

LA MESA-SPRING VALLEY SCHOOL DISTRICT Business Services Department

4750 Date Avenue La Mesa CA 91942

BID NUMBER FB #23/24-008

WALK-IN FREEZER

La Mesa-Spring Valley School District Business Services Department 4750 Date Avenue La Mesa CA 91942

EVENT	DATE
Advertisement Dates	4/5/2024 and 4/12/2024
Mandatory Site Walk: 3838 Conrad Drive, Spring Valley, CA 91977	4/15/2024 at 8:00 AM
Questions from Bidders Due (in writing)	4/17/2024 by 2:00 PM
Answers and Addenda Posted on District website	4/18/2024 by 6:00 PM
Bid Opening	4/25/2024 at 2:00 PM
Recommendation for Award	4/29/2024 by 4:00 PM
Deadline to Submit Challenges to Recommendation	5/6/2024 by 4:00 PM
District Board Meeting to Approve Award of Contract	5/7/2024 at 6:00 PM
Contract Term Start Date	5/8/2024
Contract Term Completion Date	7/31/2024

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^{*}To be responsive to this bid, these forms need to be completed and turned in with bid.

NOTICE TO CONTRACTORS CALLING FOR BIDS

NOTICE IS HEREBY GIVEN that La Mesa-Spring Valley School 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 <u>2:00 o'clock PM</u> of the <u>25th day of April, 2024</u>, sealed bids for the award of contract;

Walk-In Freezer FB #23/24-008

Bids shall be received in the office of the **Business Services Department** of the District at 4750 Date Avenue, La Mesa, California 91942, and shall be opened and publicly read aloud at the above-stated time and place.

Each bid must conform and be responsive to the contract documents, copies of which are now available on the District website, at https://www.lmsvschools.org/purchasing-services/. Request bid documents from Monica Putzbach, Purchasing Manager at Monica.Putzbach@LMSVschools.org.

A mandatory pre-bid job walk is scheduled for all interested contractors on Friday April 15, 2024 at 8:00am. Location: La Mesa-Spring Valley School District - Warehouse: 3838 Conrad Drive, Spring Valley, CA 91977.

Interested bidders should direct questions to Monica Putzbach, Purchasing Manager, at Monica.Putzbach@LMSVschools.org. Any addendums and answers to questions will be posted on the District website on the date specified in the Schedule.

Bids must be submitted on the Bid form provided by the District and included in the bid documents. Each bid must strictly conform with and be responsive to this Notice Calling for Bids, the Information for Bidders, and other Contract Documents. 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.

Except as provided in Public Contract Code Section 5100 *et seq*. no bidder may withdraw a bid for a period of sixty (60) calendar days after the opening of the bids.

In contracts involving an expenditure in excess of \$25,000.00, the successful bidder shall file a payment bond issued by an admitted Surety approved to conduct business in the State of California approved by the District in the form set forth in the contract documents.*

Senate Bill (SB) 854 Requirements: No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with the Department of Industrial Relations (DIR) pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid proposed only under Labor Code section 1771.1 (a)]. No contractor or subcontractor may be awarded a contract for a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Prime contractors must add the DIR Registration Number for each of their listed subcontractors to the Designation of Subcontractors list AND submit a certification of registration for their own firm and those of their listed subcontractors upon request by the District. Failure of the bidding

NOTICE TO CONTRACTORS

prime contractors to list their subcontractors DIR registration Number on the Designation of Subcontractors list at the time of bid will result in rejection of their bid as non-responsive.

Refer to the following DIR Website for further information: www.dir.ca.gov/Public-Works/Public-Works.html

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 to any interested party on request by contacting the Director of Industrial Relations, telephone number (415) 703-4774 or at www.dir.ca.gov.

It shall be mandatory upon the Contractor to whom the contract is awarded, and upon any subcontractor under him, to pay not less than the said specified rates to all workers employed by them in the execution of the contract.

The class of California contractor's license(s) required in order to bid on and perform the contract for this Project is: **C-38 Refrigeration**.

The District may have made a finding that certain brand or trade names are necessary in order to maintain conformity among its campuses, compatibility with existing systems and to streamline maintenance and parts storage.

The successful bidder will be required to provide both a performance bond and a separate payment bond, each in an amount equal to 100% of the total contract amount. The forms of the bonds are set forth in the Contract Documents and all bonds must be issued by a California admitted surety as defined in California Code of Civil Procedure Section 995.120.

Monica Putzbach
Purchasing Manager
La Mesa-Spring Valley School District
District of San Diego County, California

*A payment bond must be filed for a contract involving an 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.

END OF DOCUMENT

NOTICE TO CONTRACTORS DOCUMENT 00100 INFORMATION FOR BIDDERS

1. Preparation of Bid Form

The District invites bids on the **attached** form to be submitted at such time and place as is stated in the Notice to Contractors Calling for Bids. All blanks in the bid form must be appropriately filled in, and all prices must be stated in both words and figures. If a different price is stated in words than is stated in figures, the price stated in words shall be the price bid. All bids must be submitted in sealed envelopes bearing on the outside the name of the bidder, his 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 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

The bid security shall be given as a guarantee that the bidder shall execute the contract if awarded to him in conformity with the contract documents. Each bid must be submitted with the bid security required in document 00410 Bid Bond. Such security must be in one of the following forms: (1) A bidder's bond executed by an admitted surety insurer, made payable to the District. Any bond must have been issued by a California-admitted surety as defined in Code of Civil Procedure Section 995.120.

The bidder's security of the second and third lowest responsible bidders may be withheld until the contract has been finally executed. Within 10 days after the contract is awarded, their bidders' bonds shall be of no further effect as defined in Public Contract Code 10784.

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, alternative 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 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.

7. Examination of Site and Contract Documents

Each bidder shall attend the mandatory job walk visit at site to familiarize himself with the proposed work and fully acquaint himself with the conditions relating to the construction and labor so that they 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 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.

- 7.1 Each bidder, by making his bid, represents that he 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.
- 7.2 Each bidder, by making his bid, represents that he has visited the site, inspected the area of the work, and has familiarized himself with the local conditions under which the work is to be performed, including subsurface 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.
- 7.3 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, by appointment only.

8. Withdrawal of Bids

Any bidder may withdraw his 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 form which the successful bidder, as Contractor, will be required to execute, and the forms and amounts of surety bonds which he 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 percent 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 contract documents, 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, if applicable, or District a written request for an interpretation (RFI) 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 available on the District's website. At the option of the District, all addendums may be mailed, delivered, faxed, made available for pick-up or sent via electronic mail. 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 unresponsive.

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 responsive and responsible bidder.

13. 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:
[X] (a) The lowest bid shall be the lowest bid price on the base contract 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, by site location.
(c) The lowest bid shall be the lowest total of the bid prices on the base contract and those additive or deductive items taken in order from a specifically identified list of those items that, when 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.

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.

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 construction experience in the type of work being required by the District, and his 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 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.

16. Senate Bill (SB) 854 Requirements

No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations (DIR) pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid proposed only under Labor Code section 1771.1 (a)]. No contractor or subcontractor may be awarded a contract for a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Prime contractors must add the DIR Registration Number for each of their listed subcontractors to the Designation of Subcontractors list AND submit a certification of registration for their own firm and those of their listed subcontractors upon request by the District. Failure of the bidding prime contractor to list their subcontractors DIR Registration Number on the Designation of Subcontractors list at the time of bid will result in rejection of their bid as non-responsive.

17. Workers' Compensation

In accordance with the provisions of section 3700 of the 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 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 documents.

18. 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.

19. Contractor's License

If, at the time the bids are opened, the 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 to Contractors Calling for Bids, the bid will not be considered.

20. Storm Water Permit for Construction Activity

It shall be the responsibility of the successful bidder to file a Notice of Intent and procure a 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). The successful bidder shall be solely responsible for preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) prior to initiating work. The successful bidder shall be responsible for procuring, implementing and complying with the provisions of the Permit and the SWPPP, including the standard provisions, monitoring and reporting requirements as required by Permit and as required by Article 69 of the General Conditions It shall be the responsibility of all bidders to evaluate and include in the bid the cost of procuring the Permit and preparing the SWPPP as well as complying with the SWPPP and any necessary revisions to the SWPPP. The successful bidder shall also include in his bid the cost of monitoring as required by the Permit.

Where applicable to the work of this contract, District shall make available to Contractor a copy 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 (the "Permit"). Contractor shall obtain the Permit from District prior to bidding on this contract. District shall also provide Contractor with a copy of the Storm Water Pollution Prevention Plan (SWPPP) at least two weeks prior to the opening of bids. Contractor shall be responsible for implementing and complying with the provisions of the District's MS-4 SWPPP Permit and the SWPPP pursuant to Article 69 of the General Conditions hereof, including requirements specified in other parts of the contract documents. It shall be the Contractor's responsibility to evaluate and include in the bid the cost of compliance with the SWPPP and the cost of monitoring as required by the Permit. Contractors are responsible for implementing the District's SWPPP during the course of work.

21. 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.

22. Substitutions and Special Brand Names

In accordance with Public Contract Code section 3400 "prior to or after the award of the contract", the 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 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 catalog 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 IT'S 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 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.

23. Fingerprinting

By law it is the District's responsibility to determine whether a contractor must provide fingerprint certification. Pursuant to Education Code section 45125.2, the District considers the totality of the circumstances in order to determine if fingerprinting of employees of a contractor working on a school site is required. Factors to be considered include the length of time the contractor's employees are on school grounds, whether students are in proximity with the location where the contractor's employees are working, and whether the contractor's employees are working alone or with others. A determination regarding whether fingerprint certification is required is contained in the special conditions.

24. Labor Compliance Program.

This contract is / is not [X] subject to a labor compliance program, as described in subdivision (b) of Section 1771.5 of the Labor Code. If this contract is subject to the requirements of Section 1771.7 of the Labor Code, the District is required to initiate and enforce a labor compliance program, as described in subdivision (b) of Section 1771.5 of the Labor Code. The law requires that District's labor compliance program shall include, but not be limited to, the following requirements:

*Some jobs will be Labor Compliant

- (a) All bid invitations and public works contracts shall contain appropriate language concerning the requirements of this chapter.
- (b) A pre-job conference shall be conducted with the contractor and subcontractors to discuss federal and state labor law requirements applicable to the contract.
- (c) 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.
- (d) The District shall review, and, if appropriate, audit payroll records to verify compliance with this chapter.
- (e) The District shall withhold contract payments when payroll records are delinquent or inadequate.
- (f) 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.

The District shall enforce a labor compliance program. A copy of the labor compliance program as currently adopted by the District is included with these bid documents. The labor compliance program which is approved by the Director of the Department of Industrial Relations (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.

In accordance with subdivision (b)(1) of Section 1771.5 of the Labor Code, the following notice is given: Contractor and any subcontractors are required to review and comply with the provisions of the California Labor Code, Part 7, Chapter 1, beginning with Section 1720, and the regulations of the Department of Industrial Relations implementing those provisions as more fully discussed in the Contract Documents and the labor compliance program as currently adopted by the District which is included with the bid documents. These statutory and regulatory provisions contain specific requirements, for example, concerning the determination and payment of prevailing wages, retention, inspection and auditing of payroll records, use of apprentices, payment of overtime compensation, securing of workers compensation insurance, and various criminal penalties or fines which may be imposed for violations of the requirements of the chapter. Submission of a bid constitutes Contractor's representation that it has thoroughly reviewed these requirements.

25. Disabled Veterans Participation Goals.

This contract [] is [X] is not subject to Disabled Veterans Participation Goals, 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 a 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.

The Office of Small Business and DVBE Certification (OSDC), (916) 375-4940, www.pd.dgs.ca.gov/smbus, is an information resource to assist bidders in locating Disabled Veteran Business Enterprises.

(Please note: while the OSDC may be used as a resource, the DVBE Program administered by OSDC applies to state contracts, not local agency (school district) contracts.)

26. Tobacco-Free Policy

The Governing Board of the La Mesa-Spring Valley School District, in order to create a clean, healthy environment for students and employees, has prohibited the use of tobacco products on District Property or in District Vehicles. All District consultants, contractors and vendors shall inform their employees and agents that are performing services for the District, of the District's objectives of a smoke free environment (Board Policy 1331, Ed Code 48901).

DOCUMENT 00600 BID FORM

(To be executed by Bidder and submitted with bid)

TO: **La Mesa-Spring Valley School 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 familiarize himself 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 all in strict conformity with the drawings and specifications and other contract documents, including addendum(s),, and, on file at the office of the La Mesa-Spring Valley School District, Business Services, Purchasing Department, 4750 Date Avenue, La Mesa, CA 91942 of said District.

<u>BID AWARD</u>: Award will be determined on the lowest base bid. The grand total must match the sum of the extended prices from page(s) 12 on the bid form. The actual contract value is based on the actual necessary work issued following the issuance of the Notice to Proceed on approximately May 8, 2024.

BID PRICE GUARANTEED: Prices quoted herein are to remain firm through December 31, 2024.

DOCUMENTS TO SUBMIT:

Α	Bid Form
В	Certification of DIR Registration
С	Bid Bond
D	Designation of Subcontractors
Е	Non-collusion Affidavit
F	Workers' Compensation Certificate
G	Addendum[s]
Н	Answers to questions signed
I	References & Work History

DOCUMENT 00600 BID FORM

We hereby propose to furnish all labor, materials, equipment, tools, transportation, and services, and to discharge all duties and obligations necessary and required to perform and complete the Project for the following bid prices:

2. Bidders are to complete all Bid Form pages. Bid will be awarded by the lowest grand total.

BASE BID	BID PRICE (IN WRITTEN FORM) Said Sum includes all applicable taxes and costs	BID PRICE (IN NUMBERS) Said Sum includes all applicable taxes and costs
Operations Center 3838 Conrad Drive, Spring Valley, CA 91977 PROJECT TOTAL:		
(As described in General and / or Special Conditions)		\$

The Owner 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 Owner, will be by line item to the lowest responsive, responsible bidder(s) therefore, or to the Bidder with the lowest combined bid, whichever results in a lower total cost.

DOCUMENT 00600 BID FORM

- 3. 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.
- 4. Bidder's must have done similar work for municipalities for at least 5 years. Bidders must provide work history.
- 5. Bidder's must provide references for at least three (3) similar projects within the last year.
- 6. The required bid security is attached hereto.
- 7. Non-collusion affidavit is attached hereto.
- 8. The required list of proposed subcontractors is attached hereto.
- 9. It is understood and agreed that the bidder shall provide the addresses, telephone numbers, and license numbers of all listed subcontractors within one business day of bid opening or the bidder's bid may be rejected as nonresponsive.
- 10. 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.
- 11. Notice of acceptance or requests for additional information, *RFI*, should be addressed to the undersigned at the address stated below: Monica Putzbach, Purchasing Manager at Monica.Putzbach@LMSVschools.org or (619) 668-5700 x6407.
- 12. The names of all persons interested in the foregoing bid 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 copartnership, 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.)

DOCUMENT 00600 BID FORM

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s associated with that p	roject and all cost related to	remedy
at	County, C	alifornia.
orized officers or agentership, the true name of artner or partners authors.	ts and the document shall of the firm shall be set for orized to sign contracts on	bear the th above behalf of
	Pla	ce of
	F	Email
	nire a certified DSA appressful bidder, at any point associated with that perpendicular true and correct. The legal name of the corrized officers or agent arther or partners authorized lividual, his or her signal.	atCounty, C

END OF DOCUMENT

CERTIFICATION OF CONTRACTOR AND SUBCONTRACTOR DIVISION OF INDUSTRIAL RELATIONS

REGISTRATION (To be executed by Bidder and submitted with bid)

Pursuant to Labor Code Section 1725.5, a contractor or subcontractor must be registered with the Department of Industrial relations in order to bid on, to be listed in a bid proposal or to engage in the performance of any defined public work contract.

I	,,		certify that
(Name)	(Title)		 ,
(Contractor Name)	is	currently registered as a	contractor with the
,			
Department of Industrial Re	lations (DIR):		
Contractor's DIR Registra	tion Number:		
Expiration date:			
Contractor further acknowle 1. Contractor shall maintain registration.	•	tus for the duration of the	project without a gap in
Contractor shall note in its subcontractors and their		e DIR's registration requi	rement for all
Contractor shall ensure the maintain registered state		_	of bid opening and
Contractor is to verify the A hours of the bid open	•	lumber for all subcontract	ors on the project within
5. Contractor may need to s listed subcontractor is u	_		tered contractor if the
Failure to comply with any c	f the above may re	sult in a determination of	
non-responsiveness. I decla	ire under penalty of	f perjury under California	law that the
foregoing is true and correc	t.		
Signature			
Date			

CERTIFICATION OF DIR REGISTRATION DOCUMENT 00410 BID BOND

(To be executed by Bidder and submitted with bid)

KNOW ALL MEN BY THESE PRESENTS: THAT we,	_, as		
Principal, and, as Surety, are held and firmly bound u	unto the		
School District, hereinafter called the District, in the penal sum ofPERCENT (10%) 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 BID NUMBER FB #23/24-008			
Walk-In Freezer			
NOW, THEREFORE, if the Principal shall not withdraw said bid within the period specified therein after the opening of the sif no period be specified, within sixty (60) days after said opening; and, if the Principal be awarded the contract, and shall we period specified therefore, or, if no period be specified, within five (5) days after the prescribed forms are presented to signature, enter into a written contract with the District, in accordance with the bid as accepted and give bond with go sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract an payment for labor and materials used for the performance of the contract, or in the event of the withdrawal of said bid we period specified or the failure to enter into such contract and give such bonds within the time specified, if the Principal shall District the difference between the amount specified in said bid and the amount for which the District may procure the requirement and/or supplies, if the latter amount be in excess of the former, together with all costs incurred by the District in again or bids, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.	vithin the o him for ood and d for the vithin the I pay the red work		
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 that a 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 a 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, the name and corporate seal of each corporate party being hereto affixed and these duly assigned by its undersigned representative, pursuant to authority of its governing body.			
PRINCIPAL			
By:			
Title:			
SURETY:			
By: Attorney-in Fact			
(Attach Attornev-in-Fact Certificate)			

BID BOND DOCUMENT 00430 DESIGNATION OF SUBCONTRACTORS

In compliance with the Subletting and Subcontracting Fair Practices Act (chapter 4 (commencing at section 4100), part 1, division 2 of the Public Contract Code of the State of California) and any amendments thereof, each bidder shall set forth below: (a) the name and the location of the place of business of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement to be performed under this contract or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications in an amount in excess of one-half of one percent of the prime contractor's total bid and (b) the portion of the work which will be done by each subcontractor under this contract. The prime contractor shall list only one subcontractor for each such portion as is defined by the prime contractor in this bid. (c) the California contractor's license number; and effective for all contracts awarded on or after April 1, 2015, (d) DIR Registration Number.

If a prime contractor fails to specify a subcontractor or if a prime contractor specifies more than one subcontractor for the same portion of work to be performed under the contract in excess of one-half of one percent of the prime contractor's total bid, he shall be deemed to have agreed that he is fully qualified to perform that portion himself, and that he shall perform that portion himself.

No prime contractor whose bid is accepted shall (a) substitute any subcontractor, (b) permit any subcontract to be voluntarily assigned or transferred or allow it to be performed by any one other than the original subcontractor listed in the original bid, or (c) sublet or subcontract any portion of the work in excess of one-half of one percent of the prime contractor's total bid as to which his original bid did not designate a subcontractor, except as authorized in the Subletting and Subcontracting Fair Practices Act. Subletting or subcontracting of any portion of the work in excess of one-half of one percent of the prime contractor's total bid as to which no subcontractor was designated in the original bid shall only be permitted in cases of public emergency or necessity, and then only after a finding reduced to writing as a public record of the authority awarding this contract setting forth the facts constituting the emergency or necessity.

DESIGNATION OF SUBCONTRACTORS DESIGNATION OF SUBCONTRACTORS

(To be executed by Bidder and submitted with bid)

Subcontractor Business License DIR Portion

Name Address Number Registration# of Work		
_		
_		
_		
_		
-		
_		
_		
_		
_		
-		
Proper Name of Bidder:		
By:		

NON-COLLUSION DECLARATION

(To be executed by Bidder and submitted with bid)

The undersigned declares:	
I am the	(Title) of
(Name of Company) the party	naking the foregoing bid.
company, association, organisham. The bidder has not dir false or sham bid. The bidder agreed with any bidder or arbidder has not in any manner conference with anyone to for overhead, profit, or cost elem contained in the bid are true. relative thereto, to any corporate depository, or to any member	Interest of, or on behalf of, any undisclosed person, partnership ation, or corporation. The bid is genuine and not collusive of ctly or indirectly induced or solicited any other bidder to put in a shas not directly or indirectly colluded, conspired, connived, or yone else to put in a sham bid, or to refrain from bidding. The state of the bid price of the bidder or any other bidder, or to fix any ent of the bid price, or of that of any other bidder. All statements the bidder has not, directly or indirectly, submitted his or her bid ion, partnership, company association, organization, bid or agent thereof to effectuate a collusive or sham bid, and has not on or entity for such purposes.
joint venture, limited liability	laration on behalf of a bidder that is a corporation, partnership ompany, limited liability partnership, or any other entity, hereby full power to execute, and does execute, this declaration or
I declare under penalty of perj	ry under the laws of the State of California that the foregoing is
true and correct and that this o	eclaration is executed on this:
day of	<u></u>
City of	, State of
Signed:	
Title:	

CONTRACTOR'S CERTIFICATE REGARDING WORKERS' COMPENSATION

(To be executed by Bidder and submitted with bid)

Labor Code section 3700 in relevant part provides:

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

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

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

 (Name)
 (Title)
 (Company)

(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.

DOCUMENT 00500 AGREEMENT

		in the County of San Diego, State of g Valley School District, hereinafter called the
•		reinafter called the Contractor, WITNESSETH
that the District and the Contr	actor for the consi	iderations stated herein agree as follows:
provide all labor, materials	within the time st , tools, utility se	tipulated the contract as herein defined, and shall ervices, and transportation to complete in a connection with the following titled project:
BID NUMBER FB #23/24-008		
Walk-In Freezer		

in strict compliance with the contract documents as specified in Article 5 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 Section A of the Special Conditions. As specified in District's notice to proceed, the work shall be completed within 100 calendar days from and after the date stated in such notice, which shall include 5 working days for normal bad weather, taking into consideration the seasonal weather for the time when construction will be undertaken.
- (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 - PAY QUANTITIES AND UNIT PRICES.

The District shall pay to the Contractor for all work done on the basis of final computations for all work acceptably completed according to this contract, at the unit price shown in the proposal for the quantity actually installed.

ARTICLE 4 - INSPECTOR.

The District reserves the right to hire a certified DSA approved inspector to inspect any or all projects undertaken by the Contractor, at any point during the term of the contract, to check for contract compliance.

If non-compliance is discovered during such an inspection, the Contractor will be responsible for all inspection fees associated with that project and all cost related to remedy the discrepancy to bring it into compliance with the contract and satisfaction of the District.

ARTICLE 5 - 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 Certification of Contractor and Subcontractor Division of Industrial Relations Registration Designation of Subcontractors Non-collusion Affidavit Agreement Performance Bond Payment Bond for Public Works Contractor's Certificate Regarding Workers' Compensation General Conditions and Special Conditions **Questions and Answers**

Specification Addendum(s), , , as issued

Drawings

Labor Compliance Program (if applicable)

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.

ARTICLE 6 - PREVAILING WAGES.

Contractor shall be required to pay the prevailing rate of wages in accordance with the labor code which such rates may be obtained online at http://www.dir.ca.gov/dlsr and which must be posted at the job site.

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

CONTRACTOR:

Company Name	
By:	Name:
Title:	Date:
DISTRICT:	
La Mesa-Spring Valley School District	
Ву:	Name: Tina Douglas
Title: Assistant Superintendent, Business Services	Date:
Contractor's License No.	

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 (916)255-3900; http://www.cslb.ca.gov (Business & Professions Code, section 7030) Agreement page 2 of 2

DOCUMENT 00600 PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That

SURETY_____

Attorney-in-Fact

WHEREAS, the La Mesa-Spring Valley School District (hereinafter designated as "Public Entity"), by action taken

or a resolution passed , 20_, has awarded to , hereinafter designated as the "Principal," a contract for the work described as follows:

BID NUMBER FB #23/24-008

BID NUMBER FB #23/24-008	
Walk-In Freezer	
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, asSurety, are held and firmly bound	
unto (Surety Name) 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 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 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 a 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 a 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 theday of, 20	
PRINCIPAL	
By:	
[Attach required acknowledgments]	

PERFORMANCE BOND

DOCUMENT 00610 - PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That

WHEREAS, the <u>La Mesa-Spring Valley School District</u> (hereinafter designated as "Public Entity"), by action taken

or a resolution passed , 20_, has awarded to , hereinafter designated as the "Principal," a contract for the work described as follows:

BID NUMBER FB #23/24-008

Walk-In Freezer

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 or its 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 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 insure 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 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 on theday of , 20	been duly executed by the Principal and Surety above named,
PRINCIPAL	
Ву:	-
SURETY	[Attach required acknowledgments]
D	

DOCUMENT 00 72 13

GENERAL CONDITIONS

1. <u>CONTRACT TERMS AND DEFINITIONS</u>

1.1 <u>Definitions</u>

Wherever used in the Contract Documents, the following terms shall have the meanings indicated, which shall be applicable to both the singular and plural thereof:

- **1.1.1** Adverse Weather: Shall be only weather that satisfies all of the following conditions: (1) unusually severe precipitation, sleet, snow, hail, or extreme temperature conditions in excess of the norm for the location and time of year it occurred based on the closest weather station data averaged over the past five years, (2) that is unanticipated and would cause unsafe work conditions and/or is unsuitable for scheduled work that should not be performed during inclement weather (i.e., exterior finishes), and (3) at the Project.
- **1.1.2 Allowance Expenditure Directive:** Written authorization for expenditure of allowance, if any.
- **1.1.3** Approval, Approved, and/or Accepted: Written authorization, unless stated otherwise.
- 1.1.4 Architect (or "Design Professional in General Responsible Charge"): The individual, partnership, corporation, joint venture, or any combination thereof, named as Architect, who will have the rights and authority assigned to the Architect in the Contract Documents. The term Architect means the Design Professional in General Responsible Charge as defined in DSA PR 13-02 on this Project or the Architect's authorized representative.
- **1.1.5 As-Builts**: Reproducible blue line prints of drawings to be prepared on a monthly basis pursuant to the Contract Documents, that reflect changes made during the performance of the Work, recording differences between the original design of the Work and the Work as constructed since the preceding monthly submittal. See **Record Drawings**.
- **1.1.6 Bidder**: A contractor who intends to provide a proposal to the District to perform the Work of this Contract.
- **1.1.7 Burdened**: The labor rate for Contractor or any Subcontractor inclusive of any and all burden costs including, but not limited to, health and welfare pay, vacation and holiday pay, pension contributions, training rates, benefits of any kind, insurance of any kind, workers' compensation, liability insurance, truck expenses, supply expenses of any kind, payroll taxes, and any other taxes of any kind.
- **1.1.8 Change Order**: A written order to the Contractor authorizing an addition to, deletion from, or revision in the Work, and/or authorizing an adjustment in the Contract Price or Contract Time.

- **1.1.9 Claim**: A Dispute that remains unresolved at the conclusion of the all the applicable Dispute Resolution requirements provided herein.
- **1.1.10 Construction Change Directive**: A written order prepared and issued by the District, the Construction Manager, and/or the Architect and signed by the District and the Architect, directing a change in the Work.
- **1.1.11 Construction Manager**: The individual, partnership, corporation, joint venture, or any combination thereof, or its authorized representative, named as such by the District. If no Construction Manager is used on the Project that is the subject of this Contract, then all references to Construction Manager herein shall be read to refer to District.
- **1.1.12 Construction Schedule**: The progress schedule of construction of the Project as provided by Contractor and approved by District.
- **1.1.13 Contract, Contract Documents**: The Contract consists exclusively of the documents evidencing the agreement of the District and Contractor, identified as the Contract Documents. The Contract Documents consist of the following documents:
 - **1.1.13.1** Notice to Bidders
 - **1.1.13.2** Instructions to Bidders
 - **1.1.13.3** Bid Form and Proposal
 - **1.1.13.4** Bid Bond
 - **1.1.13.5** Designated Subcontractors List
 - **1.1.13.6** Site Visit Certification (if a site visit was required)
 - 1.1.13.7 Non-Collusion Declaration
 - **1.1.13.8** Notice of Award
 - 1.1.13.9 Notice to Proceed
 - **1.1.13.10** Agreement
 - 1.1.13.11 Escrow of Bid Documentation
 - **1.1.13.12** Escrow Agreement for Security Deposits in Lieu of Retention (if applicable)
 - **1.1.13.13** Performance Bond
 - **1.1.13.14** Payment Bond (Contractor's Labor & Material Bond)
 - 1.1.13.15 General Conditions
 - **1.1.13.16** Special Conditions (if applicable)
 - **1.1.13.17** Project Labor Agreement (if applicable)
 - **1.1.13.18** Hazardous Materials Procedures and Requirements
 - **1.1.13.19** Workers' Compensation Certification
 - **1.1.13.20** Prevailing Wage Certification
 - **1.1.13.21** Disabled Veteran Business Enterprise Participation Certification (if applicable)
 - **1.1.13.22** Drug-Free Workplace Certification (if applicable)
 - 1.1.13.23 Tobacco-Free Environment Certification
 - **1.1.13.24** Hazardous Materials Certification (if applicable)
 - **1.1.13.25** Lead-Based Materials Certification (if applicable)
 - **1.1.13.26** Imported Materials Certification (if applicable)
 - **1.1.13.27** Criminal Background Investigation/Fingerprinting Certification
 - **1.1.13.28** Buy American Certification (if certain federal funds used)
 - **1.1.13.29** Roofing Project Certification (if applicable)

- **1.1.13.30** Registered Subcontractors List
- **1.1.13.31** Iran Contracting Act Certification (if applicable)
- 1.1.13.32 Post Bid Interview
- 1.1.13.33 All Plans, Technical Specifications, and Drawings
- **1.1.13.34** Any and all addenda to any of the above documents
- **1.1.13.35** Any and all change orders or written modifications to the above documents if approved in writing by the District
- **1.1.14 Contract Price**: The total monies payable to the Contractor under the terms and conditions of the Contract Documents.
- **1.1.15 Contract Time**: The time period stated in the Agreement for the completion of the Work.
- **1.1.16 Contractor**: The person or persons identified in the Agreement as contracting to perform the Work to be done under this Contract, or the legal representative of such a person or persons.
- **1.1.17 Daily Job Report(s)**: Daily Project reports prepared by the Contractor's employee(s) who are present on Site, which shall include the information required herein.
- **1.1.18** Day(s): Unless otherwise designated, day(s) means calendar day(s).
- **1.1.19 Department of Industrial Relations (or "DIR")**: is responsible, among other things, for labor compliance monitoring and enforcement of California prevailing wage laws and regulations for public works contracts.
- **1.1.20 Design Professional in General Responsible Charge**: See definition of **Architect** above.
- **1.1.21 Dispute**: A separate demand by Contractor for a time extension, or payment of money or damages arising from Work done by or on behalf of the Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or Contractor is not otherwise entitled to; or an amount of payment disputed by the District.
- **1.1.22 District**: The public agency or the school district for which the Work is performed. The governing board of the District or its designees will act for the District in all matters pertaining to the Contract. The District may, at any time,
 - **1.1.22.1** Direct the Contractor to communicate with or provide notice to the Construction Manager or the Architect on matters for which the Contract Documents indicate the Contractor will communicate with or provide notice to the District; and/or
 - **1.1.22.2** Direct the Construction Manager or the Architect to communicate with or direct the Contractor on matters for which the Contract Documents indicate the District will communicate with or direct the Contractor.
- **1.1.23 Drawings (or "Plans")**: The graphic and pictorial portions of the Contract Documents showing the design, location, scope and dimensions of the work,

generally including plans, elevations, sections, details, schedules, sequence of operation, and diagrams.

- **1.1.24 DSA**: Division of the State Architect.
- **1.1.25** Force Account Directive: A process that may be used when the District and the Contractor cannot agree on a price for a specific portion of work or before the Contractor prepares a price for a specific portion of work and whereby the Contractor performs the work as indicated herein on a time and materials basis.
- **1.1.26 Job Cost Reports**: Any and all reports or records detailing the costs associated with work performed on or related to the Project that Contractor shall maintain for the Project. Specifically, Job Cost Reports shall contain, but are not limited by or to, the following information: a description of the work performed or to be performed on the Project; quantity, if applicable, of work performed (hours, square feet, cubic yards, pounds, etc.) for the Project; Project budget; costs for the Project to date; estimated costs to complete the Project; and expected costs at completion. The Job Cost Reports shall also reflect all Contract cost codes, change orders, elements of non-conforming work, back charges, and additional services.
- 1.1.27 Labor Commissioner's Office (or "Labor Commissioner", also known as the Division of Labor Standards Enforcement ("DLSE")): Division of the DIR responsible for adjudicating wage claims, investigating discrimination and public works complaints, and enforcing Labor Code statutes and Industrial Welfare Commission orders.
- **1.1.28** Municipal Separate Storm Sewer System (or "MS4"): A system of conveyances used to collect and/or convey storm water, including, without limitation, catch basins, curbs, gutters, ditches, man-made channels, and storm drains.
- 1.1.29 Plans: See Drawings.
- **1.1.30 Premises**: The real property owned by the District on which the Site is located.
- **1.1.31 Product(s)**: New material, machinery, components, equipment, fixtures and systems forming the Work, including existing materials or components required and approved by the District for reuse.
- **1.1.32 Product Data**: Illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate a material, product, or system for some portion of the Work.
- **1.1.33 Program Manager**: The individual, partnership, corporation, joint venture, or any combination thereof, or its authorized representative, named as such by the District. If no Program Manager is designated for Project that is the subject of this Contract, then all references to Project Manager herein shall be read to refer to District.
- **1.1.34 Project**: The planned undertaking as provided for in the Contract Documents.

- **1.1.35** Project Inspector (or "Inspector"): The individual(s) retained by the District in accordance with title 24 of the California Code of Regulations to monitor and inspect the Project.
- **1.1.36** Project Labor Agreement (or "PLA"): If applicable a prehire collective bargaining agreement in accordance with Public Contract Code section 2500 et seq. that establishes terms and conditions of employment for a specific construction project or projects and/or is an agreement described in Section 158(f) of Title 29 of the United States Code.
- **1.1.37** Proposed Change Order (or "PCO"): a written request prepared by the Contractor requesting that the District and the Architect issue a Change Order based upon a proposed change to the Work.
- **1.1.38 Provide**: Shall include "provide complete in place," that is, "furnish and install," and "provide complete and functioning as intended in place" unless specifically stated otherwise.
- **1.1.39 Qualified SWPPP Practitioners (or "QSP")**: certified personnel that attended a State Water Resources Control Board sponsored or approved training class and passed the qualifying exam.
- **1.1.40 Record Drawings**: Reproducible drawings (or Plans) prepared pursuant to the requirements of the Contract Documents that reflect all changes made during the performance of the Work, recording differences between the original design of the Work and the Work as constructed upon completion of the Project. See also **As-Builts**.
- **1.1.41** Request for Information (or "RFI"): A written request prepared by the Contractor requesting that the Architect provide additional information necessary to clarify or amplify an item in the Contract Documents that the Contractor believes is not clearly shown or called for in the Drawings or Specifications or other portions of the Contract Documents, or to address problems that have arisen under field conditions.
- **1.1.42** Request for Substitution for Specified Item: A request by Contractor to substitute an equal or superior material, product, thing, or service for a specific material, product, thing, or service that has been designated in the Contract Documents by a specific brand or trade name.
- **1.1.43** Safety Orders: Written and/or verbal orders for construction issued by the California Division of Occupational Safety and Health ("CalOSHA") or by the United States Occupational Safety and Health Administration ("OSHA").
- **1.1.44 Safety Plan**: Contractor's safety plan specifically adapted for the Project. Contractor's Safety Plan shall comply with all provisions regarding Project safety, including all applicable provisions in these General Conditions.
- **1.1.45 Samples**: Physical examples that illustrate materials, products, equipment, finishes, colors, or workmanship and that, when approved in accordance with the Contract Documents, establish standards by which portions of the Work will be judged.

- **1.1.46 Shop Drawings**: All drawings, prints, diagrams, illustrations, brochures, schedules, and other data that are prepared by the Contractor, a subcontractor, manufacturer, supplier, or distributor, that illustrate how specific portions of the Work shall be fabricated or installed.
- **1.1.47 Site**: The Project site as shown on the Drawings.
- **1.1.48 Specifications**: That portion of the Contract Documents, Division 1 through Division 49, and all technical sections, and addenda to all of these, if any, consisting of written descriptions and requirements of a technical nature of materials, equipment, construction methods and systems, standards, and workmanship.
- **1.1.49 State**: The State of California.
- **1.1.50** Storm Water Pollution Prevention Plan (or "SWPPP"): A document which identifies sources and activities at a particular facility that may contribute pollutants to storm water and contains specific control measures and time frames to prevent or treat such pollutants.
- **1.1.51 Subcontractor**: A contractor and/or supplier who is under contract with the Contractor or with any other subcontractor, regardless of tier, to perform a portion of the Work of the Project.
- **1.1.52 Submittal Schedule**: The schedule of submittals as provided by Contractor and approved by District.
- **1.1.53 Surety**: The person, firm, or corporation that executes as surety the Contractor's Performance Bond and Payment Bond, and must be a California admitted surety insurer as defined in the Code of Civil Procedure section 995.120.
- **1.1.54 Work**: All labor, materials, equipment, components, appliances, supervision, coordination, and services required by, or reasonably inferred from, the Contract Documents, that are necessary for the construction and completion of the Project.

1.2 Laws Concerning the Contract

Contract is subject to all provisions of the Constitution and laws of California and the United States governing, controlling, or affecting District, or the property, funds, operations, or powers of District, and such provisions are by this reference made a part hereof. Any provision required by law to be included in this Contract shall be deemed to be inserted.

1.3 No Oral Agreements

No oral agreement or conversation with any officer, agent, or employee of District, either before or after execution of Contract, shall affect or modify any of the terms or obligations contained in any of the documents comprising the Contract.

1.4 No Assignment

Contractor shall not assign this Contract or any part thereof including, without limitation, any Work or money to become due hereunder without the prior written consent of the District. Assignment without District's prior written consent shall be null and void. 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 this Contract in favor of all persons, firms, or corporations rendering services or supplying material to the extent that claims are filed pursuant to the Civil Code, Code of Civil Procedure, Government Code, Labor Code, and/or Public Contract Code, and shall also be subject to deductions for liquidated damages or withholding of payments as determined by District in accordance with this Contract. Contractor shall not assign or transfer in any manner to a Subcontractor or supplier the right to prosecute or maintain an action against the District.

1.5 Notice and Service Thereof

- **1.5.1** Any notice from one party to the other or otherwise under Contract shall be in writing and shall be dated and signed by the party giving notice or by a duly authorized representative of that party. Any notice shall not be effective for any purpose whatsoever unless served in one of the following manners:
 - **1.5.1.1** If notice is given by personal delivery thereof, it shall be considered delivered on the day of delivery.
 - **1.5.1.2** If notice is given by overnight delivery service, it shall be considered delivered one (1) day after date deposited, as indicated by the delivery service.
 - **1.5.1.3** If notice is given by depositing same in United States mail, enclosed in a sealed envelope, it shall be considered delivered three (3) days after date deposited, as indicated by the postmarked date.
 - **1.5.1.4** If notice is given by registered or certified mail with postage prepaid, return receipt requested, it shall be considered delivered on the day the notice is signed for.
 - **1.5.1.5** Electronic mail may be used for convenience but is not a substitute for the notice and service requirements herein.

1.6 No Waiver

The failure of District in any one or more instances to insist upon strict performance of any of the terms of this Contract or to exercise any option herein conferred shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon any such terms or option on any future occasion. No action or failure to act by the District, Architect, or Construction Manager shall constitute a waiver of any right or duty afforded the District under the Contract, nor shall any action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

1.7 <u>Substitutions for Specified Items</u>

Unless the Special Conditions contain different provisions, Contractor shall not substitute different items for any items identified in the Contract Documents without prior written approval of the District.

1.8 Materials and Work

- **1.8.1** Except as otherwise specifically stated in this Contract, Contractor shall provide and pay for all materials, labor, tools, equipment, transportation, supervision, temporary constructions of every nature, and all other services, management, and facilities of every nature whatsoever necessary to execute and complete this Contract, in a good and workmanlike manner, within the Contract Time.
- **1.8.2** Unless otherwise specified, all materials shall be new and of the best quality of their respective kinds and grades as noted or specified, workmanship shall be of good quality, and Contractor shall use all diligence to inform itself fully as to the required manufacturer's instructions and to comply therewith.
- **1.8.3** 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 from the elements, theft, vandalism, or other loss or damage as required.
- **1.8.4** For all materials and equipment specified or indicated in the Drawings, the Contractor shall provide all labor, materials, equipment, and services necessary for complete assemblies and complete working systems, functioning as intended. Incidental items not indicated on Drawings, nor mentioned in the Specifications, that can legitimately and reasonably be inferred to belong to the Work described, or be necessary in good practice to provide a complete assembly or system, shall be furnished as though itemized here in every detail. In all instances, material and equipment shall be installed in strict accordance with each manufacturer's most recent published recommendations and specifications.
- **1.8.5** Contractor shall, after award of Contract by District and after relevant submittals have been reviewed, place orders for materials and/or equipment as specified so that delivery of same may be made without delays to the Work. Contractor shall, upon five (5) days' demand from District, present documentary evidence showing that orders have been placed.
- **1.8.6** District reserves the right but has no obligation, in response to Contractor's neglect or failure in complying with the above instructions, to place orders for such materials and/or equipment as the District may deem advisable in order that the Work may be completed at the date specified in the Contract, and all expenses incidental to the procuring of said materials and/or equipment shall be paid for by Contractor or deducted from payment(s) to Contractor.
- **1.8.7** Contractor warrants good title to all material, supplies, and equipment installed or incorporated in Work and agrees upon completion of all Work to deliver the Site to District, together with all improvements and appurtenances constructed or placed thereon by it, and free from any claims, liens, or charges. Contractor further agrees that neither it nor any person, firm, or corporation furnishing any materials or labor for any work covered by the Contract shall have any right to lien

any portion of the Premises or any improvement or appurtenance thereon, except that Contractor may install metering devices or other equipment of utility companies or of political subdivision, title to which is commonly retained by utility company or political subdivision. In the event of installation of any such metering device or equipment, Contractor shall advise District as to owner thereof.

- **1.8.7.1** If a lien or a claim based on a stop payment notice of any nature should at any time be filed against the Work or any District property, by any entity that has supplied material or services at the request of the Contractor, Contractor and Contractor's Surety shall promptly, on demand by District and at Contractor's and Surety's own expense, take any and all action necessary to cause any such lien or a claim based on a stop payment notice to be released or discharged immediately therefrom.
- **1.8.7.2** If the Contractor fails to furnish to the District within ten (10) calendar days after demand by the District, satisfactory evidence that a lien or a claim based on a stop payment notice has been so released, discharged, or secured, the District may discharge such indebtedness and deduct the amount required therefor, together with any and all losses, costs, damages, and attorney's fees and expense incurred or suffered by District from any sum payable to Contractor under the Contract.
- **1.8.8** Nothing contained in this Article, however, shall defeat or impair the rights of persons furnishing materials or labor under any bond given by Contractor for their protection or any rights under any law permitting such protection or any rights under any law permitting such persons to look to funds due Contractor in hands of District (e.g., stop payment notices), 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.
- 1.8.9 Title to new materials and/or equipment for the Work of this Contract and attendant liability for its protection and safety shall remain with Contractor until incorporated in the Work of this Contract and accepted by District. No part of any materials and/or equipment shall be removed from its place of storage except for immediate installation in the Work of this Contract. Should the District, in its discretion, allow the Contractor to store materials and/or equipment for the Work off-site, Contractor will store said materials and/or equipment at a bonded warehouse and with appropriate insurance coverage at no cost to District. Contractor shall keep an accurate inventory of all materials and/or equipment in a manner satisfactory to District or its authorized representative and shall, at the District's request, forward it to the District.

2. [RESERVED]

3. ARCHITECT

3.1 The Architect shall represent the District during the Project and will observe the progress and quality of the Work on behalf of the District. Architect shall have the authority to act on behalf of District to the extent expressly provided in the Contract Documents and to the extent determined by District. Architect shall have authority to reject materials, workmanship, and/or the Work whenever rejection may be necessary, in Architect's reasonable opinion, to ensure the proper execution of the Contract.

- **3.2** Architect shall, with the District and on behalf of the District, determine the amount, quality, acceptability, and fitness of all parts of the Work, and interpret the Specifications, Drawings, and shall, with the District, interpret all other Contract Documents.
- **3.3** Architect shall have all authority and responsibility established by law, including title 24 of the California Code of Regulations.
- **3.4** Contractor shall provide District and the Construction Manager with a copy of all written communication between Contractor and Architect at the same time as that communication is made to Architect, including, without limitation, all RFIs, correspondence, submittals, claims, and proposed change orders.

4. **CONSTRUCTION MANAGER**

- **4.1** If a Construction Manager is used on this Project ("Construction Manager" or "CM"), the Construction Manager will provide administration of the Contract on the District's behalf. After execution of the Contract and Notice to Proceed, all correspondence and/or instructions from Contractor and/or District shall be forwarded through the Construction Manager. The Construction Manager will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences, or procedures or for safety precautions in connection with the Work, which shall all remain the Contractor's responsibility.
- 4.2 The Construction Manager, however, will have authority to reject materials and/or workmanship not conforming to the Contract Documents, as determined by the District, the Architect, and/or the Project Inspector. The Construction Manager shall also have the authority to require special inspection or testing of any portion of the Work, whether it has been fabricated, installed, or fully completed. Any decision made by the Construction Manager, in good faith, shall not give rise to any duty or responsibility of the Construction Manager to: the Contractor; any Subcontractor; the Contractor or Subcontractor's respective agents, employees; or other persons performing any of the Work. The Construction Manager shall have free access to any or all parts of Work at any time.
- **4.3** If the District does not use a Construction Manager on this Project, all references within the Contract Documents to Construction Manager or CM shall be read as District.

5. INSPECTOR, INSPECTIONS, AND TESTS

5.1 <u>Project Inspector</u>

- **5.1.1** One or more Project Inspector(s), including special Project Inspector(s), as required, will be assigned to the Work by District, in accordance with requirements of title 24, part 1, of the California Code of Regulations, to enforce the building code and monitor compliance with Plans and Specifications for the Project previously approved by the DSA. Duties of Project Inspector(s) are specifically defined in section 4-342 of said part 1 of title 24.
- **5.1.2** No Work shall be carried on except with the knowledge and under the inspection of the Project Inspector(s). The Project Inspector(s) shall have free access to any or all parts of Work at any time. Contractor shall furnish Project

Inspector(s) reasonable opportunities for obtaining such information as may be necessary to keep Project Inspector(s) fully informed respecting progress and manner of work and character of materials, including, but not limited to, submission of form DSA 156 (or the most current version applicable at the time the Work is performed) to the Project Inspector at least 48 hours in advance of the commencement and completion of construction of each and every aspect of the Work. Forms are available on the DSA's website at: http://www.dgs.ca.gov/dsa/Forms.aspx. Inspection of Work shall not relieve

Contractor from an obligation to fulfill this Contract. Project Inspector(s) and the DSA are authorized to suspend work whenever the Contractor and/or its Subcontractor(s) are not complying with the Contract Documents. Any work stoppage by the Project Inspector(s) and/or DSA shall be without liability to the District. Contractor shall instruct its Subcontractors and employees accordingly.

5.1.3 If Contractor and/or any Subcontractor requests that the Project Inspector(s) perform any inspection off-site, this shall only be done if it is allowable pursuant to applicable regulations and DSA approval, if the Project Inspector(s) agree to do so, and at the expense of the Contractor.

5.2 <u>Tests and Inspections</u>

- **5.2.1** Tests and Inspections shall comply with title 24, part 1, California Code of Regulations, group 1, article 5, section 4-335, and with the provisions of the Specifications.
- **5.2.2** The District will select an independent testing laboratory to conduct the tests. Selection of the materials required to be tested shall be by the laboratory or the District's representative and not by the Contractor. The Contractor shall notify the District's representative a sufficient time in advance of its readiness for required observation or inspection.
- **5.2.3** The Contractor shall notify the District's representative a sufficient time in advance of the manufacture of material to be supplied under the Contract Documents, which must by terms of the Contract Documents be tested, in order that the District may arrange for the testing of same at the source of supply. This notice shall be provided, at a minimum, seventy-two (72) hours prior to the manufacture of the material that needs to be tested.
- **5.2.4** Any material shipped by the Contractor from the source of supply prior to having satisfactorily passed such testing and inspection or prior to the receipt of notice from said representative that such testing and inspection will not be required, shall not be incorporated into and/or onto the Project.
- **5.2.5** The District will select the testing laboratory and pay for the cost of all tests and inspections, excepting those inspections performed at Contractor's request and expense. Contractor shall reimburse the District for any and all laboratory costs or other testing costs for any materials found to be not in compliance with the Contract Documents. At the District's discretion, District may elect to deduct laboratory or other testing costs for noncompliant materials from the Contract Price, and such deduction shall not constitute a withholding.

