.

Supporting Information

Palomar Community College District must notify the San Diego Water Board within 24 hours of any unauthorized discharge to waters of the U.S. and/or State; measures that were implemented to stop and contain the discharge; measures implemented to clean-up the discharge; the volume and type of materials discharged and recovered; and additional BMPs or other measures that will be implemented to prevent future discharges.

The clean-up of all spills shall begin immediately after the spill occurs. The CDFW shall be notified immediately by the Applicant of any spills and shall be consulted regarding clean-up procedures.

14. Regulatory agencies may assess penalties for violations of their permits, require assessment of the violations, and/or suspend, modify, or cancel the project permits.

Supporting Information

In the event of any violation or threatened violation of the conditions of the 401 Certification, the violation or threatened violation may be subject to any remedies, penalties, process or sanctions as provided for under state and federal law. For purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification.

In response to a suspected violation of any condition of this certification, the San Diego Water Board may require the holder of any permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the San Diego Water Board deems appropriate, provided that the burden, including costs, of the reports must be a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

In response to any violation of the conditions of this certification, the San Diego Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.

The Applicant shall mitigate at a minimum 5:1 ratio for impacts beyond those authorized in the 1602 Streambed Alteration Agreement. In the event that additional mitigation is required, the type of mitigation shall be determined by the CDFW and may include creation, restoration, enhancement and/or preservation.

Before any suspension or cancellation of the Streambed Alteration Agreement, the CDFW will notify the Applicant in writing of the circumstances which the Department believes warrant suspension or cancellation. The Applicant will have seven (7) working days from the date of receipt of the

Department's notification to respond in writing to the circumstances described in the notification. Upon receipt of the Department's notification, the Applicant shall cease all project activities specified in the notification until the Department informs the Applicant in writing that methods and/or measures have been identified, agreed upon, and shall be implemented to adequately address the reasons for the Department's notification.

15. As-built information must be provided to the District within 30 days of project completion. This should include the required information, below.

Supporting Information

Palomar Community College District must submit a final as-built report to the San Diego Water Board within 90 days of project completion for each phase. The report should include as-built drawings no bigger than 11" x 17" and photos of the completed project.

All regulatory documents, submission, materials, and correspondence that you would normally submit to the San Diego Water Board as hard copies should be converted to a searchable Portable Document Format (PDF). Data may be submitted in Excel spreadsheets.



Workers Education Awareness Program Palomar North Education Center



Prepared by HELIX Environmental Planning, in accordance
with the Biological Opinion's Conservation Measure 5

WEAP Overview

Lead Biologist Contact Information

Sensitive Biological Resources

General Avoidance and Minimization of
Biological Resources

Definition of Take and Penalties

Sensitive Archaeological Resources

Sensitive Paleontological Resources

General Avoidance and Minimization of
Archaeological and Paleontological Resources

Lead Biological Monitor Contact Information

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Coastal California Gnatcatcher

- Listed as Federally Threatened, and State Species of Special Concern, is also County MSCP covered, and is also protected by Migratory Bird Treaty Act
- Typically found in or near coastal scrub vegetation communities



Coastal California Gnatcatcher

Avoidance and Minimization

- No clearing, grading, or trenching shall be conducted during its breeding season (February 15 to August 31) within 300 feet of appropriate habitat
- Stay within work limits



Least Bell's Vireo

- Federally and State listed as Endangered, is also County MSCP covered, and is also protected by Migratory Bird Treaty Act
- Typically found in mature riparian woodland



Least Bell's Vireo

Avoidance and Minimization

- No clearing, grading, or trenching shall be conducted during its breeding season (March 15 to September 15) within 300 feet of appropriate habitat
- Stay within work limits



Nesting Birds



- Breeding season is from February 1 through September 15
- Nesting birds are protected by the Migratory Bird Treaty Act and California Fish and Game Code
- Nests can be in trees, plants, on the ground, in cavities, or in manmade structures, including construction equipment
- Nest can be made of plant material, saliva, and spider webs and are often lined with feathers