5.3 Costs for After Hours and/or Off Site Inspections

If the Contractor performs Work outside the Inspector's regular working hours or requests the Inspector to perform inspections off Site, costs of any inspections required outside regular working hours or off Site shall be borne by the Contractor and may be invoiced to the Contractor by the District or the District may deduct those expenses from the next Progress Payment.

6. **CONTRACTOR**

Contractor shall construct and complete, in a good and workmanlike manner, the Work for the Contract Price including any adjustment(s) to the Contract Price pursuant to provisions herein regarding changes to the Contract Price. Except as otherwise noted, Contractor shall provide and pay for all labor, materials, equipment, permits (excluding DSA), fees, licenses, facilities, transportation, taxes, bonds and insurance, and services necessary for the proper execution and completion of the Work, except as indicated herein.

6.1 <u>Status of Contractor</u>

- **6.1.1** Contractor is and shall at all times be deemed to be an independent contractor and shall be wholly responsible for the manner in which it and its Subcontractors perform the services required of it by the Contract Documents. Nothing herein contained shall be construed as creating the relationship of employer and employee, or principal and agent, between the District, or any of the District's employees or agents, and Contractor or any of Contractor's Subcontractors, agents or employees. Contractor assumes exclusively the responsibility for the acts of its agents, and employees as they relate to the services to be provided during the course and scope of their employment. Contractor, its Subcontractors, agents, and its employees shall not be entitled to any rights or privileges of District employees. District shall be permitted to monitor the Contractor's activities to determine compliance with the terms of this Contract.
- **6.1.2** As required by law, Contractor and all Subcontractors shall be properly licensed and regulated by the Contractors State License Board, 9821 Business Park Drive, Sacramento, California 95827, http://www.cslb.ca.gov.
- **6.1.3** As required by law, Contractor and all Subcontractors shall be properly registered as public works contractors by the Department of Industrial Relations at: https://efiling.dir.ca.gov/PWCR/ActionServlet?action=displayPWCRegistrationForm or current URL.
- **6.1.4** Contractor represents that it has no existing interest and will not acquire any interest, direct or indirect, which could conflict in any manner or degree with the performance of Work required under this Contract and that no person having any such interest shall be employed by Contractor.

6.2 <u>Project Inspection Card(s)</u>

Contractor shall verify that forms DSA 152 (or the current version applicable at the time the Work is performed) are issued for the Project prior to the commencement of construction.

6.3 Contractor's Supervision

- **6.3.1** During progress of the Work, Contractor shall keep on the Premises, and at all other locations where any Work related to the Contract is being performed, an experienced and competent project manager and construction superintendent who are employees of the Contractor, to whom the District does not object and at least one of whom shall be fluent in English, written and verbal.
- **6.3.2** The project manager and construction superintendent shall both speak fluently the predominant language of the Contractor's employees.
- 6.3.3 Before commencing the Work herein, Contractor shall give written notice to District of the name of its project manager and construction superintendent. Neither the Contractor's project manager nor construction superintendent shall be changed except with prior written notice to District. If the Contractor's project manager and/or construction superintendent proves to be unsatisfactory to Contractor, or to District, any of the District's employees, agents, the Construction Manager, or the Architect, the unsatisfactory project manager and/or construction superintendent shall be replaced. However, Contractor shall notify District in writing before any change occurs, but no less than two (2) business days prior. Any replacement of the project manager and/or construction superintendent shall be made promptly and must be satisfactory to the District. The Contractor's project manager and construction superintendent shall each represent Contractor, and all directions given to Contractor's project manager and/or construction superintendent shall be as binding as if given to Contractor.
- **6.3.4** Contractor shall give efficient supervision to Work, using its best skill and attention. Contractor shall carefully study and compare all Contract Documents, Drawings, Specifications, and other instructions and shall at once report to District, Construction Manager, and Architect any error, inconsistency, or omission that Contractor or its employees and Subcontractors may discover, in writing, with a copy to District's Project Inspector(s). The Contractor shall have responsibility for discovery of errors, inconsistencies, or omissions.

6.4 <u>Duty to Provide Fit Workers</u>

- **6.4.1** Contractor and Subcontractor(s) shall at all times enforce strict discipline and good order among their employees and shall not employ or work any unfit person or anyone not skilled in work assigned to that person. It shall be the responsibility of Contractor to ensure compliance with this requirement. District may require Contractor to permanently remove unfit persons from Project Site.
- **6.4.2** Any person in the employ of Contractor or Subcontractor(s) whom District may deem incompetent or unfit shall be excluded from working on the Project and shall not again be employed on the Project except with the prior written consent of District.

- **6.4.3** The Contractor shall furnish labor that can work in harmony with all other elements of labor employed or to be employed in the Work.
- **6.4.4** If Contractor intends to make any change in the name or legal nature of the Contractor's entity, Contractor must first notify the District in writing prior to making any contemplated change. The District shall determine in writing if Contractor's intended change is permissible while performing this Contract.

6.5 Field Office

6.5.1 Contractor shall provide a temporary office on the Site for the District's use exclusively, during the term of the Contract.

6.6 Purchase of Materials and Equipment

The Contractor is required to order, obtain, and store materials and equipment sufficiently in advance of its Work at no additional cost or advance payment from District to assure that there will be no delays.

6.7 <u>Documents on Work</u>

6.7.1 Contractor shall at all times keep on the Site, or at another location as the District may authorize in writing, one legible copy of all Contract Documents, including Addenda and Change Orders, and Titles 19 and 24 of the California Code of Regulations, the specified edition(s) of the Uniform Building Code, all approved Drawings, Plans, Schedules, and Specifications, and all codes and documents referred to in the Specifications, and made part thereof. These documents shall be kept in good order and available to District, Construction Manager, Architect, Architect's representatives, the Project Inspector(s), and all authorities having jurisdiction. Contractor shall be acquainted with and comply with the provisions of these titles as they relate to this Project. (See particularly the duties of Contractor, Title 24, Part 1, California Code of Regulations, section 4-343.) Contractor shall also be acquainted with and comply with all California Code of Regulations provisions relating to conditions on this Project, particularly Titles 8 and 17. Contractor shall coordinate with Architect and Construction Manager and shall submit its verified report(s) according to the requirements of Title 24.

6.7.2 Daily Job Reports.

- **6.7.2.1** Contractor shall maintain, at a minimum, at least one (1) set of Daily Job Reports on the Project. These must be prepared by the Contractor's employee(s) who are present on Site, and must include, at a minimum, the following information:
 - **6.7.2.1.1** A brief description of all Work performed on that day.
 - **6.7.2.1.2** A summary of all other pertinent events and/or occurrences on that day.
 - **6.7.2.1.3** The weather conditions on that day.
 - **6.7.2.1.4** A list of all Subcontractor(s) working on that day, including DIR registration numbers.
 - **6.7.2.1.5** A list of each Contractor employee working on that day and the total hours worked for each employee.

- **6.7.2.1.6** A complete list of all equipment on Site that day, whether in use or not.
- **6.7.2.1.7** A complete list of all materials, supplies, and equipment delivered on that day.
- **6.7.2.1.8** A complete list of all inspections and tests performed on that day.
- **6.7.2.2** Each day Contractor shall provide a copy of the previous day's Daily Job Report to the District or the Construction Manager.

6.8 Preservation of Records

Contractor shall maintain, and District shall have the right to inspect, Contractor's financial records for the Project, including, without limitation, Job Cost Reports for the Project in compliance with the criteria set forth herein. The District shall have the right to examine and audit all Daily Job Reports or other Project records of Contractor's project manager(s), project superintendent(s), and/or project foreperson(s), all certified payroll records and/or related documents including, without limitation, Job Cost Reports, payroll, payment, timekeeping and tracking documents; all books, estimates, records, contracts, documents, bid documents, bid cost data, subcontract job cost reports, and other data of the Contractor, any Subcontractor, and/or supplier, including computations and projections related to bidding, negotiating, pricing, or performing the Work or Contract modification, in order to evaluate the accuracy, completeness, and currency of the cost, manpower, coordination, supervision, or pricing data at no additional cost to the District. These documents may be duplicative and/or be in addition to any Bid Documents held in escrow by the District. The Contractor shall make available at its office at all reasonable times the materials described in this paragraph for the examination, audit, or reproduction until three (3) years after final payment under this Contract. Notwithstanding the provisions above, Contractor shall provide any records requested by any governmental agency, if available, after the time set forth above.

6.9 Integration of Work

- **6.9.1** Contractor shall do all cutting, fitting, patching, and preparation of Work as required to make its several parts come together properly, to fit it to receive or be received by work of other contractors, and to coordinate tolerances to various pieces of work, showing upon, or reasonably implied by, the Drawings and Specifications for the completed structure, and shall conform them as District and/or Architect may direct.
- **6.9.2** Contractor shall make its own layout of lines and elevations and shall be responsible for the accuracy of both Contractor's and Subcontractors' work resulting therefrom.
- 6.9.3 Contractor and all Subcontractors shall take all field dimensions required in performance of the Work, and shall verify all dimensions and conditions on the Site. All dimensions affecting proper fabrication and installation of all Work must be verified prior to fabrication by taking field measurements of the true conditions. If there are any discrepancies between dimensions in drawings and existing conditions which will affect the Work, Contractor shall bring such discrepancies to the attention of the District and Architect for adjustment before proceeding with the Work. In doing so, it is recognized that Contractor is not acting in the capacity of a licensed design professional, and that Contractor's examination is made in good faith to

facilitate construction and does not create an affirmative responsibility of a design professional to detect errors, omissions or inconsistencies in the Contract Documents or to ascertain compliance with applicable laws, building codes or regulations. However, nothing in this provision shall abrogate Contractor's responsibilities for discovering and reporting any error, inconsistency, or omission pursuant to the Contract within the Contractor's standard of care including, without limitation, any applicable laws, ordinance, rules, or regulations. Following receipt of written notice from Contractor, the District and/or Architect shall inform Contractor what action, if any, Contractor shall take with regard to such discrepancies.

- **6.9.4** All costs caused by noncompliant, defective, or delayed Work shall be borne by Contractor, inclusive of repair work. Schedule delays resulting from unauthorized work shall be Contractor's responsibility.
- **6.9.5** Contractor shall not endanger any work performed by it or anyone else by cutting, excavating, or otherwise altering work and shall not cut or alter work of any other contractor except with consent of District.

6.10 Notifications

- **6.10.1** Contractor shall notify the Architect and Project Inspector, in writing, of the commencement of construction of each and every aspect of the Work at least 48 hours in advance by submitting form DSA 156 (or the most current version applicable at the time the Work is performed) to the Project Inspector. Forms are available on the DSA's website at: http://www.dgs.ca.gov/dsa/Forms.aspx.
- **6.10.2** Contractor shall notify the Architect and Project Inspector, in writing, of the completion of construction of each and every aspect of the Work at least 48 hours in advance by submitting form DSA 156 (or current version) to the Project Inspector.

6.11 Obtaining of Permits, Licenses and Registrations

Contractor shall secure and pay for all permits (except DSA), licenses, registrations, approvals and certificates necessary for prosecution of Work, including but not limited to those listed in the Special Conditions, if any, before the date of the commencement of the Work or before the permits, licenses, registrations, approvals and certificates are legally required to continue the Work without interruption. The Contractor shall obtain and pay, only when legally required, for all licenses, registrations, approvals, permits, inspections, and inspection certificates required to be obtained from or issued by any authority having jurisdiction over any part of the Work included in the Contract. All final permits, licenses, registrations, approvals and certificates shall be delivered to District before demand is made for final payment.

6.12 Royalties and Patents

6.12.1 Contractor shall obtain and pay, only when legally required, all royalties and license fees necessary for prosecution of Work before the earlier of the date of the commencement of the Work or the date that the license is legally required to continue the Work without interruption. Contractor shall defend suits or claims of infringement of patent, copyright, or other rights and shall hold the District, the Architect, and the Construction Manager harmless and indemnify them from loss on account thereof except when a particular design, process, or make or model of

product is required by the Contract Documents. However, if the Contractor has reason to believe that the required design, process, or product is an infringement of a patent or copyright, the Contractor shall indemnify and defend the District, Architect and Construction Manager against any loss or damage unless the Contractor promptly informs the District of its information.

6.12.2 The review by the District or Architect of any method of construction, invention, appliance, process, article, device, or material of any kind shall be only its adequacy for the Work and shall not approve use by the Contractor in violation of any patent or other rights of any person or entity.

6.13 Work to Comply With Applicable Laws and Regulations

- **6.13.1** Contractor shall give all notices and comply with the following specific laws, ordinances, rules, and regulations and all other applicable laws, ordinances, rules, and regulations bearing on conduct of Work as indicated and specified, including but not limited to the appropriate statutes and administrative code sections. If Contractor observes that Drawings and Specifications are at variance therewith, or should Contractor become aware of the development of conditions not covered by Contract Documents that may result in finished Work being at variance therewith, Contractor shall promptly notify District in writing and any changes deemed necessary by District shall be made as provided in Contract for changes in Work.
 - 6.13.1.1 National Electrical Safety Code, U. S. Department of Commerce
 - **6.13.1.2** National Board of Fire Underwriters' Regulations
 - **6.13.1.3** International Building Code, latest addition, and the California Code of Regulations, title 24, and other amendments
 - **6.13.1.4** Manual of Accident Prevention in Construction, latest edition, published by A.G.C. of America
 - **6.13.1.5** Industrial Accident Commission's Safety Orders, State of California
 - **6.13.1.6** Regulations of the State Fire Marshall (title 19, California Code of Regulations) and Pertinent Local Fire Safety Codes
 - **6.13.1.7** Americans with Disabilities Act
 - **6.13.1.8** Education Code of the State of California
 - **6.13.1.9** Government Code of the State of California
 - **6.13.1.10**Labor Code of the State of California, division 2, part 7, Public Works and Public Agencies
 - 6.13.1.11 Public Contract Code of the State of California
 - **6.13.1.12**California Art Preservation Act
 - **6.13.1.13**U. S. Copyright Act

6.13.1.14U. S. Visual Artists Rights Act

- **6.13.2** Contractor shall comply with all applicable mitigation measures, if any, adopted by any public agency with respect to this Project pursuant to the California Environmental Quality Act (Public Resources Code section 21000 et seq.).
- **6.13.3** If Contractor performs any Work that it knew, or through exercise of reasonable care should have known, to be contrary to any applicable laws, ordinance, rules, or regulations, Contractor shall bear all costs arising therefrom and arising from the correction of said Work.
- **6.13.4** Where Specifications or Drawings state that materials, processes, or procedures must be approved by the DSA, State Fire Marshall, or other body or agency, Contractor shall be responsible for satisfying requirements of such bodies or agencies applicable at the time the Work is performed, and as determined by those bodies or agencies.

6.14 Safety/Protection of Persons and Property

- **6.14.1** The Contractor will be solely and completely responsible for conditions of the Site, including safety of all persons and property during performance of the Work. This requirement will apply continuously and not be limited to normal working hours.
- **6.14.2** The wearing of hard hats will be mandatory at all times for all personnel on Site. Contractor shall supply sufficient hard hats to properly equip all employees and visitors.
- **6.14.3** Any construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures in, on, or near the Site.
- **6.14.4** Implementation and maintenance of safety programs shall be the sole responsibility of the Contractor.
- **6.14.5** The Contractor shall furnish to the District a copy of the Contractor's safety plan within the time frame indicated in the Contract Documents and specifically adapted for the Project.
- **6.14.6** Contractor shall be responsible for all damages to persons or property that occur as a result of its fault or negligence in connection with the prosecution of this Contract and shall take all necessary measures and be responsible for the proper care and completion and final acceptance by District. All Work shall be solely at Contractor's risk with the exception of damage to the Work caused by "acts of God" as defined in Public Contract Code section 7105.
- 6.14.7 Contractor shall take, and require Subcontractors to take, all necessary precautions for safety of workers on the Project and shall comply with all applicable federal, state, local, and other safety laws, standards, orders, rules, regulations, and building codes to prevent accidents or injury to persons on, about, or adjacent to premises where Work is being performed and to provide a safe and healthful place of employment. Contractor shall furnish, erect, and properly maintain at all times, all necessary safety devices, safeguards, construction canopies, signs, nets, 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.

- **6.14.8** Hazards Control Contractor shall store volatile wastes in covered metal containers and remove them from the Site daily. Contractor shall prevent accumulation of wastes that create hazardous conditions. Contractor shall provide adequate ventilation during use of volatile or noxious substances.
- **6.14.9** Contractor shall designate a responsible member of its organization on the Project, whose duty shall be to post information regarding protection and obligations of workers and other notices required under occupational safety and health laws, to comply with reporting and other occupational safety requirements, and to protect the life, safety, and health of workers. Name and position of person so designated shall be reported to District by Contractor.
- **6.14.10** Contractor shall correct any violations of safety laws, rules, orders, standards, or regulations. Upon the issuance of a citation or notice of violation by the Division of Occupational Safety and Health, Contractor shall correct such violation promptly.
- **6.14.11** Contractor shall comply with any District storm water requirements that are approved by the District and applicable to the Project, at no additional cost to the District.
- **6.14.12** In an emergency affecting safety of life or of work or of adjoining property, Contractor, without special instruction or authorization, shall act, at its discretion, to prevent such threatened loss or injury. Any compensation claimed by Contractor on account of emergency work shall be determined by agreement.
- **6.14.13** All salvage materials will become the property of the Contractor and shall be removed from the Site unless otherwise called for in the Contract Documents. However, the District reserves the right to designate certain items of value that shall be turned over to the District unless otherwise directed by District.
- **6.14.14** All connections to public utilities and/or existing on-site services shall be made and maintained in such a manner as to not interfere with the continuing use of same by the District during the entire progress of the Work.
- **6.14.15** 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, such as extreme heat, cold, rain, snow, dry winds, flooding, or dampness.
- **6.14.16** The Contractor shall protect and preserve the Work from all damage or accident, providing any temporary roofs, window and door coverings, boxings, or other construction as required by the Architect. The Contractor shall be responsible for existing structures, walks, roads, trees, landscaping, and/or improvements in working areas; and shall provide adequate protection therefore. If temporary removal is necessary of any of the above items, or damage occurs due to the Work, the Contractor shall replace same at his expense with same kind, quality, and size of Work or item damaged. This shall include any adjoining property of the District and others.

- **6.14.17** Contractor shall take adequate precautions to protect existing roads, sidewalks, curbs, pavements, utilities, adjoining property, and structures (including, without limitation, protection from settlement or loss of lateral support), and to avoid damage thereto, and repair any damage thereto caused by construction operations.
- **6.14.18** Contractor shall confine apparatus, the storage of materials, and the operations of workers to limits indicated by law, ordinances, permits, or directions of Architect, and shall not interfere with the Work or unreasonably encumber Premises or overload any structure with materials. Contractor shall enforce all instructions of District and Architect regarding signs, advertising, fires, and smoking, and require that all workers comply with all regulations while on Project Site.
- **6.14.19** Contractor, Contractor's employees, Subcontractors, Subcontractors' employees, or any person associated with the Work shall conduct themselves in a manner appropriate for a school site. No verbal or physical contact with neighbors, students, and faculty, profanity, or inappropriate attire or behavior will be permitted. District may require Contractor to permanently remove non-complying persons from Project Site.
- **6.14.20** Contractor shall take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed, Contractor shall have a civil engineer, registered as a professional engineer in California, replace them at no cost to District.
- **6.14.21** In the event that the Contractor enters into any agreement with owners of any adjacent property to enter upon the adjacent property for the purpose of performing the Work, Contractor shall fully indemnify, defend, and hold harmless each person, entity, firm, or agency that owns or has any interest in adjacent property. The form and content of the agreement of indemnification shall be approved by the District prior to the commencement of any Work on or about the adjacent property. The Contractor shall also indemnify the District as provided in the indemnification provision herein. These provisions shall be in addition to any other requirements of the owners of the adjacent property.

6.15 Working Evenings and Weekends

Contractor may be required to work increased hours, evenings, and/or weekends at no additional cost to the District. Contractor shall give the District seventy-two (72) hours' notice prior to performing any evening and/or weekend work. Contractor shall perform all evening and/or weekend work only upon District's approval and in compliance with all applicable rules, regulations, laws, and local ordinances including, without limitation, all noise and light limitations. Contractor shall reimburse the District for any increased or additional Inspector charges as a result of Contractor's increased hours, or evening and/or weekend work.

6.16 Cleaning Up

6.16.1 The Contractor shall provide all services, labor, materials, and equipment necessary for protecting and securing the Work, all school occupants, furnishings, equipment, and building structure from damage until its completion and final acceptance by District. Dust barriers shall be provided to isolate dust and dirt from construction operations. At completion of the Work and portions thereof, Contractor shall clean to the original state any areas beyond the Work area that become dust

laden as a result of the Work. The Contractor must erect the necessary warning signs and barricades to ensure the safety of all school occupants. The Contractor at all times must maintain good housekeeping practices to reduce the risk of fire damage and must make a fire extinguisher, fire blanket, and/or fire watch, as applicable, available at each location where cutting, braising, soldering, and/or welding is being performed or where there is an increased risk of fire.

- **6.16.2** Contractor at all times shall keep Premises, including property immediately adjacent thereto, free from debris such as waste, rubbish (including personal rubbish of workers, e.g., food wrappers, etc.), and excess materials and equipment caused by the Work. Contractor shall not leave debris under, in, or about the Premises (or surrounding property or neighborhood), but shall promptly remove same from the Premises on a daily basis. If Contractor fails to clean up, District may do so and the cost thereof shall be charged to Contractor. If Contract is for work on an existing facility, Contractor shall also perform specific clean-up on or about the Premises upon request by the District as it deems necessary for continued operations. Contractor shall comply with all related provisions of the Specifications.
- **6.16.3** If the Construction Manager, Architect, or District observes the accumulation of trash and debris, the District will give the Contractor a 24-hour written notice to mitigate the condition.
- **6.16.4** Should the Contractor fail to perform the required clean-up, or should the clean-up be deemed unsatisfactory by the District, the District may, at its sole discretion, then perform the clean-up. All cost associated with the clean-up work (including all travel, payroll burden, and costs for supervision) will be deducted from the Contract Price.

6.17 No Relief from Obligations Based on Review by Other Persons

6.17.1 Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents by act or omission of the District, Architect, Construction Manager, Project Inspector, or DSA or other entities having jurisdiction including, but not limited to, administration of the Contract, review of submittals, or by tests, observation, inspection, or permit/interconnection approvals.

7. <u>SUBCONTRACTORS</u>

- **7.1** Contractor shall provide the District with information for all Subcontracts as indicated in the Contractor's Submittals and Schedules Section herein.
- **7.2** No contractual relationship exists between the District and any Subcontractor, supplier, or sub-subcontractor by reason of this Contract.
- 7.3 Contractor agrees to bind every Subcontractor by terms of this Contract as far as those terms that are applicable to Subcontractor's work including, without limitation, all labor, wage & hour, apprentice and related provisions and requirements. If Contractor shall subcontract any part of this Contract, Contractor shall be as fully responsible to District for acts and omissions of any Subcontractor and of persons either directly or indirectly employed by any Subcontractor, including Subcontractor caused Project delays, as it is for acts and omissions of persons directly employed by Contractor. The divisions or sections of the Specifications and/or the arrangement of

the drawings are not intended to control the Contractor in dividing the Work among Subcontractors or limit the work performed by any trade.

- **7.4** District's consent to, or approval of, or failure to object to, any Subcontractor under this Contract shall not in any way relieve Contractor of any obligations under this Contract and no such consent shall be deemed to waive any provisions of this Contract.
- 7.5 Contractor is directed to familiarize itself with sections 4100 through 4114 of the Public Contract Code of the State of California, as regards subletting and subcontracting, and to comply with all applicable requirements therein. In addition, Contractor is directed to familiarize itself with sections 1720 through 1861 of the Labor Code of the State of California, as regards the payment of prevailing wages and related issues, and to comply with all applicable requirements therein including, without limitation, section 1775 and the Contractor's and Subcontractors' obligations and liability for violations of prevailing wage law and other applicable laws.
- **7.6** No Contractor whose Bid is accepted shall, without consent of the awarding authority and in full compliance with section 4100 et seq. of the Public Contract Code, including, without limitation, sections 4107, 4107.5, and 4109 of the Public Contract Code, and section 1771.1 of the Labor Code, either:
 - **7.6.1** Substitute any person as a Subcontractor in place of the Subcontractor designated in the original Bid; or
 - **7.6.2** Permit any Subcontract to be assigned or transferred, or allow any portion of the Work to be performed by anyone other than the original Subcontractor listed in the Bid; or
 - **7.6.3** Sublet or subcontract any portion of the Work in excess of one-half of one percent (0.5%) of the Contractor's total bid as to which his original bid did not designate a Subcontractor.
- **7.7** The Contractor shall be responsible for the coordination of the trades, Subcontractors, sub-subcontractors, and material or equipment suppliers working on the Project.
 - **7.7.1** If the Contract is valued at \$1 million or more and uses, or plans to use, state bond funds, then Contractor is responsible for ensuring that first tier Subcontractors holding C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43, and/or C-46 licenses are prequalified by the District to work on the Project pursuant to Public Contract Code section 20111.6.
 - **7.7.2** Contractor is responsible for ensuring that all Subcontractors are properly registered as public works contractors by the Department of Industrial Relations.
- **7.8** Contractor is solely responsible for settling any differences between the Contractor and its Subcontractor(s) or between Subcontractors.
- **7.9** Contractor must include in all of its subcontracts the assignment provisions as indicated in the Termination section of these General Conditions.

8. OTHER CONTRACTS/CONTRACTORS

- **8.1** District reserves the right to let other contracts, and/or to perform work with its own forces, in connection with the Project. Contractor shall afford other contractors reasonable opportunity for introduction and storage of their materials and execution of their work and shall properly coordinate and connect Contractor's Work with the work of other contractors.
- **8.2** In addition to Contractor's obligation to protect its own Work, Contractor shall protect the work of any other contractor that Contractor encounters while working on the Project.
- 8.3 If any part of Contractor's Work depends for proper execution or results upon work of District or any other contractor, the Contractor shall inspect and, before proceeding with its Work, promptly report to the District in writing any defects in District's or any other contractor's work that render Contractor's Work unsuitable for proper execution and results. Contractor shall be held accountable for damages to District for District's or any other contractor's work that Contractor failed to inspect or should have inspected. Contractor's failure to inspect and report shall constitute Contractor's acceptance of all District's or any other contractor's work as fit and proper for reception of Contractor's Work, except as to defects that may develop in District's or any other contractor's work after execution of Contractor's Work and not caused by execution of Contractor's Work.
- 8.4 To ensure proper execution of its subsequent work, Contractor shall measure and inspect work already in place and shall at once report to the District in writing any discrepancy between that executed work and the Contract Documents.
- 8.5 Contractor shall ascertain to its own satisfaction the scope of the Project and nature of District's or any other contracts that have been or may be awarded by District in prosecution of the Project to the end that Contractor may perform this Contract in light of the other contracts, if any.
- **8.6** Nothing herein contained shall be interpreted as granting to Contractor exclusive occupancy of the Site, the Premises, or of the Project. Contractor shall not cause any unnecessary hindrance or delay to the use and/or operation(s) of the Premises and/or to District or any other contractor working on the Project. If simultaneous execution of any contract or Premises operation is likely to cause interference with performance of Contractor's Contract, Contractor shall coordinate with those contractor(s), person(s), and/or entity(s) and shall notify the District of the resolution.

9. DRAWINGS AND SPECIFICATIONS

- **9.1** A complete list of all Drawings that form a part of the Contract is to be found as an index on the Drawings themselves, and/or may be provided to the Contractor and/or in the Table of Contents.
- **9.2** Materials or Work described in words that so applied have a well-known technical or trade meaning shall be deemed to refer to recognized standards, unless noted otherwise.

- **9.3 Trade Name or Trade Term.** It is not the intention of this Contract to go into detailed descriptions of any materials and/or methods commonly known to the trade under "trade name" or "trade term." The mere mention or notation of "trade name" or "trade term" shall be considered a sufficient notice to Contractor that it will be required to complete the work so named, complete, finished, and operable, with all its appurtenances, according to the best practices of the trade.
- **9.4** The naming of any material and/or equipment shall mean furnishing and installing of same, including all incidental and accessory items thereto and/or labor therefor, as per best practices of the trade(s) involved, unless specifically noted otherwise.
- 9.5 Contract Documents are complementary, and what is called for by one shall be binding as if called for by all. As such, Drawings and Specifications are intended to be fully cooperative and to agree. However, if Contractor observes that Drawings and Specifications are in conflict with the Contract Documents, Contractor shall promptly notify District and Architect in writing, and any necessary changes shall be made as provided in the Contract Documents.
- 9.6 In the case of discrepancy or ambiguity in the Contract Documents, the order of precedence in the Agreement shall prevail. However, in the case of discrepancy or ambiguity solely between and among the Drawings and Specifications, the discrepancy or ambiguity shall be resolved in favor of the interpretation that will provide District with the functionally complete and operable Project described in the Drawings and Specifications. In case of ambiguity, conflict, or lack of information, District will furnish clarifications with reasonable promptness.
- 9.7 Drawings and Specifications are intended to comply with all laws, ordinances, rules, and regulations of constituted authorities having jurisdiction, and where referred to in the Contract Documents, the laws, ordinances, rules, and regulations shall be considered as a part of the Contract within the limits specified. Contractor shall bear all expense of correcting work done contrary to said laws, ordinances, rules, and regulations.
- **9.8** As required by Section 4-317(c), Part 1, Title 24, CCR: "Should any existing conditions such as deterioration or non-complying construction be discovered which is not covered by the DSA-approved documents wherein the finished work will not comply with Title 24, California Code of Regulations, a construction change document, or a separate set of plans and specifications, detailing and specifying the required repair work shall be submitted to and approved by DSA before proceeding with the repair work."

9.9 Ownership of Drawings

All copies of Plans, Drawings, Designs, Specifications, and copies of other incidental architectural and engineering work, or copies of other Contract Documents furnished by District, are the property of District. They are not to be used by Contractor in other work and, with the exception of signed sets of Contract Documents, are to be returned to District on request at completion of Work, or may be used by District as it may require without any additional costs to District. Neither the Contractor nor any Subcontractor, or material or equipment supplier shall own or claim a copyright in the Drawings, Specifications, and other documents prepared by the Architect. District hereby grants the Contractor, Subcontractors, sub-subcontractors, and material or

equipment suppliers a limited license to use applicable portions of the Drawings prepared for the Project in the execution of their Work under the Contract Documents.

10. CONTRACTOR'S SUBMITTALS AND SCHEDULES

Contractor's submittals shall comply with the provisions and requirements of the Specifications including, without limitation Submittals.

10.1 Schedule of Work, Schedule of Submittals, and Schedule of Values

- **10.1.1** Within **TEN (10)** calendar days after the date of the Notice to Proceed (unless otherwise specified in the Specifications), the Contractor shall prepare and submit to the District for review, in a form supported by sufficient data to substantiate its accuracy as the District may require:
 - **10.1.1.1** Preliminary Schedule. A preliminary schedule of construction indicating the starting and completion dates of the various stages of the Work, including any information and following any form as may be specified in the Specifications. Once approved by District, this shall become the Construction Schedule. This schedule shall include and identify all tasks that are on the Project's critical path with a specific determination of the start and completion of each critical path task as well as all Contract milestones and each milestone's completion date(s) as may be required by the District.
 - **10.1.1.1** The District is not required to approve a preliminary schedule of construction with early completion, i.e., one that shows early completion dates for the Work and/or milestones. Contractor shall not be entitled to extra compensation if the District approves a Construction Schedule with an early completion date and Contractor completes the Project beyond the date shown in the schedule but within the Contract Time. A Construction Schedule showing the Work completed in less than the Contract Time, the time between the early completion date and the end of the Contract Time shall be Float.
 - **10.1.1.2** Preliminary Schedule of Values. A preliminary schedule of values for all of the Work, which must include quantities and prices of items aggregating the Contract Price and must subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Unless the Special Conditions contain different limits, this preliminary schedule of values shall include, at a minimum, the following information and the following structure:
 - **10.1.1.2.1** Divided into at least the following categories:

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10.1.1.2.1.1
                Overhead and profit;
10.1.1.2.1.2
                Supervision;
10.1.1.2.1.3
                General conditions:
10.1.1.2.1.4
                Layout:
10.1.1.2.1.5
                Mobilization;
                Submittals:
10.1.1.2.1.6
10.1.1.2.1.7
                Bonds and insurance:
10.1.1.2.1.8
                Close-out/Certification documentation;
10.1.1.2.1.9
                Demolition;
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10.1.1.2.1.10 Installation;
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- **10.1.1.2.1.11** Rough-in;
- **10.1.1.2.1.12** Finishes:
- **10.1.1.2.1.13** Testing;
- **10.1.1.2.1.14** Punchlist and District acceptance.
- **10.1.1.2.2** And also divided by each of the following areas:
 - **10.1.1.2.2.1** Site work;
 - **10.1.1.2.2.2** By each building;
 - **10.1.1.2.2.3** By each floor.
- **10.1.1.2.3** The preliminary schedule of values shall not provide for values any greater than the following percentages of the Contract value:
 - **10.1.1.2.3.1** Mobilization and layout combined to equal not more than 1%.
 - **10.1.1.2.3.2** Submittals, samples and shop drawings combined to equal not more than 3%;
 - **10.1.1.2.3.3** Bonds and insurance combined to equal not more than 2%.
 - **10.1.1.2.3.4** Closeout documentation shall have a value in the preliminary schedule of not less than 5%.
- **10.1.1.2.4** Notwithstanding any provision of the Contract Documents to the contrary, payment of the Contractor's overhead, supervision, general conditions costs, and profit, as reflected in the Cost Breakdown, shall be paid based on percentage complete, with the disbursement of Progress Payments and the Final Payment.
- **10.1.1.2.5** Contractor shall certify that the preliminary schedule of values as submitted to the District is accurate and reflects the costs as developed in preparing Contractor's bid. For example, without limiting the foregoing, Contractor shall not "front-load" the preliminary schedule of values with dollar amounts greater than the value of activities performed early in the Project.
- **10.1.1.2.6** The preliminary schedule of values shall be subject to the District's review and approval of the form and content thereof. In the event that the District objects to any portion of the preliminary schedule of values, the District shall notify the Contractor, in writing, of the District's objection(s) to the preliminary schedule of values. Within five (5) calendar days of the date of the District's written objection(s), Contractor shall submit a revised preliminary schedule of values to the District for review and approval. The foregoing procedure for the preparation, review and approval of the preliminary schedule of values shall continue until the District has approved the entirety of the preliminary schedule of values.
- **10.1.1.2.7** Once the preliminary schedule of values is approved by the District, this shall become the Schedule of Values. The Schedule of Values shall not be thereafter modified or amended by the Contractor without the prior consent and approval of the District, which may be granted or withheld in the sole discretion of the District.

- **10.1.1.3** Preliminary Schedule of Submittals. A preliminary schedule of submittals, including Shop Drawings, Product Data, and Samples submittals. Once approved by District, this shall become the Submittal Schedule. All submittals shall be forwarded to the District by the date indicated on the approved Submittal Schedule, unless an earlier date is necessary to maintain the Construction Schedule, in which case those submittals shall be forwarded to the District so as not to delay the Construction Schedule. Upon request by the District, Contractor shall provide an electronic copy of all submittals to the District. All submittals shall be submitted no later than 90 days after the Notice to Proceed.
- **10.1.1.4** <u>Safety Plan.</u> Contractor's Safety Plan specifically adapted for the Project. Contractor's Safety Plan shall comply with the following requirements:
 - **10.1.1.4.1** All applicable requirements of California Division of Occupational Safety and Health ("CalOSHA") and/or of the United States Occupational Safety and Health Administration ("OSHA").
 - **10.1.1.4.2** All provisions regarding Project safety, including all applicable provisions in these General Conditions.
 - **10.1.1.4.3** Contractor's Safety Plan shall be in English and in the language(s) of the Contractor's and its Subcontractors' employees.
- **10.1.1.5** <u>Complete Registered Subcontractors List.</u> The name, address, telephone number, facsimile number, California State Contractors License number, classification, DIR registration number and monetary value of all Subcontracts of any tier for parties furnishing labor, material, or equipment for completion of the Project.
- **10.1.2** Contractor must provide all schedules both in hard copy and electronically, in a format (e.g., Microsoft Project or Primavera) approved in advance by the District.
- **10.1.3** The District will review the schedules submitted and the Contractor shall make changes and corrections in the schedules as requested by the District and resubmit the schedules until approved by the District.
- **10.1.4** The District shall have the right at any time to revise the schedule of values if, in the District's sole opinion, the schedule of values does not accurately reflect the value of the Work performed.
- **10.1.5** All schedules must be approved by the District before Contractor can rely on them as a basis for payment.

10.2 <u>Monthly Progress Schedule(s)</u>

10.2.1 Contractor shall provide Monthly Progress Schedule(s) to the District. A Monthly Progress Schedule shall update the approved Construction Schedule or the last Monthly Progress Schedule, showing all work completed and to be completed as well as updating the Registered Subcontractors List. The monthly Progress Schedule shall be sent within the timeframe requested by the District and shall be in a format acceptable to the District and contain a written narrative of the progress of work that

month and any changes, delays, or events that may affect the work. The process for District approval of the Monthly Progress Schedule shall be the same as the process for approval of the Construction Schedule.

- **10.2.2** Contractor shall submit Monthly Progress Schedule(s) with all payment applications.
- **10.2.3** Contractor must provide all schedules both in hard copy and electronically, in a format (e.g., Microsoft Project or Primavera) approved in advance by the District.
- **10.2.4** The District will review the schedules submitted and the Contractor shall make changes and corrections in the schedules as requested by the District and resubmit the schedules until approved by the District.
- **10.2.5** The District shall have the right at any time to revise the schedule of values if, in the District's sole opinion, the schedule of values does not accurately reflect the value of the Work performed.
- **10.2.6** All schedules must be approved by the District before Contractor can rely on them as a basis for payment.

10.3 <u>Material Safety Data Sheets (MSDS)</u>

Contractor is required to ensure Material Safety Data Sheets are available in a readily accessible place at the Site for any material requiring a Material Safety Data Sheet per the federal "Hazard Communication" standard, or employees' "right to know" law. The Contractor is also required to ensure proper labeling on substances brought onto the job site and that any person working with the material or within the general area of the material is informed of the hazards of the substance and follows proper handling and protection procedures. Two additional copies of the Material Safety Data Sheets shall also be submitted directly to the District.

10.4 <u>Submittals</u>

10.4.1 Architect's favorable review shall neither be construed as a complete check nor relieve the Contractor, Subcontractor, manufacturer, fabricator, or supplier from responsibility for any deficiency that may exist or from any departures or deviations from the requirements of the Contract Documents unless the Contractor has, in writing, called Architect's attention to the deviations at the time of submission and the Architect has given specific written response. "Favorable review" shall mean merely that Architect has no objection to Contractor using, upon Contractor's own full responsibility, plan or method of Work proposed, or furnishing materials or equipment proposed.

11. SITE ACCESS, CONDITIONS, AND REQUIREMENTS

11.1 <u>Site Investigation</u>

Before bidding on this Work, Contractor shall make a careful investigation of the Site and thoroughly familiarize itself with the requirements of the Contract. By the act of submitting a bid for the Work included in this Contract, Contractor shall be deemed to

have made a complete study and investigation, and to be familiar with and accepted the existing conditions of the Site.

Prior to commencing the Work, Contractor and the District's representative shall survey the Site to document the condition of the Site. Contractor will record the survey in digital videotape format and provide an electronic copy to the District within fourteen (14) days of the survey. This electronic record shall serve as a basis for determining any damages caused by the Contractor during the Project. The Contractor may also document any pre-existing conditions in writing, provided that both the Contractor and the District's representative agree on said conditions and sign a memorandum documenting the same.

11.2 <u>Soils Investigation Report</u>

- 11.2.1 When a soils investigation report obtained from test holes at Site or for the Project is available, that report may be available to the Contractor but shall not be a part of this Contract and shall not alleviate or excuse the Contractor's obligation to perform its own investigation. Any information obtained from that 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, does not form a part of this Contract, and Contractor may not rely thereon. By submitting its bid, Contractor acknowledges that it has made visual examination of Site and has made whatever tests Contractor deems appropriate to determine underground condition of soil. Although any such report is not a part of this Contract, recommendations from the report may be included in the Drawings, Specifications, or other Contract Documents. It is Contractor's sole responsibility to thoroughly review all Contract Documents, Drawings, and Specifications.
- 11.2.2 Contractor agrees that no claim against District will be made by Contractor for damages and hereby waives any rights to damages if, during progress of Work, Contractor encounters subsurface or latent conditions at Site materially differing from those shown on Drawings or indicated in Specifications, or for unknown conditions of an unusual nature that differ materially from those ordinarily encountered in the work of the character provided for in Plans and Specifications, except as indicated in the provisions of these General Conditions regarding trenches, trenching, and/or existing utility lines.

11.3 Access to Work

District and its representatives shall at all times have access to Work wherever it is in preparation or progress, including storage and fabrication. Contractor shall provide safe and proper facilities for such access so that District's representatives may perform their functions.

11.4 Layout and Field Engineering

11.4.1 All field engineering required for layout of this Work and establishing grades for earthwork operations shall be furnished by Contractor at its expense. This Work shall be done by a qualified, California-registered civil engineer approved in writing by District and Architect. Any required Record and/or As-Built Drawings of Site development shall be prepared by the approved civil engineer.

- 11.4.2 The Contractor shall be responsible for having ascertained pertinent local conditions such as location, accessibility, and general character of the Site and for having satisfied itself as to the conditions under which the Work is to be performed. Contractor shall follow best practices, including but not limited to potholing to avoid utilities. District shall not be liable for any claim for allowances because of Contractor's error, failure to follow best practices, or negligence in acquainting itself with the conditions at the Site.
- **11.4.3** Contractor shall protect and preserve established benchmarks and monuments and shall make no changes in locations without the prior written approval of District. Contractor shall replace any benchmarks or monuments that are lost or destroyed subsequent to proper notification of District and with District's approval.

11.5 <u>Utilities</u>

Utilities shall be provided as indicated in the Specifications.

11.6 <u>Sanitary Facilities</u>

Sanitary facilities shall be provided as indicated in the Specifications.

11.7 <u>Surveys</u>

Contractor shall provide surveys done by a California-licensed civil engineer surveyor to determine locations of construction, grading, and site work as required to perform the Work.

11.8 Regional Notification Center

The Contractor, except in an emergency, shall contact the appropriate regional notification center at least two (2) days prior to commencing any excavation if the excavation will be conducted in an area or in a private easement that is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the District, and obtain an inquiry identification number from that notification center. No excavation shall be commenced and/or carried out by the Contractor unless an inquiry identification number has been assigned to the Contractor or any Subcontractor and the Contractor has given the District the identification number. Any damages arising from Contractor's failure to make appropriate notification shall be at the sole risk and expense of the Contractor. Any delays caused by failure to make appropriate notification shall be at the sole risk of the Contractor and shall not be considered for an extension of the Contract Time.

11.9 <u>Existing Utility Lines</u>

11.9.1 Pursuant to Government Code section 4215, District assumes the responsibility for removal, relocation, and protection of main or trunk utility lines and facilities located on the construction Site at the time of commencement of construction under this Contract with respect to any such utility facilities that are not identified in the Plans and Specifications. Contractor shall not be assessed for liquidated damages for delay in completion of the Project caused by failure of District or the owner of a utility to provide for removal or relocation of such utility facilities.

- 11.9.2 Locations of existing utilities provided by District shall not be considered exact, but approximate within a reasonable margin and shall not relieve Contractor of responsibilities to exercise reasonable care or costs of repair due to Contractor's failure to do so. District shall compensate Contractor for the costs of locating, repairing damage not due to the failure of 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 necessarily idle during such work.
- 11.9.3 No provision herein shall be construed to preclude assessment against Contractor for any other delays in completion of the Work. Nothing in this Article shall be deemed to require District to indicate the presence of existing service laterals, appurtenances, or other utility lines, within the exception of main or trunk utility lines or whenever the presence of these utilities on the Site of the construction Project can be inferred from the presence of other visible facilities, such as buildings, meter junction boxes, on or adjacent to the Site of the construction.
- **11.9.4** If Contractor, while performing Work under this Contract, discovers utility facilities not identified by District in Contract Plans and Specifications, Contractor shall immediately notify the District and the utility in writing. The cost of repair for damage to above-mentioned visible facilities without prior written notification to the District shall be borne by the Contractor.

11.10 Notification

Contractor understands, acknowledges and agrees that the purpose for prompt notification to the District pursuant to these provisions is to allow the District to investigate the condition(s) so that the District shall have the opportunity to decide how the District desires to proceed as a result of the condition(s). Accordingly, failure of Contractor to promptly notify the District in writing, pursuant to these provisions, shall constitute Contractor's waiver of any claim for damages or delay incurred as a result of the condition(s).

11.11 <u>Hazardous Materials</u>

Contractor shall comply with all provisions and requirements of the Contract Documents related to hazardous materials including, without limitation, Hazardous Materials Procedures and Requirements.

11.12 No Signs

Neither the Contractor nor any other person or entity shall display any signs not required by law or the Contract Documents at the Site, fences trailers, offices, or elsewhere on the Site without specific prior written approval of the District.

12. TRENCHES

12.1 <u>Trenches Greater Than Five Feet</u>

Pursuant to Labor Code section 6705, if the Contract Price exceeds \$25,000 and involves the excavation of any trench or trenches five (5) feet or more in depth, the Contractor shall, in advance of excavation, promptly submit to the District and/or a registered civil or structural engineer employed by the District or Architect, a detailed plan, stamped by

a licensed engineer retained by the Contractor, showing the design of shoring for protection from the hazard of caving ground during the excavation of such trench or trenches.

12.2 <u>Excavation Safety</u>

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, but in no case shall such plan be less effective than that required by the Construction Safety Orders. No excavation of such trench or trenches shall be commenced until said plan has been accepted by the District or by the person to whom authority to accept has been delegated by the District.

12.3 <u>No Tort Liability of District</u>

Pursuant to Labor Code section 6705, nothing in this Article shall impose tort liability upon the District or any of its employees.

12.4 <u>No Excavation without Permits</u>

The Contractor shall not commence any excavation Work until it has secured all necessary permits including the required CalOSHA excavation/shoring permit. Any permits shall be prominently displayed on the Site prior to the commencement of any excavation.

12.5 Discovery of Hazardous Waste and/or Unusual Conditions

- **12.5.1** Pursuant to Public Contract Code section 7104, if the Work involves digging trenches or other excavations that extend deeper than four feet below the Surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the District, in writing, of any:
 - **12.5.1.1** Material that the Contractor believes may be material that is hazardous waste, as defined in section 25117 of the Health and Safety Code, is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.
 - **12.5.1.2** Subsurface or latent physical conditions at the Site differing from those indicated.
 - **12.5.1.3** 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.
- **12.5.2** 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, shall issue a Change Order under the procedures described herein.
- **12.5.3** In the event that a dispute arises between 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 the Contract, but shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by Contract or by law that pertain to the resolution of disputes and protests.

13. INSURANCE AND BONDS

13.1 <u>Insurance</u>

Unless different provisions and/or limits are indicated in the Special Conditions, all insurance required of Contractor and/or its Subcontractor(s) shall be at least as broad as the amounts and include the provisions set forth herein.

13.1.1 Commercial General Liability and Automobile Liability Insurance

- **13.1.1.1** Contractor shall procure and maintain, during the life of this Contract, Commercial General Liability Insurance and Automobile Liability Insurance that shall protect Contractor, District, State, Construction Manager(s), Project Inspector(s), and Architect(s) from all claims for bodily injury, property damage, personal injury, death, advertising injury, and medical payments arising from, or in connection with, operations under this Contract. This coverage shall be provided in a form at least as broad as Insurance Services (ISO) Form CG 0001 11188. Contractor shall ensure that Products Liability and Completed Operations coverage, Fire Damage Liability coverage, and Automobile Liability Insurance coverage including owned, non-owned, and hired automobiles, are included within the above policies and at the required limits, or Contractor shall procure and maintain these coverages separately.
- **13.1.1.2** Contractor's deductible or self-insured retention for its Commercial General Liability Insurance policy shall not exceed \$25,000 unless approved in writing by District.
- **13.1.1.3** All such policies shall be written on an occurrence form.

13.1.2 Excess Liability Insurance

- **13.1.2.1** If Contractor's underlying policy limits are less than required, subject to the District's sole discretion, Contractor may procure and maintain, during the life of this Contract, an Excess Liability Insurance Policy to meet the policy limit requirements of the required policies in order to satisfy, in the aggregate with its underlying policy, the insurance requirements herein..
- **13.1.2.2** There shall be no gap between the per occurrence amount of any underlying policy and the start of the coverage under the Excess Liability Insurance Policy. Any Excess Liability Insurance Policy shall be written on a following form and shall protect Contractor, District, State, Construction Manager(s), Project Manager(s), and Architect(s) in amounts and including the provisions as set forth in the Supplementary Conditions (if any) and/or Special Conditions, and that complies with all requirements for Commercial General Liability and Automobile Liability and Employers' Liability Insurance.

- **13.1.2.3** The District, in its sole discretion, may accept the Excess Liability Insurance Policy that brings Contractor's primary limits to the minimum requirements herein.
- **13.1.3** <u>Subcontractor(s):</u> Contractor shall require its Subcontractor(s), if any, to procure and maintain Commercial General Liability Insurance, Automobile Liability Insurance, and Excess Liability Insurance (if Subcontractor elects to satisfy, in part the insurance required herein by procuring and maintaining an Excess Liability Insurance Policy) with forms of coverage and limits equal to the amounts required of the Contractor.

13.1.4 Workers' Compensation and Employers' Liability Insurance

- **13.1.4.1** In accordance with provisions of section 3700 of the California Labor Code, the Contractor and every Subcontractor shall be required to secure the payment of compensation to its employees.
- 13.1.4.2 Contractor shall procure and maintain, during the life of this Contract, Workers' Compensation Insurance and Employers' Liability Insurance for all of its employees engaged in work under this Contract, on/or at the Site of the Project. This coverage shall cover, at a minimum, medical and surgical treatment, disability benefits, rehabilitation therapy, and survivors' death benefits. Contractor shall require its Subcontractor(s), if any, to procure and maintain Workers' Compensation Insurance and Employers' Liability Insurance for all employees of Subcontractor(s). Any class of employee or employees not covered by a Subcontractor's insurance shall be covered by Contractor's insurance. If any class of employee or employee engaged in Work under this Contract, on or at the Site of the Project, is not protected under the Workers' Compensation Insurance, Contractor shall provide, or shall cause a Subcontractor to provide, adequate insurance coverage for the protection of any employee(s) not otherwise protected before any of those employee(s) commence work.

13.1.5 Builder's Risk Insurance: Builder's Risk "All Risk" Insurance

Contractor shall procure and maintain, during the life of this Contract, Builder's Risk (Course of Construction), or similar first party property coverage acceptable to the District, issued on a replacement cost value basis. The cost shall be consistent with the total replacement cost of all insurable Work of the Project included within the Contract Documents. Coverage is to insure against all risks of accidental physical loss and shall include without limitation the perils of vandalism and/or malicious mischief (both without any limitation regarding vacancy or occupancy), sprinkler leakage, civil authority, theft, sonic disturbance, earthquake, flood, collapse, wind, rain, dust, fire, war, terrorism, lightning, smoke, and rioting. Coverage shall include debris removal, demolition, increased costs due to enforcement of all applicable ordinances and/or laws in the repair and replacement of damaged and undamaged portions of the property, and reasonable costs for the Architect's and engineering services and expenses required as a result of any insured loss upon the Work and Project, including completed Work and Work in progress, to the full insurable value thereof.

13.1.6 Pollution Liability Insurance

- **13.1.6.1** Contractor shall procure and maintain Pollution Liability Insurance that shall protect Contractor, District, State, Construction Manager(s), Project Inspector(s), and Architect(s) from all claims for bodily injury, property damage, including natural resource damage, cleanup costs, removal, storage, disposal, and/or use of the pollutant arising from operations under this Contract, and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims. Coverage shall apply to sudden and/or gradual pollution conditions resulting from the escape or release of smoke, vapors, fumes, acids, alkalis, toxic chemicals, liquids, or gases, natural gas, waste materials, or other irritants, contaminants, or pollutants, including asbestos. This coverage shall be provided in a form at least as broad as Insurance Services Offices, Inc. (ISO) Form CG 2415, or Contractor shall procure and maintain these coverages separately.
- **13.1.6.2** Contractor warrants that any retroactive date applicable to coverage under the policy shall predate the effective date of the Contract and that continuous coverage will be maintained or an extended reporting or discovery period will be exercised for a period of three (3) years, beginning from the time that the Work under the Contract is completed.
- **13.1.6.3** If Contractor is responsible for removing any pollutants from a site, then Contractor shall ensure that Any Auto, including owned, non-owned, and hired, is included within the above policies and at the required limits, to cover its automobile exposure from transporting the pollutants from the site to an approved disposal site. This coverage shall include the Motor Carrier Act Endorsement, MCS 90.

13.1.7 <u>Proof of Insurance and Other Requirements: Endorsements and Certificates</u>

- **13.1.7.1** Contractor shall not commence Work nor shall it allow any Subcontractor to commence Work under this Contract, until Contractor and its Subcontractor(s) have procured all required insurance and Contractor has delivered in duplicate to the District complete endorsements (or entire insurance policies) and certificates indicating the required coverages have been obtained, and the District has approved these documents.
- **13.1.7.2** Endorsements, certificates, and insurance policies shall include the following:
 - **13.1.7.2.1** A clause stating the following, or other language acceptable to the District:
 - "This policy shall not be canceled until written notice to District, Architect, and Construction Manager stating date of the cancellation by the insurance carrier. Date of cancellation may not be less than thirty (30) days after date of mailing notice."
 - **13.1.7.2.2** Language stating in particular those insured, extent of insurance, location and operation to which insurance applies, expiration date, to whom cancellation and reduction notice will be sent, and length of notice period.

- **13.1.7.2.3** All endorsements, certificates and insurance policies shall state that District, its trustees, employees and agents, the State of California, Construction Manager(s), Project Manager(s), Inspector(s) and Architect(s) are named additional insureds under all policies except Workers' Compensation Insurance and Employers' Liability Insurance.
- **13.1.7.2.4** All endorsements shall waive any right to subrogation against any of the named additional insureds.
- **13.1.7.2.5** Contractor's and Subcontractors' insurance policy(s) shall be primary and non-contributory to any insurance or self-insurance maintained by District, its trustees, employees and/or agents, the State of California, Construction Manager(s), Project Manager(s), Inspector(s), and/or Architect(s).
- **13.1.7.2.6** Contractor's insurance limit shall apply separately to each insured against whom a claim is made or suit is brought.
- **13.1.7.3** No policy shall be amended, canceled or modified, and the coverage amounts shall not be reduced, until Contractor or Contractor's broker has provided written notice to District, Architect(s), and Construction Manager(s) stating date of the amendment, modification, cancellation or reduction, and a description of the change. Date of amendment, modification, cancellation or reduction may not be less than thirty (30) days after date of mailing notice.
- **13.1.7.4** Insurance written on a "claims made" basis shall be retroactive to a date that coincides with or precedes Contractor's commencement of Work, including subsequent policies purchased as renewals or replacements. Said policy is to be renewed by the Contractor and all Subcontractors for a period of five (5) years following completion of the Work or termination of this Agreement. Such insurance must have the same coverage and limits as the policy that was in effect during the term of this Agreement, and will cover the Contractor and all Subcontractors for all claims made.
- **13.1.7.5** Unless otherwise stated in the Special Conditions, all of Contractor's insurance shall be with insurance companies with an A.M. Best rating of no less than $\underline{A: VII}$.
- **13.1.7.6** The insurance requirements set forth herein shall in no way limit the Contractor's liability arising out of or relating to the performance of the Work or related activities.
- **13.1.7.7** Failure of Contractor and/or its Subcontractor(s) to comply with the insurance requirements herein shall be deemed a material breach of the Contract.

13.1.8 <u>Insurance Policy Limits</u>

13.1.8.1 Unless different limits are indicated in the Special Conditions, the limits of insurance shall not be less than the following amounts:

Commercial General Liability	Product Liability and Completed Operations, Fire Damage Liability – Split Limit	\$2,000,000 per occurrence; \$4,000,000 aggregate
Automobile Liability	Any Auto – Combined Single Limit	\$1,000,000
Workers' Compensation		Statutory limits pursuant to State law
Employers' Liability		\$1,000,000
Builder's Risk (Course of Construction)		Issued for the value and scope of Work indicated herein.
Pollution Liability		\$1,000,000 per claim; \$2,000,000 aggregate

13.1.8.2 If Contractor normally carries insurance in an amount greater than the minimum amounts required by District, that greater amount shall become the minimum required amount of insurance for purposes of the Contract. Therefore, Contractor hereby acknowledges and agrees that all insurance carried by it shall be deemed liability coverage for all actions it performs in connection with the Contract.

13.2 <u>Contract Security - Bonds</u>

- **13.2.1** Contractor shall furnish two surety bonds issued by a California admitted surety insurer as follows:
 - **13.2.1.1** Performance Bond: A bond in an amount at least equal to one hundred percent (100%) of Contract Price as security for faithful performance of this Contract.
 - **13.2.1.2** Payment Bond: A bond in an amount at least equal to one hundred percent (100%) of the Contract Price as security for payment of persons performing labor and/or furnishing materials in connection with this Contract.
- **13.2.2** Cost of bonds shall be included in the Bid and Contract Price.
- **13.2.3** All bonds related to this Project shall be in the forms set forth in these Contract Documents and shall comply with all requirements of the Contract Documents, including, without limitation, the bond forms.

14. WARRANTY/GUARANTEE/INDEMNITY

14.1 <u>Warranty/Guarantee</u>

- **14.1.1** The Contractor shall obtain and preserve for the benefit of the District, manufacturer's warranties on materials, fixtures, and equipment incorporated into the Work.
- **14.1.2** In addition to guarantees required elsewhere, Contractor shall, and hereby does guarantee and warrant all Work furnished on the job against all defects for a period of **ONE (1)** year after the later of the following dates, unless a longer period is provided for in the Contract Documents:
 - **14.1.2.1** The acceptance by the District's governing board of the Work, subject to these General Conditions, or
 - **14.1.2.2** The date that commissioning for the Project, if any, was completed.

At the District's sole option, Contractor shall repair or replace any and all of that Work, together with any other Work that may be displaced in so doing, that may prove defective in workmanship and/or materials within a **ONE (1)** year period from date of completion as defined above, unless a longer period is provided for in the Contract Documents, without expense whatsoever to District. In the event of failure of Contractor and/or Surety to commence and pursue with diligence said replacements or repairs within ten (10) days after being notified in writing, Contractor and Surety hereby acknowledge and agree that District is authorized to proceed to have defects repaired and made good at expense of Contractor and/or Surety who hereby agree to pay costs and charges therefore immediately on demand.

- **14.1.3** If, in the opinion of District, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to District or to prevent interruption of District operations, District will attempt to give the notice required above. If Contractor or Surety cannot be contacted or neither complies with District's request for correction within a reasonable time as determined by District, District may, notwithstanding the above provision, proceed to make any and all corrections and/or provide attentions the District believes are necessary. The costs of correction or attention shall be charged against Contractor and Surety of the guarantees provided in this Article or elsewhere in this Contract.
- **14.1.4** The above provisions do not in any way limit the guarantees 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 to District all appropriate guarantee or warranty certificates as indicated in the Specifications or upon request by District.
- **14.1.5** Nothing herein shall limit any other rights or remedies available to District.

14.2 Indemnity and Defense

14.2.1 To the furthest extent permitted by California law, the Contractor shall indemnify, keep and hold harmless the District, the Architect(s), and the Construction Manager(s), their respective consultants, separate contractors, board

members, officers, representatives, agents, and employees, in both individual and official capacities ("Indemnitees"), against all suits, claims, injury, damages, losses, and expenses ("Claims"), including but not limited to attorney's fees, caused by, arising out of, resulting from, or incidental to, in whole or in part, the performance of the Work under this Contract by the Contractor, its Subcontractors, vendors, or suppliers. However, the Contractor's indemnification and hold harmless obligation shall be reduced by the proportion of the Indemnitees' and/or Architect's liability to the extent the Claim(s) is/are caused by the sole negligence, active negligence, or willful misconduct of the Indemnitees, and/or defects in design furnished by the Architect, as found by a court or arbitrator of competent jurisdiction. This indemnification and hold harmless obligation of the Contractor shall not be construed to negate, abridge, or otherwise reduce any right or obligation of indemnity that would otherwise exist or arise as to any Indemnitee or other person described herein. This indemnification and hold harmless obligation includes, but is not limited to, any failure or alleged failure by Contractor to comply with any provision of law, any failure or alleged failure to timely and properly fulfill all of its obligations under the Contract Documents in strict accordance with their terms, and without limitation, any failure or alleged failure of Contractor's obligations regarding any stop payment notice actions or liens, including Civil Wage and Penalty Assessments and/or Orders by the DIR.

- 14.2.2 To the furthest extent permitted by California law, Contractor shall also defend Indemnitees, at its own expense, including but not limited to attorneys' fees and costs, against all Claims caused by, arising out of, resulting from, or incidental to, in whole or in part, the performance of the Work under this Contract by the Contractor, its Subcontractors, vendors, or suppliers. However, without impacting Contractor's obligation to provide an immediate and ongoing defense of Indemnitees, the Contractor's defense obligation shall be retroactively reduced by the proportion of the Indemnitees' and/or Architect's liability to the extent caused by the sole negligence, active negligence, or willful misconduct of the Indemnitees, and/or defects in design furnished by the Architect, as found by a court or arbitrator of competent jurisdiction. The District shall have the right to accept or reject any legal representation that Contractor proposes to defend the Indemnitees. If any Indemnitee provides its own defense due to failure to timely respond to tender of defense, rejection of tender of defense, or conflict of interest of proposed counsel, Contractor shall reimburse such Indemnitee for any expenditures. Contractor's defense obligation shall not be construed to negate, abridge, or otherwise reduce any right or obligation of defense that would otherwise exist as to any Indemnitee or other person described herein. Contractor's defense obligation includes, but is not limited to, any failure or alleged failure by Contractor to comply with any provision of law, any failure or alleged failure to timely and properly fulfill all of its obligations under the Contract Documents in strict accordance with their terms, and without limitation, any failure or alleged failure of Contractor's obligations regarding any stop payment notice actions or liens, including Civil Wage and Penalty Assessments and/or Orders by the DIR. The Contractor shall give prompt notice to the District in the event of any Claim(s).
- **14.2.3** Without limitation of the provisions herein, if the Contractor's obligation to indemnify and hold harmless the Indemnitees or its obligation to defend Indemnitees as provided herein shall be determined to be void or unenforceable, in whole or in part, it is the intention of the parties that these circumstances shall not otherwise affect the validity or enforceability of the Contractor's agreement to indemnify, defend, and hold harmless the rest of the Indemnitees, as provided herein. Further,

the Contractor shall be and remain fully liable on its agreements and obligations herein to the fullest extent permitted by law.

- **14.2.4** Pursuant to Public Contract Code section 9201, the District shall provide timely notification to Contractor of the receipt of any third-party Claim relating to this Contract. The District shall be entitled to recover its reasonable costs incurred in providing said notification.
- 14.2.5 In any and all Claims against any of the Indemnitees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the Contractor's indemnification obligation herein shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- 14.2.6 The District may retain so much of the moneys due the Contractor as shall be considered necessary, until disposition of any such Claims or until the District, Architect(s) and Construction Manager(s) have received written agreement from the Contractor that they will unconditionally defend the District, Architect(s) and Construction Manager(s), their respective officers, agents and employees, and pay any damages due by reason of settlement or judgment.
- **14.2.7** The Contractor's defense and indemnification obligations hereunder shall survive the completion of Work, the warranty/guarantee period, and the termination of the Contract.

15. <u>TIME</u>

15.1 Notice to Proceed

- **15.1.1** District may issue a Notice to Proceed within ninety (90) days from the date of the Notice of Award. Once Contractor has received the Notice to Proceed, Contractor shall complete the Work within the period of time indicated in the Contract Documents.
- **15.1.2** In the event that the District desires to postpone issuing the Notice to Proceed beyond ninety (90) days from the date of the Notice of Award, it is expressly understood that with reasonable notice to the Contractor, the District may postpone issuing the Notice to Proceed. It is further expressly understood by Contractor that Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of the issuance of the Notice to Proceed.
- 15.1.3 If the Contractor believes that a postponement of issuance of the Notice to Proceed will cause a hardship to Contractor, Contractor may terminate the Contract. Contractor's termination due to a postponement shall be by written notice to District within ten (10) days after receipt by Contractor of District's notice of postponement. It is further understood by Contractor that in the event that Contractor terminates the Contract as a result of postponement by the District, the District shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement. Should Contractor terminate the Contract as a result of a notice of postponement, District shall have the authority to award the Contract to the next lowest responsive responsible bidder.

15.2 <u>Computation of Time / Adverse Weather</u>

- **15.2.1** The Contractor will only be allowed a time extension for Adverse Weather conditions if requested by Contractor in compliance with the time extension request procedures and only if all of the following conditions are met:
 - **15.2.1.1** The weather conditions constitute Adverse Weather, as defined herein;
 - **15.2.1.2** Contractor can verify that the Adverse Weather caused delays in excess of five (5) hours of the indicated labor required to complete the scheduled tasks of Work on the day affected by the Adverse Weather;
 - **15.2.1.3** The Contractor's crew is dismissed as a result of the Adverse Weather;
 - **15.2.1.4** Said delay adversely affects the critical path in the Construction Schedule; and
 - **15.2.1.5** Exceeds twelve (12) days of delay per year.
- **15.2.2** If the aforementioned conditions are met, a non-compensable day-for-day extension will only be allowed for those days in excess of those indicated herein.
- **15.2.3** The Contractor shall work seven (7) days per week, if necessary, irrespective of inclement weather, to maintain access and the Construction Schedule, and to protect the Work under construction from the effects of Adverse Weather, all at no further cost to the District.
- **15.2.4** The Contract Time has been determined with consideration given to the average climate weather conditions prevailing in the County in which the Project is located.

15.3 Hours of Work

15.3.1 Sufficient Forces

Contractor and Subcontractors shall continuously furnish sufficient and competent work forces with the required levels of familiarity with the Project and skill, training and experience to ensure the prosecution of the Work in accordance with the Construction Schedule.

15.3.2 <u>Performance During Working Hours</u>

Work shall be performed during regular working hours as permitted by the appropriate governmental agency except that in the event of an emergency, or when required to complete the Work in accordance with job progress, Work may be performed outside of regular working hours with the advance written consent of the District and approval of any required governmental agencies.

15.3.3 No Work during State Testing

Contractor shall, at no additional cost to the District and at the District's request, coordinate its Work to not disturb District students including, without limitation, not performing any Work when students at the Site are taking State or Federally-

required tests. The District or District's Representative will provide Contractor with a schedule of test dates concurrent with the District's issuance of the Notice to Proceed, or as soon as test dates are made available to the District.

15.4 Progress and Completion

15.4.1 Time of the Essence

Time limits stated in the Contract Documents are of the essence to the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

15.4.2 No Commencement Without Insurance or Bonds

The Contractor shall not commence operations on the Project or elsewhere prior to the effective date of insurance and bonds. The date of commencement of the Work shall not be changed by the effective date of such insurance or bonds. If Contractor commences Work without insurance and bonds, all Work is performed at Contractor's peril and shall not be compensable until and unless Contractor secures bonds and insurance pursuant to the terms of the Contract Documents and subject to District claim for damages.

15.5 <u>Schedule</u>

Contractor shall provide to District, Construction Manager, and Architect a schedule in conformance with the Contract Documents and as required in the Notice to Proceed and the Contractor's Submittals and Schedules section of these General Conditions.

15.6 Expeditious Completion

The Contractor shall proceed expeditiously with adequate forces and shall achieve Completion within the Contract Time.

16. EXTENSIONS OF TIME – LIQUIDATED DAMAGES

16.1 <u>Liquidated Damages</u>

Contractor and District hereby agree that the exact amount of damages for failure to complete the Work within the time specified is extremely difficult or impossible to determine. If the Work is not completed within the time specified in the Contract Documents, it is understood that the District will suffer damage. It being impractical and unfeasible to determine the amount of actual damage, it is agreed the Contractor shall pay to District as fixed and liquidated damages, and not as a penalty, the amount set forth in the Agreement for each calendar day of delay in completion. Contractor and its Surety shall be liable for the amount thereof pursuant to Government Code section 53069.85.

16.2 Excusable Delay

16.2.1 Contractor shall not be charged for liquidated damages because of any delays in completion of Work which are not the fault of Contractor or its Subcontractors, including acts of God as defined in Public Contract Code section 7105, acts of enemy, epidemics, and guarantine restrictions. Contractor shall, within

- five (5) calendar days of beginning of any delay, notify District in writing of causes of delay including documentation and facts explaining the delay and the direct correlation between the cause and effect. District shall review the facts and extent of any delay and shall grant extension(s) of time for completing Work when, in its judgment, the findings of fact justify an extension. Extension(s) of time shall apply only to that portion of Work affected by delay, and shall not apply to other portions of Work not so affected. An extension of time may only be granted if Contractor has timely submitted the Construction Schedule as required herein.
- **16.2.2** Contractor shall notify the District pursuant to the claims provisions in these General Conditions of any anticipated delay and its cause. Following submission of a claim, the District may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent the prosecution and completion of the Work might be delayed thereby.
- 16.2.3 In the event the Contractor requests an extension of Contract Time for unavoidable delay, such request shall be submitted in accordance with the provisions in the Contract Documents governing changes in Work. When requesting time, requests must be submitted with full justification and documentation. If the Contractor fails to submit justification, it waives its right to a time extension at a later date. Such justification must be based on the official Construction Schedule as updated at the time of occurrence of the delay or execution of Work related to any changes to the Scope of Work. Any claim for delay must include the following information as support, without limitation:
 - **16.2.3.1** The duration of the activity relating to the changes in the Work and the resources (manpower, equipment, material, etc.) required to perform the activities within the stated duration.
 - **16.2.3.2** Specific logical ties to the Contract Schedule for the proposed changes and/or delay showing the activity/activities in the Construction Schedule that are affected by the change and/or delay. In particular, Contractor must show an actual impact to the schedule, after making a good faith effort to mitigate the delay by rescheduling the work, by providing an analysis of the schedule ("Time Impact Analysis"). Such Time Impact Analysis shall describe in detail the cause and effect of the delay and the impact on the critical dates in the Project schedule. (A portion of any delay of seven (7) days or more must be provided.)
 - **16.2.3.3** A recovery schedule must be submitted within twenty (20) calendar days of written notification to the District of causes of delay.

16.3 No Additional Compensation for Delays Within Contractor's Control

16.3.1 Contractor is aware that governmental agencies, including, without limitation, the Division of the State Architect, the Department of General Services, gas companies, electrical utility companies, water districts, and other agencies may have to approve Contractor-prepared drawings or approve a proposed installation. Accordingly, Contractor shall include in its bid, time for possible review of its drawings and for reasonable delays and damages that may be caused by such agencies. Thus, Contractor is not entitled to make a claim for damages or delays arising from the review of Contractor's drawings.

- **16.3.2** Contractor shall only be entitled to compensation for delay when all of the following conditions are met:
 - **16.3.2.1** The District is responsible for the delay;
 - **16.3.2.2** The delay is unreasonable under the circumstances involved;
 - **16.3.2.3** The delay was not within the contemplation of the District and Contractor;
 - **16.3.2.4** The delay could not have been avoided or mitigated by Contractor's reasonable diligence; and
 - **16.3.2.5** Contractor timely complies with the claims procedure of the Contract Documents.
- **16.3.3** Where a change in the Work extends the Contract Time, Contractor may request and recover additional, actual direct costs, provided that Contractor can demonstrate such additional costs are:
 - **16.3.3.1** Actually incurred performing the Work;
 - **16.3.3.2** Not compensated by the Markup allowed; and
 - **16.3.3.3** Directly result from the extended Contract Time.

Contractor shall comply with all required procedures, documentation and time requirements in the Contract Documents. Contractor may not seek or recover such costs using formulas (e.g. Eichleay, labor factors).

16.4 Float or Slack in the Schedule

Float or slack is the amount of time between the early start date and the late start date, or the early finish date and the late finish date, of any of the activities in the schedule. Float or slack is not for the exclusive use of or benefit of either the District or the Contractor, but its use shall be determined solely by the District.

17. CHANGES IN THE WORK

17.1 No Changes Without Authorization

17.1.1 There shall be no change whatsoever in the Drawings, Specifications, or in the Work without an executed Change Order or a written Construction Change Directive authorized by the District as herein provided. District shall not be liable for the cost of any extra work or any substitutions, changes, additions, omissions, or deviations from the Drawings and Specifications unless the District's governing board has authorized the same and the cost thereof has been approved in writing by Change Order or Construction Change Directive in advance of the changed Work being performed. No extension of time for performance of the Work shall be allowed hereunder unless claim for such extension is made at the time changes in the Work are ordered, and such time duly adjusted and approved in writing in the Change Order or Construction Change Directive. Contractor shall be responsible for any costs incurred by the District for professional services and DSA fees and/or delay to

the Project Schedule, if any, for DSA to review any request for changes to the DSA approved plans and specifications for the convenience of the Contractor and/or to accommodate the Contractor's means and methods. The provisions of the Contract Documents shall apply to all such changes, additions, and omissions with the same effect as if originally embodied in the Drawings and Specifications.

- **17.1.2** Contractor shall perform immediately all work that has been authorized by a fully executed Change Order or Construction Change Directive. Contractor shall be fully responsible for any and all delays and/or expenses caused by Contractor's failure to expeditiously perform this Work.
- 17.1.3 Should any Change Order result in an increase in the Contract Price or extend the Contract Time, the cost of or length of extension in that Change Order shall be agreed to, in writing, by the District in advance of the Work by Contractor, and shall be subject to the monetary limitations set forth in Public Contract Code section 20118.4. In the event that Contractor proceeds with any change in Work without a Change Order executed by the District or Construction Change Directive, Contractor waives any claim of additional compensation or time for that additional work. Under no circumstances shall Contractor be entitled to any claim of additional compensation or time not expressly requested by Contractor in a Proposed Change Order or approved by District in an executed Change Order.
- **17.1.4** A Change Order or Construction Change Directive will become effective when approved by the Board, notwithstanding that Contractor has not signed it. A Change Order or Construction Change Directive will become effective without Contractor's signature provided District indicates it as a "Unilateral Change Order". Any dispute as to the adjustment in the Contract Price or Contract Time, if any, of the Unilateral Change Order shall be resolved pursuant to the Payment and Claims and Disputes provisions herein.
- **17.1.5** Contractor understands, acknowledges, and agrees that the reason for District authorization is so that District may have an opportunity to analyze the Work and decide whether the District shall proceed with the Change Order or alter the Project so that a change in Work becomes unnecessary.

17.2 Architect Authority

The Architect will have authority to order minor changes in the Work not involving any adjustment in the Contract Price, or an extension of the Contract Time, or a change that is inconsistent with the intent of the Contract Documents. These changes shall be effected by written Change Order, Construction Change Directive, by Architect's response(s) to RFI(s), or by Architect's Supplemental Instructions ("ASI").

17.3 Change Orders

- **17.3.1** A Change Order is a written instrument prepared and issued by the District and/or the Architect and signed by the District (as authorized by the District's Governing Board), the Contractor, the Architect, and approved by the Project Inspector (if necessary) and DSA (if necessary), stating their agreement regarding all of the following:
 - **17.3.1.1** A description of a change in the Work;

- 17.3.1.2 The amount of the adjustment in the Contract Price, if any; and
- **17.3.1.3** The extent of the adjustment in the Contract Time, if any.

17.4 <u>Construction Change Directives</u>

- 17.4.1 A Construction Change Directive is a written order prepared and issued by the District, the Construction Manager, and/or the Architect and signed by the District and the Architect, directing a change in the Work. The District may, as provided by law, by Construction Change Directive and without invalidating the Contract, order changes in the Work consisting of additions, deletions, or other revisions. The adjustment to the Contract Price or Time, if any, is subject to the provisions of this section regarding Changes in the Work. If all or a portion of the Project is being funded by funds requiring approval by the State Allocation Board ("SAB"), these revisions may be subject to compensation once approval of same is received and funded by the SAB, and funds are released by the Office of Public School Construction ("OPSC"). Any dispute as to the adjustment in the Contract Price, if any, of the Construction Change Directive or timing of payment shall be resolved pursuant to the Payment and Claims and Disputes provisions herein.
- **17.4.2** The District may issue a Construction Change Directive in the absence of agreement on the terms of a Change Order.

17.5 Force Account Directives

- **17.5.1** When work, for which a definite price has not been agreed upon in advance, is to be paid for on a force account basis, all direct costs necessarily incurred and paid by the Contractor for labor, material, and equipment used in the performance of that Work, shall be subject to the approval of the District and compensation will be determined as set forth herein.
- **17.5.2** The District will issue a Force Account Directive to proceed with the Work on a force account basis, and a not-to-exceed budget will be established by the District.
- **17.5.3** All requirements regarding direct cost for labor, labor burden, material, equipment, and markups on direct costs for overhead and profit described in this section shall apply to Force Account Directives. However, the District will only pay for actual costs verified in the field by the District or its authorized representative(s) on a daily basis.
- **17.5.4** The Contractor shall be responsible for all cost related to the administration of Force Account Directive. The markup for overhead and profit for Contractor modifications shall be full compensation to the Contractor to administer Force Account Directive, and Contractor shall not be entitled to separately recover additional amounts for overhead and/or profit.
- 17.5.5 The Contractor shall notify the District or its authorized representative(s) at least twenty-four (24) hours prior to proceeding with any of the force account work. Furthermore, the Contractor shall notify the District when it has consumed eighty percent (80%) of the budget, and shall not exceed the budget unless specifically authorized in writing by the District. The Contractor will not be compensated for force account work in the event that the Contractor fails to timely

notify the District regarding the commencement of force account work, or exceeding the force account budget.

- 17.5.6 The Contractor shall diligently proceed with the work, and on a daily basis, submit a daily force account report on a form supplied by the District no later than 5:00 p.m. each day. The report shall contain a detailed itemization of the daily labor, material, and equipment used on the force account work only. The names of the individuals performing the force account work shall be included on the daily force account reports. The type and model of equipment shall be identified and listed. The District will review the information contained in the reports, and sign the reports no later than the next work day, and return a copy of the report to the Contractor for their records. The District will not sign, nor will the Contractor receive compensation for work the District cannot verify. The Contractor will provide a weekly force account summary indicating the status of each Force Account Directive in terms of percent complete of the not-to-exceed budget and the estimated percent complete of the work.
- **17.5.7** In the event the Contractor and the District reach a written agreement on a set cost for the work while the work is proceeding based on a Force Account Directive, the Contractor's signed daily force account reports shall be discontinued and all previously signed reports shall be invalid.

17.6 Price Request

17.6.1 <u>Definition of Price Request</u>

A Price Request is a written request prepared by the Architect requesting the Contractor to submit to the District and the Architect an estimate of the effect of a proposed change in the Work on the Contract Price and the Contract Time.

17.6.2 Scope of Price Request

A Price Request shall contain adequate information, including any necessary Drawings and Specifications, to enable Contractor to provide the cost breakdowns required herein. The Contractor shall not be entitled to any additional compensation for preparing a response to a Price Request, whether ultimately accepted or not.

17.7 <u>Proposed Change Order</u>

17.7.1 Definition of Proposed Change Order

A Proposed Change Order ("PCO") is a written request prepared by the Contractor requesting that the District and the Architect issue a Change Order based upon a proposed change to the Work.

17.7.2 Changes in Contract Price

A PCO shall include breakdowns and backup documentation pursuant to the revisions herein and sufficient, in the District's judgment, to validate any change in Contract

Price. In no case shall Contractor or any of its Subcontractors be permitted to reserve rights for additional compensation for Change Order Work.

17.7.3 Changes in Time

A PCO shall also include any changes in time required to complete the Project. Any additional time requested shall not be the number of days to make the proposed change, but must be based upon the impact to the Construction Schedule as defined in the Contract Documents. The Contractor shall justify the proposed change in time by submittal of a schedule analysis that accurately shows the impact of the change on the critical path of the Construction Schedule ("Time Impact Analysis"). If Contractor fails to request a time extension in a PCO, including the Time Impact Analysis, then the Contractor is thereafter precluded from requesting, and waives any right to request, additional time and/or claim a delay. In no case shall Contractor or any of its Subcontractors be permitted to reserve rights for additional time for Change Order Work. A PCO that leaves the amount of time requested blank, or states that such time requested is "to be determined", is not permitted and shall also constitute a waiver of any right to request additional time and/or claim a delay.

17.7.4 <u>Unknown and/or Unforeseen Conditions</u>

If there is an Allowance, then Contractor must submit a Request for Allowance Expenditure Directive, including supporting documentation as described below, to receive authorization for the release of funds from the Allowance. Allowance Expenditure Directives shall be based on Contractor's costs, without overhead and profit, for products, delivery, installation, labor, insurance, payroll, taxes, bonding and equipment rental will be included in Allowance Expenditure Directive authorizing expenditure of funds from this Allowance. No overhead and profit shall be added to the Allowance Expenditure Directive. If cost of the unforeseen condition(s) exceed the Allowance, Contractor must submit a PCO for amounts in excess of the Allowance requesting an increase in Contract Price and/or Contract Time that is based at least partially on Contractor's assertion that Contractor has encountered unknown and/or unforeseen condition(s) on the Project, then Contractor shall base the PCO on provable information that, beyond a reasonable doubt and to the District's satisfaction, demonstrates that the unknown and/or unforeseen condition(s) were actually unknown and/or unforeseen and that the condition(s) were reasonably unknown and/or unforeseen. If not, the District shall deny the PCO as unsubstantiated, and the Contractor shall complete the Project without any increase in Contract Price and/or Contract Time based on that PCO.

17.7.5 <u>Time to Submit Proposed Change Order</u>

Contractor shall submit its PCO within five (5) working days of the date Contractor discovers, or reasonably should have discovered, the circumstances giving rise to the PCO, unless additional time to submit a PCO is granted in writing by the District. Time is of the essence in Contractor's submission of PCOs so that the District can promptly investigate the basis for the PCO. Accordingly, if Contractor fails to submit its PCO within this timeframe, Contractor waives, releases, and discharges any right

to assert or claim any entitlement to an adjustment of the Contract Price and/or Time based on circumstances giving rise to the PCO.

17.7.6 Proposed Change Order Certification

In submitting a PCO, Contractor certifies and affirms that the cost and/or time request is submitted in good faith, that the cost and/or time request is accurate and in accordance with the provisions of the Contract Documents, and the Contractor submits the cost and/or request for extension of time recognizing the significant civil penalties and treble damages which follow from making a false claim or presenting a false claim under Government Code section 12650 et seq.

It is expressly understood that the value of the extra Work or changes expressly includes any and all of the Contractor's costs and expenses, direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project including, without limitation, cumulative impacts. Contractor is not entitled to separately recover amounts for overhead or other indirect costs. Any costs, expenses, damages, or time extensions not included are deemed waived.

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17.8 Format for Proposed Change Order

17.8.1 The following format shall be used as applicable by the District and the Contractor (e.g. Change Orders, PCO's) to communicate proposed additions and deductions to the Contract, supported by attached documentation. Any spaces left blank will be deemed no change to cost or time.

	WORK PERFORMED OTHER THAN BY CONTRACTOR	ADD	<u>DEDUCT</u>
(a)	Material (attach suppliers' invoice or itemized quantity		
	and unit cost plus sales tax)		
(b)	Add Labor (attach itemized hours and rates, fully		
	Burdened, and specify the hourly rate for each additional		
	labor burden, for example, payroll taxes, fringe benefits,		
	etc.)		
(c)	Add Equipment (attach suppliers' invoice)		
(d)	<u>Subtotal</u>		
(e)	Add Overhead and Profit for any and all tiers of		
	<u>Subcontractor</u> , the total not to exceed ten percent		
	(10%) of Item (d)		
(f)	<u>Subtotal</u>		
(g)	Add General Conditions Cost (if Time is Compensable)		
	(attach supporting documentation)		
(h)	<u>Subtotal</u>		
(i)	Add Overhead and Profit for Contractor, not to		
	exceed five percent (5%) of Item (h)		
(j)	<u>Subtotal</u>		
(k)	Add Bond and Insurance, not to exceed two percent		
	(2%) of Item (j)		
(I)	<u>TOTAL</u>		
(m)	<u>Time</u> (zero unless indicated; "TBD" not permitted)	Calendar Days	

	WORK PERFORMED BY CONTRACTOR	<u>ADD</u>	<u>DEDUCT</u>
(a)	Material (attach itemized quantity and unit cost plus		
	sales tax)		
(b)	Add Labor (attach itemized hours and rates, fully		
	Burdened, and specify the hourly rate for each additional		
	labor burden, for example, payroll taxes, fringe benefits,		
	etc.)		
(c)	Add Equipment (attach suppliers' invoice)		
(d)	Add General Conditions Cost (if Time is Compensable)		
	(attach supporting documentation)		
(e)	<u>Subtotal</u>		
(f)	Add Overhead and Profit for Contractor, not to		
	exceed fifteen percent (15%) of Item (e)		
(g)	<u>Subtotal</u>		
(h)	Add Bond and Insurance, not to exceed two percent		
	(2%) of Item (g)		
(i)	TOTAL		
(j)	<u>Time</u> (zero unless indicated; "TBD" not permitted)	Calendar Days	

- 17.8.2 Labor. Contractor shall be compensated for the costs of labor actually and directly utilized in the performance of the Work. Such labor costs shall be the actual cost, use of any formulas (e.g. labor factors) is not allowed, not to exceed prevailing wage rates in the locality of the Site and shall be in the labor classification(s) necessary for the performance of the Work, fully Burdened. Labor costs shall exclude costs incurred by the Contractor in preparing estimate(s) of the costs of the change in the Work, in the maintenance of records relating to the costs of the change in the Work, coordination and assembly of materials and information relating to the change in the Work or performance thereof, or the supervision and other overhead and general conditions costs associated with the change in the Work or performance thereof, including but not limited to the cost for the job superintendent. If applicable, District will pay Contractor the reasonable costs for room and board, supported with appropriate backup documentation, without markup for profit or overhead as provided by U.S. General Services Administration per diem rates for California lodging, meals and incidentals, https://www.gsa.gov/travel/planbook/per-diem-rates/per-diem-rates-lookup.
- 17.8.3 Materials. Contractor shall be compensated for the costs of materials necessarily and actually used or consumed in connection with the performance of the change in the Work. Costs of materials may include reasonable costs of transportation from a source closest to the Site of the Work and delivery to the Site. If discounts by material suppliers are available for materials necessarily used in the performance of the change in the Work, they shall be credited to the District. If materials necessarily used in the performance of the change in the Work are obtained from a supplier or source owned in whole or in part by the Contractor, compensation therefor shall not exceed the current wholesale price for such materials. If, in the reasonable opinion of the District, the costs asserted by the Contractor for materials in connection with any change in the Work are excessive, or if the Contractor fails to provide satisfactory evidence of the actual costs of such materials from its supplier or vendor of the same, the costs of such materials and the District's obligation to pay for the same shall be limited to the then lowest wholesale price at which similar materials are available in the quantities required to perform the change in the Work. The District may elect to furnish materials for the change in the Work, in which event the Contractor shall not be compensated for the costs of furnishing such materials or any mark-up thereon.
- **Equipment**. As a precondition to the District's duty to pay for Equipment 17.8.4 rental or loading and transportation, Contractor shall provide satisfactory evidence of the actual costs of Equipment from the supplier, vendor or rental agency of same. Contractor shall be compensated for the actual cost of the necessary and direct use of Equipment in the performance of the change in the Work. Use of such Equipment in the performance of the change in the Work shall be compensated in increments of fifteen (15) minutes. Rental time for Equipment moved by its own power shall include time required to move such Equipment to the site of the Work from the nearest available rental source of the same. If Equipment is not moved to the Site by its own power, Contractor will be compensated for the loading and transportation costs in lieu of rental time. The foregoing notwithstanding, neither moving time or loading and transportation time shall be allowed if the Equipment is used for performance of any portion of the Work other than the change in the Work. Unless prior approval in writing is obtained by the Contractor from the Architect, the Project Inspector and the District, no costs or compensation shall be allowed for time while Construction Equipment is inoperative, idle or on standby, for any reason. Contractor shall not be entitled to an allowance or any other compensation for

Equipment or tools used in the performance of change in the Work where such Equipment or tools have a replacement value of \$500.00 or less. Equipment costs claimed by the Contractor in connection with the performance of any Work shall not exceed rental rates established by distributors or construction equipment rental agencies in the locality of the Site; any costs asserted which exceed such rental rates shall not be allowed or paid. Unless otherwise specifically approved in writing by the Architect, the Project Inspector and the District, the allowable rate for the use of Equipment in connection with the Work shall constitute full compensation to the Contractor for the cost of rental, fuel, power, oil, lubrication, supplies, necessary attachments, repairs or maintenance of any kind, depreciation, storage, insurance, labor (exclusive of labor costs of the Equipment operator), and any and all other costs incurred by the Contractor incidental to the use of such Equipment.

- 17.8.5 General Conditions Cost. The phrase "General Conditions Cost" shall mean, other than expressly limited or excluded herein, the costs of Contractor during the construction phase, including but not limited to: payroll costs for project manager for Work conducted at the Site, payroll costs for the superintendent and full-time general foremen, workers not included as direct labor costs engaged in support functions (e.g., loading/unloading, clean-up), costs of offices and temporary facilities including office materials, office supplies, office equipment, minor expenses, utilities, fuel, sanitary facilities and telephone services at the Site, costs of consultants not in the direct employ of Contractor or Subcontractors, and fees for permits and licenses.
- **17.8.6 Overhead and Profit**. The phrase "Overhead and Profit" shall include field and office supervisors and assistants, watchperson, use of small tools, consumable, insurance other than construction bonds and insurance required herein, general conditions costs and home office expenses.

17.9 Change Order Certification

- **17.9.1** All Change Orders and PCOs include the following certification by the Contractor, either in the form specifically or incorporated by this reference:
 - 17.9.1.1 The undersigned Contractor approves the foregoing as to the changes, if any, to the Contract Price specified for each item, and as to the extension of time allowed, if any, for completion of the entire Work as stated herein, and agrees to furnish all labor, materials, and service, and perform all work necessary to complete any additional work specified for the consideration stated herein. Submission of sums which have no basis in fact or which Contractor knows are false are at the sole risk of Contractor and may be a violation of the False Claims Act set forth under Government Code section 12650 et seq. It is understood that the changes herein to the Contract shall only be effective when approved by the governing board of the District.
 - 17.9.1.2 It is expressly understood that the value of the extra Work or changes expressly includes any and all of the Contractor's costs and expenses, direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project including, without limitation, cumulative impacts. Contractor is not entitled to separately recover amounts for overhead or other indirect costs. Any costs, expenses, damages, or time extensions not included are deemed waived.

17.9.2 Accord and Satisfaction: Contractor's execution of any Change Order shall constitute a full accord and satisfaction, and release, of all Contractor (and if applicable, Subcontractor) claims for additional time, money or other relief arising from or relating to the subject matter of the change including, without limitation, impacts of all types, cumulative impacts, inefficiency, overtime, delay and any other type of claim.

17.10 <u>Determination of Change Order Cost</u>

- **17.10.1** The amount of the increase or decrease in the Contract Price from a Change Order, if any, shall be determined in one or more of the following ways as applicable to a specific situation and at the District's discretion:
 - 17.10.1.1 District acceptance of a PCO;
 - **17.10.1.2** By unit prices contained in Contractor's original bid;
 - **17.10.1.3** By agreement between District and Contractor.

17.11 <u>Deductive Change Orders</u>

All deductive Change Order(s) must be prepared pursuant to the provisions herein. Where a portion of the Work is deleted from the Contract, the reasonable value of the deducted work less the value of work performed shall be considered the appropriate deduction. The value submitted on the Schedule of Values shall be used to calculate the credit amount unless the bid documentation is being held in escrow as part of the Contract Documents. Unit Prices, if any, may be used in District's discretion in calculating reasonable value. If Contractor offers a proposed amount for a deductive Change Order(s), Contractor shall include a minimum of five percent (5%) total profit and overhead to be deducted with the amount of the work of the Change Order(s). If Subcontractor work is involved, Subcontractors shall also include a minimum of five percent (5%) profit and overhead to be deducted with the amount of its deducted work. Any deviation from this provision shall not be allowed.

17.12 Addition or Deletion of Alternate Bid Item(s)

If the Bid Form and Proposal includes proposal(s) for Alternate Bid Item(s), during Contractor's performance of the Work, the District may elect to add or delete any such Alternate Bid Item(s) if not included in the Contract at the time of award. If the District elects to add or delete Alternate Bid Item(s) after Contract award, the cost or credit for such Alternate Bid Item(s) shall be as set forth in the Bid Form and Proposal unless the parties agree to a different price and the Contract Time shall be adjusted by the number of days allocated in the Contract Documents. If days are not allocated in the Contract Documents, the Contract Time shall be equitably adjusted.

17.13 <u>Discounts, Rebates, and Refunds</u>

For purposes of determining the cost, if any, of any change, addition, or omission to the Work hereunder, all trade discounts, rebates, refunds, and all returns from the sale of surplus materials and equipment shall accrue and be credited to the Contractor, and the Contractor shall make provisions so that such discounts, rebates, refunds, and returns may be secured, and the amount thereof shall be allowed as a reduction of the

Contractor's cost in determining the actual cost of construction for purposes of any change, addition, or omission in the Work as provided herein.

17.14 Accounting Records

With respect to portions of the Work performed by Change Orders and Construction Change Directives, the Contractor shall keep and maintain cost-accounting records satisfactory to the District, including, without limitation, Job Cost Reports as provided in these General Conditions, which shall be available to the District on the same terms as any other books and records the Contractor is required to maintain under the Contract Documents. Such records shall include without limitation hourly records for Labor and Equipment and itemized records of materials and Equipment used that day in connection with the performance of any Work. All records maintained hereunder shall be subject to inspection, review and/or reproduction by the District, the Architect or the Project Inspector upon request. In the event that the Contractor fails or refuses, for any reason, to maintain or make available for inspection, review and/or reproduction such records, the District's reasonable good faith determination of the extent of adjustment to the Contract Price shall be final, conclusive, dispositive and binding upon Contractor.

17.15 Notice Required

If the Contractor desires to make a claim for an increase in the Contract Price, or any extension in the Contract Time for completion, it shall notify the District pursuant to the provisions herein, including the Article on Claims and Disputes. No claim shall be considered unless made in accordance with this subparagraph. Contractor shall proceed to execute the Work even though the adjustment may not have been agreed upon. Any change in the Contract Price or extension of the Contract Time resulting from such claim shall be authorized by a Change Order.

17.16 Applicability to Subcontractors

Any requirements under this Article shall be equally applicable to Change Orders or Construction Change Directives issued to Subcontractors by the Contractor to the extent as required by the Contract Documents.

17.17 <u>Alteration to Change Order Language</u>

Contractor shall not alter Change Orders or reserve time in Change Orders. Change Orders altered in violation of this provision, if in conflict with the terms set forth herein, shall be construed in accordance with the terms set forth herein. Contractor shall execute finalized Change Orders and proceed under the provisions herein with proper notice.

17.18 Failure of Contractor to Execute Change Order

Contractor shall be in default of the Contract if Contractor fails to execute a Change Order when the Contractor agrees with the addition and/or deletion of the Work in that Change Order.

18. REQUEST FOR INFORMATION

18.1 Any Request for Information shall reference all applicable Contract Document(s), including Specification section(s), detail(s), page number(s), drawing

number(s), and sheet number(s), etc. The Contractor shall make suggestions and interpretations of the issue raised by each Request for Information. A Request for Information cannot modify the Contract Price, Contract Time, or the Contract Documents. Upon request by the District, Contractor shall provide an electronic copy of the Request for Information in addition to the hard copy.

18.2 The Contractor shall be responsible for any costs incurred for professional services that District may deduct from any amounts owing to the Contractor, if a Request for Information requests an interpretation or decision of a matter where the information sought is equally available to the party making the request. District, at its sole discretion, shall deduct from and/or invoice Contractor for all the professional services arising herein.

19. PAYMENTS

19.1 Contract Price

The Contract Price is stated in the Agreement and, including authorized adjustments, is the total amount payable by the District to the Contractor for performance of the Work under the Contract Documents.

19.2 <u>Applications for Progress Payments</u>

19.2.1 <u>Procedure for Applications for Progress Payments</u>

19.2.1.1 Application for Progress Payment

- **19.2.1.1.1** Not before the fifth (5th) day of each calendar month during the progress of the Work, Contractor shall submit to the District and the Architect an itemized Application for Payment for operations completed in accordance with the Schedule of Values. Such application shall be notarized, if required, and supported by the following or each portion thereof unless waived by the District in writing:
 - **19.2.1.1.1.1** The amount paid to the date of the Application to the Contractor, to all its Subcontractors, and all others furnishing labor, material, or equipment for its Contract;
 - **19.2.1.1.1.2** The amount being requested under the Application for Payment by the Contractor on its own behalf and separately stating the amount requested on behalf of each of the Subcontractors and all others furnishing labor, material, and equipment under the Contract;
 - **19.2.1.1.3** The balance that will be due to each of such entities after said payment is made;
 - **19.2.1.1.1.4** A certification that the As-Built Drawings and annotated Specifications are current;
 - **19.2.1.1.5** Itemized breakdown of work done for the purpose of requesting partial payment;

- **19.2.1.1.6** An updated and acceptable construction schedule in conformance with the provisions herein;
- **19.2.1.1.7** The additions to and subtractions from the Contract Price and Contract Time;
- **19.2.1.1.1.8** A total of the retentions held:
- **19.2.1.1.9** Material invoices, evidence of equipment purchases, rentals, and other support and details of cost as the District may require from time to time;
- **19.2.1.1.1.10** The percentage of completion of the Contractor's Work by line item;
- **19.2.1.1.11** Schedule of Values updated from the preceding Application for Payment;
- **19.2.1.1.1.12** A duly completed and executed conditional waiver and release upon progress payment compliant with Civil Code section 8132 from the Contractor and each subcontractor of any tier and supplier to be paid from the current progress payment;
- **19.2.1.1.13** A duly completed and executed unconditional waiver and release upon progress payment compliant with Civil Code section 8134 from the Contractor and each subcontractor of any tier and supplier that was paid from the previous progress payment(s); and
- **19.2.1.1.14** A certification by the Contractor of the following:

The Contractor warrants title to all Work performed as of the date of this payment application has been completed in accordance with the Contract Documents for the Project. The Contractor further warrants that all amounts have been paid for work which previous Certificates for Payment were issued and payments received and all Work performed as of the date of this payment application is free and clear of liens, claims, security interests, or encumbrances in favor of the Contractor, Subcontractors, material and equipment suppliers, workers, or other persons or entities making a claim by reason of having provided labor, materials, and equipment relating to the Work, except those of which the District has been informed. Submission of sums which have no basis in fact or which Contractor knows are false are at the sole risk of Contractor and may be a violation of the False Claims Act set forth under Government Code section 12650 et seq.