Nesting Birds

Avoidance and Minimization



- Pre-construction clearance surveys (February 1- September 15) for the work area and native habitat within 300 feet of the project boundary, within 1 week of scheduled start date
- If active nests are found, the EIR restricts clearing and grubbing activities until the end of the breeding season, and the County restricts work until nesting has ceased
- Do not clear vegetation without permission from biologist
- Stay within work limits

Storm Water Management

- Implement the Storm Water Management Plan
- Have sufficient types and quantities of BMPs on site
- Implement and maintain BMPs; no debris, soil, silt, sand, sawdust, rubbish, cement or concrete washings thereof, oil or petroleum products, may enter waters of the U.S.
- No vehicle maintenance, staging, storage, and refueling within 50-feet of wetland and/or open water areas, and where spills can enter waters of the U.S.
- Obey litter and pollution laws
- Certain state Water Code violations are subject to a mandatory minimum penalty of \$3,000. Storm water violations may cost up to millions of dollars, and a project can also be subject to civil lawsuits.



Wetlands and Streambed

- Wetlands and streambeds are protected by several regulatory agencies
- There are penalties for direct and indirect impacts to wetlands (i.e., damage to wetland plants, soil disturbance, erosion and sedimentation, chemical leaks)



(jurisdictional area west of work area)

Wetland and Streambed Avoidance and Minimization

- Stay within work limits, including staging areas
- Use Best Management Practices (BMPs)



General Avoidance and Protection of Biological Resources

- **Stay within the work area**, including staging area. Temporary fencing is required around limits of grading, prior to work.
- The Biologist may halt construction activities to prevent or avoid the take of any listed species and/or to ensure compliance with all avoidance, minimization, and mitigation measures.
- Comply with Mitigation Monitoring and Reporting Program and regulatory permits (as amended): 404 permit, 401 Certification, Section 7 Consultation Biological Opinion, and 1602 Streambed Alteration Agreement.

Definition of Take and Associated Penalties

- Federal definition of take under Endangered Species Act: *“to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct”*
- Penalties for violation of Endangered Species Act, Migratory Bird Treaty Act, and California Fish and Game Code include fines, imprisonment, and project shutdown.

Sensitive Archaeological Resources



- Archaeological sensitivity is high for both surface and buried archaeological deposits.

- Potential archaeological resources include artifact scatters, campsites, hearth features, resource processing sites, and burials.

- Artifacts may include ground stone, flaked stone (tools), arrowhead points, shell, bone, or ceramic sherds.

- Historic artifacts may include glass bottles, aluminum cans, or ceramic dishes or fragments



Sensitive Paleontological Resources



- Paleontological resources typically involve plant and non-human animal life that has been preserved in the form of fossils. These include bones, teeth, shells, plant material, and other less resistant remains, such as tissues or feathers.
- Geologic units in the Project area have low to moderate paleontological sensitivity.
- Sensitive paleontological resources have been identified in the area surrounding the subject property in soils similar to that found onsite.
- Recovered vertebrate specimens from similar sediments of the same age include mammoth, mastodon, camel, horse, tapir, and rodent.

General Avoidance and Minimization of Archaeological & Paleontological Resources

- Leave the find where it is – do not touch or move. Divert construction around the find.
- Immediately report the find to the Site Supervisor. The Site Supervisor will immediately report the find to the Project Paleontologist/Archaeologist/Native American monitor to assess the find.
- The monitor(s) have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery to allow for notification and evaluation.
- It is unlawful to damage or disturb fossils or artifacts in the Project area. If you believe that you have encountered a paleontological or archaeological resource, **stop work and immediately contact your onsite supervisor** or the Project monitor(s) .
- In the event of the discovery of human remains, **stop work and immediately contact your onsite supervisor** or the Project Archaeologist. The county coroner must be contacted immediately to determine the nature of the remains.

Thank You!

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