- **19.2.1.1.1.15** The Contractor shall be subject to the False Claims Act set forth in Government Code section 12650 et seq. for information provided with any Application for Progress Payment.
- **19.2.1.1.1.16** All remaining certified payroll records ("CPR(s)") for each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each Subcontractor in connection with the Work for the

period of the Application for Payment. As indicated herein, the District shall not make any payment to Contractor until:

- 19.2.1.1.16.1 Contractor and/or its Subcontractor(s) provide electronic CPRs weekly for all weeks any journeyman, apprentice, worker or other employee was employed in connection with the Work directly to the DIR, or within ten (10) days of any request by the District or the DIR, and
- **19.2.1.1.16.2** Any delay in Contractor and/or its Subcontractor(s) providing CPRs in a timely manner may directly delay the Contractor's payment.
- **19.2.1.1.2** Applications received after June 20th will not be paid until the second week of July and applications received after December 12th will not be paid until the first week of January.

19.2.2 Prerequisites for Progress Payments

- **19.2.2.1** First Payment Request: The following items, if applicable, must be completed before the District will accept and/or process the Contractor's first payment request:
- **19.2.2.1.1** Installation of the Project sign;
- **19.2.2.1.2** Installation of field office;
- **19.2.2.1.3** Installation of temporary facilities and fencing;
- **19.2.2.1.4** Schedule of Values;
- **19.2.2.1.5** Contractor's Construction Schedule:
- **19.2.2.1.6** Schedule of unit prices, if applicable;
- **19.2.2.1.7** Submittal Schedule:
- **19.2.2.1.8** Receipt by Architect of all submittals due as of the date of the payment application;
- **19.2.2.1.9** Copies of necessary permits;
- **19.2.2.1.10** Copies of authorizations and licenses from governing authorities;
- 19.2.2.1.11 Initial progress report;
- **19.2.2.1.12** Surveyor qualifications;
- **19.2.2.1.13** Written acceptance of District's survey of rough grading, if applicable;

- **19.2.2.1.14** List of all Subcontractors, with names, license numbers, telephone numbers, and Scope of Work;
- 19.2.2.1.15 All bonds and insurance endorsements; and
- **19.2.2.1.16** Resumes of Contractor's project manager, and if applicable, job site secretary, record documents recorder, and job site superintendent.
- **19.2.2.2** <u>Second Payment Request</u>: The District will not process the second payment request until and unless all submittals and Shop Drawings have been accepted for review by the Architect.
- **19.2.2.3** No Waiver of Criteria: Any payments made to Contractor where criteria set forth herein have not been met shall not constitute a waiver of said criteria by District. Instead, such payment shall be construed as a good faith effort by District to resolve differences so Contractor may pay its Subcontractors and suppliers. Contractor agrees that failure to submit such items may constitute a breach of contract by Contractor and may subject Contractor to termination.

19.3 <u>Progress Payments</u>

19.3.1 <u>District's Approval of Application for Payment</u>

- **19.3.1.1** Upon receipt of an Application for Payment, The District shall act in accordance with both of the following:
 - **19.3.1.1.1** Each Application for Payment shall be reviewed by the District as soon as practicable after receipt for the purpose of determining that the Application for Payment is a proper Application for Payment.
 - 19.3.1.1.2 Any Application for Payment determined not to be a proper Application for Payment suitable for payment shall be returned to the Contractor as soon as practicable, but not later than seven (7) days, after receipt. An Application for Payment returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the Application for Payment is not proper. The number of days available to the District to make a payment without incurring interest pursuant to this section shall be reduced by the number of days by which the District exceeds this seven-day return requirement.
 - **19.3.1.1.3** An Application for Payment shall be considered properly executed if funds are available for payment of the Application for Payment, and payment is not delayed due to an audit inquiry by the financial officer of the District.
- **19.3.1.2** The District's review of the Contractor's Application for Payment will be based on the District's and the Architect's observations at the Site and the data comprising the Application for Payment that the Work has progressed to the point indicated and that, to the best of the District's and the Architect's knowledge, information, and belief, the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to:

- **19.3.1.2.1** Observation of the Work for general conformance with the Contract Documents,
- **19.3.1.2.2** Results of subsequent tests and inspections,
- **19.3.1.2.3** Minor deviations from the Contract Documents correctable prior to completion, and
- **19.3.1.2.4** Specific qualifications expressed by the Architect.
- **19.3.1.3** District's approval of the certified Application for Payment shall be based on Contractor complying with all requirements for a fully complete and valid certified Application for Payment.

19.3.2 Payments to Contractor

- 19.3.2.1 Within thirty (30) days after approval of the Application for Payment, Contractor shall be paid a sum equal to ninety-five percent (95%) of the value of the Work performed (as verified by Architect and Inspector and certified by Contractor) up to the last day of the previous month, less the aggregate of previous payments and amount to be withheld. The value of the Work completed shall be Contractor's best estimate. No inaccuracy or error in said estimate shall operate to release the Contractor, or any Surety upon any bond, from damages arising from such Work, or from the District's right to enforce each and every provision of this Contract, and the District shall have the right subsequently to correct any error made in any estimate for payment.
- **19.3.2.2** The Contractor shall not be entitled to have any payment requests processed, or be entitled to have any payment made for Work performed, so long as any lawful or proper direction given by the District concerning the Work, or any portion thereof, remains incomplete.
- **19.3.2.3** If the District fails to make any progress payment within thirty (30) days after receipt of an undisputed and properly submitted Application for Payment from the Contractor, the District shall pay interest to the Contractor equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure.

19.3.3 No Waiver

No payment by District hereunder shall be interpreted so as to imply that District has inspected, approved, or accepted any part of the Work. Notwithstanding any payment, the District may enforce each and every provision of this Contract. The District may correct or require correction of any error subsequent to any payment.

19.4 <u>Decisions to Withhold Payment</u>

19.4.1 Reasons to Withhold Payment

The District may withhold payment in whole, or in part, to the extent reasonably necessary to protect the District if, in the District's opinion, the representations to the District required herein cannot be made. The District may withhold payment, in

whole, or in part, to such extent as may be necessary to protect the District from loss because of, but not limited to any of the following:

- **19.4.1.1** Defective Work not remedied within <u>FORTY-EIGHT (48)</u> hours of written notice to Contractor.
- **19.4.1.2** Stop Payment Notices or other liens served upon the District as a result of the Contract. Contractor agrees that the District may withhold up to 125% of the amount claimed in the Stop Payment Notice to answer the claim and to provide for the District's reasonable cost of any litigation pursuant to the stop payment notice.
- **19.4.1.3** Liquidated damages assessed against the Contractor.
- **19.4.1.4** The cost of completion of the Contract if there exists a reasonable doubt that the Work can be completed for the unpaid balance of the Contract Price or by the completion date.
- **19.4.1.5** Damage to the District or other contractor(s).
- **19.4.1.6** Unsatisfactory prosecution of the Work by the Contractor.
- **19.4.1.7** Failure to store and properly secure materials.
- **19.4.1.8** Failure of the Contractor to submit, on a timely basis, proper, sufficient, and acceptable documentation required by the Contract Documents, including, without limitation, a Construction Schedule, Schedule of Submittals, Schedule of Values, Monthly Progress Schedules, Shop Drawings, Product Data and samples, Proposed product lists, executed Change Orders, and/or verified reports.
- **19.4.1.9** Failure of the Contractor to maintain As-Built Drawings.
- **19.4.1.10** Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Application for Payment.
- **19.4.1.11** Unauthorized deviations from the Contract Documents.
- **19.4.1.12** Failure of the Contractor to prosecute the Work in a timely manner in compliance with the Construction Schedule, established progress schedules, and/or completion dates.
- **19.4.1.13** Failure to provide acceptable electronic certified payroll records, as required by the Labor Code, by these Contract Documents, or by written request; for each journeyman, apprentice, worker, or other employee employed by the Contractor and/or by each Subcontractor in connection with the Work for the period of the Application for Payment or if payroll records are delinquent or inadequate.
- **19.4.1.14** Failure to properly pay prevailing wages as required in Labor Code section 1720 et seq., failure to comply with any other Labor Code requirements, and/or failure to comply with labor compliance monitoring and enforcement by the DIR.

- **19.4.1.15** Allowing an unregistered subcontractor, as described in Labor Code section 1725.5, to engage in the performance of any work under this Contract.
- **19.4.1.16** Failure to comply with any applicable federal statutes and regulations regarding minimum wages, withholding, payrolls and basic records, apprentice and trainee employment requirements, equal employment opportunity requirements, Copeland Act requirements, Davis-Bacon Act and related requirements, Contract Work Hours and Safety Standards Act requirements, if applicable.
- **19.4.1.17** Failure to properly maintain or clean up the Site.
- **19.4.1.18** Failure to timely indemnify, defend, or hold harmless the District.
- **19.4.1.19** Any payments due to the District, including but not limited to payments for failed tests, utilities changes, or permits.
- **19.4.1.20** Failure to pay Subcontractor(s) or supplier(s) as required by law and by the Contract Documents.
- **19.4.1.21** Failure to pay any royalty, license or similar fees.
- **19.4.1.22** Contractor is otherwise in breach, default, or in substantial violation of any provision of this Contract.
- **19.4.1.23** Failure to perform any implementation and/or monitoring required by any SWPPP for the Project and/or the imposition of any penalties or fines therefore whether imposed on the District or Contractor.

19.4.2 Reallocation of Withheld Amounts

- **19.4.2.1** District may, in its discretion, apply any withheld amount to pay outstanding claims or obligations as defined herein. In so doing, District shall make such payments on behalf of Contractor. If any payment is so made by District, then that amount shall be considered a payment made under Contract by District to Contractor and District shall not be liable to Contractor for any payment made in good faith. These payments may be made without prior judicial determination of claim or obligation. District will render Contractor an accounting of funds disbursed on behalf of Contractor.
- **19.4.2.2** If Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents or fails to perform any provision thereof, District may, after **FORTY-EIGHT (48)** hours' written notice to the Contractor and, without prejudice to any other remedy, make good such deficiencies. The District shall adjust the total Contract Price by reducing the amount thereof by the cost of making good such deficiencies. If District deems it inexpedient to correct Work that is damaged, defective, or not done in accordance with Contract provisions, an equitable reduction in the Contract Price (of at least one hundred fifty percent (150%) of the estimated reasonable value of the nonconforming Work) shall be made therefor.

19.4.3 Payment After Cure

When Contractor removes the grounds for declining approval, payment shall be made for amounts withheld because of them. No interest shall be paid on any retainage or amounts withheld due to the failure of the Contractor to perform in accordance with the terms and conditions of the Contract Documents.

19.5 <u>Subcontractor Payments</u>

19.5.1 Payments to Subcontractors

No later than seven (7) days after receipt, or pursuant to Business and Professions Code section 7108.5 and Public Contract Code section 7107, the Contractor shall pay to each Subcontractor, out of the amount paid to the Contractor on account of such Subcontractor's portion of the Work, the amount to which said Subcontractor is entitled. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to its Sub-subcontractors in a similar manner.

19.5.2 No Obligation of District for Subcontractor Payment

The District shall have no obligation to pay, or to see to the payment of, money to a Subcontractor except as may otherwise be required by law.

19.5.3 Joint Checks

District shall have the right in its sole discretion, if necessary for the protection of the District, to issue joint checks made payable to the Contractor and Subcontractors and/or material or equipment suppliers. The joint check payees shall be responsible for the allocation and disbursement of funds included as part of any such joint payment. In no event shall any joint check payment be construed to create any contract between the District and a Subcontractor of any tier, or a material or equipment supplier, any obligation from the District to such Subcontractor or a material or equipment supplier against the District.

20. COMPLETION OF THE WORK

20.1 Completion

- **20.1.1** District will accept completion of Contract and have the Notice of Completion recorded when the entire Work shall have been completed to the satisfaction of District.
- **20.1.2** The Work may only be accepted as complete by action of the governing board of the District.
- **20.1.3** District, at its sole option, may accept completion of Contract and have the Notice of Completion recorded when the entire Work shall have been completed to the satisfaction of District, except for minor corrective items, as distinguished from incomplete items. If Contractor fails to complete all minor corrective items within fifteen (15) days after the date of the District's acceptance of completion, District shall withhold from the final payment one hundred fifty percent (150%) of an

estimate of the amount sufficient to complete the corrective items, as determined by District, until the item(s) are completed.

20.1.4 At the end of the 15-day period, if there are any items remaining to be corrected, District may elect to proceed as provided herein related to adjustments to Contract Price, and/or District's right to perform the Work of the Contractor.

20.2 Close-Out/Certification Procedures

20.2.1 Punch List

The Contractor shall notify the Architect when Contractor considers the Work complete. Upon notification, Architect will prepare a list of minor items to be completed or corrected ("Punch List"). The Contractor and/or its Subcontractors shall proceed promptly to complete and correct items on the Punch List. Failure to include an item on Punch List does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

20.2.2 <u>Close-Out/Certification Requirements</u>

20.2.2.1 <u>Utility Connections</u>

Buildings shall be connected to water, gas, sewer, and electric services, complete and ready for use. Service connections shall be made and existing services reconnected.

20.2.2.2 Record Drawings and Record Specifications

- **20.2.2.1** Contractor shall provide exact Record Drawings of the Work ("As-Builts") and Record Specifications upon completion of the Project and as a condition precedent to approval of final payment.
- **20.2.2.2.** Contractor shall obtain the Inspector's approval of the corrected prints and employ a competent draftsman to transfer the Record Drawings information to the most current version of AutoCAD that is, at that time, currently utilized for plan check submission by either the District, the Architect, OPSC, and/or DSA, and print a complete set of transparent sepias. When completed, Contractor shall deliver corrected sepias and diskette/CD/other data storage device acceptable to District with AutoCAD file to the District.
- **20.2.2.3** Contractor is liable and responsible for any and all inaccuracies in the Record Drawings and Record Specifications, even if inaccuracies become evident at a future date.
- **20.2.2.3** <u>Maintenance Manuals</u>: Contractor shall prepare all operation and maintenance manuals and date as indicated in the Specifications.
- **20.2.2.4** <u>Source Programming</u>: Contractor shall provide all source programming for all items in the Project.
- **20.2.2.5** <u>Verified Reports</u>: Contractor shall completely and accurately fill out and file forms DSA 6-C or DSA 152 (or current form), as appropriate. Refer to

section 4-336 and section 4-343 of Part 1, Title 24 of the California Code of Regulations.

20.3 Final Inspection

- **20.3.1** Contractor shall comply with Punch List procedures as provided herein, and maintain the presence of a Project Superintendent and Project Manager until the Punch List is complete to ensure proper and timely completion of the Punch List. Under no circumstances shall Contractor demobilize its forces prior to completion of the Punch List without District's prior written approval. Upon receipt of Contractor's written notice that all of the Punch List items have been fully completed and the Work is ready for final inspection and District acceptance, Architect and Project Inspector will inspect the Work and shall submit to Contractor and District a final inspection report noting the Work, if any, required in order to complete in accordance with the Contract Documents. Absent unusual circumstances, this report shall consist of the Punch List items not yet satisfactorily completed.
- **20.3.2** Upon Contractor's completion of all items on the Punch List and any other uncompleted portions of the Work, the Contractor shall notify the District and Architect, who shall again inspect such Work. If the Architect finds the Work complete and acceptable under the Contract Documents, the Architect will notify Contractor, who shall then jointly submit to the Architect and the District its final Application for Payment.

20.3.3 Final Inspection Requirements

- **20.3.3.1** Before calling for final inspection, Contractor shall determine that the following have been performed:
 - **20.3.3.1.1** The Work has been completed.
 - **20.3.3.1.2** All life safety items are completed and in working order.
 - **20.3.3.1.3** Mechanical and electrical Work are complete and tested, fixtures are in place, connected, and ready for tryout.
 - **20.3.3.1.4** Electrical circuits scheduled in panels and disconnect switches labeled.
 - **20.3.3.1.5** Painting and special finishes complete.
 - **20.3.3.1.6** Doors complete with hardware, cleaned of protective film, relieved of sticking or binding, and in working order.
 - **20.3.3.1.7** Tops and bottoms of doors sealed.
 - **20.3.3.1.8** Floors waxed and polished as specified.
 - **20.3.3.1.9** Broken glass replaced and glass cleaned.
 - **20.3.3.1.10** Grounds cleared of Contractor's equipment, raked clean of debris, and trash removed from Site.

- **20.3.3.1.11** Work cleaned, free of stains, scratches, and other foreign matter, and damaged and broken material replaced.
- **20.3.3.1.12** Finished and decorative work shall have marks, dirt, and superfluous labels removed.
- **20.3.3.1.13** Final cleanup, as provided herein.

20.4 <u>Costs of Multiple Inspections</u>

More than two (2) requests of the District to make a final inspection shall be considered an additional service of District, Architect, Construction Manager, and/or Project Inspector, and all subsequent costs will be invoiced to Contractor and if funds are available, withheld from remaining payments.

20.5 Partial Occupancy or Use Prior to Completion

20.5.1 <u>District's Rights to Occupancy</u>

The District may occupy or use any completed or partially completed portion of the Work at any stage, and such occupancy shall not constitute the District's Final Acceptance of any part of the Work. Neither the District's Final Acceptance, the making of Final Payment, any provision in Contract Documents, nor the use or occupancy of the Work, in whole or in part, by District shall constitute acceptance of Work not in accordance with the Contract Documents nor relieve the Contractor or the Contractor's Performance Bond Surety from liability with respect to any warranties or responsibility for faulty or defective Work or materials, equipment and workmanship incorporated therein. In the event that the District occupies or uses any completed or partially completed portion of the Work, the Contractor shall remain responsible for payments, security, maintenance, heat, utilities, damage to the Work, insurance, the period for correction of the Work, and the commencement of warranties required by the Contract Documents unless the Contractor requests in writing, and the District agrees, to otherwise divide those responsibilities. Any dispute as to responsibilities shall be resolved pursuant to the Claims and Disputes provisions herein, with the added provision that during the dispute process, the District shall have the right to occupy or use any portion of the Work that it needs or desires to use.

20.5.2 <u>Inspection Prior to Occupancy or Use</u>

Immediately prior to partial occupancy or use, the District, the Contractor, and the Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

20.5.3 <u>No Waiver</u>

Unless otherwise agreed upon, partial or entire occupancy or use of a portion or portions of the Work shall not constitute beneficial occupancy or District's acceptance of the Work not complying with the requirements of the Contract Documents.

21. FINAL PAYMENT AND RETENTION

21.1 Final Payment

Upon receipt and approval of a valid and final Application for Payment, the Architect will issue a final Certificate of Payment. The District shall thereupon jointly inspect the Work and either accept the Work as complete or notify the Architect and the Contractor in writing of reasons why the Work is not complete. Upon District's acceptance of the Work of the Contractor as fully complete by the Governing Board of the District (that, absent unusual circumstances, will occur when the Punch List items have been satisfactorily completed), the District shall record a Notice of Completion with the County Recorder, and the Contractor shall, upon receipt of final payment from the District, pay the amount due Subcontractors.

21.2 Prerequisites for Final Payment

The following conditions must be fulfilled prior to Final Payment:

- **21.2.1** A full release of all Stop Payment Notices served in connection with the Work shall be submitted by Contractor.
- **21.2.2** A duly completed and executed conditional waiver and release upon final payment compliant with Civil Code section 8136, from the Contractor and each subcontractor of any tier and supplier to be paid from the final payment.
- **21.2.3** A duly completed and executed unconditional waiver and release upon progress payment compliant with Civil Code section 8134, from the Contractor and each subcontractor of any tier and supplier that was paid from the previous progress payments.
- **21.2.4** A duly completed and executed Document 00 65 19.26, "AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS" from the Contractor.
- **21.2.5** The Contractor shall have made all corrections to the Work that are required to remedy any defects therein, to obtain compliance with the Contract Documents or any requirements of applicable codes and ordinances, or to fulfill any of the orders or directions of District required under the Contract Documents.
- **21.2.6** Each Subcontractor shall have delivered to the Contractor all written guarantees, warranties, applications, and bonds required by the Contract Documents for its portion of the Work.
- **21.2.7** Contractor must have completed all requirements set forth under "Close-Out/Certification Procedures," including, without limitation, submission of an approved set of complete Record Drawings.
- **21.2.8** Architect shall have issued its written approval that final payment can be made.
- **21.2.9** The Contractor shall have delivered to the District all manuals and materials required by the Contract Documents, which must be approved by the District.

21.2.10 The Contractor shall have completed final clean-up as provided herein.

21.3 Retention

- **21.3.1** The retention, less any amounts disputed by the District or that the District has the right to withhold pursuant to provisions herein, shall be paid:
 - **21.3.1.1** After approval by the Architect of the Application and Certificate of Payment,
 - 21.3.1.2 After the satisfaction of the conditions set forth herein, and
 - **21.3.1.3** After forty-five (45) days after the recording of the Notice of Completion by District.
- **21.3.2** No interest shall be paid on any retention, or on any amounts withheld due to a failure of the Contractor to perform, in accordance with the terms and conditions of the Contract Documents, except as provided to the contrary in any Escrow Agreement between the District and the Contractor pursuant to Public Contract Code section 22300.

21.4 Substitution of Securities

The District will permit the substitution of securities in accordance with the provisions of Public Contract Code section 22300.

22. UNCOVERING OF WORK

If a portion of the Work is covered without Inspector or Architect approval or not in compliance with the Contract Documents, it must, if required in writing by the District, the Project Inspector, or the Architect, be uncovered for the Project Inspector's or the Architect's observation and be corrected, replaced, and/or recovered at the Contractor's expense without change in the Contract Price or Contract Time.

23. NONCONFORMING WORK AND CORRECTION OF WORK

23.1 <u>Nonconforming Work</u>

- **23.1.1** Contractor shall promptly remove from Premises all Work identified by District as failing to conform to the Contract Documents whether incorporated or not. Contractor shall promptly replace and re-execute its own Work to comply with the Contract Documents without additional expense to the District and shall bear the expense of making good all work of other contractors destroyed or damaged by any removal or replacement pursuant hereto and/or any delays to the District or other Contractors caused thereby.
- 23.1.2 If Contractor does not remove Work that District has identified as failing to conform to the Contract Documents within a reasonable time, not to exceed FORTY-EIGHT (48) hours, District may remove it and may store any material at Contractor's expense. If Contractor does not pay expense(s) of that removal within ten (10) days' time thereafter, District may, upon ten (10) days' written notice, sell any material at auction or at private sale and shall deduct all costs and expenses

incurred by the District and/or District may withhold those amounts from payment(s) to Contractor.

23.2 <u>Correction of Work</u>

23.2.1 Correction of Rejected Work

Pursuant to the notice provisions herein, the Contractor shall immediately correct the Work rejected by the District, the Architect, or the Project Inspector as failing to conform to the requirements of the Contract Documents, whether observed before or after Completion and whether or not fabricated, installed, or completed. The Contractor shall bear costs of correcting the rejected Work, including additional testing, inspections, and compensation for the Inspector's or the Architect's services and expenses made necessary thereby.

23.2.2 One-Year Warranty Corrections

If, within one (1) year after the date of Completion of the Work or a designated portion thereof, or after the date for commencement of warranties established hereunder, or by the terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the District to do so. This period of one (1) year shall be extended with respect to portions of the Work first performed after Completion by the period of time between Completion and the actual performance of the Work. This obligation hereunder shall survive District's acceptance of the Work under the Contract and termination of the Contract. The District shall give such notice promptly after discovery of the condition.

23.3 District's Right to Perform Work

- **23.3.1** If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of this contract, the District, after **FORTY-EIGHT (48)** hours' written notice to the Contractor, may, without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.
- **23.3.2** If it is found at any time, before or after completion of the Work, that Contractor has varied from the Drawings and/or Specifications, including, but not limited to, variation in material, quality, form, or finish, or in the amount or value of the materials and labor used, District may require at its option:
 - **23.3.2.1** That all such improper Work be removed, remade or replaced, and all work disturbed by these changes be made good by Contractor at no additional cost to the District;
 - **23.3.2.2** That the District deduct from any amount due Contractor the sum of money equivalent to the difference in value between the work performed and that called for by the Drawings and Specifications; or
 - **23.3.2.3** That the District exercise any other remedy it may have at law or under the Contract Documents, including but not limited to the District hiring its own forces or another contractor to replace the Contractor's nonconforming

Work, in which case the District shall either issue a deductive Change Order, a Construction Change Directive, or invoice the Contractor for the cost of that work. Contractor shall pay any invoices within thirty (30) days of receipt of same or District may withhold those amounts from payment(s) to Contractor.

24. TERMINATION AND SUSPENSION

24.1 <u>District's Request for Assurances</u>

If District at any time reasonably believes Contractor is or may be in default under this Contract, District may in its sole discretion notify Contractor of this fact and request written assurances from Contractor of performance of Work and a written plan from Contractor to remedy any potential default under the terms this Contract that the District may advise Contractor of in writing. Contractor shall, within ten (10) calendar days of District's request, deliver a written cure plan that meets the District's requirements in its request for assurances. Contractor's failure to provide such written assurances of performance and the required written plan, within ten (10) calendar days of request, will constitute a material breach of this Contract sufficient to justify termination for cause.

24.2 <u>District's Right to Terminate Contractor for Cause</u>

- **24.2.1 Grounds for Termination:** The District, in its sole discretion, may terminate the Contract and/or terminate the Contractor's right to perform the work of the Contract based upon any of the following:
 - **24.2.1.1** Contractor refuses or fails to execute the Work or any separable part thereof with sufficient diligence as will ensure its completion within the time specified or any extension thereof, or
 - **24.2.1.2** Contractor fails to complete said Work within the time specified or any extension thereof, or
 - **24.2.1.3** Contractor persistently fails or refuses to perform Work or provide material of sufficient quality as to be in compliance with Contract Documents; or
 - **24.2.1.4** Contractor persistently refuses, or repeatedly fails, except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials to complete the Work in the time specified; or
 - **24.2.1.5** Contractor fails to make prompt payment to Subcontractors, or for material, or for labor; or
 - **24.2.1.6** Contractor persistently disregards laws, or ordinances, or instructions of District; or
 - **24.2.1.7** Contractor fails to supply labor, including that of Subcontractors, that is sufficient to prosecute the Work or that can work in harmony with all other elements of labor employed or to be employed on the Work; or
 - **24.2.1.8** Contractor or its Subcontractor(s) is/are otherwise in breach, default, or in substantial violation of any provision of this Contract, including but not limited to a lapse in licensing or registration.

24.2.2 Notification of Termination

- **24.2.2.1** Upon the occurrence at District's sole determination of any of the above conditions, District may, without prejudice to any other right or remedy, serve written notice upon Contractor and its Surety of District's termination of this Contract and/or the Contractor's right to perform the work of the Contract. This notice will contain the reasons for termination. Unless, within three (3) days after the service of the notice, any and all condition(s) shall cease, and any and all violation(s) shall cease, or arrangement satisfactory to District for the correction of the condition(s) and/or violation(s) be made, this Contract and/or the Contractor's right to perform the Work of the Contract shall cease and terminate. Upon termination, Contractor shall not be entitled to receive any further payment until the entire Work is finished.
- **24.2.2.2** Upon termination, District may immediately serve written notice of tender upon Surety whereby Surety shall have the right to take over and perform this Contract only if Surety:
 - **24.2.2.1** Within three (3) days after service upon it of the notice of tender, gives District written notice of Surety's intention to take over and perform this Contract; and
 - **24.2.2.2** Commences performance of this Contract within three (3) days from date of serving of its notice to District.
- **24.2.2.3** Surety shall not utilize Contractor in completing the Project if the District notifies Surety of the District's objection to Contractor's further participation in the completion of the Project. Surety expressly agrees that any contractor which Surety proposes to fulfill Surety's obligations is subject to District's approval. District's approval shall not be unreasonably withheld, conditioned or delayed.
- **24.2.2.4** If Surety fails to notify District or begin performance as indicated herein, District may take over the Work and execute the Work to completion by any method it may deem advisable at the expense of Contractor and/or its Surety. Contractor and/or its Surety shall be liable to District for any excess cost or other damages the District incurs thereby. Time is of the essence in this Contract. If the District takes over the Work as herein provided, District may, without liability for so doing, take possession of and utilize in completing the Work such materials, appliances, plan, and other property belonging to Contractor as may be on the Site of the Work, in bonded storage, or previously paid for.

24.3 <u>Termination of Contractor for Convenience</u>

- **24.3.1** District in its sole discretion may terminate the Contract in whole or in part upon three (3) days' written notice to the Contractor.
- **24.3.2** Upon notice, Contractor shall:
 - **24.3.2.1** Cease operations as directed by the District in the notice;

- **24.3.2.2** Take necessary actions for the protection and preservation of the Work as soon as possible; and
- **24.3.2.3** Terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.
- **24.3.3** Within 30 days of the notice, Contractor submit to the District a payment application for the actual cost for labor, materials, and services performed, including all Contractor's and Subcontractor(s)' mobilization and/or demobilization costs, that is unpaid. Contractor shall have no claims against the District except for the actual cost for labor, materials, and services performed that adequately documented through timesheets, invoices, receipts, or otherwise. District shall pay all undisputed invoice(s) for work performed until the notice of termination.
- **24.3.4** Under a termination for convenience, the District retains the right to all the options available to the District if there is a termination for cause.

24.4 <u>Effect of Termination</u>

- **24.4.1** Contractor shall, only if ordered to do so by the District, immediately remove from the Site all or any materials and personal property belonging to Contractor that have not been incorporated in the construction of the Work, or which are not in place in the Work. The District retains the right, but not the obligation, to keep and use any materials and personal property belonging to Contractor that have not been incorporated in the construction of the Work, or which are not in place in the Work. The Contractor and its Surety shall be liable upon the Performance Bond for all damages caused to the District by reason of the Contractor's failure to complete the Contract.
- **24.4.2** In the event that the District shall perform any portion of, or the whole of the Work, pursuant to the provisions of the General Conditions, the District shall not be liable nor account to the Contractor in any way for the time within which, or the manner in which, the Work is performed by the District or for any changes the District may make in the Work or for the money expended by the District in satisfying claims and/or suits and/or other obligations in connection with the Work.
- **24.4.3** In the event termination for cause is determined to have not been for cause, the termination shall be deemed to have been a termination for convenience effective as of the same date as the purported termination for cause.
- **24.4.4** In the event that the Contract is terminated for any reason, no allowances or compensation will be granted for the loss of any anticipated profit by the Contractor or any impact or impairment of Contractor's bonding capacity.
- **24.4.5** If the expense to the District to finish the Work exceeds the unpaid Contract Price, Contractor and Surety shall pay difference to District within twenty-one (21) days of District's request.
- **24.4.6** The District shall have the right (but shall have no obligation) to assume and/or assign to a general contractor or construction manager or other third party who is qualified and has sufficient resources to complete the Work, the rights of the Contractor under its subcontracts with any or all Subcontractors. In the event of an assumption or assignment by the District, no Subcontractor shall have any claim

against the District or third party for Work performed by Subcontractor or other matters arising prior to termination of the Contract. The District or any third party, as the case may be, shall be liable only for obligations to the Subcontractor arising after assumption or assignment. Should the District so elect, the Contractor shall execute and deliver all documents and take all steps, including the legal assignment of its contractual rights, as the District may require, for the purpose of fully vesting in the District the rights and benefits of its Subcontractor under Subcontracts or other obligations or commitments. All payments due the Contractor hereunder shall be subject to a right of offset by the District for expenses and damages suffered by the District as a result of any default, acts, or omissions of the Contractor. Contractor must include this assignment provision in all of its contracts with its Subcontractors.

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

24.5 <u>Emergency Termination of Public Contracts Act of 1949</u>

24.5.1 This Contract is subject to termination as provided by sections 4410 and 4411 of the Government Code of the State of California, being a portion of the Emergency Termination of Public Contracts Act of 1949.

24.5.1.1 Section 4410 of the Government Code states:

In the event a national emergency occurs, and public work, being performed by contract, is stopped, directly or indirectly, because of the freezing or diversion of materials, equipment or labor, as the result of an order or a proclamation of the President of the United States, or of an order of any federal authority, and the circumstances or conditions are such that it is impracticable within a reasonable time to proceed with a substantial portion of the work, then the public agency and the contractor may, by written agreement, terminate said contract.

24.5.1.2 Section 4411 of the Government Code states:

Such an agreement shall include the terms and conditions of the termination of the contract and provision for the payment of compensation or money, if any, which either party shall pay to the other or any other person, under the facts and circumstances in the case.

24.5.2 Compensation to the Contractor shall be determined at the sole discretion of District on the basis of the reasonable value of the Work done, including preparatory work. As an exception to the foregoing and at the District's discretion, in the case of any fully completed separate item or portion of the Work for which there is a separate previously submitted unit price or item on the accepted schedule of values, that price shall control. The District, at its sole discretion, may adopt the Contract Price as the reasonable value of the work done or any portion thereof.

24.6 <u>Suspension of Work</u>

24.6.1 District in its sole discretion may suspend, delay or interrupt the Work in whole or in part for such period of time as the District may determine upon three (3) days written notice to the Contractor.

- **24.6.1.1** An adjustment may be made for changes in the cost of performance of the Work caused by any such suspension, delay or interruption. No adjustment shall be made to the extent:
 - **24.6.1.1.1** That performance is, was or would have been so suspended, delayed or interrupted by another cause for which Contractor is responsible; or
 - **24.6.1.1.2** That an equitable adjustment is made or denied under another provision of the Contract; or
 - **24.6.1.1.3** That the suspension of Work was the direct or indirect result of Contractor's failure to perform any of its obligations hereunder.
- **24.6.1.2** Any adjustments in cost of performance may have a fixed or percentage fee as provided in the section on Format for Proposed Change Order herein. This amount shall be full compensation for all Contractor's and its Subcontractor(s)' changes in the cost of performance of the Contract caused by any such suspension, delay or interruption.

25. CLAIMS PROCESS

25.1 Obligation to File Claims for Disputed Work

- **25.1.1** Should Contractor otherwise seek extra time or compensation for any reason whatsoever ("Disputed Work"), then Contractor shall first follow procedures set forth in the Contract Documents including, without limitation, Articles 15, 16 and 17. A Notice of Potential Change or Proposed Change Order are less formal procedures that proceed the formal claim and do not constitute a Claim. A Claim also does not include correspondence, RFIs, vouchers, invoices, progress payment applications, or other routine or authorized form of requests for progress payments in compliance with the Contract. If a dispute remains, then Contractor shall give written notice to District that expressly invokes this Article 25 within the time limits set forth herein.
- **25.1.2** Contractor's sole and exclusive remedy for Disputed Work is to file a written claim setting forth Contractor's position as required herein within the time limits set forth herein.

25.2 Duty to Perform during Claim Process

Contractor and its subcontractors shall continue to perform its Work under the Contract including the disputed work, and shall not cause a delay of the Work during any dispute, claim, negotiation, mediation, or arbitration proceeding, except by written agreement by the District.

25.3 Definition of Claim

25.3.1 Pursuant to Public Contract Code section 9204, the term "Claim" means a separate demand by the Contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:

- **25.3.1.1** A time extension, including without limitation, for relief of damages or penalties for delay assessed by the District under the Contract;
- **25.3.1.2** Payment by the District of money or damages arising from work done by, or on behalf of, the Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or to which Contractor is not otherwise entitled to: or
- **25.3.1.3** An amount of payment disputed by the District.

25.4 <u>Claims Presentation</u>

- 25.4.1 Form and Contents of Claim
 - **25.4.1.1** If Contractor intends to apply for an increase in the Contract Price or Contract Time for any reason including, without limitation, the acts of District or its agents, Contractor shall, within thirty (30) days after the event giving rise to the Claim, give notice of the Claim in writing specifically identifying Contractor is invoking this Article 25 Claims Presentation.
 - **25.4.1.2** The Claim shall include an itemized statement of the details and amounts of its Claim for any increase in the Contract Price of Contract Time as provided below, including a Time Impact Analysis and any and all other documentation substantiating Contractor's claimed damages:
 - **25.4.1.2.1** The issues, events, conditions, circumstances and/or causes giving rise to the dispute, and shall show, in detail, the cause and effect of same;
 - **25.4.1.2.2** Citation to provisions in the Contract Documents, statute sections, and/or case law entitling Contractor to an increase in the Contract Price or Contract Time;
 - **25.4.1.2.3** The pertinent dates and/or durations and actual and/or anticipated effects on the Contract Price, Contract Schedule milestones and/or Contract Time adjustments;
 - **25.4.1.2.4** The Time Impact Analysis of all time delays that shows actual time impact on the critical path; and
 - **25.4.1.2.5** The line-item costs for labor, material, and/or equipment, if applicable, for all cost impacts priced like a change order according to Article 17 and must be updated monthly as to cost and entitlement if a continuing claim.
 - **25.4.1.3** The Claim shall include the following certification by the Contractor:
 - **25.4.1.3.1** The undersigned Contractor certifies under penalty of perjury that the attached dispute is made in good faith; that the supporting data is accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the adjustment for which Contractor believes the District is liable; and that I am duly authorized to certify the dispute on behalf of the Contractor.

- **25.4.1.3.2** Furthermore, Contractor understands that the value of the attached dispute expressly includes any and all of the Contractor's costs and expenses, direct and indirect, resulting from the Work performed on the Project, additional time required on the Project and/or resulting from delay to the Project including, without limitation, cumulative impacts. Contractor may not separately recover for overhead or other indirect costs. Any costs, expenses, damages, or time extensions not included are deemed waived.
- **25.4.2** Contractor shall bear all costs incurred in the preparation and submission of a claim.
- **25.4.3** Failure to timely submit a claim and the requisite supporting documentation shall constitute a waiver of Contractor's claim(s) against the District and Contractor's claims for compensation or an extension of time shall be forfeited and invalidated.

25.5 Claim Resolution pursuant to Public Contract Code section 9204

Contractor may request to waive the claims procedure under Public Contract Code section 9204 and proceed directly to the commencement of a civil action or binding arbitration. If Contractor chooses to proceed, Contractor shall comply with the following steps:

25.5.1 STEP 1:

- 25.5.1.1 Upon receipt of a Claim by registered or certified mail, return receipt requested, including the documents necessary to substantiate it, the District shall conduct a reasonable review of the Claim and, within a period **not to exceed 45 days**, shall provide the Contractor a written statement identifying what portion of the Claim is disputed and what portion is undisputed. Upon receipt of a Claim, the District and Contractor may, **by mutual agreement, extend the time period** to provide a written statement. If the District needs approval from its governing body to provide the Contractor a written statement identifying the disputed portion and the undisputed portion of the Claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of Claim sent by registered mail or certified mail, return receipt requested, the District shall have **up to three (3) days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension**, expires to provide Contractor a written statement identifying the disputed portion and the undisputed portion.
 - **25.5.1.1.1** Any payment due on an undisputed portion of the Claim shall be processed and made within 60 days after the District issues its written statement. Amounts not paid in a timely manner as required by this section, section 25.4, shall bear interest at seven percent (7%) per annum.
- **25.5.1.2** Upon receipt of a Claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable. In this instance, District and Contractor must comply with the sections below regarding Public Contract Code section 20104 et seq. and Government Code Claim Act Claims.

25.5.1.3 If the District fails to issue a written statement, or to otherwise meet the time requirements of this section, this shall result in the Claim being deemed rejected in its entirety. A Claim that is denied by reason of the District's failure to have responded to a Claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the Claim or the responsibility or qualifications of Contractor.

25.5.2 STEP 2:

- **25.5.2.1** If Contractor disputes the District's written response, or if the District fails to respond to a Claim within the time prescribed, Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the District shall schedule a meet and confer conference within 30 days for settlement of the dispute. Within 10 business days following the conclusion of the meet and confer conference, if the Claim or any portion of the Claim remains in dispute, the District shall provide the Contractor a written statement identifying the portion of the Claim that remains in dispute and the portion that is undisputed.
 - **25.5.2.1.1.1** Any payment due on an undisputed portion of the Claim shall be processed and made within 60 days after the District issues its written statement. Amounts not paid in a timely manner as required by this section, section 25.4, shall bear interest at seven percent (7%) per annum.

25.5.3 STEP 3:

- **25.5.3.1** Any disputed portion of the Claim, as identified by Contractor in writing, shall be submitted to nonbinding mediation, with the District and Contractor sharing the associated costs equally. The District and Contractor shall mutually agree to a mediator within 10 business days after the disputed portion of the Claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the Claim remaining in dispute shall be subject to applicable procedures outside this section.
 - **25.5.3.1.1** For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.
- **25.5.3.2** Unless otherwise agreed to by the District and Contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Public Contract Code section 20104.4 to mediate after litigation has been commenced.

25.5.4 STEP 4:

25.5.4.1 If mediation under this section does not resolve the parties' dispute, the District may, but does not require arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program.

25.6 Subcontractor Pass-Through Claims

- **25.6.1** If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a District because privity of contract does not exist, the contractor may present to the District a Claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that Contractor present a Claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the Claim be presented to the District shall furnish reasonable documentation to support the Claim.
- **25.6.2** Within 45 days of receipt of this written request from a subcontractor, Contractor shall notify the subcontractor in writing as to whether the Contractor presented the Claim to the District and, if Contractor did not present the Claim, provide the subcontractor with a statement of the reasons for not having done so.
- **25.6.3** The Contractor shall bind all its Subcontractors to the provisions of this section and will hold the District harmless against Claims by Subcontractors.

25.7 Government Code Claim Act Claim

- **25.7.1** If a claim, or any portion thereof, remains in dispute upon satisfaction of all applicable Claim Resolution requirements the Contractor shall comply with all claims presentation requirements 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 Government Code as a condition precedent to the Contractor's right to bring a civil action against the District.
- **25.7.2** Contractor shall bear all costs incurred in the preparation, submission and administration of a Claim. Any claims presented in accordance with the Government Code must affirmatively indicate Contractor's prior compliance with the claims procedure herein of the claims asserted.
- **25.7.3** For purposes of those provisions, the running of the time within which a claim pursuant to Public Contract Code section 20104.2 only must be presented to the District shall be tolled from the time the claimant submits his or her written claim pursuant to subdivision (a) until the time that claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.

25.8 <u>Claim Resolution pursuant to Public Contract Code section 20104 et seq.</u>

25.8.1 In the event of a disagreement between the parties as to performance of the Work, the interpretation of this Contract, or payment or nonpayment for Work performed or not performed, the parties shall attempt to resolve all claims of three

hundred seventy-five thousand dollars (\$375,000) or less which arise between Contractor and District by those procedures set forth in Public Contract Code section 20104, et seq., to the extent applicable.

- **25.8.1.1** Contractor shall file with the District any written Claim, including the documents necessary to substantiate it, upon the application for final payment.
- **25.8.1.2** For claims of less than fifty thousand dollars (\$50,000), the District shall respond in writing within forty-five (45) days of receipt of the Claim or may request in writing within thirty (30) days of receipt of the Claim any additional documentation supporting the Claim or relating to defenses or claims the District may have against the Contractor.
 - **25.8.1.2.1** If additional information is required, it shall be requested and provided by mutual agreement of the parties.
 - **25.8.1.2.2** District's written response to the documented Claim shall be submitted to the Contractor within fifteen (15) days after receipt of the further documentation or within a period of time no greater than that taken by the Contractor to produce the additional information, whichever is greater.
- **25.8.1.3** For claims of over fifty thousand dollars (\$50,000) and less than or equal to three hundred seventy-five thousand dollars (\$375,000), the District shall respond in writing to all written Claims within sixty (60) days of receipt of the claim, or may request, in writing, within thirty (30) days of receipt of the Claim any additional documentation supporting the Claim or relating to defenses or claims the District may have against the Contractor.
 - **25.8.1.3.1** If additional information is required, it shall be requested and provided upon mutual agreement of the District and the Contractor.
 - **25.8.1.3.2** The District's written response to the Claim, as further documented, shall be submitted to the Contractor within thirty (30) days after receipt of the further documentation, or within a period of time no greater than that taken by the Contractor to produce the additional information or requested documentation, whichever is greater.
- **25.8.1.4** If Contractor disputes the District's written response, or the District fails to respond within the time prescribed, Contractor may so notify the District, in writing, either within fifteen (15) days of receipt of the District's response or within fifteen (15) days of the District's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the District shall schedule a meet and confer conference within thirty (30) days for settlement of the dispute.
- **25.8.1.5** Following the meet and confer conference, if the Claim or any portion of it remains in dispute, the Contractor 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 running of the time within which a claim must be filed shall be tolled from the time the Contractor submits its written Claim until the time the

Claim is denied, including any period of time utilized by the meet and confer process.

- **25.8.1.6** For any civil action filed to resolve claims filed pursuant to this section, within sixty (60) days, but no earlier than thirty (30) days, following the filing of responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within fifteen (15) days by both parties of a disinterested third person as mediator, shall be commenced within thirty (30) days of the submittal, and shall be concluded within fifteen (15) days from the commencement of the mediation unless a time requirement 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.
- **25.8.1.7** 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 the 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 of 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.
- **25.8.1.8** The District shall not fail to pay money as to any portion of a Claim which is undisputed except as otherwise provided in the Contract Documents. In any suit filed pursuant to this section, the District shall pay interest due at the legal rate on any arbitration award or judgment. Interest shall begin to accrue on the date the suit is filed in a court of law.
- **25.8.2** Contractor shall bind its Subcontractors to the provisions of this Section and will hold the District harmless against disputes by Subcontractors.

25.9 <u>Claim Procedure Compliance</u>

- **25.9.1** Failure to submit and administer claims as required in Article 25 shall waive Contractor's right to claim on any specific issues not included in a timely submitted claim. Claim(s) not raised in a timely protest and timely claim submitted under this Article 25 may not be asserted in any subsequent litigation, Government Code Claim, or legal action.
- **25.9.2** District shall not be deemed to waive any provision under this Article 25, if at District's sole discretion, a claim is administered in a manner not in accord with this Article 25. Waivers or modifications of this Article 25 may only be made by a signed change order approved as to form by legal counsel for both District and Contractor; oral or implied modifications shall be ineffective.

25.10 Claim Resolution Non-Applicability

- **25.10.1** The procedures for dispute and claim resolutions set forth in this Article shall not apply to the following:
 - 25.10.1.1 Personal injury, wrongful death or property damage claims;

- **25.10.1.2**Latent defect or breach of warranty or guarantee to repair;
- 25.10.1.3Stop payment notices;
- 25.10.1.4 District's rights set forth in the Article on Suspension and Termination;
- **25.10.1.5** Disputes arising out of labor compliance enforcement by the Department of Industrial Relations; or
- **25.10.1.6**District rights and obligations as a public entity set forth in applicable statutes; provided, however, that penalties imposed against a public entity by statutes, including, but not limited to, Public Contract Code sections 20104.50 and 7107, shall be subject to the Claim Resolution requirements provided in this Article.

25.11 Attorney's Fees

25.11.1 Should litigation be necessary to enforce any terms or provisions of this Agreement, then each party shall bear its own litigation and collection expenses, witness fees, court costs, and attorney's fees.

26. STATE LABOR, WAGE & HOUR, APPRENTICE, AND RELATED PROVISIONS

26.1 <u>Labor Compliance and Enforcement</u>

Since this Project is subject to labor compliance and enforcement by the Department of Industrial Relations ("DIR"), Contractor specifically acknowledges and understands that it shall perform the Work of this Agreement while complying with all the applicable provisions of Division 2, Part 7, Chapter 1, of the Labor Code and Title 8 of the California Code of Regulations, including, without limitation, the requirement that the Contractor and all Subcontractors shall timely furnish complete and accurate electronic certified payroll records directly to the DIR. The District may not issue payment if this requirement is not met.

26.2 <u>Wage Rates, Travel, and Subsistence</u>

- **26.2.1** Pursuant to the provisions of Article 2 (commencing at section 1770), Chapter 1, Part 7, Division 2, of the Labor Code, the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this public work is to be performed for each craft, classification, or type of worker needed to execute this Contract are on file at the District's principal office and copies will be made available to any interested party on request. Contractor shall obtain and post a copy of these wage rates at the job site.
- 26.2.2 Holiday and overtime work, when permitted by law, shall be paid for at the general prevailing rate of per diem wages for holiday and overtime work on file with the Director of the Department of Industrial Relations, unless otherwise specified. The holidays upon which those rates shall be paid need not be specified by the District, but shall be all holidays recognized in the applicable collective bargaining agreement. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code.

- **26.2.3** Contractor shall pay and shall cause to be paid each worker engaged in Work on the Project the general prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations, regardless of any contractual relationship which may be alleged to exist between Contractor or any Subcontractor and such workers.
- **26.2.4** If during the period this bid is required to remain open, the Director of the Department of Industrial Relations determines that there has been a change in any prevailing rate of per diem wages in the locality in which the Work under the Contract is to be performed, such change shall not alter the wage rates in the Notice to Bidders or the Contract subsequently awarded.
- **26.2.5** Pursuant to Labor Code section 1775, Contractor shall, as a penalty to District, forfeit the statutory amount (believed by the District to be currently up to two hundred dollars (\$200) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates, determined by the District and/or the Director, for the work or craft in which that worker is employed for any public work done under Contract by Contractor or by any Subcontractor under it. The difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by Contractor.
- **26.2.6** Any worker employed to perform Work on the Project, which Work is not covered by any classification listed in the general prevailing wage rate of per diem wages determined by the Director, shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to Work to be performed by him, and such minimum wage rate shall be retroactive to time of initial employment of such person in such classification.
- **26.2.7** Pursuant to Labor Code section 1773.1, per diem wages are deemed to include employer payments for health and welfare, pension, vacation, travel time, subsistence pay, and apprenticeship or other training programs authorized by Labor Code section 3093, and similar purposes.
- **26.2.8** Contractor shall post at appropriate conspicuous points on the Site of Project, a schedule showing all determined minimum wage rates and all authorized deductions, if any, from unpaid wages actually earned. In addition, Contractor shall post a sign-in log for all workers and visitors to the Site, a list of all subcontractors of any tier on the Site, and the required Equal Employment Opportunity poster(s).

26.3 Hours of Work

26.3.1 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 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 shall be limited and restricted by Contractor to eight (8) hours per day, and forty (40) hours during any one week, except as hereinafter provided. Notwithstanding the provisions hereinabove 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.

- **26.3.2** Contractor shall keep and shall cause each Subcontractor to keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by Contractor 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 District and to the Division of Labor Standards Enforcement of the DIR.
- **26.3.3** Pursuant to Labor Code section 1813, Contractor shall as a penalty to the District forfeit the statutory amount (believed by the District to be currently twenty-five dollars (\$25)) for each worker employed in the execution of this Contract by Contractor or by any Subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one 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.
- **26.3.4** Any Work necessary to be performed after regular working hours, or on Sundays or other holidays shall be performed without additional expense to the District.

26.4 Payroll Records

- **26.4.1** Contractor shall upload, and shall cause each Subcontractor performing any portion of the Work under this Contract to upload, an accurate and complete certified payroll record ("CPR") electronically using DIR's eCPR System by uploading the CPRs by electronic XML file or entering each record manually using the DIR's iform (or current form) online on a weekly basis and within ten (10 days of any request by the District or Labor Commissioner at http://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html or current application and URL, 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 the Contractor and/or each Subcontractor in connection with the Work.
 - **26.4.1.1** The CPRs enumerated hereunder shall be filed directly with the DIR on a weekly basis or to the requesting party, whether the District or DIR, within ten (10) days after receipt of each written request. The CPRs from the Contractor and each Subcontractor for each week shall be provided on or before Wednesday of the week following the week covered by the CPRs. District may not make any payment to Contractor until:
 - **26.4.1.1.1** Contractor and/or its Subcontractor(s) provide CPRs acceptable to the DIR; and
 - **26.4.1.1.2** Any delay in Contractor and/or its Subcontractor(s) providing CPRs to the DIR in a timely manner may directly delay Contractor's payment.
- **26.4.2** All CPRs shall be available for inspection at all reasonable hours at the principal office of Contractor on the following basis:
 - **26.4.2.1** A certified copy of an employee's CPR shall be made available for inspection or furnished to the employee or his/her authorized representative on request.

- **26.4.2.2** CPRs shall be made available for inspection or furnished upon request to a representative of District, Division of Labor Standards Enforcement, Division of Apprenticeship Standards, and/or the DIR.
- **26.4.2.3** CPRs shall be made available upon request by the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through the District, Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested CPRs have not been provided pursuant to the provisions herein, the requesting party shall, prior to being provided the records, reimburse the costs of preparation by 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 Contractor.
- **26.4.3** Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by District, Division of Apprenticeship Standards, or Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of Contractor awarded Contract or performing Contract shall not be marked or obliterated.
- **26.4.4** Contractor shall inform District of the location of the records enumerated hereunder, including the street address, city, and county, and shall, within five (5) working days, provide a notice of change of location and address.
- **26.4.5** In the event of noncompliance with the requirements of this section, Contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects Contractor must comply with this section. Should noncompliance still be evident after the ten (10) day period, Contractor shall, as a penalty to District, forfeit up to one hundred dollars (\$100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Labor Commissioner, these penalties shall be withheld from progress payments then due.

26.4.6 [RESERVED]

26.5 [RESERVED]

26.6 Apprentices

- **26.6.1** Contractor acknowledges and agrees that, if this Contract involves a dollar amount greater than, or a number of working days greater than that specified in Labor Code section 1777.5, then this Contract is governed by the provisions of Labor Code Section 1777.5. It shall be the responsibility of Contractor to ensure compliance with this Article and with Labor Code section 1777.5 for all apprenticeship occupations.
- **26.6.2** Apprentices of any crafts or trades may be employed and, when required by Labor Code section 1777.5, shall be employed provided they are properly registered in full compliance with the provisions of the Labor Code.
- **26.6.3** Every such apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade at which he/she is employed, and shall be employed only at the work of the craft or trade to which she/he is registered.

- **26.6.4** Only apprentices, as defined in section 3077 of the Labor Code, who are in training under apprenticeship standards and written apprentice agreements under chapter 4 (commencing at section 3070), division 3, of the Labor Code, are eligible to be employed. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and apprentice agreements under which he/she is training.
- **26.6.5** Pursuant to Labor Code section 1777.5, if that section applies to this Contract as indicated above, Contractor and any Subcontractors employing workers in any apprenticeable craft or trade in performing any Work under this Contract shall apply to the applicable joint apprenticeship committee for a certificate approving the Contractor or Subcontractor under the applicable apprenticeship standards and fixing the ratio of apprentices to journeymen employed in performing the Work.
- **26.6.6** Pursuant to Labor Code section 1777.5, if that section applies to this Contract as indicated above, Contractor and any Subcontractor may be required to make contributions to the apprenticeship program.
- **26.6.7** If Contractor or Subcontractor willfully fails to comply with Labor Code section 1777.5, then, upon a determination of noncompliance by the Administrator of Apprenticeship, it shall:
 - **26.6.7.1** Be denied the right to bid on any subsequent project for one (1) year from the date of such determination;
 - **26.6.7.2** Forfeit as a penalty to District the full amount as stated in Labor Code section 1777.7. Interpretation and enforcement of these provisions shall be in accordance with the rules and procedures of the California Apprenticeship Council and under the authority of the Chief of the Division of Apprenticeship Standards.
- **26.6.8** Contractor and all Subcontractors shall comply with Labor Code section 1777.6, which section forbids certain discriminatory practices in the employment of apprentices.
- **26.6.9** Contractor shall become fully acquainted with the law regarding apprentices prior to commencement of the Work. Special attention is directed to sections 1777.5, 1777.6, and 1777.7 of the Labor Code, and title 8, California Code of Regulations, section 200 et seq. Questions may be directed to the State Division of Apprenticeship Standards, 455 Golden Gate Avenue, 9th floor, San Francisco, California 94102.

26.7 Non-Discrimination

- **26.7.1** Contractor herein agrees to comply with the provisions of the California Fair Employment and Housing Act as set forth in part 2.8 of division 3 of the California Government Code, commencing at section 12900; the Federal Civil Rights Act of 1964, as set forth in Public Law 88-352, and all amendments thereto; Executive Order 11246; and all administrative rules and regulations found to be applicable to Contractor and Subcontractor.
- **26.7.2** Special requirements for Federally Assisted Construction Contracts: During the performance of this Contract, Contractor agrees to incorporate in all

subcontracts the provisions set forth in Chapter 60-1.4(b) of Title 41 published in Volume 33 No. 104 of the Federal Register dated May 28, 1968.

26.8 Labor First Aid

Contractor shall maintain emergency first aid treatment for Contractor's workers on the Project which complies with the Federal Occupational Safety and Health Act of 1970 (29 U.S.C. § 651 et seq.) and the California Occupational Safety and Health Act of 1973 (Lab. Code, § 6300 et seq.; 8 Cal. Code of Regs., § 330 et seq.).

27. [RESERVED]

28. MISCELLANEOUS

28.1 <u>Assignment of Antitrust Actions</u>

28.1.1 Section 7103.5(b) of the Public Contract Code states:

In entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commending with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, which assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

28.1.2 Section 4552 of the Government Code states:

In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 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 purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

28.1.3 Section 4553 of the Government Code states:

If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.

28.1.4 Section 4554 of the Government Code states:

Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor

has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action.

28.1.5 Under this Article, "public purchasing body" is District and "bidder" is Contractor.

28.2 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 Federal Excise Tax because it is a sale to a State or Local Government for its exclusive use, District, upon request, will execute documents necessary to show (1) that 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 District. No Federal Excise Tax for such materials shall be included in any Contract Price.

28.3 <u>Taxes</u>

Contract Price is to include any and all applicable sales taxes or other taxes that may be due in accordance with section 7051 et seq. of the Revenue and Taxation Code, Regulation 1521 of the State Board of Equalization or any other tax code that may be applicable.

28.4 Shipments

Contractor is responsible for any or all damage or loss to shipments until delivered and accepted on Site, as indicated in the Contract Documents. There must be no charge for containers, packing, unpacking, drayage, or insurance. The total Contract Price shall be all inclusive (including sales tax) and no additional costs of any type will be considered.

28.5 <u>Compliance with Government Reporting Requirements</u>

If this Contract is subject to federal or other governmental reporting requirements because of federal or other governmental financing in whole or in part for the Project of which it is part, or for any other reason, Contactor shall comply with those reporting requirements at the request of the District at no additional cost.

END OF DOCUMENT

Technical Specifications For:

New Warehouse Freezer La Mesa/Spring Valley School District

ASDG Job Number: 23-029



Architect: Joshua Eckle



Electrical Engineer: Monica Hansen



Structural Engineer: Dave Maestas



Mechanical Engineer: Scott Johnson

Technical Specifications For:

New Warehouse Freezer La Mesa/Spring Valley School District

ASDG Job Number: 23-029

Client:

La Mesa/Spring Valley School District 3838 Conrad Dr, Spring Valley, CA 91977

Electrical:

Johnson Consulting Engineers, Inc. 12875 Brookprinter Place, Suite 300 Poway, CA

> 92064 858-679-4030

Mechanical:

858-746-9701

J&R Engineering 16769 Bernardo Center Drive, Suite 1 San Diego, CA 92128 Architect:

AlphaStudio Design Group 6152 Innovation Way Carlsbad, CA 92009 760-431-2444

Structural:

Wiseman and Rohy Structural Engineers 9915 Mira Mesa Blvd., Suite 200 San Diego, CA 92131 858-536-5166

<u>Kitchen:</u>

Orness Design Group 5955 Mira Mesa Blvd Suite H San Diego, Ca 92121 858-457-5955



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SECTION 01 1000 SUMMARY

PART 1 GENERAL

1.01 PROJECT

- A. Project Name: LMSV Warehouse Freezer
- B. Owner's Name: La Mesa/Spring Valley School District.
- C. Architect's Name: AlphaStudio Design Group.
- D. The Project consists of the construction of one new interior freezer unit. Scope includes demolition of the existing unit, concrete slab, and ancillary equipment. In addition, scope includes the installation of the new freezer unit, foundation system, and ancillary systems.
- E. The Project shall comply with Title 24, Parts 1-6, and 9.
- F. A copy of Title 24, Parts 1-5 must be kept on site at all times during construction.

1.02 DESCRIPTION OF ALTERATIONS WOR

A. Scope of demolition and removal work is indicated on drawings.

1.03 OWNER OCCUPANCY

- A. Owner intends to continue to occupy adjacent portions of the existing building during the entire construction period.
- B. Contractor to cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- C. Schedule the Work to accommodate Owner occupancy.

1.04 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: as negotiated with Owner.
 - The Contractor shall have an approved logistics plan prior to beginning construction activities.
- B. Arrange use of site and premises to allow:
 - Owner occupancy.
- C. Provide access to and from site as required by law and by Owner:
 - Emergency Building Exits During Construction: eep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 - 2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- D. Existing building spaces may not be used for storage.
- E. Utility Outages and Shutdown:
 - 1. Limit disruption of utility services to hours the building is unoccupied.
 - 2. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 7 days notice to Owner and authorities having jurisdiction.
 - 3. Prevent accidental disruption of utility services to other facilities.
 - 4. In the event that any or all life safety systems are shutdown, the Contractor shall provide Life and Safety watch for the entirety of the shutdown.

Summary

PART 2 PRODUCTS - NOT USED PART 3 EXECUTION - NOT USED

SECTION 01 2000 PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Documentation of changes in Contract Sum and Contract Time.
- C. Change procedures.
- D. Correlation of Contractor submittals based on changes.
- E. Procedures for preparation and submittal of application for final payment.

1.02 SC EDULE OF VALUES

- A. Use Schedule of Values Form: AIA G703, edition stipulated in the Agreement.
- B. Substitute forms containing equivelant information may be considered in lieu of AIA G703. Contractor shall submit proposed form to Architect for review within 10 days after issuance of the notice to proceed for approval.
- C. Forms filled out by hand will not be accepted.
- Submit Schedule of Values in PDF format, electronically within 10 days after the notice to proceed.
- E. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification section. Identify site mobilization and bonds and insurance.
- F. Revise schedule to list approved Change Orders, with each Application For Payment.
- G. Provide line items for Owner's allowance and/or contingency where applicable.
- H. Contractor and subcontractors to provide schedule of values for all lump sum items at or prior to the pre-construction meeting and when submitting payment application.

1.03 APPLICATIONS FOR PROGRESS PAYMENTS

- A. Payment Period: Submit at intervals stipulated in the Agreement.
- B. The contractor shall submit to the Architect, Inspector, and Owner a pencil draft of the payment application for review and comment a minimum of five business days prior to issuance.
- C. Use Form AIA G702 and Form AIA G703, edition stipulated in the Agreement.
- D. Substitute forms containing equivelant information may be considered in lieu of AIA G702 and G703. Contractor shall submit proposed form to Architect for review within 10 days after issuance of the notice to proceed for approval.
- E. Forms filled out by hand will not be accepted.
- F. For each item, provide a column for listing each of the following:
 - 1. Item Number.
 - 2. Description of work.
 - 3. Scheduled Values.
 - 4. Previous Applications.
 - 5. Work in Place under this Application.
 - 6. Approved Change Orders
 - 7. Approved Allowance Usage Requests (AUR's)
 - 8. Total Completed and Stored onsite to Date of Application.
 - 9. Percentage of Completion.
 - 10. Balance to Finish.
 - 11. Retainage.
- G. Execute certification by signature of authorized officer.
- H. Submit Application for Payment in electronic PDF format.

LMSV Warehouse Freezer	01 2000 - 1	Price and Payment Procedures
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- I. Include the following with the application (in electronic format where applicable):
 - 1. Construction progress schedule, revised and current as specified in Section 01 3000.
 - 2. Partial release of liens from major subcontractors and vendors.
 - 3. Project record documents for review by Inspector and Architect.

1.04 MODIFICATION PROCEDURES

- A. When direction provided by the Architect or Owner appears to modify the contract scope, time, or price the following procedure shall be followed:
 - 1. The contractor shall notify the Architect in writing within three business days of receiving direction that a potential change to the above may occur.
 - 2. The contractor shall provide to the Architect within ten business days of receiving direction, a Change Order Request (COR) detailing what the modifications to the contract scope, price, or time are as well as including all relevant substantiation of costs and supporting documentation. Change Order Requests shall be on the Contractor's own form and numbered sequentially.
 - 3. If the contractor does not comply with Items 1 and 2 above, the contractor voids their ability to claim a contract modification of time and/or price.
 - 4. Within ten business days of receiving the Contractor's COR, the Architect shall respond in writing to the request.
 - 5. Once accepted, the COR shall be included in a Change Order for the Owner's approval. The Contractor can invoice for the COR once approved by the Owner.
- B. Substantiation of Costs: Provide full information required for evaluation.
 - 1. On request, provide the following data:
 - a. Quantities of products, labor, and equipment.
 - b. Taxes, insurance, and bonds.
 - c. Overhead and profit.
 - d. Justification for any change in Contract Time with updated project schedule.
 - e. Credit for deletions from Contract, similarly documented.
 - 2. Support each claim for additional costs with additional information:
 - a. Origin and date of claim.
 - b. Dates and times work was performed, and by whom.
 - c. Time records and wage rates paid.
 - d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
 - 3. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
 - a. Time and Material work must be authroized by the Owner or the Archtiect prior to commencement of work.
 - b. Time and Material verification must be reviewed and verified by the Inspector at the conclusion of each day or portion thereof.
- C. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.
 - 1. Change Orders shall be invoiced once the Owner has approved and the fully executed Change Order has been provided to the Contractor.
- D. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.
- E. Promptly revise progress schedules to reflect any change in Contract Time, revise subschedules to adjust times for other items of work affected by the change, and resubmit.
- F. Promptly enter changes in Project Record Documents.

1.05 APPLICATION FOR FINAL PAYMENT

A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.

LMSV Warehouse Freezer	01 2000 - 2	Price and Payment Procedures

- B. Application for Final Payment will not be considered until the following have been accomplished:
 - 1. All closeout procedures specified in Section 01 7000.
 - 2. Provide completed record drawings including all supplemental instructions, request for information, and other relevant project information. These items shall be included as a permanent part of the record drawings.

PART 2 PRODUCTS - NOT USED PART 3 EXECUTION - NOT USED

SECTION 01 2100 ALLOWANCES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Contingency allowance.

1.02 CONTINGENCY ALLOWANCE

- A. At closeout of Contract, funds remaining in Allowance will be credited to Owner by deductive Change Order.
- B. Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, bonding, equipment rental, overhead and profit will be included in usage request authorizing expenditure of funds from this Contingency Allowance.
- C. The Contractor will prepare detailed breakdown of all costs associated with the work defined for the Allowance. These amounts will be based on final detailed payment receipts and back-up or estimates as required by Architect, and will include all direct costs of work performed under the defined work scope and will be charged against the Allowance through the Allowance Usage Request (AUR).
- D. Types of allowance scheduled herein for the Work include lump sum cash allowances. Include all allowances in Contract sum, and identify all allowances in Schedule of Values as separate line items.
- E. The Allowance is used only as directed by the Owner.
- F. The Allowance is used exclusively for the Owner's purposes and for the defined scope of work.
- G. The Contractor shall include in the base bid contract amount all cost of coordination, supervision, bond costs, insurance and all indirect project costs associated with performing the work of the Allowance.
- H. Changes that exceed the amount of each allowance will be processed as a Change Order per Contract Documents.
- I. All backup information provided for allowance usage shall include, but not be limited to:
 - 1. Material and/or equipment rental receipts
 - 2. Invoices
 - 3. Delivery tickets
 - 4. Contractor and sub contractor daily reports

1.03 ALLOWANCES SC EDULE

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

SECTION 01 2300 ALTERNATES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Description of Alternates.

1.02 ACCEPTANCE OF ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

1.03 SC EDULE OF ALTERNATES

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

SECTION 01 2500 SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Procedural requirements for proposed substitutions.

1.02 RELATED REQUIREMENTS

- A. Section 01 2300 Alternates, for product alternatives affecting this section.
- B. Section 01 3000 Administrative Requirements: Submittal procedures, coordination.
- C. Section 01 6000 Product Requirements: Fundamental product requirements, product options, delivery, storage, and handling.

1.03 DEFINITIONS

- A. Substitutions: Changes from Contract Documents requirements proposed by Contractor to materials, products, assemblies, and equipment.
 - Substitutions for Cause: Proposed due to changed Project circumstances beyond Contractor's control.
 - 2. Substitutions for Convenience: Proposed due to possibility of offering substantial advantage to the Project.
 - a. Substituion requests offering advantages solely to the Contractor shall be considered on a case by case basis.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS

- A. A Substitution Request for products, assemblies, materials, and equipment constitutes a representation that the submitter:
 - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product, equipment, assembly, or system.
 - 2. Agrees to provide the same warranty for the substitution as for the specified product.
 - 3. Agrees to coordinate installation and make changes to other work that may be required for the work to be complete, with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
 - 5. Agrees to reimburse Owner and Architect for review or redesign services associated with re-approval by authorities.
 - 6. Contractor and sub contractors shall submit written requests for substitution or an 'equal' material, process, or article, together with substantiating data, no later than 35 days after award of the contract or at the pre-construction meeting, whichever is earlier.
- B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents. Burden of proof is on proposer.
 - 1. Note explicitly any non-compliant characteristics.
- C. Content: Include information necessary for tracking the status of each Substitution Request, and information necessary to provide an actionable response.
 - 1. No specific form is required. Contractor's Substitution Request documentation must include the following:
 - a. Project Information:
 - Official project name and number, and any additional required identifiers established in Contract Documents.
 - 2) Owner's, Architect's, and Contractor's names.
 - b. Substitution Request Information:
 - Discrete and consecutive Substitution Request number, and descriptive subject/title.

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- 2) Indication of whether the substitution is for cause or convenience.
- 3) Issue date.
- 4) Reference to particular Contract Document(s) specification section number, title, and article/paragraph(s).
- 5) Description of Substitution.
- 6) Reason why the specified item cannot be provided.
- 7) Differences between proposed substitution and specified item.
- 8) Description of how proposed substitution affects other parts of work.
- c. Attached Comparative Data: Provide point-by-point, side-by-side comparison addressing essential attributes specified, as appropriate and relevant for the item:
 - Physical characteristics.
 - 2) In-service performance.
 - 3) Expected durability.
 - 4) Visual effect.
 - 5) Sustainable design features.
 - 6) Warranties.
 - 7) Other salient features and requirements.
 - 8) Include, as appropriate or requested, the following types of documentation:
 - (a) Product Data:
 - (b) Samples.
 - (c) Certificates, test, reports or similar qualification data.
 - (d) Drawings, when required to show impact on adjacent construction elements.
- d. Impact of Substitution:
 - 1) Savings to Owner for accepting substitution.
 - 2) Change to Contract Time due to accepting substitution.
- D. Limit each request to a single proposed substitution item.
 - Submit an electronic document, combining the request form with supporting data into single document.
- E. Substitutions affecting DSA regulated items shall be considered an Addendum or Construction Change Document and shall be approved prior to fabircation or procurement of substituted product.
 - 1. All added a shall be signed by the Archtiect of Record and approved by DSA.
 - All Construction Change Documents (CCD's) shall be signed by the Archtiect of Record, Structural Engineer (where applicable), and delegated professional engineer (where applicable). CCD's shall be reviewed and approved by DSA prior to fabrication, procurement, and installation of substituted product.

3.02 SUBSTITUTION PROCEDURES DURING CONSTRUCTION

- A. Architect will consider requests for substitutions only within 15 days after date of Agreement.
- B. Submit request for Substitution for Cause immedately upon discovery of need for substitution, but not later than 14 business days prior to time required for review and approval by Architect, in order to stay on approved project schedule.
- C. Submit request for Substitution for Convenience immediately upon discovery of its potential advantage to the project, but not later than 14 business days prior to time required for review and approval by Architect, in order to stay on approved project schedule.
 - In addition to meeting general documentation requirements, document how the requested substitution benefits the Owner through cost savings, time savings, greater energy conservation, or in other specific ways.
 - 2. Document means of coordinating of substitution item with other portions of the work, including work by affected subcontractors.
 - 3. Bear the costs engendered by proposed substitution of:
 - a. Owner's compensation to the Architect for any required redesign, time spent processing and evaluating the request.

- b. Other construction by Owner.
- c. Other unanticipated project considerations.
- D. Substitutions will not be considered under one or more of the following circumstances:
 - 1. When they are indicated or implied on shop drawing or product data submittals, without having received prior approval.
 - 2. Without a separate written request.

3.03 RESOLUTION

- A. Architect may request additional information and documentation prior to rendering a decision. Provide this data in an expeditious manner.
- B. Architect will notify Contractor in writing of decision to accept or reject request.
 - Architect's decision following review of proposed substitution will be noted on the submitted form.

3.04 ACCEPTANCE

A. Accepted substitutions change the work of the Project. They will be documented and incorporated into work of the project by Change Order, Construction Change Directive, Architectural Supplementary Instructions, or similar instruments provided for in the Conditions of the Contract.

3.05 CLOSEOUT ACTIVITIES

- A. See Section 01 7800 Closeout Submittals, for closeout submittals.
- B. Include completed Substitution Request Forms as part of the Project record. Include both approved and rejected Requests.

SECTION 01 3000 ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- General administrative requirements.
- B. Electronic document submittal service.
- C. Preconstruction meeting.
- D. Progress meetings.
- E. Construction progress schedule.
- F. Submittals for review, information, and project closeout.
- G. Number of copies of submittals.
- H. Requests for Interpretation (RFI) procedures.
- I. Submittal procedures.
- J. Punch walk and associated punch list procedures.

1.02 RELATED REQUIREMENTS

- A. Section 01 6000 Product Requirements: General product requirements.
- B. Section 01 7000 Execution and Closeout Requirements: Additional coordination requirements.
- C. Section 01 7800 Closeout Submittals: Project record documents; operation and maintenance data; warranties and bonds.

1.03 GENERAL ADMINISTRATIVE REQUIREMENTS

- A. Conform to requirements of Section 01 7000 Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.
- B. Make the following types of submittals to Architect:
 - 1. Construction and Progress Schedule
 - 2. Digital Photo Documentation of the Project Site and Adjacent Areas
 - 3. Corner Records of all Survey Monuments Tie-Out in or Near the Work Area (if Surveying is to be Provided by the Contractor
 - 4. Specifications and Certifications for Each Material or Item to be Used on the Project
 - 5. Traffic Control Plans
 - 6. Illness and Injury Prevention Program Plan
 - 7. Schedule of Values for all Lump Sum Bid Items
 - 8. Staff Names with a list of staff assignments, including superintendent and other personnel in attendance at project site. (Identify individuals and their duties and responsibilities; list addressess and telephone numbers, including home and office telephone numbders)
 - 9. All Permits and Contractor Licenses
 - 10. Confined Space Entry Program and Shoring Plan, (if Required)
 - 11. Sewer Spill Prevention Plan, (if Required)
 - 12. Cut Sheet/Shop Drawings, Manufacturers Brochures, Technical Bulletins and Reports, Specifications, Diagrams for all Products to be Used on the Project
 - 13. Plans, Schematics, Drawings and Engineering Calculations as Required per the Contract Documents and/or Permitting
 - 14. SWPPP (if Required)
 - 15. Data, including, but not limited to, catalog sheets, manufacturers brochures, technical bulletins, specifications, diagrams, product samples, and other information necessary to describe a system, product or item. This information is required for irrigation systems, lighting systems, and may also be required for any product, manufactured item, or system.
 - 16. Requests for Information
 - 17. Requests for Substitution

- 18. Applications for payment and change order requests
- 19. Correction Punch List and Final Correction Punch List for Substantial Completion
- 20. Closeout Documents (Warranties, O M Manuals, Etc.)

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PRECONSTRUCTION MEETING

- A. Architect will schedule a meeting after Notice of Award.
- B. Attendance Required:
 - 1. Owner.
 - 2. Architect.
 - 3. Contractor.
 - 4. Inspector.
 - 5. Bond Program Manager.
 - 6. School Site Representative.

C. Agenda:

- 1. Designation of Contractor's personnel for the project.
- 2. 24 hour emergency contact information for Contractor and Owner.
- 3. List of all sub contractors regardless of percentage of work.
- 4. Construction CPM Schedule
- 5. Copy of Public Notification/Door Hangers
- 6. Digital photo documentation of project site and adjacent area. This item can be processed as a formal project submittal.
- 7. Traffic control plan
- 8. Illness and injury prevention plan
- 9. Confined space entry program (if required)
- 10. Shoring plan (if required)
- 11. Sewer spill prevention plan (if requried)
- 12. SWPPP
- 13. Schedule of values for all lump sum bid items. This item can be processed as a formal submittal.
- 14. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
- 15. Example pay application showing conformance to Owner requirements.

3.02 PROGRESS MEETINGS

- A. Architect will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- B. Attendance Required:
 - 1. Contractor.
 - 2. Owner.
 - 3. Architect.
 - 4. Contractor's superintendent.
 - 5. Major subcontractors.
 - 6. Inspector.
- C. Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of work progress.
 - Contractor shall provide a three week look ahead schedule projecting upcoming work activities.
 - 3. Field observations, problems, and decisions.
 - 4. Identification of problems that impede, or will impede, planned progress.
 - 5. Review of submittals schedule and status of submittals.

- 6. Review of RFIs log and status of responses.
- 7. Review of off-site fabrication and delivery schedules.
- 8. Corrective measures to regain projected schedules.
- 9. Coordination of projected progress.
- 10. Maintenance of quality and work standards.
- 11. Effect of proposed changes on progress schedule and coordination.
- 12. Other business relating to work.

3.03 CONSTRUCTION PROGRESS SC EDULE CPM SC EDULE - SEE SECTION 01 321

- A. Within 10 days after date of the Agreement, submit preliminary schedule defining planned operations for the first 60 days of work, with a general outline for remainder of work.
 - Include written certification that major contractors have reviewed and accepted proposed schedule.

3.04 REQUESTS FOR INTERPRETATION RFI

- A. Definition: A request seeking one of the following:
 - An interpretation, amplification, or clarification of some requirement of Contract
 Documents arising from inability to determine from them the exact material, process, or
 system to be installed; or when the elements of construction are required to occupy the
 same space (interference); or when an item of work is described differently at more than
 one place in the Contract Documents.
 - 2. A resolution to an issue which has arisen due to field conditions and affects design intent.
- B. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of the Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
 - 1. Prepare a separate RFI for each specific item.
 - a. Do not forward requests which solely require internal coordination between subcontractors.
- C. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.
 - 1. Include in each request Contractor's signature attesting to good faith effort to determine from the Contract Documents information requiring interpretation.
 - 2. Unacceptable Uses for RFIs: Do not use RFIs to request the following::
 - a. Approval of submittals (use procedures specified elsewhere in this section).
 - b. Approval of substitutions (see Section 01 6000 Product Requirements)
 - c. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
 - d. Different methods of performing work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
 - 3. Improper RFIs: Requests not prepared in conformance to requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response, with an explanatory notation.
 - 4. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, the Contract Documents, with no additional input required to clarify the question. They will be returned without a response.
 - a. The Owner reserves the right to assess the Contractor for the costs (on time-and-materials basis) incurred by the Architect, and any of its consultants, due to processing of such RFIs.
- D. Content: Include identifiers necessary for tracking the status of each RFI, and information necessary to provide an actionable response.
 - Official Project name and number, and any additional required identifiers established in Contract Documents.
 - 2. Owner's, Architect's, and Contractor's names.
 - 3. Discrete and consecutive RFI number, and descriptive subject/title.
 - 4. Issue date, and requested reply date.

- 5. Reference to particular Contract Document(s) requiring additional information/interpretation. Identify pertinent drawing and detail number and/or specification section number, title, and paragraph(s).
- 6. Annotations: Field dimensions and/or description of conditions which have engendered the request.
- 7. Contractor's suggested resolution: A written and/or a graphic solution, to scale, is required in cases where clarification of coordination issues is involved, for example; routing, clearances, and/or specific locations of work shown diagrammatically in Contract Documents. If applicable, state the likely impact of the suggested resolution on Contract Time or the Contract Sum.
- E. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.
- F. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.
 - 1. Indicate current status of every RFI. Update log promptly and on a regular basis.
 - 2. Note dates of when each request is made, and when a response is received.
 - 3. Highlight items requiring priority or expedited response.
 - 4. Highlight items for which a timely response has not been received to date.
 - 5. Identify and include improper or frivolous RFIs.
- G. Review Time: Architect will respond and return RFIs to Contractor within seven calendar days of receipt. For the purpose of establishing the start of the mandated response period, RFIs received after 12:00 noon will be considered as having been received on the following regular working day.
 - 1. Response period may be shortened or lengthened for specific items, subject to mutual agreement, and recorded in a timely manner in progress meeting minutes.
 - 2. RFIs that require additional input from Architect's consultants may require additional review time
- H. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in Contractor's belief it is likely to lead to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Change Order request to Owner and Architect.
 - 1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and an amended one is to be issued forthwith. Identify the amended RFI with an R suffix to the original number.
 - 2. Do not extend applicability of a response to specific item to encompass other similar conditions, unless specifically so noted in the response.
 - 3. Upon receipt of a response, promptly review and distribute it to all affected parties, and update the RFI Log.
 - 4. Notify Architect within seven calendar days if an additional or corrected response is required by submitting an amended version of the original RFI, identified as specified above.

3.05 SUBMITTAL SC EDULE

- A. Submit to Architect for review a schedule for submittals in tabular format.
 - 1. Submit at the same time as the preliminary schedule specified in Section 01 3216 Construction Progress Schedule.
 - 2. Coordinate with Contractor's construction schedule and schedule of values.
 - Format schedule to allow tracking of status of submittals throughout duration of construction.
 - 4. Arrange information to include scheduled date for initial submittal, specification number and title, submittal category (for review or for information), description of item of work covered, and role and name of subcontractor.
 - 5. Account for time required for preparation, review, manufacturing, fabrication and delivery when establishing submittal delivery and review deadline dates.
 - For assemblies, equipment, systems comprised of multiple components and/or requiring detailed coordination with other work, allow for additional time to make

corrections or revisions to initial submittals, and time for their review.

3.0 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
 - Product data.
 - 2. Shop drawings.
 - 3. Samples for selection.
 - 4. Samples for verification.
- B. Submit to Architect for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
- C. Samples will be reviewed for aesthetic, color, or finish selection.
- D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 7800 - Closeout Submittals.

3.07 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
 - 1. Design data.
 - Certificates.
 - 3. Test reports.
 - 4. Inspection reports.
 - 5. Manufacturer's instructions.
 - 6. Manufacturer's field reports.
 - 7. Other types indicated.
- B. Submit for Architect's knowledge as contract administrator or for Owner.

3.0 SUBMITTALS FOR PROJECT CLOSEOUT

- A. Submit Correction Punch List for Substantial Completion.
- B. Submit Final Correction Punch List for Substantial Completion.
- C. When the following are specified in individual sections, submit them at project closeout in conformance to requirements of Section 01 7800 Closeout Submittals:
 - 1. Project record documents.
 - 2. Operation and maintenance data.
 - 3. Warranties.
 - 4. Bonds.
 - 5. Other types as indicated.
- D. Submit for Owner's benefit during and after project completion.

3.09 NUMBER OF COPIES OF SUBMITTALS

- A. Electronic Documents: Submit one electronic copy in PDF format; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected.
- B. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.
 - 1. After review, produce duplicates.
 - 2. Retained samples will not be returned to Contractor unless specifically so stated.

3.10 SUBMITTAL PROCEDURES

- A. General Requirements:
 - 1. Use a separate transmittal for each item.
 - 2. Transmit using approved form.
 - a. Use Contractor's form, subject to prior approval by Architect.
 - 3. Sequentially identify each item. For revised submittals use original number and a sequential numerical suffix.

- 4. Identify: Project; Contractor; subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy.
- 5. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
 - a. Submittals from sources other than the Contractor, or without Contractor's stamp will not be acknowledged, reviewed, or returned.
- 6. Deliver each submittal on date noted in submittal schedule, unless an earlier date has been agreed to by all affected parties, and is of the benefit to the project.
 - a. Send submittals in electronic format via email to Architect.
- 7. Schedule submittals to expedite the Project, and coordinate submission of related items.
 - For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
 - b. For sequential reviews involving Architect's consultants, Owner, or another affected party, allow an additional 7 days.
 - c. For sequential reviews involving approval from authorities having jurisdiction (AHJ), in addition to Architect's approval, allow an additional 30 days minimum.
- 8. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
- 9. Provide space for Contractor and Architect review stamps.
- 10. When revised for resubmission, identify all changes made since previous submission.
- 11. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.
- 12. Submittals not requested will not be recognized or processed.
- B. Product Data Procedures:
 - 1. Submit only information required by individual specification sections.
 - 2. Collect required information into a single submittal.
 - 3. Do not submit (Material) Safety Data Sheets for materials or products.
- C. Shop Drawing Procedures:
 - 1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting the Contract Documents and coordinating related work.
 - 2. Do not reproduce the Contract Documents to create shop drawings.
 - 3. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.
- D. Samples Procedures:
 - 1. Transmit related items together as single package.
 - Identify each item to allow review for applicability in relation to shop drawings showing installation locations.

3.11 SUBMITTAL REVIEW

- A. Submittals for Review: Architect will review each submittal, and approve, or take other appropriate action.
- B. Submittals for Information: Architect will acknowledge receipt and review. See below for actions to be taken.
- C. Architect's actions will be reflected by marking each returned submittal using virtual stamp on electronic submittals.
 - Notations may be made directly on submitted items and/or listed on appended Submittal Review cover sheet.
- D. Architect's and consultants' actions on items submitted for review:
 - 1. Authorizing purchasing, fabrication, delivery, and installation:
 - a. No Exceptions Taken , or language with same legal meaning.
 - b. Make Corrections Noted, Resubmittal Not Required , or language with same legal meaning.

- At Contractor's option, submit corrected item, with review notations acknowledged and incorporated.
- 2. Not Authorizing fabrication, delivery, and installation:
 - a. Revise and Resubmit .
 - Resubmit revised item, with review notations acknowledged and incorporated.
 - 2) Non-responsive resubmittals may be rejected.
 - b. Rejected.
 - 1) Submit item complying with requirements of Contract Documents.
- E. Architect's and consultants' actions on items submitted for information:
 - 1. Items for which no action was taken:
 - Received to notify the Contractor that the submittal has been received for record only.
 - 2. Items for which action was taken:
 - a. Reviewed no further action is required from Contractor.

3.12 PUNC LIST

- A. Contractor's requirements for punch list: Prior to requesting the Architect to perform the final punch walk, the Contractor shall meet the following requirements:
 - 1. List of Incomplete Items: The Contractor shall furnish a comprehensive list of items that are not anticipated to be complete at the time of the Archtiect's punch walk.
 - 2. Contractor's Pre-Punch List: The Contractor shall furnish a comprehensive pre-punch list for review prior to the Architect's punch walk. The Contractor's list shall include corrective items identified by the Contractor during their internal pre-punch walk. The list shall also include the date each item was addressed by the Contractor. The Contractor's pre-punch list shall be completed in full prior to the Architect performing their punch walk.
 - 3. Scheduling of Architect's Final Punch Walk: Once the above items have been completed and submitted to the Architect for review, the Contractor shall schedule the Architect's final punch walk. The final punch walk shall be coordinated and scheduled by the Contractor with the Architect a minimum of 21 calendar days prior to the contract completion date or as previously agreed upon.
- B. Architect's punch walk:
 - Once scheduled, the Architect and their required consultants will perform a final punch walk of the project. At the conclusion of the walk the Architect and consultants shall provide a punch list indicating deficient items. This list is not all encompassing and does not relieve the Contractor of any contractual requirements as it relates to the project.
 - 2. The Architect's punch list should not be considered a 'list to complete' as it is the Contractor's responsibility to ensure all items are completed prior to scheduling the punch walk. The Architect, at their discretion, may terminate the punch walk if it is determined that the project is not complete.
 - 3. The Architect shall issue the final punch list to the Contractor within 14 calendar days of the punch walk or as previously agreed upon.
 - 4. Once the Contractor has addressed all items on the Architect's punch list, the Contractor shall submit a verified punch list that includes the following minimum items:
 - a. Corrective measures taken to address the item.
 - b. Date of when the corrective measures were verified as being completed by the Contractor.
 - Initials of the Contractor who verified the completed corrective measures.
 - 5. At the Architect's discretion a punch list verification walk shall be conducted to confirm the punch list items have been addressed.

SECTION 01 321 CONSTRUCTION PROGRESS SC EDULE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preliminary schedule.
- B. Construction progress schedule, bar chart type, Critical Path Method, CPM, cost loaded schedule

1.02 REFERENCE STANDARDS

- A. AGC (CPSM) Construction Planning and Scheduling Manual; 2004.
- M-H (CPM) CPM in Construction Management Project Management with CPM; O'Brien; 2006.

1.03 SUBMITTALS

- A. Within 10 days after date established in Notice to Proceed, submit preliminary schedule.
- B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
- Within 10 days after joint review, submit complete schedule identifying start and completion dates.
 - 1. Submit a minimum of two printed copies large enough to display the entire schedule for the complete construction period on a single page.
- E. Submit updated schedule with each Application for Payment or monthly.
- F. Submit in PDF format.

1.04 QUALITY ASSURANCE

A. Scheduler: Contractor's personnel or specialist Consultant specializing in CPM scheduling with one years minimum experience in scheduling construction work of a complexity comparable to this Project, and having use of computer facilities capable of delivering a detailed graphic printout within 48 hours of request.

1.05 SC EDULE FORMAT

- A. Listings: In chronological order according to the start date for each activity. Identify each activity with the applicable specification section number.
- B. Scale and Spacing: To allow for notations and revisions.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PRELIMINARY SC EDULE

A. Prepare preliminary schedule in the form of a horizontal bar chart.

3.02 CONTENT

- A. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.
- B. Identify each item by specification section number.
- C. Identify work of separate stages and other logically grouped activities.
- D. Provide sub-schedules to define critical portions of the entire schedule.
- E. Show accumulated percentage of completion of each item, and total percentage of Work completed, as of the first day of each month.
- F. Provide separate schedule of submittal dates for shop drawings, product data, and samples, products identified under Allowances, and dates reviewed submittals will be required from

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- Architect. Indicate decision dates for selection of finishes.
- G. Coordinate content with schedule of values specified in Section 01 2000 Price and Payment Procedures.
- H. Provide legend for symbols and abbreviations used.

3.03 BARC ARTS

- A. Include a separate bar for each major portion of Work or operation.
- B. Identify the first work day of each week.

3.04 NETWOR ANALYSIS

- A. Prepare network analysis diagrams and supporting mathematical analyses using the Critical Path Method.
- B. Illustrate order and interdependence of activities and sequence of work; how start of a given activity depends on completion of preceding activities, and how completion of the activity may restrain start of subsequent activities.
- C. Mathematical Analysis: Tabulate each activity of detailed network diagrams, using calendar dates, and identify for each activity:
 - 1. Preceding and following event numbers.
 - 2. Activity description.
 - 3. Estimated duration of activity, in maximum 15 day intervals.
 - 4. Earliest start date.
 - 5. Earliest finish date.
 - 6. Actual start date.
 - 7. Actual finish date.
 - 8. Latest start date.
 - 9. Latest finish date.
 - Total and free float: float time shall accrue to Owner and to Owner's benefit.
 - 11. Monetary value of activity, keyed to Schedule of Values.
 - 12. Percentage of activity completed.
 - 13. Responsibility.
- D. Required Reports: List activities in sorts or groups:
 - 1. By preceding work item or event number from lowest to highest.
 - 2. By amount of float, then in order of early start.

3.05 REVIEW AND EVALUATION OF SC EDULE

- A. Evaluate project status to determine work behind schedule and work ahead of schedule.
- B. After review, revise as necessary as result of review, and resubmit within 10 days.

3.0 UPDATING SC EDULE

- A. Maintain schedules to record actual start and finish dates of completed activities.
- B. Indicate progress of each activity to date of revision, with projected completion date of each activity.
- C. Annotate diagrams to graphically depict current status of Work.
- D. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
- E. Indicate changes required to maintain Date of Substantial Completion.
- F. Submit reports required to support recommended changes.
- G. Provide narrative report to define problem areas, anticipated delays, and impact on the schedule. Report corrective action taken or proposed and its effect.

3.07 DISTRIBUTION OF SC EDULE

A. Distribute copies of updated schedules to Contractor's project site file, to subcontractors, suppliers, Architect, Owner, and other concerned parties.

В.	Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.

SECTION 01 3553 SECURITY PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Security measures including entry control, personnel identification, miscellaneous restrictions, and entry and exit control, personnel identification, protective devices, and miscellaneous restrictions.

1.02 RELATED REQUIREMENTS

- A. Section 01 1000 Summary: use of premises and occupancy.
- B. Section 01 5000 Temporary Facilities and Controls: Temporary lighting.

1.03 SECURITY PROGRAM

- A. Protect Work, existing premises and Owner's operations from theft, vandalism, and unauthorized entry.
- B. Initiate program at project mobilization.
- C. Maintain program throughout construction period until Owner acceptance precludes the need for Contractor security.

1.04 ENTRY CONTROL

- A. Restrict entrance of persons and vehicles into Project site .
- B. Allow entrance only to authorized persons with proper identification.
- C. Maintain log of workers and visitors, make available to Owner on request.

1.05 PERSONNEL IDENTIFICATION

- A. Provide identification badge to each person authorized to enter premises.
- B. Badge To Include: Personal photograph, name and employer.
- C. Maintain a list of accredited persons, submit copy to Owner on request.
- D. Require return of badges at expiration of their employment on the Work.

1.0 RESTRICTIONS

A. Do no work on Sundays unless previously authorized by Owner, in the event the work is ordered by the Owner and there is written direction specifically authorizing Sunday work.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

SECTION 01 4000 QUALITY REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Submittals.
- B. Quality assurance.
- C. Testing and inspection agencies and services.
- D. Control of installation.
- E. Mock-ups.
- F. Tolerances.
- G. Defect Assessment.

1.02 RELATED REQUIREMENTS

A. Section 01 3000 - Administrative Requirements: Submittal procedures.

1.03 DEFINITIONS

- A. Contractor's Quality Control Plan: Contractor's management plan for executing the Contract for Construction.
 - Contractor to submit to Owner, Inspector, and Archtiect detailed quality control plan prior to initiation of construction activities onsite.

1.04 TESTING AND INSPECTION AGENCIES AND SERVICES

A. The Project Inspector and testing lab shall be employed by the Owner and approved by the Archtiect of Record, Structural Engineer of Record (where applicable), delegated professional engineer (where applicable), and DSA.

PART 3 EXECUTION

2.01 CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

2.02 MOC -UPS

- A. Tests shall be performed under provisions identified in this section and identified in the respective product specification sections.
- B. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
- C. Accepted mock-ups shall be a comparison standard for the remaining Work.
- D. Where mock-up has been accepted by Architect and is specified in product specification sections to be removed, protect mock-up throughout construction, remove mock-up and clear area when directed to do so by Architect.

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2.03 TOLERANCES

- Monitor fabrication and installation tolerance control of products to produce acceptable Work.
 Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

2.04 TESTING AND INSPECTION

- A. Testing Agency Duties:
 - Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
 - Perform specified sampling and testing of products in accordance with specified standards.
 - 3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 4. Promptly notify Architect and Contractor of observed irregularities or non-compliance of Work or products.
 - 5. Perform additional tests and inspections required by Architect.
 - 6. Submit reports of all tests/inspections specified.
- B. Limits on Testing/Inspection Agency Authority:
 - Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency may not approve or accept any portion of the Work.
 - 3. Agency may not assume any duties of Contractor.
 - 4. Agency has no authority to stop the Work.

C. Contractor Responsibilities:

- 1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
- 2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
- 3. Provide incidental labor and facilities:
 - a. To provide access to Work to be tested/inspected.
 - b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
 - c. To facilitate tests/inspections.
 - d. To provide storage and curing of test samples.
- 4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
- 5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- 6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- D. Re-testing required because of non-compliance with specified requirements shall be performed by the same agency on instructions by Architect.
- E. Re-testing required because of non-compliance with specified requirements shall be paid for by Contractor.

2.05 DEFECT ASSESSMENT

A. Replace Work or portions of the Work not complying with specified requirements.

SECTION 01 5000 TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

- Temporary utilities.
- B. Temporary telecommunications services.
- C. Temporary sanitary facilities.
- D. Temporary Controls: Barriers, enclosures, and fencing.
- E. Security requirements.
- F. Vehicular access and parking.
- G. Waste removal facilities and services.
- H. Project identification sign.
- I. Field offices.

1.02 RELATED REQUIREMENTS

- A. Section 01 5100 Temporary Utilities.
- B. Section 01 5213 Field Offices and Sheds.
- C. Section 01 5500 Vehicular Access and Parking.

1.03 TEMPORARY UTILITIES - SEE SECTION 01 5100

A. Provide and pay for all electrical power, lighting, water, heating and cooling, and ventilation required for construction purposes.

1.04 TELECOMMUNICATIONS SERVICES

- Provide, maintain, and pay for telecommunications services to field office at time of project mobilization.
- B. Telecommunications services shall include:
 - 1. Temporary telephone service in common-use facilities for use by all construction personnel.
 - 2. Install one telephone line for each field office.
 - 3. Provide a list of important telephone numbers including police and fire departments, contractor's main office, archtiect's office, owner's office, and primary sub contractors main office.
 - 4. Provide superintendent with cellular telephone or portable two-way radio when away from field office.

1.05 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
 - 1. Provide temporary toilets, wash facilities, and drinking water for use by construction personnel. Comply with authority having jurisdiction regarding type, quantity and maintentance of fixtures and facilities.
- B. Maintain daily in clean and sanitary condition.

1.0 BARRIERS

- A. Provide barriers with sound proofing to prevent unauthorized entry to construction areas as well as mitigate noise pollution into the active school site and publice right away. Barrier should be constructed to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.

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- C. Provide protection for plants designated to remain. Replace damaged plants.
- D. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.07 FENCING

- A. Provide 6 foot (1.8 m) high fence with steel pipe posts and galvanized steel base for supporting posts. Posts to be a minimum 2-3/8 OD line posts, 2-7/8 OD corner and pull posts, and 1-5/8 OD top and bottom rails.
- B. Fencing to be located around construction site and equipped with vehicular and pedestrian gates with locks.
- C. Provide screen on all temporary construction fence panles to limit the visibility of the construction site from the public.
- D. Minimum 2 inch, 9 gauge galvanized steel, chain link fencing fabric.

1.0 INTERIOR ENCLOSURES

- A. Provide temporary partitions and ceilings as indicated to separate work areas from Owner-occupied areas, to prevent penetration of dust and moisture into Owner-occupied areas, and to prevent damage to existing materials and equipment.
- B. Construction: Framing and reinforced polyethylene sheet materials with closed joints and sealed edges at intersections with existing surfaces:

1.09 SECURITY - SEE SECTION 01 3553

A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

1.10 VE ICULAR ACCESS AND PAR ING - SEE SECTION 01 5500

- A. Coordinate access and haul routes with governing authorities and Owner.
- Provide and Maintain access to all fire lanes and fire hydrants, free of obstruction, during all construction activities.
- C. Provide means of removing mud from vehicle wheels before entering streets.
- D. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

1.11 WASTE REMOVAL

- A. See Section 01 7419 Construction Waste Management and Disposal, for additional requirements.
- B. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- C. Provide containers with lids. Remove trash from site periodically.
- D. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- E. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.12 PROJECT IDENTIFICATION

- A. Provide project identification sign of design and construction indicated on drawings.
- B. Erect on site at location indicated.
- C. No other signs are allowed without Owner permission except those required by law.

1.13 FIELD OFFICES - SEE SECTION 01 5213

- A. Office: Weathertight, with lighting, electrical outlets, heating, cooling equipment, and equipped with sturdy furniture, drawing rack, and drawing display table.
- B. Provide space for Project meetings, with table and chairs to accommodate 8 persons.

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- C. Provide separate field office for Inspector of Record.
- D. Provide separate field office for Bond Program Manager.
- E. Locate offices a minimum distance of 30 feet (10 m) from existing and new structures.

1.14 REMOVAL OF UTILITIES FACILITIES AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing facilities used during construction to original condition.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

SECTION 01 5100 TEMPORARY UTILITIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Temporary Utilities: Provision of electricity and water.

1.02 RELATED REQUIREMENTS

A. Section 01 5000 - Temporary Facilities and Controls:

1.03 TEMPORARY ELECTRICITY

- A. Cost: By Contractor.
- B. Provide power service required from utility source.
- C. Provide temporary electric feeder from existing building electrical service at location as directed.

1.04 TEMPORARY WATER SERVICE

- A. Cost of Water Used: By Contractor.
- B. Provide and maintain suitable quality water service for construction operations at time of project mobilization.
- Temporary water service for fire protection shall be installed prior to combustibles arriving onsite.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

SECTION 01 5213 FIELD OFFICES AND S EDS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary field offices for use of Contractor.
- B. Maintenance and removal.

1.02 RELATED REQUIREMENTS

- A. Section 01 1000 Summary: use of premises and responsibility for providing field offices.
- B. Section 01 5000 Temporary Facilities and Controls:
- C. Section 01 5500: Parking and access to field offices.

PART 2 PRODUCTS

2.01 CONSTRUCTION

- A. Portable or mobile buildings, or buildings constructed with floors raised above ground, securely fixed to foundations, with steps and landings at entrance doors.
- B. Construction: Structurally sound, secure, weather tight enclosures for office. Maintain during progress of Work; remove when no longer needed.
- C. Temperature Transmission Resistance of Floors, Walls, and Ceilings: Compatible with occupancy requirements.
- D. Exterior Materials: Weather resistant, finished in one color.
- E. Interior Materials in Offices: Sheet type materials for walls and ceilings, prefinished or painted; resilient floors and bases.
- F. Lighting for Offices: 50 fc (538 lx) at desk top height, exterior lighting at entrance doors.
- G. Fire Extinguishers: Appropriate type fire extinguisher at each office.

2.02 ENVIRONMENTAL CONTROL

A. Heating, Cooling, and Ventilating: Automatic equipment to maintain comfort conditions.

2.03 CONTRACTOR OFFICE AND FACILITIES

- A. Size: For Contractor's needs and to provide space for project meetings.
- B. Furnishings in Meeting Area: Conference table and chairs to seat at least eight persons; racks and files for Contract Documents, submittals, and project record documents.
- C. Other Furnishings: Contractor's option.
- D. Equipment: Six adjustable band protective helmets for visitors, one 10 inch (250 mm) outdoor weather thermometer and six high visibility construction vests for visitors.

2.04 DISTRICT CONSTRUCTION MANAGER INSPECTOR OFFICE

A. The Contractor shall provide the following furnishings for a 40' site office trailer: 4 desks, 4 chairs, 2 drawing layout tables, interior hand wash sink 2 (30" by 84") folding tables or conference table that accomodate seating for 12 people, 4 filing cabinets (4 drawer legal size), 16 stackable meeting chairs, 1 refrigerator minimumly (5 ft3), 1 microwave minimum (2x2) mid-size, 2 (6 ft high x 3 ft wide x 1 ft deep) bookcases, 5 gallon size hot/cold water cooler with 4ea 5gal bottle per month water service, 12 cup coffee maker, Install articulated flat screen monitor at conference table, windows with mesh security screens and bars, door entrance complete with a suitable lock, minimum ten (10) 120 volt, ac duplex electrical receptacles, Internet service, Office printer/scanner with a stapling feature, and capable of printing 11 x17, 2 each VIP restrooms with locks serviced minimumly once a week, and weekly janitorial cleaning services for IOR/ District CM field office. All items should be included for the duration of the project.

PART 3 EXECUTION

3.01 PREPARATION

A. Fill and grade sites for temporary structures to provide drainage away from buildings.

3.02 INSTALLATION

A. Install office spaces ready for occupancy 15 days after date fixed in Notice to Proceed.

3.03 MAINTENANCE AND CLEANING

- A. Weekly janitorial services for offices; periodic cleaning and maintenance for offices.
- B. Maintain approach walks free of mud, water, and snow.

3.04 REMOVAL

A. At completion of Work remove buildings, foundations, utility services, and debris. Restore areas.

SECTION 01 5500 VE ICULAR ACCESS AND PAR ING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Parking.
- B. Existing pavements and parking areas.
- C. Flag persons.
- D. Maintenance.
- E. Removal, repair.
- F. Mud from site vehicles.

1.02 RELATED REQUIREMENTS

A. Section 01 1000 - Summary: For access to site, work sequence, and occupancy.

PART 2 PRODUCTS

2.01 MATERIALS

A. Temporary Construction: Contractor's option.

PART 3 EXECUTION

3.01 PREPARATION

A. Clear areas, provide surface and storm drainage of road, parking, area premises, and adjacent areas.

3.02 PAR ING

- A. Use of designated areas of existing parking facilities by construction personnel is permitted.
- B. Arrange for temporary parking areas to accommodate use of construction personnel.
- C. When site space is not adequate, provide additional off-site parking.
- D. Locate as approved by Owner and identified in Contractor's approved logistics plan.

3.03 FLAG PERSONS

A. Provide trained and equipped flag persons to regulate traffic when construction operations or traffic encroach on public traffic lanes.

3.04 MAINTENANCE

- A. Maintain traffic and parking areas in a sound condition free of excavated material, construction equipment, products, mud, snow, and ice.
- B. Maintain existing paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.

3.05 REMOVAL REPAIR

- A. Repair existing facilities damaged by use, to original condition.
- B. Repair damage caused by installation.

3.0 MUD FROM SITE VE ICLES

A. Provide means of removing mud from vehicle wheels before entering streets. Identify system on Contractor's logistics plan.

SECTION 01 000 PRODUCT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- General product requirements.
- B. Re-use of existing products.
- C. Transportation, handling, storage and protection.
- D. Product option requirements.
- E. Substitution limitations.
- F. Procedures for Owner-supplied products.
- G. Maintenance materials, including extra materials, spare parts, tools, and software.

1.02 RELATED REQUIREMENTS

- A. Section 01 1000 Summary: Lists of products to be removed from existing building.
- B. Section 01 2500 Substitution Procedures: Substitutions made during and after the Bidding/Negotiation Phase.

1.03 SUBMITTALS

- A. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- B. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
 - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

PART 2 PRODUCTS

2.01 EXISTING PRODUCTS

- A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by the Contract Documents.
- B. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.
- C. Specific Products to be Reused: The reuse of certain materials and equipment already existing on the project site is not prohibited, unless noted otherwise.
 - 1. If reuse of other existing materials or equipment is desired, submit substitution request.

2.02 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by the Contract Documents.
- B. Where all other criteria are met, Contractor shall give preference to products that:
 - If used on interior, have lower emissions, as defined in Section 01 6116.
 - 2. If wet-applied, have lower VOC content, as defined in Section 01 6116.
 - 3. Have a published GreenScreen Chemical Hazard Analysis.

2.03 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.

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- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

2.04 MAINTENANCE MATERIALS

- A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.

PART 3 EXECUTION

3.01 SUBSTITUTION LIMITATIONS

- A. See Section 01 2500 Substitution Procedures.
- B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- C. A request for substitution constitutes a representation that the submitter:
 - Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 - 2. Agrees to provide the same warranty for the substitution as for the specified product.
 - 3. Agrees to coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension that may subsequently become apparent.

3.02 OWNER-SUPPLIED PRODUCTS

- A. Owner's Responsibilities:
 - 1. Arrange and pay for product delivery to site.
 - 2. On delivery, inspect products jointly with Contractor.
 - 3. Submit claims for transportation damage and replace damaged, defective, or deficient items.
 - 4. Arrange for manufacturers' warranties, inspections, and service.
- B. Contractor's Responsibilities:
 - Receive and unload products at site; inspect for completeness or damage jointly with
 Owner
 - 2. Handle, store, install and finish products.
 - Repair or replace items damaged after receipt.

3.03 TRANSPORTATION AND ANDLING

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.04 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- G. Comply with manufacturer's warranty conditions, if any.
- H. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- I. Prevent contact with material that may cause corrosion, discoloration, or staining.
- J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
 - . Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

SECTION 01 7000 EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Requirements for alterations work, including selective demolition.
- C. Cutting and patching.
- D. Surveying for laying out the work.
- E. Cleaning and protection.
- F. Starting of systems and equipment.
- G. Demonstration and instruction of Owner personnel.
- H. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
- I. General requirements for maintenance service.

1.02 RELATED REQUIREMENTS

- A. Section 01 1000 Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.
- B. Section 01 5000 Temporary Facilities and Controls: Temporary exterior enclosures.
- C. Section 01 5000 Temporary Facilities and Controls: Temporary interior partitions.
- D. Section 01 7900 Demonstration and Training: Demonstration of products and systems to be commissioned and where indicated in specific specification sections
- E. Section 07 8400 Firestopping.

1.03 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Survey work: Submit name, address, and telephone number of Surveyor before starting survey work.
 - 1. On request, submit documentation verifying accuracy of survey work.
 - 2. Submit a copy of site drawing signed by the Land Surveyor, that the elevations and locations of the work are in compliance with Contract Documents.
 - 3. Submit surveys and survey logs for the project record.
 - 4. Final property survey
 - a. Submit two hardcopies, one CAD file, and one PDF showing the work performed and record survey data.
- C. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather exposed or moisture resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of Owner or separate Contractor.
- D. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.04 QUALIFICATIONS

- A. For demolition work, employ a firm specializing in the type of work required.
 - 1. Minimum of 5 years of documented experience.
- B. For surveying work, employ a land surveyor registered in the State in which the Project is located and acceptable to Architect. Submit evidence of surveyor's Errors and Omissions insurance coverage in the form of an Insurance Certificate. Employ only individual(s) trained and experienced in collecting and recording accurate data relevant to ongoing construction

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- activities,
- C. For design of temporary shoring and bracing, employ a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.

1.05 PROJECT CONDITIONS

- A. Use of explosives is not permitted, unless approved prior by Owner and Archtiect.
- B. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.
- D. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- E. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.
- F. Erosion and Sediment Control: Plan and execute work by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.
 - 1. Minimize amount of bare soil exposed at one time.
 - 2. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.
- G. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.
 - 1. Outdoors: Limit conduct of especially noisy exterior work to the hours of 8 am to 5 pm.
- H. Pest and Rodent Control: Provide methods, means, and facilities to prevent pests and insects from damaging the work.
- I. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.

1.0 COORDINATION

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
 - Coordinate scheduling of loud and heavy construction work with the Owner to minimize
 disturbance during standardized testing and other blocks of time in which the site will
 conduct such activities. Site bell and testing schedule will be provided to Contractor for
 scheduling purposes.
- B. Notify affected utility companies and comply with their requirements.
- C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on drawings. Follow routing indicated for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- F. Coordinate completion and clean-up of work of separate sections.
- G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

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PART 2 PRODUCTS

2.01 PATC ING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 6000 Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 LAYING OUT T E WOR

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Architect of any discrepancies discovered.
- C. Protect survey control points prior to starting site work; preserve permanent reference points during construction. Existing Survey control points damaged by the contractor shall be restored by the Contractor at no additional cost to the District.
- D. Promptly report to Architect the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- E. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect.
- F. Utilize recognized engineering survey practices.
- G. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
 - 1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
 - 2. Grid or axis for structures.
 - 3. Building foundation, column locations, ground floor elevations.
- H. Periodically verify layouts by same means.
- I. Maintain a complete and accurate log of control and survey work as it progresses.

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3.04 GENERAL INSTALLATION REQUIREMENTS

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

3.05 ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 - 1. Verify that construction and utility arrangements are as indicated.
 - 2. Report discrepancies to Architect before disturbing existing installation.
 - 3. Beginning of alterations work constitutes acceptance of existing conditions.
- B. eep areas in which alterations are being conducted separated from other areas that are still occupied.
 - 1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 01 5000 .
 - 2. Provide sound retardant partitions between areas of alteration work and areas occupied by Owner during construction.
- C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
 - 1. Where openings in exterior enclosure exist, provide construction to make exterior enclosure weatherproof.
 - Insulate existing ducts or pipes that are exposed to outdoor ambient temperatures by alterations work.
- D. Remove existing work as indicated and as required to accomplish new work.
 - Remove items indicated on drawings.
 - 2. Relocate items indicated on drawings.
 - 3. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
 - 4. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.
 - 5. The contractor is responsible to perfrom all demolition work necessary to allow execution of all requirements of the new construction.
 - a. Elements not specifically noted for demolition shall be removed by the contractor in order to facilitate all requirements of the new construction.
- E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove, relocate, and extend existing systems to accommodate new construction.
 - 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
 - 2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
 - Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 - Disable existing systems only to make switchovers and connections; minimize duration of outages.

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- b. Provide temporary connections as required to maintain existing systems in service.
- c. Provide Owner with 72 hour minimum notification before existing systems taken off line.
- 4. Verify that abandoned services serve only abandoned facilities.
- 5. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.
- F. Protect existing work to remain.
 - 1. Prevent movement of structure; provide shoring and bracing if necessary.
 - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 - 3. Repair adjacent construction and finishes damaged during removal work.
- G. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
 - 1. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.
 - 2. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
 - 3. Where a change of plane of 1/4 inch (6 mm) or more occurs in existing work, submit recommendation for providing a smooth transition for Architect review and request instructions.
- H. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.
- I. Refinish existing surfaces as indicated:
 - Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
 - 2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.
- J. Clean new and existing systems and equipment as necessary.
 - Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.
- L. Do not begin new construction in alterations areas before demolition is complete.
- M. Comply with all other applicable requirements of this section.

3.0 CUTTING AND PATC ING

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. See Alterations article above for additional requirements.
- C. Perform whatever cutting and patching is necessary to:
 - 1. Complete the work.
 - 2. Fit products together to integrate with other work.
 - 3. Provide openings for penetration of mechanical, electrical, and other services.
 - 4. Match work that has been cut to adjacent work.
 - 5. Repair areas adjacent to cuts to required condition.
 - 6. Repair new work damaged by subsequent work.
 - 7. Remove samples of installed work for testing when requested.
 - 8. Remove and replace defective and non-complying work.
- D. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.

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- E. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- F. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- G. Restore work with new products in accordance with requirements of Contract Documents.
- H. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07 8400, to full thickness of the penetrated element.

J. Patching:

- Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
- 2. Match color, texture, and appearance.
- 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.07 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.0 PROTECTION OF INSTALLED WOR

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Protect work from spilled liquids. If work is exposed to spilled liquids, immediately remove protective coverings, dry out work, and replace protective coverings.
- G. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- H. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.09 SYSTEM STARTUP

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Architect and Owner seven days prior to start-up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.

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- E. Verify that wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.
- G. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- H. Submit a written report that equipment or system has been properly installed and is functioning correctly.

3.10 DEMONSTRATION AND INSTRUCTION

- A. See Section 01 7900 Demonstration and Training.
- B. Demonstrate operation and maintenance of products to Owner's personnel two weeks prior to date of Substantial Completion.
- C. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- D. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

3.11 ADJUSTING

A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.12 FINAL CLEANING

- A. Final interior cleaning prior to architect's Punch walk and for Owner occupancy shall consist of full and thorough cleaning using appropriate non-marring cleaners for all areas of the building, all accessible equipment and all visible building components. All protective coverings and coatings shall be removed along with adhesive residues. All concrete and tile floors shall be mopped and left free of water or cleaner residue. Glass and painted surfaces shall be cleaned free of fingerprints, smudges and non-code-required labels and stickers. Machine scrub ceramic flooring. Clean all thresholds. Clean all millwork. Clean horizontal surfaces. Dust and wipe down walls. Clean all mirrors, restrooms, storage rooms, concession, custodial, ticket room, and lobby. Clean all furniture. Clean all fixtures. Visible air shaft louvers, grilles and registers dusted.
- B. Provide adequate manpower to complete work in multiple buildings concurrently as required. Review cleaning and maintenance instructions for installed material prior to cleaning.
- C. Furnish all labor, material and equipment to complete all final cleaning of the work as described in the contract documents.
- D. Sweep paved areas broom clean and Powerwash all exterior concrete sidewalks, curbs, asphalt, parking lots. Remove stains, spills and other foreign deposits.
- E. Fire cabinets cleaned inside and out.
- F. Complete/detailed vacuum and spot removal of all wall-coverings throughout the building.
- G. Clean all closets including janitor closets, mop sinks, plumbing fixtures and floor sinks.
- H. Wax all VCT and sheet vinyl. Use proper products per specification and manufacturer requirements.
- I. All ceramic tiles wiped clean using special cleaning materials for best reflection.
- J. All toilet partitions and accessories wiped clean.
 - All stainless steel kitchen cabinets, countertops and appliances wiped clean.
- L. Clean and polish transparent materials, including mirrors and glass in doors and windows including frames.
- M. Restore reflection surfaces to their original reflection condition.

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- Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances.
- O. Clean plumbing fixtures to a sanitary condition.
- P. All shades, storefront, rolling shutters and coiling doors wiped down inside and out.
- Q. General roof clean-up.
- R. Clean tops, sides and bottoms (if accessible) of equipment.
- S. Remove labels that are not permanent. Do not remove permanent labels (UL, WH, etc.)
- T. Wipe clean any exposed duct, pipe and conduit.
- U. Exterior cleaning shall include washing all windows, exposed metal and stone surfaces, removing any stains from exterior plaster, wash down of roof equipment wells and cleaning roof mounted equipment and all rain gutters shall be cleared of any obstructions.
- V. One (1) pre-punch clean prior to Architect's punch walk and one (1) final clean prior to Owner occupancy.
- W. Clean all windows and mullions interior and exterior. Remove drywall texture where required.
 - Clean all restrooms complete including all plumbing fixtures, electrical fixtures, toilet partitions and accessories. Remove any and all temporary protection and labels not required to remain. Clean and shine hardware. Clean all mirrors. Clean all floor and wall tile.
 - Sweep and mop all floors.
- . Vacuum all carpeted areas and wipe base. Spot clean carpet as needed.
- AA. Clean all casework and cabinetry inside and out.
- BB. Clean all doors, jambs and hardware. Remove drywall texture where required.
- CC. Clean all exit signs
- DD. Clean all plumbing fixtures, lighting fixtures and any other wall or ceiling mounted fixtures/devices.
- EE. Clean interior of wheelchair lift.
- FF. Remove temporary floor protection.
- GG. Dust walls and wall coverings.
- HH. Clean all vinyl tack panel. This includes heavy cleaning to remove stains.
- II. Clean all countertops.
- JJ. Clean all interior and exterior light fixtures.
 - . Clean exposed piping as required.
- LL. Provide additional touch up cleaning as required prior to owner occupancy. Contractor shall include final touch-up of stained plaster at Building exteriors due to weather, soil staining, or any other staining seen on Buildings.
- MM. Clean all other permanent items shown in the plans.
- NN. Power wash all exterior hard surfaces around buildings that contain work on the project.
- OO. Multiple move-ons as required for the phased schedule to achieve final cleaning scope of work.

3.13 CLOSEOUT PROCEDURES

- A. Make submittals that are required by governing or other authorities.
- B. Notify Architect when work is considered complete and ready for Architect's Punch List.
- C. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete (including all Punch List items) in accordance with Contract Documents and ready for Architect's Substantial Completion review.

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- D. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
- E. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

3.14 MAINTENANCE

- A. Provide service and maintenance of components indicated in specification sections.
- B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.
- C. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of the Owner.

SECTION 01 7419 CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 GENERAL

1.01 WASTE MANAGEMENT REQUIREMENTS

- A. Owner requires that this project generate the least amount of trash and waste possible.
- B. Employ processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors.
- C. Minimize trash/waste disposal in landfills; reuse, salvage, or recycle as much waste as economically feasible.
- D. Contractor shall submit periodic Waste Disposal Reports; all landfill disposal, incineration, recycling, salvage, and reuse must be reported regardless of to whom the cost or savings accrues; use the same units of measure on all reports. The Contractor shall submit copies of fully signed hazardous material disposal manifests to the District.
- E. Methods of trash/waste disposal that are not acceptable are:
 - 1. Burning on the project site.
 - 2. Burying on the project site.
 - 3. Dumping or burying on other property, public or private.
 - 4. Other illegal dumping or burying.
- F. Regulatory Requirements: Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, state and local requirements, pertaining to legal disposal of all construction and demolition waste materials.

1.02 DEFINITIONS

- A. Clean: Untreated and unpainted; not contaminated with oils, solvents, caulk, or the like.
- B. Construction and Demolition Waste: Solid wastes typically including building materials, packaging, trash, debris, and rubble resulting from construction, remodeling, repair and demolition operations.
- C. Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity or reactivity.
- D. Nonhazardous: Exhibiting none of the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity, or reactivity.
- E. Nontoxic: Neither immediately poisonous to humans nor poisonous after a long period of exposure.
- F. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.
- G. Recycle: To remove a waste material from the project site to another site for remanufacture into a new product for reuse by others.
- H. Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
- I. Return: To give back reusable items or unused products to vendors for credit.
- J. Reuse: To reuse a construction waste material in some manner on the project site.
 - Salvage: To remove a waste material from the project site to another site for resale or reuse by others.
- L. Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.
- M. Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become waste.
- N. Toxic: Poisonous to humans either immediately or after a long period of exposure.

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- O. Trash: Any product or material unable to be reused, returned, recycled, or salvaged.
- P. Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable, returnable, recyclable, and reusable material.

1.03 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Contractor to submit for review a Waste Management Plan. The waste management plan shall be an outline of the items required for the Waste DIsposal Reports as indicated below. The waste management plan shall be submitte for review prior to the start of construction.
- C. Waste Disposal Reports: Submit at specified intervals, with details of quantities of trash and waste, means of disposal or reuse, and costs; show both totals to date and since last report.
 - 1. Submit updated Report with each Application for Progress Payment; failure to submit Report will delay payment.
 - 2. Submit Report on a form acceptable to Owner.
 - Report shall contain contact information for the waste management company that can proviable verifiable documentation of the percentages of construction and demolition waste diverted from the landfill.
 - 4. Landfill Disposal: Include the following information:
 - a. Identification of material.
 - b. Amount, in tons or cubic yards (cubic meters), of trash/waste material from the project disposed of in landfills.
 - State the identity of landfills, total amount of tipping fees paid to landfill, and total disposal cost.
 - Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
 - 5. Incinerator Disposal: Include the following information:
 - a. Identification of material.
 - b. Amount, in tons or cubic yards (cubic meters), of trash/waste material from the project delivered to incinerators.
 - State the identity of incinerators, total amount of fees paid to incinerator, and total disposal cost.
 - d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and
 - 6. Recycled and Salvaged Materials: Include the following information for each:
 - a. Identification of material, including those retrieved by installer for use on other projects.
 - b. Amount, in tons or cubic yards (cubic meters), date removed from the project site, and receiving party.
 - c. Transportation cost, amount paid or received for the material, and the net total cost or savings of salvage or recycling each material.
 - Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
 - e. Certification by receiving party that materials will not be disposed of in landfills or by incineration.
 - 7. Material Reused on Project: Include the following information for each:
 - a. Identification of material and how it was used in the project.
 - b. Amount, in tons or cubic yards (cubic meters).
 - c. Include weight tickets as evidence of quantity.
 - 8. Other Disposal Methods: Include information similar to that described above, as appropriate to disposal method.

PART 3 EXECUTION

2.01 WASTE MANAGEMENT PROCEDURES

- A. See Section 01 3000 for additional requirements for project meetings, reports, submittal procedures, and project documentation.
- B. See Section 01 5000 for additional requirements related to trash/waste collection and removal facilities and services.
- C. See Section 01 6000 for waste prevention requirements related to delivery, storage, and handling.
- D. See Section 01 7000 for trash/waste prevention procedures related to demolition, cutting and patching, installation, protection, and cleaning.

2.02 WASTE MANAGEMENT PLAN IMPLEMENTATION

- A. Manager: Designate an on-site person or persons responsible for instructing workers and overseeing and documenting results of the Waste Management Plan.
- B. Communication: Distribute copies of the Waste Management Plan to job site foreman, each subcontractor, Owner, and Architect.
- C. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.
- D. Meetings: Discuss trash/waste management goals and issues at project meetings.
 - 1. Prebid meeting.
 - 2. Preconstruction meeting.
 - 3. Regular job-site meetings.
- E. Facilities: Provide specific facilities for separation and storage of materials for recycling, salvage, reuse, return, and trash disposal, for use by all contractors and installers.
 - 1. Provide containers as required.
 - 2. Provide adequate space for pick-up and delivery and convenience to subcontractors.
 - 3. eep recycling and trash/waste bin areas neat and clean and clearly marked in order to avoid contamination of materials.
- F. Hazardous Wastes: Separate, store, and dispose of hazardous wastes according to applicable regulations.
- G. Recycling: Separate, store, protect, and handle at the site identified recyclable waste products in order to prevent contamination of materials and to maximize recyclability of identified materials. Arrange for timely pickups from the site or deliveries to recycling facility in order to prevent contamination of recyclable materials.
- H. Reuse of Materials On-Site: Set aside, sort, and protect separated products in preparation for reuse.
- I. Salvage: Set aside, sort, and protect products to be salvaged for reuse off-site.

SECTION 01 7 00 CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Project Record Documents.
- B. Operation and Maintenance Data.
- C. Warranties and bonds.

1.02 RELATED REQUIREMENTS

- A. Section 01 3000 Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- B. Individual Product Sections: Specific requirements for operation and maintenance data.
- C. Individual Product Sections: Warranties required for specific products or Work.

1.03 SUBMITTALS

- A. Project Record Documents: Submit documents to Architect prior to submission of final Application of Payment.
- B. Operation and Maintenance Data:
 - 1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect will review draft and return one copy with comments.
 - 2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
 - 3. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned, with Architect comments. Revise content of all document sets as required prior to final submission.
 - 4. Submit two sets of revised final documents in final form within 10 days after final inspection.

C. Warranties and Bonds:

- For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
- 2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
- 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - a. Approved Change Order shall be made a permanent part of the record drawings.
 - b. Allowance Usage Requests shall be made a permanent part of the record drawings.
 - 5. Reviewed shop drawings, product data, and samples.
 - 6. Manufacturer's instruction for assembly, installation, and adjusting.
 - 7. Requests for Information (RFI)
 - a. RFI's shall be made a permanent part of the record drawings.
 - 8. Architect's Supplementary Instructions (ASI)
 - a. ASI's shall be made a permanent part of the record drawings.

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- 9. Approved Construction Change Directives (CCD)
 - a. Approved CCD's shall be made a permanent part of the record drawings.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
 - 1. Record drawings shall be reviewed by Architect, Inspector, and Owner at the time of Application for Payment. If Record drawings are deemed incomplete, delays in payment may occur.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and modifications.
- F. Record Drawingsand Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured depths of foundations in relation to finish first floor datum.
 - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - 4. Field changes of dimension and detail.
 - 5. Details not on original Contract drawings.

3.02 OPERATION AND MAINTENANCE DATA

- A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINIS ES

- A. For Each Product, Applied Material, and Finish:
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
- C. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.

3.04 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. For Each Item of Equipment and Each System:
 - 1. Description of unit or system, and component parts.
 - 2. Identify function, normal operating characteristics, and limiting conditions.
 - 3. Include performance curves, with engineering data and tests.
 - 4. Complete nomenclature and model number of replaceable parts.
- B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.

- C. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- D. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- E. Provide servicing and lubrication schedule, and list of lubricants required.
- F. Include manufacturer's printed operation and maintenance instructions.
- G. Include sequence of operation by controls manufacturer.
- H. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- I. Additional Requirements: As specified in individual product specification sections.

3.05 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS

- A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
- B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
- C. Binders: Commercial quality, 8-1/2 by 11 inch (216 by 280 mm) three D side ring binders with durable plastic covers; 2 inch (50 mm) maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- E. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.
- F. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.
- G. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.
- H. Text: Manufacturer's printed data, or typewritten data on 20 pound paper.
- I. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- J. Arrangement of Contents: Organize each volume in parts as follows:
 - 1. Project Directory.
 - 2. Table of Contents, of all volumes, and of this volume.
 - 3. Operation and Maintenance Data: Arranged by system, then by product category.
 - a. Source data.
 - b. Product data, shop drawings, and other submittals.
 - c. Operation and maintenance data.
 - d. Field quality control data.
 - e. Photocopies of warranties and bonds.

3.0 WARRANTIES AND BONDS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.

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- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Manual: Bind in commercial quality 8-1/2 by 11 inch (216 by 279 mm) three D side ring binders with durable plastic covers.
- F. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.
- G. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.
- H. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

SECTION 01 7900 DEMONSTRATION AND TRAINING

PART 1 GENERAL

1.01 SUMMARY

- Demonstration of products and systems where indicated in specific specification sections.
- B. Training of Owner personnel in operation and maintenance is required for:
 - All software-operated systems.
 - 2. HVAC systems and equipment.
 - 3. Plumbing equipment.
 - 4. Electrical systems and equipment.
 - 5. Conveying systems.
 - 6. Landscape irrigation.
 - 7. Items specified in individual product Sections.
- C. Training of Owner personnel in care, cleaning, maintenance, and repair is required for:
 - 1. Roofing, waterproofing, and other weather-exposed or moisture protection products.
 - 2. Finishes, including flooring, wall finishes, ceiling finishes.
 - 3. Fixtures and fittings.
 - 4. Items specified in individual product Sections.

1.02 RELATED REQUIREMENTS

- A. Section 01 7800 Closeout Submittals: Operation and maintenance manuals.
- B. Section 01 9113 General Commissioning Requirements: Additional requirements applicable to demonstration and training.

1.03 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Training Plan: Owner will designate personnel to be trained; tailor training to needs and skill-level of attendees.
 - 1. Submit not less than two weeks prior to start of training.
 - 2. Revise and resubmit until acceptable.
 - 3. Provide an overall schedule showing all training sessions.
 - 4. Include at least the following for each training session:
 - a. Identification, date, time, and duration.
 - b. Description of products and/or systems to be covered.
 - c. Name of firm and person conducting training; include qualifications.
 - d. Intended audience, such as job description.
 - e. Objectives of training and suggested methods of ensuring adequate training.
 - f. Methods to be used, such as classroom lecture, live demonstrations, hands-on, etc.
 - g. Media to be used, such a slides, hand-outs, etc.
 - h. Training equipment required, such as projector, projection screen, etc., to be provided by Contractor.
- C. Training Manuals: Provide training manual for each attendee; allow for minimum of two attendees per training session.
 - 1. Include applicable portion of O M manuals.
 - 2. Include copies of all hand-outs, slides, overheads, video presentations, etc., that are not included in O M manuals.
 - 3. Provide one extra copy of each training manual to be included with operation and maintenance data.
- D. Video Recordings: Submit digital video recording of each demonstration and training session for Owner's subsequent use.
 - 1. Format: Per Owner's Request
 - 2. Label each disc and container with session identification and date.

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1.04 QUALITY ASSURANCE

- A. Instructor Qualifications: Familiar with design, operation, maintenance and troubleshooting of the relevant products and systems.
 - 1. Provide as instructors the most qualified trainer of those contractors and/or installers who actually supplied and installed the systems and equipment.
 - 2. Where a single person is not familiar with all aspects, provide specialists with necessary qualifications.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 DEMONSTRATION - GENERAL

- A. Demonstrations conducted during system start-up do not qualify as demonstrations for the purposes of this section, unless approved in advance by Owner.
- B. Demonstration may be combined with Owner personnel training if applicable.
- C. Operating Equipment and Systems: Demonstrate operation in all modes, including start-up, shut-down, seasonal changeover, emergency conditions, and troubleshooting, and maintenance procedures, including scheduled and preventive maintenance.
- D. Non-Operating Products: Demonstrate cleaning, scheduled and preventive maintenance, and repair procedures.

3.02 TRAINING - GENERAL

- A. Conduct training on-site unless otherwise indicated.
- B. Training schedule will be subject to availability of Owner's personnel to be trained; re-schedule training sessions as required by Owner; once schedule has been approved by Owner failure to conduct sessions according to schedule will be cause for Owner to charge Contractor for personnel show-up time.
- C. Review of Facility Policy on Operation and Maintenance Data: During training discuss:
 - 1. The location of the O M manuals and procedures for use and preservation; backup copies.
 - 2. Typical contents and organization of all manuals, including explanatory information, system narratives, and product specific information.
 - 3. Typical uses of the O M manuals.
- D. Product- and System-Specific Training:
 - Review the applicable O M manuals.
 - 2. For systems, provide an overview of system operation, design parameters and constraints, and operational strategies.
 - 3. Review instructions for proper operation in all modes, including start-up, shut-down, seasonal changeover and emergency procedures, and for maintenance, including preventative maintenance.
 - 4. Provide hands-on training on all operational modes possible and preventive maintenance.
 - 5. Emphasize safe and proper operating requirements; discuss relevant health and safety issues and emergency procedures.
 - 6. Discuss common troubleshooting problems and solutions.
 - 7. Discuss any peculiarities of equipment installation or operation.
 - 8. Discuss warranties and guarantees, including procedures necessary to avoid voiding coverage.
 - 9. Review recommended tools and spare parts inventory suggestions of manufacturers.
 - 10. Review spare parts and tools required to be furnished by Contractor.
 - 11. Review spare parts suppliers and sources and procurement procedures.
- E. Be prepared to answer questions raised by training attendees; if unable to answer during training session, provide written response within three days.

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SECTION 03 0100 MAINTENANCE OF CONCRETE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Cleaning of existing concrete surfaces.
- B. Repair of exposed structural, shrinkage, and settlement cracks.
- C. Resurfacing of concrete surfaces having spalled areas and other damage.

1.02 RELATED REQUIREMENTS

A. Section 03 3000 - Cast-in-Place Concrete: Finishing of concrete surface to tolerance; floating, troweling, and similar operations; curing.

1.03 ABBREVIATIONS AND ACRONYMS

A. CFRP: Carbon Fiber Reinforced Polymer.

1.04 DEFINITIONS

A. Carbon Fiber Reinforced Polymer (CFRP): Composite material comprising a polymer matrix reinforced with carbon fiber cloth, mat, or strands.

1.05 REFERENCE STANDARDS

- A. ASTM C928/C928M Standard Specification for Packaged, Dry, Rapid-Hardening Cementitious Material for Concrete Repairs; 2013.
- B. ASTM C1059/C1059M Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete; 2013.
- C. ICRI 310.2R Selecting and Specifying Concrete Surface Preparation; 2013.

1.0 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Product Data: Indicate product standards, physical and chemical characteristics, technical specifications, limitations, maintenance instructions, and general recommendations regarding each material.
- C. Manufacturer's instructions.
- D. Field quality control submittals.
- E. Manufacturer's qualification statement.
- F. Cleaner's qualification statement.

1.07 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.
- B. Cleaner Qualifications: Company specializing in, and with minimum of 3 years of experience in, the type of cleaning specified.
- C. Installer Qualifications: Company specializing in performing work of the type specified and with minimum of 3 years of documented experience.

1.0 DELIVERY STORAGE AND ANDLING

- A. Comply with manufacturers' instructions for storage, shelf life limitations, and handling of products.
- B. Deliver polymer resin materials in original factory-sealed containers with manufacturer's labels intact and legible. Verify product nomenclature, manufacturer's name, product identification, batch number, date of manufacture, and shelf life or expiration date. Do not use polymer resin materials that have exceeded shelf life.
- C. Store materials in covered, well-ventilated area and according to manufacturer's written storage instructions. Store polymer resins and hardeners separate from construction materials that can

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absorb odors.

PART 2 PRODUCTS

2.01 CLEANING MATERIALS

- A. Degreaser:
 - 1. Manufacturers:
 - a. Euclid Chemical Company; Euco Clean and Strip: www.euclidchemical.com/ sle.
 - b. LATICRETE International, Inc; CITRE: www.laticrete.com/ sle.
 - c. SpecChem, LLC; Orange Peel-Citrus Cleaner: www.specchemllc.com/ sle.
 - d. Substitutions: See Section 01 6000 Product Requirements.
- B. Detergent: Non-ionic detergent.
- C. Acidic Cleaning Agent:
 - 1. Manufacturers:
 - a. Substitutions: See Section 01 6000 Product Requirements.

2.02 CEMENTITIOUS PATC ING AND REPAIR MATERIALS

- A. Manufacturers:
 - 1. ARDE Engineered Cements: www.ardexamericas.com/ sle.
 - 2. LATICRETE International, Inc; : www.laticrete.com/ sle.
 - 3. The QUI RETE Companies: www.quikrete.com/ sle.
 - 4. Substitutions: See Section 01 6000 Product Requirements.
- B. Bonding Slurry: Water-based latex admixture; comply with ASTM C1059/C1059M, combined with Portland cement and sand in accordance with admixture manufacturer's instructions.
- C. Cementitious Resurfacing Mortar: One- or two-component, factory-mixed, polymer-modified cementitious mortar designed for continuous thin-coat application.
 - 1. In-place material resistant to freezing conditions.
 - Mixed with water or latex type bonding agent in proportions as recommended by manufacturer.
 - 3. Recommended Thickness: Feather edge to 1/8 inch (Feather edge to 3 mm).
 - 4. Manufacturers:
 - a. ARDE Engineered Cements; ARDE Feather Finish: www.ardexamericas.com/ sle.
 - b. LATICRETE International, Inc; L M DURACRETE: www.laticrete.com/ sle.
 - c. Substitutions: See Section 01 6000 Product Requirements.
- D. Cementitious Repair Mortar, Trowel Grade: One- or two-component, factory-mixed, polymer-modified cementitious mortar.
 - In-place material resistant to freezing conditions.
 - Mixed with water or latex type bonding agent in proportions as recommended by manufacturer.
 - 3. Dry Material: Complies with ASTM C928/C928M.
 - Manufacturers:
 - a. ARDE Engineered Cements; ARDE Feather Finish: www.ardexamericas.com/ sle.
 - b. LATICRETE International, Inc; L M DURACRETE: www.laticrete.com/ sle.

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c. Substitutions: See Section 01 6000 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are ready to receive work.
- B. Beginning of installation means acceptance of substrate.

3.02 PREPARATION

A. Prepare concrete surfaces to be repaired according to ICRI 310.2R,

3.03 CLEANING EXISTING CONCRETE

- A. Provide enclosures, barricades, and other temporary construction as required to protect adjacent work from damage.
- B. Clean concrete surfaces of dirt or other contamination using the gentlest method that is effective.
 - 1. Try the gentlest method first, then, if not clean enough, use a less gentle method taking care to watch for impending damage.
 - 2. Clean out cracks and voids using same methods.
- C. The following are acceptable cleaning methods, in order from gentlest to less gentle:
 - 1. Increasing the water washing pressure to maximum of 400 psi.
 - 2. Adding detergent to washing water; with final water rinse to remove residual detergent.
- D. Do not use any of the following cleaning methods, unless otherwise indicated:
 - 1. Brushes with wire bristles, grinding with abrasives, solvents, hydrochloric or muriatic acid, sodium hydroxide, caustic soda, or lye.
 - 2. Soap or detergent that is not non-ionic.
 - 3. Water washing pressure to over 100 psi.
 - 4. Steam-cleaning or steam-generated hot-water washing.
 - Abrasive blasting.

3.04 CONCRETE SURFACE REPAIR USING CEMENTITIOUS MATERIALS

- A. Clean concrete surfaces, cracks, and joints of dirt, laitance, corrosion, and other contamination using method(s) specified above and allow to dry.
- B. Apply coating of bonding agent to entire concrete surface to be repaired.
- C. Fill voids with cementitious mortar flush with surface.
- D. Apply repair mortar by steel trowel to a minimum thickness of 1/4 inch (6 mm) over entire surface, terminating at a vertical change in plane on all sides.
- E. Trowel finish to match adjacent concrete surfaces.

SECTION 03 051 UNDERSLAB VAPOR BARRIER - STEGO

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Sheet vapor barrier under concrete slabs on grade.

1.02 RELATED REQUIREMENTS

- A. Section 03 1000 Concrete Forming and Accessories: Forms and accessories for formwork.
- B. Section 03 2000 Concrete Reinforcing.
- Section 03 3000 Cast-in-Place Concrete: Preparation of subgrade, granular fill, placement of concrete.

1.03 REFERENCE STANDARDS

- A. ASTM E1643 Standard Practice for Selection, Design, Installation and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs; 2011.
- B. ASTM E1745 Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs; 2011.

1.04 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Product Data: Submit manufacturers' data on manufactured products.
- C. Samples: Submit samples of underslab vapor barrier to be used.
- D. Manufacturer's Installation Instructions: Indicate installation procedures and interface required with adjacent construction.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Underslab Vapor Barrier:
 - 1. Water Vapor Permeance: Not more than 0.010 perms (0.6 ng/(s m2 Pa)), maximum.
 - 2. Thickness: 15 mils (0.4 mm).
 - 3. Basis of Design:
 - a. Stego Industries LLC; Stego Wrap Vapor Barrier (15-mil): www.stegoindustries.com/ sle.
- B. Accessory Products: Vapor barrier manufacturer's recommended tape, adhesive, mastic, etc., for sealing seams and penetrations in vapor barrier.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that surface over which vapor barrier is to be installed is complete and ready before proceeding with installation of vapor barrier.

3.02 INSTALLATION

- A. Install vapor barrier in accordance with manufacturer's instructions and ASTM E1643.
- B. Install vapor barrier under interior slabs on grade; lap sheet over footings and seal to foundation walls.
- C. Lap joints minimum 6 inches (150 mm).
- D. Seal joints, seams and penetrations watertight with manufacturer's recommended products and follow manufacturer's written instructions.
- E. No penetration of vapor barrier is allowed except for reinforcing steel and permanent utilities.
- F. Repair damaged vapor retarder before covering with other materials.

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SECTION 03 1000 CONCRETE FORMING AND ACCESSORIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Formwork for cast-in place concrete, with shoring, bracing and anchorage.
- B. Form accessories.
- C. Form stripping.

1.02 RELATED REQUIREMENTS

- A. Section 03 2000 Concrete Reinforcing.
- B. Section 03 3000 Cast-in-Place Concrete.

1.03 REFERENCE STANDARDS

- A. ACI 117 Standard Specifications for Tolerances for Concrete Construction and Materials; 2010.
- B. ACI 301 Specifications for Structural Concrete; 2010 (Errata 2012).
- C. ACI 347R Guide to Formwork for Concrete; 2014.

1.04 QUALITY ASSURANCE

A. Perform work of this section in accordance with Highways standards of the State of California.

PART 2 PRODUCTS

2.01 FORMWOR - GENERAL

- Provide concrete forms, accessories, shoring, and bracing as required to accomplish cast-inplace concrete work.
- B. Design and construct to provide resultant concrete that conforms to design with respect to shape, lines, and dimensions.
- C. Comply with applicable state and local codes with respect to design, fabrication, erection, and removal of formwork.

2.02 WOOD FORM MATERIALS

- A. Form Materials: At the discretion of the Contractor.
- B. Forms shall be of suitable material and type, size, shape, quality, and strength to ensure construction as designed.
- C. Forms shall be true to line and grade, mortar tight, and sufficiently rigid to resist defelction during the placement of concrete.
- D. All dirt, chips, sawdust, nails, and other foreign matter shall be completely removed from forms prior to the placement of concrete.
- E. The surface of the forms shall be smooth and free from irregularities, dents, sags, and holes that would deface the finished surface.
- F. Before concrete is placed in forms, all inside surfaces shall be treated with an approved releasing agent. The releasing agent shall leave no objectionable film on the surface of the forms which would transfer to the finished concrete.
- G. Forms for all surfaces that will not be completely of hidden below the permanent surface of the adjacent grade shall be made of surface lumber or of a material which provides a surface equal to surfaced lumber or plywood.
- H. Any lumber that becomes badly checked or warped, prior to placing concrete, shall not be used.

LMSV Warehouse Freezer	03 1000 - 1	Concrete Forming and
		Accessories

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify lines, levels and centers before proceeding with formwork. Ensure that dimensions agree with drawings.

3.02 EART FORMS

A. Hand trim sides and bottom of earth forms. Remove loose soil prior to placing concrete.

3.03 ERECTION - FORMWOR

- Erect formwork, shoring and bracing to achieve design requirements, in accordance with requirements of ACI 301.
- B. Provide bracing to ensure stability of formwork. Shore or strengthen formwork subject to overstressing by construction loads.
- C. Arrange and assemble formwork to permit dismantling and stripping. Do not damage concrete during stripping. Permit removal of remaining principal shores.
- D. Align joints and make watertight. eep form joints to a minimum.
- E. If formwork is placed after reinforcement, resulting in insufficient concrete cover over reinforcement, request instructions from Architect before proceeding.

3.04 APPLICATION - FORM RELEASE AGENT

- A. Apply form release agent on formwork in accordance with manufacturer's recommendations.
- B. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.
- C. Do not apply form release agent where concrete surfaces will receive special finishes or applied coverings that are affected by agent. Soak inside surfaces of untreated forms with clean water. eep surfaces coated prior to placement of concrete.

3.05 INSERTS EMBEDDED PARTS AND OPENINGS

- A. Locate and set in place items that will be cast directly into concrete.
- B. Coordinate with work of other sections in forming and placing openings, slots, reglets, recesses, sleeves, bolts, anchors, other inserts, and components of other work.

3.0 FORM CLEANING

- A. Clean forms as erection proceeds, to remove foreign matter within forms.
- B. Clean formed cavities of debris prior to placing concrete.

3.07 FORMWOR TOLERANCES

A. Construct formwork to maintain tolerances required by ACI 117, unless otherwise indicated.

3.0 FORM REMOVAL

A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads.

SECTION 03 2000 CONCRETE REINFORCING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Reinforcing steel for cast-in-place concrete.
- B. Supports and accessories for steel reinforcement.

1.02 RELATED REQUIREMENTS

- A. Section 03 1000 Concrete Forming and Accessories.
- B. Section 03 3000 Cast-in-Place Concrete.

1.03 REFERENCE STANDARDS

- A. ACI 301 Specifications for Structural Concrete; 2010 (Errata 2012).
- B. ACI 318 Building Code Requirements for Structural Concrete and Commentary; 2014 (Errata 2016).
- C. ACI SP-66 ACI Detailing Manual; 2004.
- D. ASTM A615/A615M Standard Specification for Deformed and Plain Carbon Steel Bars for Concrete Reinforcement; 2015.
- E. ASTM A706/A706M Standard Specification for Deformed and Plain Low-Alloy Steel Bars for Concrete Reinforcement; 2016.
- F. ASTM A884/A884M Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement; 2014.
- G. ASTM A1064/A1064M Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2015.
- H. AWS D1.4/D1.4M Structural Welding Code Reinforcing Steel; 2011.
- I. CRSI (DA4) Manual of Standard Practice; 2009.
- J. CRSI (P1) Placing Reinforcing Bars; 2011.

1.04 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Comply with requirements of ACI SP-66. Include bar schedules, shapes of bent bars, spacing of bars, and location of splices.
- C. Manufacturer's Certificate: Certify that reinforcing steel and accessories supplied for this project meet or exceed specified requirements.

1.05 QUALITY ASSURANCE

A. Perform work of this section in accordance with ACI 301.

PART 2 PRODUCTS

2.01 REINFORCEMENT

- A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi) (420 MPa).
 - 1. Deformed billet-steel bars.
 - Unfinished.
- B. Reinforcing Steel: ASTM A706/A706M, deformed low-alloy steel bars Grade 60 (for bar reinforcement that is to be welded).
- C. Reinforcement Accessories:
 - 1. Tie Wire: Annealed, minimum 16 gage, 0.0508 inch (1.29 mm).
 - 2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.

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2.02 FABRICATION

- A. Fabricate concrete reinforcing in accordance with CRSI (DA4) Manual of Standard Practice.
- B. Welding of reinforcement is permitted only with the specific approval of Structural Engineer and Architect. Perform welding in accordance with AWS D1.4/D1.4M.

PART 3 EXECUTION

3.01 PLACEMENT

- A. Reinforcing bars shall be placed in accordance with the size and spacing shown on the plans. Reinforcing bars shall be firmly and securely held in position in accordance with the Manual of Standard Practice of the Concrete Reinforcing Steel Institute.
- B. Before placing in the form, all reinforcing steel shall be cleaned thoroughly of mortar, oil, dirt, loose mill scale, loose or thick rust, and coatings of any character that would destroy or reduce the bond. No concrete shall be deposited until the placing of the reinforcing steel has been inspected and approved.
- C. Do no displace or damage vapor barrier.
- D. Maintain concrete cover around reinforcing as follows:
 - Walls (exposed to weather or backfill): 6 through 18 bars 2 inch, 5 bar and smaller 1-1/2 inch.
 - 2. Footings and concrete formed against earth: 3 inch.

3.02 FIELD QUALITY CONTROL

A. An independent testing agency, as specified in Section 01 4000, will inspect installed reinforcement for conformance to contract documents before concrete placement.

SECTION 03 3000 CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.01 SECTION INCLUDES

- Floors and slabs on grade.
- B. Concrete foundations and footings.
- C. Concrete curing.

1.02 RELATED REQUIREMENTS

- A. Section 03 1000 Concrete Forming and Accessories: Forms and accessories for formwork.
- B. Section 03 2000 Concrete Reinforcing.
- C. Section 03 3511 Concrete Floor Finishes: Densifiers, hardeners, applied coatings, and polishing.
- Section 07 9200 Joint Sealants: Products and installation for sealants for saw cut joints and isolation joints in slabs.

1.03 REFERENCE STANDARDS

- A. Title 24, Part 2, C.C.R., 2019 California Building Code (2018 I.B.C. w/ California Amendments); Chapter 19A.
- B. ACI 211.1 Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; 1991 (Reapproved 2009).
- C. ACI 301 Specifications for Structural Concrete; 2010 (Errata 2012).
- D. ACI 302.1R Guide for Concrete Floor and Slab Construction; 2004 (Errata 2007).
- E. ACI 304R Guide for Measuring, Mixing, Transporting, and Placing Concrete; 2000.
- F. ACI 305R Hot Weather Concreting; 2010.
- G. ACI 306R Cold Weather Concreting; 2010.
- H. ACI 308R Guide to Curing Concrete; 2001 (Reapproved 2008).
- I. ACI 318 Building Code Requirements for Structural Concrete and Commentary; 2014 (Errata 2016).
- J. ASTM A1064/A1064M Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2015.
 - ASTM C33/C33M Standard Specification for Concrete Aggregates; 2013.
- L. ASTM C39/C39M Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2015a.
- M. ASTM C94/C94M Standard Specification for Ready-Mixed Concrete; 2015.
- N. ASTM C150/C150M Standard Specification for Portland Cement; 2015.
- O. ASTM C260/C260M Standard Specification for Air-Entraining Admixtures for Concrete; 2010a.
- P. ASTM C309 Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete; 2011.
- Q. ASTM C494/C494M Standard Specification for Chemical Admixtures for Concrete; 2013.
- R. ASTM C618 Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2015.
- S. ASTM C1107/C1107M Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink); 2014a.
- T. ASTM D1751 Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types); 2004 (Reapproved 2013).

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U. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs; 2011.

1.04 SUBMITTALS

- A. See Section 01 3010 Submittals, for submittal procedures.
- B. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
- C. Test Reports: Submit report for each test or series of tests specified.
- D. Quality Control Submittals: Submit the following information related to quality assurance requirements specified:
 - Design data: Submit proposed mix designs and test data before concrete operations begin. Identify for each mix submitted the method by which proportions have been selected.
 - a. For mix designs based on field experience, include individual strength test results, standard deviation, and required average compressive strength f(cr) calculations. Provide 30 test results from the previous 12 months from the date of the concrete pour.
 - b. Indicate quantity of each ingredient per cubic yard of concrete.
 - c. Indicate type and quantity of admixtures proposed or required.
 - 2. Certifications: Submit affidavits from an independent testing agency certifying that all materials furnished under this section conform to specifications.
 - 3. Delivery tickets: Submit copies of delivery tickets complying with ASTM C 94 for each load of concrete delivered to site.
 - a. Include on the tickets the additional information specified in the ASTM document.
 - 4. Hot weather concreting: Submit description of planned protective measures.

E. Waiver of Continuous Batch Plant Inspection

- 1. Continuous batch plant inspection may be waived by the registered design professional, subject to approval by the enforcement agency under either of the following conditions:
 - a. The concrete plant complies fully with the requirements of ASTM C94, Sections 9 and 10, and has a current certificate from the National Ready Mixed Concrete Association or another agency acceptable to the enforcement agency. The certification shall indicate that the plant has automatic batching and recording capabilities.
 - b. For single-story light-framed construction (without basement or retaining walls higher than 6 feet in height measured from bottom of footing to top of wall) and isolated foundations supporting equipment only, where deep foundation elements are not used.
- 2. When continuous batch plant inspection is waived, the following requirements shall apply and shall be described in the construction documents:
 - a. An approved agency shall check the first batch at the start of the day to verify materials and proportions conform to the approved mix design.
 - b. A licensed weighmaster shall positively identify quantity of materials and certify each load by a batch ticket.
 - c. Batch tickets, including material quantities and weights shall accompany the load, shall be transmitted to the inspector of record by the truck driver with load identified thereon. The load shall not be placed without a batch ticket identifying the mix. The inspector of record shall keep a daily record of placements, identifying each truck, its load, and time of receipt at the jobsite, and approximate location of deposit in the structure and shall maintain a copy of the daily record as required by the enforcement agency.
- 3. Batch Plant Inspection Not Required
 - Batch plant inspection is not required for any of the following conditions, provided they are identified on the approved construction documents and the licensed weighmaster and batch ticket requirements of Section 1705A.3.3.1 are implemented:
 - 1) Site flatwork

- 2) Unenclosed site structures, including but not limited to lunch or car shelters, bleachers, solar structures, flag or light poles, or retaining walls.
- 3) Controlled low-strength material backfill.
- 4) Single-story relocatable buildings less than 2,160 square feet.
- F. Project Record Documents: Accurately record actual locations of embedded utilities and components that will be concealed from view upon completion of concrete work.
- G. Construction Joint Layout: Submit drawing showing proposed location and type of each joint.

1.05 QUALITY ASSURANCE

- A. Perform work of this section in accordance with ACI 301 and ACI 318.
- B. Acquire cement from same source and aggregate from same source for entire project.
- C. Follow recommendations of ACI 305R when concreting during hot weather.
 - Well in advance of proposed concreting operations, advise the architect of planned protective measures including but not limited to cooling of materials before or during mixing, placement during evening to dawn hours, fogging during finishing and curing, shading, and windbreaks.
- D. Follow recommendations of ACI 306R when concreting during cold weather.
- E. If any of the test cylinders do not reach the required specified design strength, comply with ACI 318 Section 26.12.4 for core drilling and testing.

PART 2 PRODUCTS

2.01 FORMWOR

A. Comply with requirements of Section 03 1000.

2.02 REINFORCEMENT

A. Comply with requirements of Section 03 2000.

2.03 CONCRETE MATERIALS

- A. Cement: ASTM C150/C150M, Type II Portland type. Provide manufactured by
 - 1. Acquire all cement for entire project from same source.
- B. Fine and Coarse Aggregates: ASTM C 33.
 - 1. Acquire all aggregates for entire project from same source.
- C. Water: ASTM C1602; Clean and not detrimental to concrete.

2.04 ADMIXTURES

- A. Admixtures may be used with prior approval by the Architect and Structural Eningeer of Record. Use of admixtures shall require the approval of DSA prior to use.
- B. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.
- C. Air Entrainment Admixture: ASTM C260/C260M.
- D. Water Reducing Admixture: ASTM C494/C494M Type A.

2.05 ACCESSORY MATERIALS

- A. Chemical Hardener: Fluosilicate solution designed for densification of cured concrete slabs.
- B. Non-Shrink Cementitious Grout: Premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.
- C. Liquid Curing Compound: ASTM C 309, Type 1, clear or translucent.
 - 1. Non-yellowing formulation where subject to ultraviolet light.
 - Where compounds are proposed for use on surfaces to which finishes, coatings, or coverings subsequently will be applied, compound shall possess demonstrated compatibility with finish, coating, or covering, and use shall be subject to approval of the architect.

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2.0 BONDING AND JOINTING PRODUCTS

- A. Slab Isolation Joint Filler: 1/2 inch (13 mm) thick, height equal to slab thickness, with removable top section that will form 1/2 inch (13 mm) deep sealant pocket after removal.
- B. Joint Filler: Nonextruding, resilient asphalt impregnated fiberboard or felt, complying with ASTM D 1751, 1/4 inch thick (6 mm thick) and 4 inches deep (200 mm deep); tongue and groove profile.

2.07 CURING MATERIALS

A. Curing Compound, Naturally Dissipating: Clear, water-based, liquid membrane-forming compound; complying with ASTM C309.

2.0 CONCRETE MIX DESIGN

- A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
- B. Proportioning Normal Weight Concrete: Comply with the 2019 California Building Code, Chapter 19A, Section 1905A.
- C. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended or required by manufacturer.
- D. Normal Weight Concrete:
 - Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: As indicated on drawings.
 - 2. Fly Ash Content: Maximum 15 percent of cementitious materials by weight.
 - a. The contractor may elect to replace a portion of the portland cement with fly ash up to a maximum of 15 percent by weight of cement plus fly ash (per Section 1903A.6).
 - 3. Water-Cement Ratio: Maximum 50 percent by weightor as indicated on drawings.

E. Admixtures:

- 1. Air-entraining admixture: Add at rate to achieve specified air content.
 - a. Do not use in slabs-on-grade scheduled to receive topping, unless manufacturer of topping recommends use over air-entrained concrete.
- 2. Water-reducing admixture: Add as required for placement and workability.
- 3. Water-reducing and retarding admixture: Add as required in concrete mixes to be placed at ambient temperatures above 90 degrees F.
- 4. Do not use admixtures not specified or approved.
- F. Design mixes to meet or exceed each requirement specified. Where more than one criterion is specified, the most stringent shall apply. For example, a minimum cement content or maximum water-cement ratio might result in strengths greater than the minimum specified; likewise, a greater cement content or lower water-cement ratio may be required in order to achieve the required strength.

2.09 CONTROL OF MIX IN T E FIELD

- A. Slump: A tolerance of up to 1 inch above that specified will be permitted for 1 batch in 5 consecutive batches tested. Concrete of lower slump than that specified may be used, provided proper placing and consolidation is obtained.
 - If slump upon arrival at the site is lower than 1 inch below the value specified, one addition
 of water in accordance with ASTM C 94 will be permitted to bring slump within tolerance,
 provided that:
 - a. A positive means is available to measure the amount of water added at the site.
 - b. The specified (or approved) maximum water-cement ratio is not exceeded.
 - c. Not more than 45 minutes have elapsed since batching.
- B. Total Air Content: A tolerance of plus or minus 1-1/2 percent of that specified will be allowed for field measurements.
 - 1. Do not use batches that exceed tolerances.

2.10 MIXING

A. Transit Mixers: Comply with ASTM C94/C94M.

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- At ambient temperatures of 85 to 90 degrees F, reduce mixing and delivery time to 75 minutes.
- 2. At ambient temperatures above 90 degrees F, reduce mixing and delivery time to 60 minutes.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify lines, levels, and dimensions before proceeding with work of this section.

3.02 PREPARATION

- A. Verify that forms are clean and free of rust before applying release agent.
- B. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.
- C. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning with steel brush and applying bonding agent in accordance with manufacturer's instructions.
- D. Interior Slabs on Grade: Install vapor retarder under interior slabs on grade. Lap joints minimum 6 inches (150 mm). Seal joints, seams and penetrations watertight with manufacturer's recommended products and follow manufacturer's written instructions. Repair damaged vapor retarder before covering.

3.03 VAPOR RETARDER INSTALLATION

A. General: Place vapor retarder sheet over prepared base material, aligning longer dimension parallel to direction of pour and lapped 6 inches. Seal joints with appropriate tape. Cover with sand to depth shown on drawings.

3.04 JOINT CONSTRUCTION

- A. Expansion Joints: Construct expansion joints where indicated. Install expansion joint filler to full depth of concrete. Recess edge of filler to depth indicated to receive joint sealant (and backer rod where necessary) specified in Division 7.
- B. Control Joints: Construct contraction joints in slabs poured on grade to form panels of sizes indicated on drawings, but not more than 14 feet apart in either direction.
 - 1. Saw cuts: Form control joints by means of saw cuts one-third the depth of the slab, performed as soon as possible after slab finishing without dislodging aggregate.

3.05 INSTALLATION OF EMBEDDED ITEMS

- A. General: Set anchorage devices and other items required for other work connected to or supported by cast-in-place concrete, using templates, setting drawings, and instructions from suppliers of items to be embedded.
 - 1. Edge Forms and Screeds: Set edge forms and intermediate screeds as necessary to achieve final elevations indicated for finished slab surfaces.

3.0 PLACING CONCRETE

- A. Place concrete in accordance with ACI 304R.
- B. Place concrete for floor slabs in accordance with ACI 302.1R.
- C. Preparation: Provide materials necessary to ensure adequate protection of concrete during inclement weather before beginning installation of concrete.
- D. Inspection: Before beginning concrete placement, inspect formwork, reinforcing steel, and items to be embedded, verifying that all such work has been completed.
 - Wood forms: Moisten immediately before placing concrete in locations where form coatings are not used.
- E. Placement General: Comply with requirements of ACI 304 and as follows:
 - 1. Schedule continuous placement of concrete to prevent the formation of cold joints.
 - 2. Provide construction joints if concrete for a particular element or component cannot be placed in a continuous operation.

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- 3. Deposit concrete as close as possible to its final location, to avoid segregation.
- F. Placement in Forms: Limit horizontal layers to depths which can be properly consolidated, but in no event greater than 24 inches.
 - 1. Consolidate concrete by means of mechanical vibrators, inserted vertically in freshly placed concrete in a systematic pattern at close intervals. Penetrate previously placed concrete to ensure that separate concrete layers are knitted together.
 - 2. Vibrate concrete sufficiently to achieve consistent consolidation without segregation of coarse aggregates.
 - 3. Do not use vibrators to move concrete laterally.
- G. Hot Weather Placement: Comply with recommendations of ACI 305R when ambient temperature before, during, or after concrete placement is expected to exceed 90 degrees F or when combinations of high air temperature, low relative humidity, and wind speed are such that the rate of evaporation from freshly poured concrete would otherwise exceed 0.2 pounds per square foot per hour.
 - 1. Do not add water to approved concrete mixes under hot weather conditions.
 - 2. Provide mixing water at lowest feasible temperature, and provide adequate protection of poured concrete to reduce rate of evaporation.
 - Use fog nozzle to cool formwork and reinforcing steel immediately prior to placing concrete.
- H. Ensure reinforcement, inserts, embedded parts, and formed construction joint devices will not be disturbed during concrete placement.
- I. Finish floors level and flat, unless otherwise indicated, within the tolerances specified below.

3.07 SLAB JOINTING

- A. Locate joints as indicated on drawings.
- B. Anchor joint fillers and devices to prevent movement during concrete placement.
- C. Isolation Joints: Use preformed joint filler with removable top section for joint sealant, total height equal to thickness of slab, set flush with top of slab.

3.0 FLOOR FLATNESS AND LEVELNESS TOLERANCES

- A. Maximum Variation of Surface Flatness:
 - 1. Exposed Concrete Floors: 1/4 inch (6 mm) in 10 feet (3 m).
 - 2. Under Seamless Resilient Flooring or Epoxy Flooring: 1/4 inch (6 mm) in 10 feet (3 m).
 - 3. Under Carpeting: 1/4 inch (6 mm) in 10 feet (3 m).
- B. Correct the slab surface if tolerances are less than specified.
- C. Correct defects by grinding or by removal and replacement of the defective work. Areas requiring corrective work will be identified. Re-measure corrected areas by the same process.

3.09 CONCRETE FINIS ING

- A. Repair surface defects, including tie holes, immediately after removing formwork.
 - 1. Remove honeycombed areas and other defective concrete down to sound concrete, cutting perpendicular to surface or slightly undercutting. Dampen patch location and area immediately surrounding it prior to applying bonding compound or patching mortar.
 - Before bonding compound has dried, apply patching mixture matching original concrete in materials and mix except for omission of coarse aggregate, and using a blend of white and normal portland cement as necessary to achieve color match. Consolidate thoroughly and strike off slightly higher than surrounding surface.
- B. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch (6 mm) or more in height.
- C. Exposed Form Finish: Rub down or chip off and smooth fins or other raised areas 1/4 inch (6 mm) or more in height. Provide finish as follows:
 - 1. Smooth Rubbed Finish: Wet concrete and rub with carborundum brick or other abrasive, not more than 24 hours after form removal.

- D. CONCRETE SLABS: Finish to requirements of ACI 302.1R, and as follows:
 - 1. Do not directly apply water to slab surface or dust with cement.
 - 2. Use hand or powered equipment only as recommended in ACI 302.1R.
 - 3. Screeding: Strikeoff to required grade and within surface tolerances indicated. Verify conformance to surface tolerances. Correct deficiencies while concrete is still plastic.
 - Bull Floating: Immediately following screeding, bull float or darby before bleed water appears to eliminate ridges, fill in voids, and embed coarse aggregate. Recheck and correct surface tolerances.
 - 5. Do not perform subsequent finishing until excess moisture or bleed water has disappeared and concrete will support either foot pressure with less than 1/4-inch indentation or weight of power floats without damaging flatness.
 - 6. Final floating: Float to embed coarse aggregate, to eliminate ridges, to compact concrete, to consolidate mortar at surface, and to achieve uniform, sandy texture. Recheck and correct surface tolerances.
 - 7. Troweling: Trowel immediately following final floating. Apply first troweling with power trowel except in confined areas, and apply subsequent trowelings with hand trowels. Wait between trowelings to allow concrete to harden. Do not overtrowel. Begin final troweling when surface produces a ringing sound as trowel is moved over it. Consolidate concrete surface by final troweling operation. Completed surface shall be free of trowel marks, uniform in texture and appearance, and within surface tolerance specified.
 - Grind smooth surface defects which would telegraph through final floor covering system.
 - b. Surfaces to Receive Thick Floor Coverings: Wood float as described in ACI 302.1R; thick floor coverings include quarry tile, ceramic tile, and terrazzo with full bed setting system.
 - c. Surfaces to Receive Thin Floor Coverings: Steel trowel as described in ACI 302.1R; thin floor coverings include carpeting, resilient flooring, seamless flooring, thin set quarry tile, and thin set ceramic tile.
 - 8. Decorative Exposed Surfaces: Trowel as described in ACI 302.1R; use steel-reinforced plastic trowel blades instead of steel blades to avoid black-burnish marks; decorative exposed surfaces include surfaces to be stained or dyed, pigmented concrete, surfaces to receive liquid hardeners, surfaces to receive dry-shake hardeners, surfaces to be polished, and all other exposed slab surfaces.
 - a. Other Surfaces to Be Left Exposed: Trowel as described in ACI 302.1R, minimizing burnish marks and other appearance defects.
 - b. Chemical Hardener: See Section 03 3511.
 - In areas with floor drains, maintain floor elevation at walls; pitch surfaces uniformly to drains at 2 maximum.
 - 10. Slab Surface Tolerances:
 - a. Achieve flat, level planes except where grades are indicated. Slope uniformly to
 - b. Floated finishes: Depressions between high spots shall not exceed 5/16 inch under a 10-foot straightedge.
 - c. Troweled finishes: Achieve level surface plane so that depressions between high spots do not exceed the following dimension, using a 10-foot straightedge:
 - 1) 1/8 inch
 - 11. Repair of Slab Surfaces: Test slab surfaces for smoothness and to verify surface plane to tolerance specified. Repair defects as follows:
 - a. High areas: Correct by grinding after concrete has cured for not less than 14 days.
 - b. Low areas: Immediately after completion of surface finishing operations, cut out low areas and replace with fresh concrete. Finish repaired areas to blend with adjacent concrete. Proprietary patching compounds may be used when approved by the architect.
 - c. Crazed or cracked areas: Cut out defective areas, except random cracks and single holes not exceeding 1 inch in diameter, by cutting out and replacing with fresh concrete. Remove defective areas with clean, square cuts. Dampen exposed

- concrete and apply bonding compound. Mix, place, compact, and finish patching concrete to match adjacent concrete.
- d. Isolated cracks and holes: Groove top of cracks and cut out holes not over 1 inch in diameter. Dampen cleaned concrete surfaces and apply bonding compound; place dry pack or proprietary repair compound acceptable to architect while bonding compound is still active:
 - 1) Dry-pack mix: One part portland cement to 2-1/2 parts fine aggregate and enough water as required for handling and placing.
 - Install patching mixture and consolidate thoroughly, striking off level with and matching surrounding surface. Do not allow patched areas to dry out prematurely.

3.10 CURING AND PROTECTION

- A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Surfaces Not in Contact with Forms:
 - 1. Initial Curing: Start as soon as free water has disappeared and before surface is dry. eep continuously moist for not less than three days by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
 - 2. Final Curing: Begin after initial curing but before surface is dry.
 - a. Curing Compound: Apply in two coats at right angles, using application rate recommended by manufacturer.

3.11 FIELD QUALITY CONTROL

- A. An independent testing agency will perform field quality control tests, as specified in Section 01 4000 Quality Requirements.
- B. Provide free access to concrete operations at project site and cooperate with appointed firm.
- C. Composite Sampling, and Making and Curing of Specimens: ASTM C 172 and ASTM C 31.
 - 1. Take samples at point of discharge.
 - 2. For pumped concrete, perform sampling and testing at the frequencies specified herein at point of delivery to pump, and perform additional sampling and testing at the same frequency at discharge from line. Results obtained at discharge from line shall be used for acceptance of concrete.
- Slump: ASTM C 143. One test per strength test and additional tests if concrete consistency changes.
 - 1. Modify sampling to comply with ASTM C 94.
- E. Air Content of Normal Weight Concrete: ASTM C 173 or ASTM C 231. One test per strength test performed on air-entrained concrete.
- F. Concrete Temperature:
 - 1. Test hourly when air temperature is 90 degrees F or above.
 - 2. Test each time a set of strength test specimens is made.
- G. Compressive Strength Tests: ASTM C 39 and Section 1903A, 2019 C.B.C. and ACI 318-14, Chapter 5.
 - 1. Compression test specimens: Mold and cure one set of 4 standard cylinders for each compressive strength test required.
 - 2. Testing for acceptance of potential strength of as-delivered concrete:
 - a. Obtain samples on a statistically sound, random basis.
 - b. Minimum frequency:
 - One set per 50 cubic yards or fraction thereof for each day's pour of each concrete class.
 - One set per 2000 square feet of slab or wall area or fraction thereof for each day's pour of each concrete class.

- 3) When the above testing frequency would provide fewer than 5 strength tests for a given class of concrete during the project, conduct testing from not less than 5 randomly selected batches, or from each batch if fewer than 5.
- c. Test one specimen per set at 7 days for information unless an earlier age is required.
- d. Test 2 specimens per set for acceptance of strength potential; test at 28 days unless other age is specified. The test result shall be the average of the two specimens. If one specimen shows evidence of improper sampling, molding, or testing, the test result shall be the result of the remaining specimen; if both show such evidence, discard the test result and inform the architect.
- e. Retain one specimen from each set for later testing, if required.
- f. Strength potential of as-delivered concrete will be considered acceptable if the following criteria is met:
 - 1) Minimum of all sets of 3 consecutive strength test results equals or exceeds specified compressive strength f'(c).
- g. Evaluate construction and curing procedures and implement corrective action when strength results for field-cured specimens are less than 85 percent of test values for companion laboratory-cured specimens.
- 3. Removal of forms or supports: Mold additional specimens and field-cure with concrete represented; test to determine strength of concrete at proposed time of form or support removal.
- H. Take one additional test cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.

3.12 CONCRETE SURFACE REPAIRS

- A. Patching Defective Areas: Repair and patch defective areas with cement mortar immediately after removal of forms, when acceptable to Architect.
- B. Cut out honeycomb, rock pockets, voids over 1/4 in any dimension, and holes left by tie rods and bolts, down to solid concrete but, in no case to a depth of less than 1. Make edges of cuts perpendicular to the concrete surface. Thoroughly clean, dampen with water, and brush coat the area to be patched with specified bonding agent. Place patching mortar after bonding compound has dried.
- C. For exposed-to-view surfaces, blend white portland cement and standard portland cement so that, when dry, patching mortar will match color surrounding. Provide test areas at inconspicuous location to verify mixture and color match before proceeding with patching. Compact mortar in place and strike off slightly higher than surrounding surface.
- D. Repair of Formed Surfaces: Remove and replace concrete having defective surfaces if defects cannot be repaired to satisfaction of Architect. Surface defects, as such, include color and texture irregularities, cracks, spalls, air bubbles, honeycomb, rock pockets; fins and other projections on surface; and stains and other discolorations that cannot be removed by cleaning. Flush out form tie holes, fill with dry pack mortar, or precast cement cone plugs secured in place with bonding agent.
- E. Repair concealed formed surfaces, where possible, that contain defects that affect the durability of concrete. If defects cannot be repaired, remove and replace concrete.
- F. Repair of Unformed Surfaces: Test unformed surfaces, such as monolithic slabs, for smoothness and verify surface plane to tolerances specified for each surface and finish. Correct low and high areas as herein specified. Test unformed surfaces sloped to drain for trueness of slope, in addition to smoothness using a template having required slope.
- G. Repair finished unformed surfaces that contain defects which affect durability of concrete. Surface defects, as such, include crazing, cracks in excess of 0.01 wide or which penetrate to reinforcement or completely through non-reinforced sections regardless of width, spalling, popouts, honeycomb, rock pockets, and other objectionable conditions.
- H. Correct high areas in unformed surfaces by grinding, after concrete has cured at least 14 days.
- I. Correct low areas in unformed surfaces during or immediately after completion of surface finishing operations by cutting out low areas and replacing with fresh concrete. Finish repaired

- areas to blend into adjacent concrete. Proprietary patching compounds may be used when acceptable to Architect.
- J. Repair defective areas, except random cracks and single holes not exceeding 1 diameter, by cutting out and replacing with fresh concrete. Remove defective areas to sound concrete with clean square cuts and expose reinforcing steel with at least 3/4 clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding compound. Mix patching concrete of same materials to provide concrete of same type or class as original concrete. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete

3.13 DEFECTIVE CONCRETE

- A. Test Results: The testing agency shall report test results in writing to Architect and Contractor within 24 hours of test.
 - 1. Test reports shall contain the following data:
 - a. Project name, number, and other identification.
 - b. Name of concrete testing agency.
 - c. Date and time of sampling.
 - d. Concrete type and class.
 - e. Location of concrete batch in the completed work.
 - f. All information required by respective ASTM test methods.
- B. Defective Concrete: Concrete not conforming to required lines, details, dimensions, tolerances or specified requirements.
- C. Repair or replacement of defective concrete will be determined by the Architect. The cost of additional testing shall be borne by Contractor when defective concrete is identified.
- D. Nondestructive testing devices such as impact hammer or sonoscope may be used at architect's option for assistance in determining probable concrete strength at various locations or for selecting areas to be cored, but such tests shall not be the sole basis for acceptance or rejection.
- E. The testing agency shall make additional tests of in-place concrete as directed by the architect when test results indicate that specified strength and other concrete characteristics have not been attained.
 - 1. Testing agency may conduct tests of cored cylinders complying with ASTM C 42 and 2605(g), or tests as directed.
 - 2. Cost of additional testing shall be borne by the contractor when unacceptable concrete has been verified.

3.14 PROTECTION

A. Do not permit traffic over unprotected concrete floor surface until fully cured.

SECTION 0 1000 ROUG CARPENTRY

SECTION 07 200 S EET METAL FLAS ING AND TRIM

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Fabricated sheet metal items, including flashings, counterflashings, gutters, and downspouts.
- B. Sealants for joints within sheet metal fabrications.
- C. Precast concrete splash pads.

1.02 RELATED REQUIREMENTS

- Section 03 1000 Concrete Forming and Accessories: Placement of recessed reglets in formwork.
- B. Section 04 2000 Unit Masonry: Metal flashings embedded in masonry.
- Section 07 7100 Roof Specialties: Manufactured copings, flashings, and expansion joint covers.
- D. Section 07 9200 Joint Sealants: Sealing non-lap joints between sheet metal fabrications and adjacent construction.

1.03 REFERENCE STANDARDS

- A. ASTM A653/A653M Standard Specification for Steel Sheet, inc-Coated (Galvanized) or inc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.
- B. ASTM B32 Standard Specification for Solder Metal; 2008 (Reapproved 2014).
- C. ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2014.
- D. ASTM C920 Standard Specification for Elastomeric Joint Sealants; 2014a.
- E. ASTM D226/D226M Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing; 2009.
- F. ASTM D4586/D4586M Standard Specification for Asphalt Roof Cement, Asbestos-Free; 2007 (Reapproved 2012).
- G. SMACNA (ASMM) Architectural Sheet Metal Manual; 2012.

1.04 SUBMITTALS

- A. See Section 01 3010 Submittals, for submittal procedures.
- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

1.05 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA Architectural Sheet Metal Manual requirements and standard details
- B. Fabricator and Installer Qualifications: Company specializing in sheet metal work with three3 years of documented experience.

1.0 DELIVERY STORAGE AND ANDLING

- A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- B. Prevent contact with materials that could cause discoloration or staining.

PART 2 PRODUCTS

2.01 S EET MATERIALS

A. Galvanized Steel: ASTM A653/A653M, with G90/ 275 zinc coating; minimum 24 gage (0.0239 inch) (0.61 mm) thick base metal.

2.02 ACCESSORIES

A. Fasteners: Galvanized steel, with soft neoprene washers.

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II WSV Warehouse Freezer	07 6200 = 1	Sheet Metal Flashing and Trim

- B. Underlayment: ASTM D226/D226M, organic roofing felt, Type II (No. 30).
- C. Slip Sheet: Rosin sized building paper.
- D. Primer: inc chromate type.
- E. Protective Backing Paint: inc molybdate alkyd.
- F. Sealant to be Concealed in Completed Work: Non-curing butyl sealant.
- G. Sealant to be Exposed in Completed Work: ASTM C920; elastomeric sealant, 100 percent silicone with minimum movement capability of plus/minus 25 percent and recommended by manufacturer for substrates to be sealed; clear.
- H. Sealant: Type specified in Section 07 9005.
- I. Plastic Cement: ASTM D4586, Type I.
- J. Solder: ASTM B32; Sn50 (50/50) type.

2.03 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- B. Form pieces in longest possible lengths.
- C. Hem exposed edges on underside 1/2 inch (13 mm); miter and seam corners.
- D. Form material with flat lock seams, except where otherwise indicated. At moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- E. Fabricate corners from one piece with minimum 18 inch (450 mm) long legs; seam for rigidity, seal with sealant.
- F. Fabricate vertical faces with bottom edge formed outward 1/4 inch (6 mm) and hemmed to form drip.

2.04 GUTTER AND DOWNSPOUT FABRICATION

- A. Gutters: SMACNA (ASMM) Rectangular profile.
- B. Downspouts: Round profile.
- C. Gutters and Downspouts: Size indicated.
- D. Accessories: Profiled to suit gutters and downspouts.
 - 1. Anchorage Devices: In accordance with SMACNA requirements.
 - 2. Gutter Supports: Brackets.
 - 3. Downspout Supports: Brackets.
- E. Splash Pads: Precast concrete type, of size and profiles indicated; minimum 3000 psi (21 MPa) at 28 days, with minimum 5 percent air entrainment.
- F. Seal metal joints.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.
- B. Verify roofing termination and base flashings are in place, sealed, and secure.

3.02 PREPARATION

- A. Install starter and edge strips, and cleats before starting installation.
- B. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil (0.4 mm).

3.03 INSTALLATION

- A. Secure flashings in place using concealed fasteners. Use exposed fasteners only where permitted.
- B. Apply plastic cement compound between metal flashings and felt flashings.

- C. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- D. Solder metal joints for full metal surface contact. After soldering, wash metal clean with neutralizing solution and rinse with water.
- E. Secure gutters and downspouts in place using concealed fasteners.
- F. Set splash pads under downspouts. Set in place with

3.04 FIELD QUALITY CONTROL

- A. See Section 01 4000 Quality Requirements, for field inspection requirements.
- B. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.

SECTION 07 9200 JOINT SEALANTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Nonsag gunnable joint sealants.
- B. Self-leveling pourable joint sealants.
- C. Joint backings and accessories.

1.02 REFERENCE STANDARDS

- A. ASTM C834 Standard Specification for Latex Sealants; 2014.
- B. ASTM C920 Standard Specification for Elastomeric Joint Sealants; 2014a.
- C. ASTM C1193 Standard Guide for Use of Joint Sealants; 2016.
- D. ASTM D2240 Standard Test Method for Rubber Property--Durometer Hardness; 2015.
- E. SCAQMD 1168 South Coast Air Quality Management District Rule No.1168; current edition.

1.03 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.
 - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
 - 2. List of backing materials approved for use with the specific product.
 - 3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
 - 4. Substrates the product should not be used on.
- C. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section with minimum three years documented experience.

1.05 WARRANTY

- A. See Section 01 7800 Closeout Submittals, for additional warranty requirements.
- B. Correct defective work within a five year period after Date of Substantial Completion.
- C. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal, exhibit loss of adhesion or cohesion, or do not cure.

PART 2 PRODUCTS

2.01 JOINT SEALANT APPLICATIONS

A. Scope:

- 1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
 - a. Wall expansion and control joints.
 - b. Joints between door, window, and other frames and adjacent construction.
 - c. Joints between different exposed materials.
- 2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
 - a. Joints between door, window, and other frames and adjacent construction.
- 3. Do not seal the following types of joints.

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- Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
- Joints where sealant is specified to be provided by manufacturer of product to be sealed.
- c. Joints where installation of sealant is specified in another section.
- d. Joints between suspended panel ceilings/grid and walls.
- B. Exterior Joints: Use nonsag polyurethane sealant, unless otherwise indicated.
- C. Interior Joints: Use nonsag Acrylic emulsion latex sealant, unless otherwise indicated.
 - 1. Wall and Ceiling Joints in Non-Wet Areas: Acrylic emulsion latex sealant.

2.02 JOINT SEALANTS - GENERAL

A. Sealants and Primers: Provide products having lower volatile organic compound (VOC) content than indicated in South Coast Air Quality Management District (SCAQMD); Rule 1168.

2.03 NONSAG JOINT SEALANTS

- A. Type 1 Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single component; not expected to withstand continuous water immersion or traffic.
 - 1. Movement Capability: Plus and minus 25 percent, minimum.
- B. Type 2 Acrylic Emulsion Latex: Water-based; ASTM C834, single component, non-staining, non-bleeding, non-sagging; not intended for exterior use.
 - 1. Color: Standard colors matching finished surfaces, Type OP (opaque).

2.04 SELF-LEVELING SEALANTS

- A. Semi-Rigid Self-Leveling Polyurea Joint Filler: Two-component, 100 percent solids; Intended for filling cracks and control joints not subject to significant movement; rigid enough to support concrete edges under traffic.
 - 1. Hardness: 75, Shore A, minimum, when tested in accordance with ASTM D2240 after 7 days.
 - 2. Color: Concrete gray.

2.05 ACCESSORIES

- A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
- B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.
- C. Joint Cleaner: Non-corrosive and non-staining type, type recommended by sealant manufacturer; compatible with joint forming materials.
- D. Primers: Type recommended by sealant manufacturer to suit application; non-staining.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that joints are ready to receive work.
- B. Verify that backing materials are compatible with sealants.
- C. Verify that backer rods are of the correct size.

3.02 PREPARATION

- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
- B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

E. Concrete Floor Joints That Will Be Exposed in Completed Work: Test joint filler in inconspicuous area to verify that it does not stain or discolor slab.

3.03 INSTALLATION

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Perform installation in accordance with ASTM C1193.
- C. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer, except where specific dimensions are indicated.
- D. Install bond breaker backing tape where backer rod cannot be used.
- E. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- F. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- G. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.
- H. Concrete Floor Joint Filler: After full cure, shave joint filler flush with top of concrete slab.

3.04 FIELD QUALITY CONTROL

A. Remove and replace failed portions of sealants using same materials and procedures as indicated for original installation.

SECTION 13 21 26.16

COLD STORAGE WALK-IN FREEZER/REFRIGERATED WAREHOUSING

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Walk-in refrigeration equipment.

1.02 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include the following:
 - Manufacturer's model number.
 - 2. Accessories and components that will be included for Project.
 - 3. Clearance requirements for access and maintenance.
 - 4. Utility service connections for water, drainage, power, and fuel; include roughing-in dimensions.
- B. Shop Drawings: For fabricated equipment. Include plans, elevations, sections, roughing-in dimensions, fabrication details, utility service requirements, and attachments to other work.
- Samples for Verification: For each factory-applied color finish required, in manufacturer's standard sizes.

1.03 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings:
 - 1. Indicate locations of foodservice equipment and connections to utilities.
 - 2. Key equipment using same designations as indicated on Drawings.
 - 3. Include plans and elevations; clearance requirements for equipment access and maintenance; details of equipment supports; and utility service characteristics.
- B. Sample Warranty: For special warranty.

1.04 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For warehouse equipment to include in emergency, operation, and maintenance manuals.
 - 1. Product Schedule:
 - a. Designation indicated on Drawings.
 - b. Manufacturer's name and model number.
 - c. List of factory-authorized service agencies including addresses and telephone numbers.

1.05 WARRANTY

- A. 1-year parts and labor warranty on refrigeration equipment.
- B. Refrigeration Compressor Warranty: Manufacturer agrees to repair or replace compressors that fail in materials or workmanship within specified warranty period.
 - 1. Failure includes, but is not limited to, inability to maintain set temperature.
 - 2. Compressor Warranty Period: Five years.
 - 3. 10 year panel rust warranty

PART 2 PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

- A. NSF Standards: Provide equipment that bears NSF Certification Mark or UL Classification Mark certifying compliance with applicable NSF standards.
- B. UL Certification: Provide electric and fuel-burning equipment and components that are evaluated by UL for fire, electric shock, and casualty hazards according to applicable safety standards, and that are UL certified for compliance and labeled for intended use.

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- C. Regulatory Requirements: Install equipment to comply with the following:
 - 1. ASHRAE 15, "Safety Code for Mechanical Refrigeration."
 - 2. NFPA 70, "National Electrical Code."

2.02 WALK-IN REFRIGERATION EQUIPMENT

- A. Walk-in Refrigeration Units.
 - Manufacturer:
 - a. Bally Refrigerated Boxes, Inc.
 - 2. Walk-in Freezer & Cooler Description:
 - a. Overall walk-in to have exterior dimensions of 45'-7 1/4" wide x 29'-9 1/2" deep x 16'-9"" high for the cooler/freezer/cooler outdoor box. These dimensions must be exact hold to dimensions.
 - b. Walls and Ceiling Panels: Interlocking insulating panels.
 - 5" thick walls and 5" thick ceiling panels. class 1, foamed in place urethane for the outdoor cooler freezer combo box.
 - 2) Finishes: Exterior and interior finish to be 26 gage White embossed on interior surfaces. The exterior box to be profile style where exposed.
 - 3) Ceiling finish to be white embossed 26 gage including all trim and closure panel.
 - 4) Provide suspended steel support structure as shown on drawings for the box Panel manufacturer shall be responsible for steel support structure. Provide drawings and calculations by a state of California structural engineer.
 - 5) Interior shall have a 30 degree angled wall guard from the panels to the concrete floor, metal faced, concrete filled where shown on drawings
 - 6) Entrance Doors:
 - Size: 36" wide x 84" high x 5" thick hinged door
 - Doors to have 14" X 14" observation window, digital temperature indicator and door ajar alarm
 - One 7' x 10'single slide freezer door electrically operated.
 - 7) Electrical: Single phase 120/1 door heat. 460/3 for the door operators. Provide remote control door opening and closing devices
 - 8) Provide Goal Post stye door guards, with PVC safety yellow jacket with special oversized footplate and 4" high nut guard plates for the warehouse doors
 - Provide and install new floor insulation for under freezer Insulation to be 40 PSI ST-100 by Dow. 7" thick, two layers with lapped joints. Provide and install 6 mil vapor barrier.
 - 10) Provide and install steel angle sill plates at freezer doors. See detail on drawings.
 - 3. Refrigeration Systems:
 - a. Walk-in freezer provided with new complete refrigeration system that includes evaporators, condensing units, and associated piping.
 - 1) Holding temp: -10 F freezer
 - 2) Product type: food products entering at storage temperature
 - 3) Ambient Temp: 95 F
 - 4) Condensing Unit:
 - (a) Provide a compressor package condensing unit Two Model BEZA085L8-HT4D each system with a BMP239LE evap.
 - (b) 16-hour runtime per day
 - (c) 10% safety factor
 - (d) Shall have Limitrol+ or other Floating Head Pressure control system to improve energy consumption.
 - (e) Evaporators to be smart speed type for energy savings with the smart evap controller
 - (f) Electrical: 208 three phase.

- (g) Replaceable core liquid line filters
- (h) Suction filter with replaceable core
- (i) Suction accumulator
- (j) EC fan motors with speed controllers
- (k) With anti-short cycling time delay
- (I) Single point electrical package for power to evaporators
- (m) Provide compressor lead lag system
- 5) Evaporator:
 - (a) SmartVap+ intelligent defrost and display factory installed.
 - (b) EEV (Electronic Expansion Valve)
 - (c) Electrical: 208V single phase
 - (d) Provide Smart Evap switch with EM Plus monitor for remote monitoring with all require Cat 5 cabling
- 6) Load Cals shall be provided with state of California mechanical stamp.
- b. Frost Heave Protection
 - Provide new glycol floor heat system as detailed on the drawings. Provide floor heat controller with freezer center temperature sensor, access hub and under floor conduit Provide heater failure alarm along with remote alarming. Provide under floor tubing, manifold, pumps, air separator, glycol auto fill system and all interconnecting piping for a complete system with isolation valves, provide all misc. parts for a complete system
- C.
- 1) Provide switch and router for refrigeration control systems. Controller to have email or text message notification when any preset parameter is outside of a desired range. Control system to have remote monitoring and recording.
- d. Evaporator coil provided with components pre-assembled
- e. Condensing unit provided as pre-assembled
- 4. Vapor Proof LED Lighting
 - a. Provide led vaporproof lights as indicated on the drawings
 - b. Lights to have motions sensors. Half of fixtures equipped with 10 Watt battery back up for egress lighting.
- 5. Walk in Compartments provided with the following accessories:
 - Metal Faced concrete filled curbing 6" high and 6" deep with sloped top and top trim caulked to the wall
 - b. Closure panel in matching finish provided around door opening to cover gap between freezer panels and existing wall panels.

2.03 MISCELLANEOUS MATERIALS

- A. Installation Accessories, General: NSF certified for end-use application indicated.
- B. Elastomeric Joint Sealant: ASTM C920; silicone. Type S (single component), Grade NS (nonsag), Class 25, Use NT (nontraffic) related to exposure, and Use M, G, A, or O as applicable to joint substrates indicated.
 - 1. Public Health and Safety Requirements:
 - a. Sealant is certified for compliance with NSF standards for end-use application indicated.
 - b. Washed and cured sealant complies with the FDA's regulations for use in areas that come in contact with food.
 - 2. Cylindrical Sealant Backing: ASTM C1330, Type C, closed-cell polyethylene, in diameter greater than joint width.

2.04 FINISHES

- A. Stainless Steel Finishes:
 - 1. Surface Preparation: Remove tool and die marks and stretch lines, or blend into finish.

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- 2. Polished Finishes: Grind and polish surfaces to produce uniform finish, free of cross scratches.
 - a. Run grain of directional finishes with long dimension of each piece.
 - b. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.
- B. Powder-Coat Finishes: Immediately after cleaning and pretreating, electrostatically apply manufacturer's standard, baked-polymer, thermosetting powder finish. Comply with resin manufacturer's written instructions for application, baking, and minimum dry film thickness.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install equipment level and plumb, according to manufacturer's written instructions.
 - This contractor to be responsible for demo of the old refrigeration equipment and the old insulated panels. Refrigerant to be reclaimed and disposed of properly. All equipment shall be removed from site.
 - 2. Provide cutouts in equipment, neatly formed, where required to run service lines through equipment to make final connections.
 - 3. Pipe insulation shall be a minimum of 1" thick and where exposed to ambient shall be covered with a UV resistant PVC wrap.
 - 4. All pipe shall be supported per ASHRAE / local mechanical code standards.
 - 5. All refrigeration pipe shall be ACR hard copper.
 - 6. Refrigeration lines shall be pressurized to 350 PSI and evacuated to 450 microns
- B. Complete equipment assembly where field assembly is required.
 - 1. Provide closed butt and contact joints that do not require a filler.
 - 2. Grind field welds on stainless steel equipment until smooth and polish to match adjacent finish.
- C. Install equipment with access and maintenance clearances that comply with manufacturer's written installation instructions and with requirements of authorities having jurisdiction.
- D. Install closure-trim strips and similar items requiring fasteners in a bed of sealant.
- E. Install joint sealant in joints between equipment and abutting surfaces with continuous joint backing unless otherwise indicated. Produce airtight, watertight, vermin-proof, sanitary joints.

3.02 CLEANING AND PROTECTING

- A. After completing installation of equipment, repair damaged finishes.
- B. Clean and adjust equipment as required to produce ready-for-use condition.
- C. Protect equipment from damage during remainder of the construction period.

3.03 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain foodservice equipment.

END OF SECTION 13 21 26.16

SECTION 26 0100 ELECTRICAL GENERAL PROVISIONS

PART 1- GENERAL

SUMMARY

- 1.1 This Division of the specification outlines the provisions of the contract work to be performed under this Division.
- 1.2 This Section applies to and forms a part of each section of specifications in Division 26 and all work performed under Division 26.
- 1.3 In addition, work in this Division is governed by the provisions of the bidding requirements, contract forms, general conditions and all sections under general requirements.
- 1.4 These specifications contain statements which may be more definitive or more restrictive than those contained in the General Conditions. Where these statements occur, they shall take precedence over the General Conditions.
- 1.5 Where the words 'provide' or 'provision' are used, it shall be definitely interpreted as 'furnishing and installing complete in operating condition'. Where the words 'as indicated' or 'as shown' are used, it shall mean as shown on contract drawings.
- 1.6 Where items are specified in the singular, this Division shall provide the quantity as shown on drawings plus any spares or extras mentioned on drawings or specifications. All specified and supplied equipment shall be new.

CONTRACTOR QUALIFICATIONS

1.7 The Contractor shall have a current California C-10 Electrical Contractor's license and all individuals working on this project shall have passed the Department of Industrial Relations Division of apprenticeship Standards – "Electrician Certification Program."

CODES, PERMITS AND FEES

- 1.8 Comply with all applicable laws, ordinances, rules, regulations, codes, or rulings of governmental units having jurisdiction as well as standards of CEC and serving utility requirements.
- 1.9 Obtain permits, fees, inspections, meter and the like, associated with work in each section of this Division.
- 1.10 Installation procedures, methods and conditions shall comply with the latest requirements of the Federal Occupational Safety and Health Act (OSHA).

EXAMINATION OF PREMISES

1.11 Examine the construction drawings and premises prior to bidding. No allowances will be made for not being knowledgeable of existing conditions.

STANDARDS

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- 1.12 The following standard publications of the latest editions enforced, and supplements thereto shall form a part of these specifications. All electrical work must, as a minimum, be in accordance with these standards.
 - 1.12.1 2022 California Electrical Code (CEC), Part 3 Title 24 CCR.
 - 1.12.2 National Fire Protection Association.
 - 1.12.3 Underwriters' Laboratories, Inc. (UL).
 - 1.12.4 Certified Ballast Manufacturers' Association (CBM).
 - 1.12.5 National Electrical Manufacturers' Association (NEMA).
 - 1.12.6 Institution of Electrical & Electronics Engineers (IEEE).
 - 1.12.7 American Society for Testing & Materials (ASTM).
 - 1.12.8 National Board of Fire Underwriters (NBFU).
 - 1.12.9 National Board of Standards (NBS).
 - 1.12.10 American National Standards Institute (ANSI).
 - 1.12.11 Insulated Power Cable Engineers Association (IPECS).
 - 1.12.12 Electrical Testing Laboratories (ETL).
 - 1.12.13 National Electrical Safety Code (NESC).
 - 1.12.14 2022 California Building Code (CBC), Part 2, Title 24 CCR.
 - 1.12.15 2022 California Fire Code (CFC), Part 9, Title 24, CCR.
 - 1.12.16 2022 NFPA 72 with California State Amendments
 - 1.12.17 National Electrical Testing Association (NETA), 2010 or most current

DEFINITIONS

- 1.13 Concealed: Hidden from sight, as in trenches, chases, hollow construction, or above furred spaces, hung ceilings acoustical or plastic type, or exposed to view only in tunnels, attics, shafts, crawl spaces, unfinished spaces, or other areas solely for maintenance and repair.
- 1.14 Exposed, Non-Concealed, Unfinished Space: A room or space that is ordinarily accessible only to building maintenance personnel, a room noted on the 'finish schedule' with exposed and unpainted construction for walls, floors, or ceilings or specifically mentioned as 'unfinished'.
- 1.15 Finish Space: Any space ordinarily visible, including exterior areas.

WORK AND MATERIALS

- 1.16 Unless otherwise specified, all materials must be new and of the best quality. Materials previously incorporated into other projects, salvaged, or refurbished are not considered new. Perform all labor in a thorough and workmanlike manner.
- 1.17 All materials provided under the contract must bear the UL label where normally available. Note that this requirement may be repeated under equipment specifications. In general, such devices as will void the label should be provided in separate enclosures and wired to the labeled unit in proper manner.

SHOP DRAWINGS AND SUBMITTALS

- 1.18 Submit shop drawings and all data in accordance with Division 1 of these specifications and as noted below for all equipment provided under this Division.
- 1.19 Shop drawings submittal demonstrate to the Architect that the Contractor understands the design concept. The Contractor demonstrates their understanding by indicating which equipment and material they inten to furnish and install and by detailing the

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fabrication and installation methods of material and equipment he intends to use. If deviations, discrepancies, or conflicts etween submittals and specifications are discovered either prior to or after submittals are processed, notify the Architect immediately.

- 1.20 Manufacturer's data and dimension sheets shall be submitted giving all pertinent physical and engineering data including weights, cross sections and maintenance instructions. Standard items of equipment such as receptacles, switches, plates, etc., which are cataloged items, shall be listed by manufacturer.
- 1.21 Index all submittals and reference them to these specifications. All submittal items shall be assembled and submitted, one for each specification section. (Multiple specification sections may be grouped together in one common submittal binder, as long as each individual section is clearly identified.) Partial or incomplete submittal sections will not be reviewed.

EQUIPMENT PURCHASES

- 1.22 Arrange for purchase and delivery of all materials and equipment within 20 days after approval of submittals. All materials and equipment must be ordered in ample quantities for delivery at the proper time. If items are not on the project in time to expedite completion, the Owner may purchase said equipment and materials and deduct the cost from the contract sum.
- 1.23 Provide all materials of similar class or service by one manufacturer.

COOPERATIVE WORK

- 1.24 Correct without charge any work requiring alteration due to lack of proper supervision or failure to make proper provision in time. Correct without charge any damage to adjacent work caused by the alteration.
- 1.25 Cooperative work includes: General supervision and responsibility for proper location and size of work related to this Division, but provided under the other sections of these specifications, and installation of sleeves, inserts, and anchor bolts for work under each section in this Division.

VERIFICATION OF DIMENSIONS

- 1.26 Scaled and figured dimensions are approximate only. Before proceeding with work, carefully check and verify dimensions, etc., and be responsible for properly fitting equipment and materials together and to the structure in spaces provided.
- 1.27 Drawings are essentially diagrammatic, and many offsets, bends, pull boxes, special fittings, and exact locations are not indicated. Carefully study drawings and premises in order to determine best methods, exact location, routes, building obstructions, etc. and install apparatus and equipment in manner and locations to avoid obstructions, preserve headroom, keep openings and passageways clear, and maintain proper clearances.

CLOSING-IN OF UNINSPECTED WORK

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1.28 Cover no work until inspected, tested, and approved by the Architect. Where work is covered before inspection and test, uncover it and when inspected, tested, and approved, restore all work to original proper condition at no additional cost to Owner.

EXCAVATION AND BACKFILL

- 1.29 All excavation and backfill shall be in accordance with Division 1 of these specifications and as noted below.
- 1.30 Perform all necessary excavation, shoring, and backfilling required for the proper laying of all conduits inside the building and premises, and outside as may be necessary.
- 1.31 Excavate all trenches open cut, keep trench banks as nearly vertical as practicable, and sheet and brace trenches where required for stability and safety. Excavate trenches true to line and make bottoms no wider than necessary to provide ample work room. Grade trench bottoms accurately. Machine grade only to the top line of the conduits, doing the remainder by hand. Do not cut any trench near or under footings without first consulting the Architect. All trenches shall be done in accordance with OSHA standards and regulations.
- 1.32 Backfilling shall be done with each layer compacted before another layer is added. No stones or coarse lumps shall be laid directly on a conduit or conduits.
- 1.33 Trenches shall be filled with the specified material. Sod, if any, shall be removed in cut sections and replaced in same manners.
- 1.34 Provide pumps and drainage of all open trenches for purposes of installing electrical duct and wiring.
- 1.35 Perform all backfilling in accordance with the requirements of and under the direction of the Geotechnical Engineer.
- 1.36 Where new underground trenching is required on sites or in any area where existing underground utilities exist, the Contractor shall provide an independent professional utility locating service to locate exact vertical and horizontal locations of all existing utilities. Where existing utilities are found the Contractor shall hand dig those areas to avoid disruption. The Contractor shall be responsible for immediate repairs to existing underground utilities damaged during construction. The Contractor shall repair all existing asphalt, concrete and landscape surfaces damaged or removed during construction to match their original conditions. Where trenching extends through public streets or roadways, the Contractor shall notify underground service alert in addition to the independent locating service 48 hours before start of construction to determine location of existing utilities by calling (800) 422-4133.

CONCRETE

- 1.37 Where used for structures to be provided under the contract such as bases, etc., concrete work, and associated reinforcing shall be as specified under Division 3 of these specifications.
- 1.38 See other sections for additional requirements for underground vaults, cable ducts, etc.

ACCESSIBILITY

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- 1.39 Install all control devices or other specialties requiring reading, adjustment, inspection, repairs, removal, or replacement conveniently and accessibly throughout the finished building.
- 1.40 All required access doors or panels in walls and ceilings are to be furnished and installed as part of the work under this Section. Refer to Division 1 of these specifications and as noted below.
- 1.41 Where located in fire rated assemblies, provide doors which match the rating of the assembly and are approved by the jurisdictional authority.
- 1.42 Refer to 'finish schedule' for types of walls and ceilings in each area and the architectural drawings for rated wall construction.
- 1.43 Coordinate work of the various sections to locate specialties requiring accessibility with others to avoid unnecessary duplication of access doors.

FLASHING

1.44 Flash and counter flash all conduits penetrating roofing membrane as shown on Architectural drawings. All work shall be in accordance with Division 7 of these specifications.

IDENTIFICATION OF EQUIPMENT

1.45 All electrical equipment shall be labeled, tagged, stamped, or otherwise identified in accordance with the following schedules:

1.45.1 General:

- 1.45.1.1 In general, the installed laminated nameplates as hereinafter called for shall also clearly indicate its use, areas served, circuit identification, voltage and any other useful data.
- 1.45.1.2 All auxiliary systems, including communications, shall be labeled to indicate function.
- 1.45.2 Lighting and Local Panelboards:
 - 1.45.2.1 Panel identification shall be with white and black micarta nameplates. Letters shall be no less than 3/8" high.
 - 1.45.2.2 Circuit directory shall be two column typewritten card set under glass or glass equivalent. Each circuit shall be identified by the room number and/or number of unit and other pertinent data as required.
- 1.45.3 Distribution Switchboards and Feeders Sections:
 - 1.45.3.1 Identification shall be with 1" x 4" laminated white micarta nameplates with black lettering on each major component, each with name and/or number of unit and other pertinent data as required. Letters shall be no less than 3/8" high.

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- 1.45.3.2 Circuit breakers and switches shall be identified by number and name with 3/8" x 1-1/2" laminated micarta nameplates with 3/16" high letters mounted adjacent to or on circuit breaker or switch.
- 1.45.4 Disconnect Switches, Motor Starters and Transformers:
 - 1.45.4.1 Identification shall be with white micarta laminated labels and 3/8" high black lettering.
- 1.45.5 All communication system terminal boxes including T.V., telephone/intercom, security, fire alarm, clock, and computer networking shall be provided with white micarta laminated labels and 3/8" high black lettering.

CONSTRUCTION FACILITIES

- 1.46 Furnish and maintain from the beginning to the completion all lawful and necessary guards, railings, fences, canopies, lights, warning signs, etc. Take all necessary precautions required by City, State Laws, and OSHA to avoid injury or damage to any persons and property.
- 1.47 Temporary power and lighting for construction purposes shall be provided under this Section. All work shall be in accordance with Division 1 of these specifications.

GUARANTEE

1.48 Guarantee all material, equipment and workmanship for all sections under this Division in writing to be free from defect of material and workmanship for one year from date of final acceptance, as outlined in the general conditions. Replace without charge any material or equipment proven defective during this period. The guarantee shall include performance of equipment under all site conditions, conditions of load, installing any additional items of control and/or protective devices, as required.

PATENTS

1.49 Refer to the General Conditions for Contractor's responsibilities regarding patents.

PLUMBING (DIVISION 22) / HEATING, VENTILATING, AND AIR CONDTIONING (DIVISION 23) / ELECTRICAL – COORDINATION REQUIREMENTS

- 1.50 All electrical work performed for this project shall conform to the California Electrical Code, to Local Building Codes and in conformance with Division 22, 23, and 26 of these specifications, whether the work is provided under the "Plumbing", "Heating, Ventilating, and Air Conditioning", or the "Electrical" Division of these specifications. Where the Division 22 and/or Division 23 Contractor is required to provide electrical work, he shall arrange for the work to be done by a licensed Division 26 Contractor, using qualified electricians. The Division 22 and/or Division 23 Contractor shall be solely and completely responsible for the correct functioning of all equipment regardless of who provided the electrical work.
- 1.51 The work under Division 22 and/or Division 23 shall include the following:
 - 1.51.1 All motors required by mechanical equipment.

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- 1.51.2 All starters for mechanical equipment which are not provided under the electrical division as part of a motor control center or otherwise indicated on the electrical drawings.
- 1.51.3 All wiring interior to packaged equipment furnished as an integral part of the equipment.
- 1.51.4 All control wiring and conduit for mechanical control systems.
- 1.51.5 All control systems required by mechanical equipment.
- 1.52 The work under Division 26 shall include the following:
 - 1.52.1 All power wiring and conduit; and conduit only for EMS control conductors between each building and the main control panel.
 - 1.52.2 Electrical disconnects as shown on the electrical drawings.
 - 1.52.3 Starters forming part of a motor control center.
- 1.53 All power wiring and conduit to equipment furnished under Division 22 and/or Division 23 shall be provided under Division 26. Control wiring and conduit, whether line voltage or low voltage, shall be provided under the division which furnishes the equipment.
- 1.54 Power wiring shall be defined as all wiring between the panelboard switchboard overcurrent device, motor control center starter or switch, and the safety disconnect switch or control panel serving the equipment. Also, the power wiring between safety disconnect switch and the equipment line terminals.
- 1.55 Control wiring shall be defined as all wiring, either line voltage or low voltage, required for the control and interlocking of equipment, including but not limited to wiring to motor control stations, solenoid valves, pressure switches, limit switches, flow switches, thermostats, humidistats, safety devices, smoke detectors, and other components required for the proper operation of the equipment.
- 1.56 All motor starters which are not part of motor control centers and which are required for equipment furnished under this Division shall be furnished and installed by the Division furnishing the equipment and power wiring connected under Division 26. Motor starters and control devices in motor control centers shall be furnished and installed under Division 26.
- 1.57 Division 26 Contractor shall make all final connections of power wiring to equipment furnished under this Division.
- 1.58 Wiring diagrams complete with all connection details shall be furnished under each respective Section.
- 1.59 Motor starters supplied by Plumbing and/or Heating, Ventilating and Air Conditioning shall be fused combination type minimum NEMA Size 1, and conform to appropriate NEMA standards for the service required. Provide NEMA type 3R/12 gasketed enclosures in wet locations. Provide all starters with appropriately sized overload protection and heater strips provided in each phase, hand/off auto switches, a minimum of 2 NO and NC auxiliary contacts as required, and an integral disconnecting means. For ½ horsepower motors and below, when control requirements do not dictate the use of a starter, a manual motor starter switch with overload protection in each phase may be

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provided. Acceptable manufacturers are Allen Bradley, General Electric, Square D, Furnas and Cutler Hammer.

EQUIPMENT ROUGH-IN

1.60 Rough-in all equipment, fixtures, etc. as designed on the drawings and as specified herein. The drawings indicate only the approximate location of rough-ins. Mounting heights of all switches, receptacles, wall mounted fixtures and such equipment must be coordinated with the Architectural Designs. The Contractor shall obtain all rough-in information before progressing with any work for rough-in connections. Minor changes in the contract drawings shall be anticipated and provided for under this Division of the specifications to comply with rough-in requirements.

OWNER FURNISHED AND OTHER EQUIPMENT

1.61 Rough-in and make final connections to all Owner furnished equipment shown on the drawings and specified, and all equipment furnished under other sections of the specifications.

EQUIPMENT FINAL CONNECTIONS

- 1.62 Provide all final connections for the following:
 - 1.62.1 All equipment furnished under this Division.
 - 1.62.2 Electrical equipment furnished under other sections of the specification.
 - 1.62.3 Owner furnished equipment as specified under this Division.

INSERTS, ANCHORS, AND MOUNTING SLEEVES

- 1.63 Inserts and anchors must be:
 - 1.63.1 Furnished and installed for support of work under this Division.
 - 1.63.2 Mounting of equipment that is of such size as to be free standing and that equipment which cannot conveniently be located on walls, such as motor starters, etc., shall be rigidly supported on a framework of galvanized steel angle of Unistrut or B-line systems with all unfinished edges painted.
 - 1.63.3 Furnish and install all sleeves as required for the installation of all work under all Sections of this Division and for all communication systems including any communication systems described in this Section which are bid to the General Contractor. Sleeves through floors, roof, and walls shall be as described in "Conduit and Fittings" Section 26 05 33.

SEISMIC ANCHORING

1.64 All switchgear and other free-standing electrical equipment or enclosures shall be anchored to the floor and braced at the top of the equipment to the structure. The Contractor shall submit drawings signed by the Contractors registered structural Engineer indicating method of compliance prior installation.

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1.65 All sound systems, communication, signal or data networking equipment or enclosures shall be anchored to the structure. The Contractor shall submit drawings signed by the Contractors registered Structural Engineer indicating method of compliance prior to installation.

RUST PROOFING

- 1.66 Rust proofing must be applied to all ferrous metals and shall be in accordance with Section 05500 of these specifications and as noted below.
 - 1.66.1 Hot-dipped galvanized shall be applied and after forming of angle-iron, bolts, anchors, etc.
 - 1.66.2 Hot-dipped galvanized coating shall be applied after fabrication for junction boxes and pull boxes cast in concrete.

GENERAL WIRING

- 1.67 Where located adjacent in walls, outlet boxes shall not be placed back to back, nor shall extension rings be used in place of double boxes, all to limit sound transmission between rooms. Provide short horizontal nipple between adjacent outlet boxes, which shall have depth sufficient to maintain wall coverage in rear by masonry wall.
- 1.68 In those instances where outlet boxes, recessed terminal boxes, or recessed equipment enclosures are installed in a fire rated assembly, provide "Flamesafe FSD 1077" fire stopping pads or approved equal, over the outlet or box.
- 1.69 Complete rough-in requirements of all equipment to be wired under the contract are not indicated. Coordinate with respective trades furnishing equipment or with the Architect as the case may be for complete and accurate requirements to result in a neat, workmanlike installation.

SEPARATE CONDUIT SYSTEMS

- 1.70 Each electrical and signal system shall be contained in a separate conduit system as shown on the drawings and as specified herein. This includes each power system, each lighting system, each signal system of whatever nature, telephone, standby system, sound system, control system, fire alarm system, etc.
- 1.71 Further, each item of building equipment must have its own run of power wiring. Control wiring may be included in properly sized conduit for equipment feeders of #6 AWG and smaller, having separate conduit for larger sizes.

CLEANUP

- 1.72 In addition to cleanup specified under other sections, thoroughly clean all parts of the equipment. Where exposed parts are to be painted, thoroughly clean off any spattered construction materials and remove all oil and grease spots. Wipe the surface carefully and scrape out all cracks and corners.
- 1.73 Use steel brushes on exposed metal work to carefully remove rust, etc., and leave smooth and clean.
- 1.74 During the progress of the work, keep the premises clean and free of debris.

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PAINTING

- 1.75 Paint all unfinished metal as required in accordance with Division 1 of these specifications. (Galvanized and factory painted equipment shall be considered as having a sub-base finish.)
- 1.76 Paint all exposed conduit locations in finished spaces to match the finish on the surfaces they are attached to. Verify all color selections with the Architect prior to painting.

GENERAL DEMOLITION REQUIREMENTS

- 1.77 Remove existing work and items which are required to be removed in such manner that minimum damage and disturbance is caused to adjacent and connection work scheduled to remain. Repair or replace existing work schedule.
- 1.78 Include preparation of existing areas to receive new materials and removal of materials and equipment to alter or repair the existing building as indicated and as specified.
- 1.79 Perform demolition exercising proper care to prevent injury to the public, workmen and adjoining property.
- 1.80 Perform the removal, cutting, drilling of existing work with extreme care and use small tools in order not to jeopardize the structural integrity of the building.
- 1.81 Rebuild to existing condition or better, existing work which has to be removed to allow the installation of new work as required.
- 1.82 Remove, protect and reinstall existing items as indicated. Replace materials scheduled for reuse which are damaged by the Contractor to the extent that they cannot be reused, with equal quality material, and installation.
- 1.83 Do not reuse in this project materials and items removed from existing site or building, except with specific written approval by the Architect in each case, unless such removed material or item is specifically indicated or specified to be reused.
- 1.84 Remove materials and equipment indicated to be salvaged for reinstallation and store to prevent damage and reinstall as the work progresses. Do not reuse in this project, other materials and equipment removed from existing site or building, except with specific written approval by the Architect in each case.
- 1.85 Patch areas requiring patching, including damage caused by removing, relocating or adding fixtures and equipment, damages caused by demolition at adjacent materials.
- 1.86 Do not stockpile debris in the existing building, without the approval of the Architect. Remove debris as it accumulates from removal operations to a legal disposal area.
- 1.87 Contractor to assume existing oil filled and dry transformers, oil switches, ballasts, lamps, wooden poles, cross arms, computers, computer monitors, and conductor insulation containing materials considered hazardous. Comply with local, state and federal regulations, laws, and ordinances concerning removal, handling and protection against exposure or environmental pollution. Contractor shall be responsible for removal of the above hazardous materials where encountered. Include all costs for such removal as part of this contract.

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- 1.88 All fluorescent, compact fluorescent, high intensity discharge, metal halide, mercury vapor, high and low-pressure sodium, and neon lamps are to be disposed of as required by the California Waste Rule Regulations as described in the California Code of Regulations, Title 22, Division 4.5 and Chapter 23.
- 1.89 Communication System: Where new communication systems, (including telephone, intercom, clock, security, fire alarm, data, multimedia, CATV or lighting controls) are installed to replace existing systems, unless where otherwise directed the existing systems shall remain fully operational until the new system has been installed and tested. Demolition of the existing systems shall include removal of all equipment and associated wiring and exposed conduits and providing new blank covers for all abandoned device locations.
- 1.90 **Salvage Power Equipment:** The Contractor shall carefully remove all existing switchboards, panelboards, transformers, and confirm in writing which items the Owner wishes to keep. These items shall be transported to the Owner's maintenance facilities by the Contractor. All remaining items shall be disposed of by the Contractor.
- 1.91 **Salvage Lighting Equipment:** The Contractor shall confirm in writing which items the Owner wishes to keep. These items shall be transported to the Owner's maintenance facilities by the Contractor. All remaining items shall be disposed of by the Contractor.
- 1.92 **Salvage Communication Equipment:** The Contractor shall carefully remove all communication devices (telephone, intercom, clock, security, fire alarm, data, multimedia, CATV or lighting controls) and box each type of devices separately. The Contractor shall deliver all items to the Owner's maintenance facility.

PROJECT CLOSEOUT

- 1.93 Prior to completion of project, compile a complete equipment maintenance manual for all equipment supplied under sections of this Division, in accordance with Division 1 of these specifications and as described below.
- 1.94 Equipment Lists and Maintenance Manuals:
 - 1.94.1 Prior to completion of job, Contractor shall compile a complete equipment list and maintenance manuals. The equipment list shall include the following items for every piece of material equipment supplied under this Section of the specifications:
 - 1.94.1.1 Name, model, and manufacturer.
 - 1.94.1.2 Complete parts drawings and lists.
 - 1.94.1.3 Local supply for parts and replacement and telephone number.
 - 1.94.1.4 All tags, inspection slips, instruction packages, etc., removed from equipment as shipped from the factory, properly identified as to the piece of equipment it was taken from.
- 1.95 Maintenance manuals shall be furnished for each applicable section of the specifications and shall be suitably bound with hard covers and shall include all available

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manufacturers' operating and maintenance instructions, together with "as-built" drawings to properly operate and maintain the equipment. The equipment lists and maintenance manuals shall be submitted in duplicate to the Architect for approval not less than 10 days prior to the completion of the job. The maintenance manuals shall also include the name, address, and phone numbers of all subcontractors involved in any of the work specified herein. Four copies of the maintenance manuals bound in single volumes shall be provided.

RECORD DRAWINGS

- 1.96 The Division 26 Contractor shall maintain record drawings as specified in accordance with Division 1 of these specifications, and as noted below.
- 1.97 Drawings shall show locations of all concealed underground conduit runs, giving the number and size of conduit and wires. Underground ducts shall be shown with cross section elevations and shall be dimensioned in relation to permanent structures to indicate their exact location. Drawing changes shall not be identified only with referencing CORs and RFIs, the drawings shall reflect all of the actual additions or changes made. All as-built drawing information shall be prepared by the contractor in AutoCAD, updating the contract computer files as needed to reflect actual installed conditions for all site plans, lighting, power, communication, networking, audio visual, security or fire alarms systems included in the scope of work for this project.
- 1.98 One set of these record drawings shall be delivered to the Architect. The engineer will review documents for completeness and will not be responsible for editing contractor computer files.

CHANGES AND EXTRA WORK

- 1.99 When **changes** in work are requested, the Division 26 Contractor shall provide unit prices for the work involved in accordance with Division 1 of these specifications, and the following:
 - 1.99.1 The material Costs shall **not exceed** the invoice pricing from an Electrical Distributor indicating the pricing provided at the time of bid. The Contractor shall submit a print out copy of the pricing with the change order to substantiate these values.
 - 1.99.2 The labor Costs shall <u>not exceed</u> the latest edition of the "NECA Manual of Labor Units" <u>normal column</u>.
- 1.100 When **credits** in work are requested, the Division 26 Contractor shall provide unit prices for the work involved in accordance with Division 1 of these specifications, and the following:
 - 1.100.1 The Material Costs shall <u>not be less than 80% of</u> the invoice pricing from an Electrical Distributor indicating the pricing provided at the time of bid. Restocking fees may also be included in this amount where applicable.
 - 1.100.2 The Labor Costs shall **not be less than 80% of** the latest edition of the "NECA Manual of Labor Units" **normal column**.
- 1.101 Conduit pricing for conduits of all types sized 3" or smaller.

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When changes in the scope of work require the Contractor to estimate conduit Installations, they shall **NOT include labor values (only material cost may be included)** for any of the below items. The labor values for conduit installation represented in the NECA manual are inflated to a point where additional labor for the below items can not be justified.

- 1.101.1 Couplings.
- 1.101.2 Set Screw or Compression Fittings, locknuts, Bushings and washers.
- 1.101.3 Conduit straps and associated screws or nails.
- 1.101.4 LB fittings or other specialty fittings or specialty mounting hardware may be included where needed.
- 1.102 Wire pricing for all types and sizes.

When changes in the scope of work require the Contractor to estimate wire installations, they shall **NOT include labor values (only material cost may be included)** for any of the below items. The labor values for wire installation represented in the NECA manual are inflated to a point where additional labor for the below items can not be justified.

- 1.102.1 Locknuts, Bushings, tape, wire markers.
- 1.103 When changes in the scope of work require other equipment installations such as lighting fixtures, panelboards, switchboards, wiring devices, communications equipment etc. the Contractor shall NOT include labor values (only material cost may be included) for any of the below items. The labor values for these equipment items represented in the NECA manual are inflated to a point where additional labor for the below items can not be justified.
 - 1.103.1 Associated screws, nails, bolts, anchors or supports.
 - 1.103.2 Locknuts, washers, tape.
- 1.104 The total labor hours for extra work will be required to be calculated as follows:
 - 1.104.1 Change orders with 1 to 30 total labor hours

General Laborer	10%	of total labor hours
Journeyman	10%	of total labor hours
Foreman	80%	of total labor hours

1.104.2 Change orders with 31 to 100 total labor hours

General Laborer	20%	of total labor hours
Journeyman	40%	of total labor hours
Foreman	40%	of total labor hours

1.104.3 Change orders with over 100 total labor hours

General Laborer	30%	of total labor hours
Journeyman	50%	of total labor hours
Foreman	20%	of total labor hours

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- 1.105 When change orders are issued which allow the work to be completed in the normal sequence of construction, the labor rates shall be based on the most current "Prevailing Wage" straight time total hourly rate. When change orders require the Contractor to work out of sequence the "Prevailing Wage" daily overtime hourly rate shall apply. Special condition situations shall be reviewed on an individual basis for alternate hourly rate schedules.
- 1.106 Costs <u>will not</u> be permitted for additional supervision on site or office time for processing any change order other than the 10% overhead allowance as described in Division 1. Cost for special equipment required to install items for an individual change order are permitted and must be individually identified. Lump Sum cost for small tools or any other cost not specifically required for the change order are not permitted.
- 1.107 Contractor estimates shall be formatted to clearly identify each of the following:
 - 1.107.1 Line item description of each type of material or labor item.
 - 1.107.2 Description of quantity for each item.
 - 1.107.3 Description of (material cost per / quantity).
 - 1.107.4 Description of (labor cost per / quantity).
 - 1.107.5 Description of total labor hour breakdown per Foreman, Journeyman or General Laborer as described above.

ELECTRONIC FILES

- 1.108 The Contractor shall make a <u>written</u> request directly to Johnson Consulting Engineers for electronic drawing files. As a part of the written request, please include the following information:
 - 1.108.1 Clearly indicate each drawing sheet needed (i.e., E1.1, E2.1, etc.).
 - 1.108.2 Identify the name, phone number, mailing address and e-mail address of the person to receive the files.
 - 1.108.3 Provide written confirmation and agreement with the requirements described for payment of computer files, as described below.
- 1.109 Detail or riser diagram sheets, or any other drawings other than floor plans or site plans, will not be made available to the Contractor.
- 1.110 Files will only be provided in the AutoCAD format in which they were created.
- 1.111 Requests for files will be processed as soon as possible; a minimum of 7 working days should be the normal processing time. The Contractor shall be completely responsible for requesting the files in time for their use.

END OF SECTION

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SECTION 26 0519 POWER CONDUCTORS

PART 1 - GENERAL

- 1.1 Furnish and install wire and cable for branch circuits and feeders specified herein and as shown on the electrical drawings.
- 1.2 Submittals: Submit manufacturers' data for the following items:
 - 1.2.1 All cables and terminations

1.3 Common submittal mistakes which will result in the submittals being rejected:

- 1.3.1 Not including all items listed in the above itemized description.
- 1.3.2 Including catalog cut sheets which have several items on a page, and not clearly identifying by highlighting, underlining, or clouding the items to be reviewed, or crossing out the items which are not applicable.
- 1.3.3 Not including actual manufacturer's catalog information of proposed products.
- 1.3.4 Do not include multiple manufacturers for similar products and do not indicate "or approved equal" statements, or "to be determined later" statements. The products being submitted must be the products installed

PART 2 - PRODUCTS

- 2.1 Wire and cable Rated 120 volt to 600 volt.
 - 2.1.1 All wire and cable shall be new, 600 volt insulated copper, of types specified below for each application. All wire and cable shall bear the UL label and shall be brought to the job in unbroken packages. Wire insulation shall be the color as specified herein and shall be type THWN-2. Insulated conductors shall be installed in all exterior exposed raceways. Conductors for branch circuit lighting, receptacle, power and miscellaneous systems shall be a minimum of No. 12 AWG. Increase conductor size to No. 10 AWG for 120 volt circuits greater than 100 feet from the panel to the load and for 277 volt circuits greater than 200 feet from the panel to the load. Circuit homeruns indicated to be larger than No. 12 must be increased the entire length of the circuit, including equipment grounding conductor. Wire sizes No. 14 through No. 10 shall be solid. No. 8 and larger shall be stranded.
 - 2.1.2 Aluminum conductors will be permitted (only where specifically identified on the drawings. See "600 Volt Feeder Schedule") in sizes 2/0 or larger. Conductors shall be listed by Underwriters Laboratories (UL) and suitable for operation at 600 volts or less, at a maximum operating temperature of 90N C maximum in wet or dry locations. Conductors shall be marked "SUN-RES". Aluminum alloy conductors shall be compact stranded conductors of STABILOY® (AA-8030) as manufactured by Alcan Cable or Listed equal. AA-8000 Series aluminum alloy conductor material shall be recognized by The Aluminum Association
- 2.2 Wire and cable for systems below 120 volts.

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2.2.1 All low voltage and communications systems cables routed underground shall be provided with a moisture resistant outer jacket, West Penn "Aquaseal" or equal, unless otherwise specified.

PART 3 - EXECUTION

- 3.1 Wire and cable shall be pulled into conduits without strain using powdered soapstone, mineralac, or other approved lubricant. In no case shall wire be repulled if same has been pulled out of a conduit run for any purpose. No conductor shall be pulled into conduit until conduit system is complete, including junction boxes, pull boxes, etc.
- 3.2 All connections of wires shall be made as noted below:
 - 3.2.1 Connections to outlets and switches: Wire formed around binding post of screw.
 - 3.2.2 No. 10 wire and smaller: Circuit wiring connections to lighting fixtures and other hard wired equipment shall be made with pressure type solderless connectors, Buchanan, Scotchlock, Wing Nut, or approved equal. Alternate "WAGO" #773 series or "IDEAL" #32, 33, 34 and 39 series push wire style connectors are also acceptable.
- 3.3 All wiring shall be continuous without splicing unless where specifically noted on the drawings or where permitted below.
 - 3.3.1 No. 10 wire and smaller above grade: Quantities as needed, connection made with pressure type solderless connectors, Scotchlock or equal.
 - 3.3.2 No. 10 wire and smaller below grade: Quantities as needed, connection made with 'Raychem' long barrel compression terminals with crimping tool and quantity of crimps as recommended by manufacturer, provide 'Raychem' WCSM-S series in-line heat shrink, sealant coated splice kit. Alternate products must be UL listed for direct burial/submersible and rated to (1000V).
 - 3.3.3 No. 8 wire and larger above grade: Quantities <u>only</u> where indicated, 'Raychem' long barrel compression terminals with crimping tool and quantity of crimps as recommended by manufacturer, provide 'Raychem' WCSM-S series in-line heat shrink, sealant coated splice kit. Alternate products must be UL listed for direct burial/submersible and rated to (1000V).
 - 3.3.4 No. 8 wire and larger below grade: Quantities <u>only</u> where indicated, 'Raychem' long barrel compression terminals with crimping tool and quantity of crimps as recommended by manufacturer, provide 'Raychem' WCSM-S series in-line heat shrink, sealant coated splice kit. Alternate products must be UL listed for direct burial/submersible and rated to (1000V).
- 3.4 All wiring throughout shall be color coded as follows:

	480 volt system	208 or 240 volt system
A Phase B Phase C Phase Neutral Ground	Brown Orange Yellow Grey Green	Black Red Blue White Green

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- 3.5 Wiring must be color coded throughout its entire length, except feeders may have color coded plastic tape at both ends and any other accessible point.
- 3.6 All control wiring in a circuit shall be color coded, each phase leg having a separate color, and with all segments of the control circuit, whether in apparatus or conduit, utilizing the same color coding.
- 3.7 At all terminations of control wiring, the wiring shall have a numbered T&B or Brady plastic wire marker.
- 3.8 Cables when installed are to be properly trained in junction boxes, etc., and in such a manner as to prevent any forces on the cable which might damage the cable.
- 3.9 All conductors to be installed into a common raceway, shall be pulled into the raceway at the same time.
- 3.10 All conductors shall be installed in such a manner as to not exceed the manufacturers' recommended pulling tension and bending radius. The equipment used for pulling must be specifically designed for the purpose. Motorized vehicles such as pickup trucks, are not acceptable.

END OF SECTION

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SECTION 26 0526 GROUNDING

PART 1 - GENERAL

- 1.1 Furnish and install grounding and grounding conductors and electrodes as specified herein and as shown on the drawings.
- 1.2 Submit catalog data for all components.

1.3 Common submittal mistakes which will result in the submittals being rejected:

- 1.3.1 Not including all items listed in the above itemized description.
- 1.3.2 Including catalog cut sheets which have several items on a page, and not clearly identifying by highlighting, underlining or clouding the items to be reviewed, or crossing out the items which are not applicable.
- 1.3.3 Not including actual manufacturer's catalog information of proposed products.
- 1.3.4 Do not include multiple manufacturers for similar products and do not indicate "or approved equal" statements, or "to be determined later" statements. The products being submitted must be the products installed.

PART 2 - EXECUTION

2.1 Grounding

- 2.1.1 All panelboard cabinets, equipment, enclosures, and complete conduit system shall be grounded securely in accordance with pertinent sections of CEC Article 250. Conductors shall be copper. All electrically operated equipment shall be bonded to the grounded conduit system. All non-current carrying conductive surfaces that are likely to become energized and subject to personal contact shall be grounded by one or more of the methods detailed in CEC Article 250. All ground connections shall have clean contact surfaces. Install all grounding conductors in conduit and make connections readily accessible for inspection.
- 2.1.2 Provide an insulated equipment grounding conductor in all branch circuit and feeder raceway systems, sized in accordance with CEC 250-122.
- 2.1.3 Provide an additional individual insulated grounding conductor for each circuit which contains an isolated ground receptacle or surge suppression receptacle.
- 2.1.4 Grounding of metal raceways shall be assured by means of provisions of grounding bushings on feeder conduit terminations at the panelboard, and by means of insulated continuous stranded copper grounding wire extended from the ground bus in the panelboard to the conduit grounding bushings.
- 2.1.5 Except for connections which access for periodic testing is required, make grounding connections which are buried or otherwise inaccessible by exothermite type process.

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2.1.6	The following ohmic values shall be test certified for each item listed. A written report signed and witnessed by the project IOR shall be provided to the engineer. If the ohmic value listed cannot be obtained additional grounding shall be installed to reach the value listed.
	2.1.6.1 Service10 ohms.
	2.1.6.2 Step down transformers and non-current carrying metal parts 25 ohms.
	2.1.6.3 Manholes, handholes, etc

END OF SECTION

SECTION 26 0533 CONDUIT AND FITTINGS

PART 1 - GENERAL

- 1.1 Furnish and install conduit and fittings as shown on the drawings and as specified herein.
- 1.2 Submit Manufacturer's data on the following:
 - 1.2.1 Conduit.
 - 1.2.2 Fittings
 - 1.2.3 Fire stopping Material.
 - 1.2.4 Surface Raceways.
 - 1.2.5 Type MC or MC-PCS cable, provide construction details and UL "E" number.

1.3 Common submittal mistakes which will result in the submittals being rejected:

- 1.3.1 Not including all items listed in the above itemized description.
- 1.3.2 Including catalog cut sheets which have several items on a page, and not clearly identifying by highlighting, underlining or clouding the items to be reviewed, or crossing out the items which are not applicable.
- 1.3.3 Not including actual manufacturer's catalog information of proposed products.
- 1.3.4 Do not include multiple manufacturers for similar products and do not indicate "or approved equal" statements, or "to be determined later" statements. The products being submitted must be the products installed.

PART 2 - PRODUCTS

- 2.1 Rigid steel conduit, intermediate metal conduit (IMC), electrical metallic tubing (EMT) and flexible metallic conduit shall be steel, hot dipped galvanized after fabrication.
- 2.2 PVC conduit shall be Carlon or approved equal.
- 2.3 Liquid tight flexible metal conduit shall be Anaconda Sealtite type UA or approved equal. Fittings shall be Appleton, Crouse-Hinds, Steel City, T&B, or equivalent.
- 2.4 MC type armored cable, shall not be used
- 2.5 Fire stopping material shall provide an effective seal against fire, heat, smoke and fire gases. Fire stopping material shall be tested to comply with ASTME 814 and UL 1479. The submittal for this product shall include the UL listed system number and installation requirements for each type of penetration seal required for this project.
- 2.6 Each length of conduit shall be stamped with the name or trademark of the manufacturer and shall bear the UL label.

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- 2.7 All plastic conduit shall be rigid, schedule 40, heavy wall PVC. All PVC conduit shall be UL listed. Underground utility company conduits shall comply with local utility co. requirements.
- 2.8 Plastic conduit shall be stored on a flat surface, and protected from the direct rays of the sun.
- 2.9 Where branch circuit or communication raceways cannot be concealed in ceilings or walls and are required to be exposed in interior spaces, provide nonmetallic surface raceway system sized per the manufacturer capacity requirements. A full complement of nonmetallic fittings must be available and matching device boxes and cover plates must be provided. The color of the raceway system, components and boxes shall be (white). Where data networking cabling is to be installed, all raceway fittings shall meet Category 5 radius requirements. Where specific raceway types have been noted on the drawings they shall be as follows:

2.9.1	System 'SR'	Hubbell Wiremold Panduit Hellerman-Tyton	WALLTRAK 1 series ECLIPSE PN05series LD5 series TSR2 series
2.9.2	System 'SR2'	Hubbell Wiremold Panduit Hellerman-Tyton	WALTRAK 22 2300D Series D2P10 TSR3 series
2.9.3	System 'SR3'	Hubbell Wiremold Panduit Hellerman-Tyton	BASETRAK series 5400 - series 70 series MCR Infostream" series

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Provide with offset boxes, inline boxes may only be used where specifically shown on the drawings.

PART 3 - FITTINGS

- 3.1 All metallic fittings, including those for EMT, flexible conduit, or malleable iron. Die cast fittings of any other material are not permitted.
- 3.2 Locknuts shall be steel or malleable iron with sharp clean cut threads.
- 3.3 Entrance seals shall be 0.Z. type FSK or equivalent.
- 3.4 Bushings and locknuts: Where conduits enter boxes, panels, cabinets, etc., they shall be rigidly clamped to the box by locknuts on the outside, and a lock nut and plastic bushing on the inside of the box. All conduits shall enter the box squarely.
- 3.5 Furnish and install insulated bushings as per CEC article No. 300 4 (F) on all conduits. The use of insulated bushings does not exclude the use of double locknuts to fasten conduit to the box.
- 3.6 Transition from plastic to steel conduits shall be with PVC female threaded adaptors.
- 3.7 Couplings and connectors for rigid steel or IMC conduit must be threaded, or compression type (set screw fittings are not permitted).

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- 3.8 Couplings and connectors for EMT shall be compression, watertight. Set screw connectors are not acceptable, except for systems below 120 volts.
- 3.9 Connectors for flexible metal conduit shall be steel or malleable iron with screw provided to clinch the conduit into the adapter body. For sizes up to ³/₄" a screw-in, "Jake type," fitting may be used.
- 3.10 Install approved expansion fittings, or liquid tight flex conduit with a minimum 6" slack for conduits passing through all expansion and seismic joints.

PART 4 - EXECUTION

- 4.1 All branch circuits shall be installed concealed in walls or above ceilings or in concrete floor slabs. PVC conduits installed in concrete floor slabs shall transition to PVC coated rigid steel where conduits penetrate above finished grade or finished floor.
- 4.2 Conduit sizes for various numbers and sizes of wire shall be as required by the CEC, but not smaller than ½" for power wiring and ¾" for communications and fire alarm systems unless otherwise noted. Conduit in slab or below grade shall be ¾" minimum trade size, unless otherwise identified.
- 4.3 Conduit size shall be such that the required number and sizes of wires can be easily pulled in and the Contractor shall be responsible for the selection of the conduit sizes to facilitate the ease of pulling. Conduit sizes shown on the drawings are minimum sizes in accordance with appropriate tables in the CEC. If because of bends or elbows a larger conduit size is required, the Contractor shall so furnish without further cost to the Owner.
- 4.4 The Contractor shall be entirely responsible for the proper protection of this work from the other trades on the job. When conduit becomes bent or holes are punched through same, or outlets moved after being roughed-in, the Contractor shall replace same, without additional cost to the Owner.
- 4.5 Rigid steel conduit or IMC shall be used as follows:
 - 4.5.1 Exposed exterior locations.
 - 4.5.2 Exposed interior locations below eight feet above floor, except in electrical rooms and closets.
 - 4.5.3 In hazardous or classified areas as required by CEC.
- 4.6 EMT conduit shall be used for areas as follows:
 - 4.6.1 All interior communications, signal, and data networking systems.
 - 4.6.2 All interior power wiring systems where not required to be in rigid steel, IMC or flexible conduit.
- 4.7 Flexible conduit shall be used for areas as follows:
 - 4.7.1 To connect motors, transformers, and other equipment subjected to vibration or where specifically detailed on the drawings.

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- 4.7.2 Flexible conduit shall not be used to replace EMT in other locations where the conduit will be exposed.
- 4.7.3 Flexible metal conduit shall be ferrous. Installation shall be such that considerable slack is realized. The conduit shall contain separate code sized grounding conductor.
- 4.7.4 Liquid tight flexible conduit shall be used in conformance with CEC in lengths not to exceed 4'. For equipment connections, route the conduit at 90 degrees to the adjacent path for point of connection. The conduit shall contain separate code sized grounding conductor. Use liquid tight flexible conduit for all equipment connections exposed in possible wet, corrosive or oil contaminated areas, e.g., shops and outside areas.
- 4.8 Plastic conduit shall be used for all exterior underground, in slab, and below slab on grade conduit installations. Install bell ends at all conduit terminations in manholes and pull boxes. Where plastic conduit transitions from below grade to above grade, no plastic conduit shall extend above finished exterior grade, or above interior finished floor level.
- 4.9 Plastic conduit joints shall be made up in accordance with the manufacturer's recommendations for the particular conduit and coupling selected. Conduit joint couplings shall be made watertight. Plastic conduit joints shall be made up by brushing a plastic solvent cement on the inside of a plastic fitting and on the outside of the conduit ends. The conduit and fitting shall then be slipped together with a quick one-quarter turn twist to set the joint tightly.
- 4.10 All underground conduit depths shall be as detailed on the drawings or a minimum of 30" below finished grade (when not specifically detailed otherwise), for all exterior underground conduits. Where concrete slurry or concrete encasement is provided, include "Red" color dye in mixture.
- 4.11 All underground conduits for power systems (600v and higher), shall be concrete encased and a minimum of 48" below grade or as detailed on the drawings. Where concrete slurry or concrete encasement is provided, include "Red" color dye in mixture.
- 4.12 Conduit shall be continuous from outlet to outlet, cabinet or junction box, and shall be so arranged that wire may be pulled in with the minimum practical number of junction boxes.
- 4.13 All conduits shall be concealed wherever possible. All conduit runs may be exposed in mechanical equipment rooms, electrical equipment rooms, electrical closets, and in existing or unfinished spaces. No conduit shall be run exposed in finished areas without the specific approval of the Architect.
- 4.14 All raceways which are not buried or embedded in concrete shall be supported by straps, clamps, or hangers to provide a rigid installation. Exposed conduit shall be run in straight lines at right angles to or parallel with walls, beams, or columns. In no case shall conduit be supported or fastened to other pipes or installed to prevent the ready removal of other trades piping. Wire shall not be used to support conduit.
- 4.15 It shall be the responsibility of the Contractor to consult the other trades before installing conduit and boxes. Any conflict between the location of conduit and boxes, piping, duct work, or structural steel supports, shall be adjusted before installation. In general, large pipe mains, waste, drain, and steam lines shall be given priority.

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- 4.16 Conduits above lay-in grid type ceilings shall be installed in such a manner that they do not interfere with the "lift-out" feature of the ceiling system. Conduit runs shall be installed to maintain the following minimum spacing wherever practical.
 - 4.16.1 Water and waste piping not less than 3".
 - 4.16.2 Steam and steam condensate lines not less than 12".
 - 4.16.3 Radiation and reheat lines not less than 6".
- 4.17 Provide all necessary sleeves and chases required where conduits pass through floors or walls as part of the work of this section. Core drilling will only be permitted where approved by the Architect.
- 4.18 All empty conduits and surface mounted raceways shall be provided with a ½" polypropylene plastic pull cord and threaded plastic or metal plugs over the ends. Fasten plastic "Dymo" tape label to exposed spare conduit to identify "power" or "communication" system, and to where it goes.
- 4.19 The ends of all conduits shall be securely plugged, and all boxes temporarily covered to prevent foreign material from entering the conduits during construction. All conduit shall be thoroughly swabbed out with a dry swab to remove moisture and debris before conductors are drawn into place.
- 4.20 Bending: Changes in direction shall be made by bends in the conduit. These shall be made smooth and even without flattening the pipe or flaking the finish. Bends shall be of as long a radius as possible, and in no case smaller than CEC requirements.
 - 4.20.1 For power conduits for conductors (600v and below), provide minimum 36" radius (vertical) and 72" radius (horizontal) bends.
 - 4.20.2 For power conduits for conductors (greater than 600v), provide minimum 72" radius (vertical) and 72" radius (horizontal) bends.
- 4.21 Supports: Conduit shall be supported at intervals as required by the California Electrical Code. Where conduits are run individually, they shall be supported by approved conduit straps or beam clamps. Straps shall be secured by means of toggle bolts on hollow masonry, machine screws or bolts on metal surfaces, and wood screws on wood construction. [No perforated straps or wire hangers of any kind will be permitted. Where individual conduits are routed, or above ceilings, they shall be supported by hanger rods and hangers.] Conduits installed exposed in damp locations shall be provided with clamp backs under each conduit clamp, to prevent accumulation of moisture around the conduits.
- 4.22 Where a number of conduits are to be run exposed and parallel, one with another, they shall be grouped and supported by trapeze hangers. Hanger rods shall be fastened to structural steel members with suitable beam clamps or to concrete inserts set flush with surface. A reinforced rod shall be installed through the opening provided in the concrete inserts. Beam clamps shall be suitable for structural members and conditions. Rods shall be galvanized steel 3/8" diameter minimum. Each conduit shall be clamped to the trapeze hanger with conduit clamps.
- 4.23 All concrete inserts and pipe clamps shall be galvanized. All steel bolts, nuts, washers, and screws shall be galvanized or cadmium plated. Individual hangers, trapeze hangers and rods shall be prime-coated.

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- 4.24 Openings through fire rated floors/walls and/or smoke walls through which conduits pass shall be sealed by Fire stopping material to comply with Division 1 to seal off flame, heat, smoke and fire gases. Sleeves shall be provided for power or communication system cables which are not installed in conduits, and shall be sealed inside and out to comply with manufacturers UL system design details. Where multiple conduits and/or cable tray systems pass thru fire-rated walls at one location, the Contractor shall submit copies of the manufacturers UL system design details proposed for use on this project. All Fire stopping material shall have an hourly fire-rating equal to or higher than the fire rating of the floor or wall through which the conduit, cables, or cable trays pass.
- 4.25 Provide cap or other sealing type fitting on all spare conduits. Conduits stubbed into buildings from underground where cable only extends to equipment, the conduit/cable end shall be sealed to prevent moisture from entering the room or space.
- 4.26 All conduits which are part of a paralleled feeder or branch circuit shall be installed underground.
- 4.27 All conduits which are required as a part of systems specified in Divisions 27 or 28, or any other low voltage communication systems, shall be furnished and installed by the Division 26 Contractor.
 - 4.27.1 The Contractor shall coordinate all conduit requirements with each system supplier prior to bid to determine special conduit system requirements.
 - 4.27.2 The Contractor shall provide a pull rope in all conduits for these systems.
 - 4.27.3 The Contractor shall provide conduit sleeves for all open cable installations thru rated walls or block walls. Provide conduit from each building main termination cabinet or backboard to the nearest accessible ceiling for access into all electrical or communications rooms.
- 4.28 In addition to the above requirements, the following requirements shall apply to all data networking conduits:
 - 4.28.1 Flexible metal conduit may only be used where required at building seismic and/or expansion joints.
 - 4.28.2 All underground conduits shall be provided with minimum 24" radius elbows (vertical) and 60" (horizontal).
 - 4.28.3 No length of conduit above grade shall be installed to exceed 150 feet between pull boxes, or points of connection, unless where specifically detailed on the drawings.
 - 4.28.4 No length of conduit shall be installed to exceed two 90 degree bends between pull boxes, or points of connection, unless where specifically detailed on the drawings.
- 4.29 Where surface raceways are installed in interior spaces, the Contractor shall take care to route in straight lines at right angles to or parallel with walls, beams, or columns. All raceways and device boxes shall be securely screwed to the finish surface with zinc screw "Auger" anchors Stk #ZSA1K by Gray Bar Electric or equal. Tape adhesive application will not be permitted.

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- 4.30 The Contractor who installs surface raceway systems shall provide and install complete with wire retention clips, one for every (8) vertical feet or (5) horizontal feet or portion thereof. This Contractor shall also provide <u>each</u> raceway channel with pull strings.
- 4.31 It shall be the responsibility of the Contractor installing the raceway to coordinate the installation of raceway device plates and inserts with the communications or data contractors.

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SECTION 26 0534 OUTLET AND JUNCTION BOXES

PART 1 - GENERAL

- 1.1 Furnish and install electrical wiring boxes as specified and as shown on the electrical drawings.
- 1.2 Submit manufacturer's data for all items.

1.3 Common submittal mistakes which will result in the submittals being rejected:

- 1.3.1 Not including all items listed in the above itemized description.
- 1.3.2 Including catalog cut sheets which have several items on a page, and not clearly identifying by highlighting, underlining or clouding the items to be reviewed, or crossing out the items which are not applicable.
- 1.3.3 Not including actual manufacturer's catalog information of proposed products.
- 1.3.4 Do not include multiple manufacturers for similar products and do not indicate "or approved equal" statements, or "to be determined later" statements. The products being submitted must be the products installed.

PART 2 - PRODUCTS

- 2.1 Boxes shall be as manufactured by Steel City, Appleton, Raco, or approved equal.
- 2.2 All boxes must conform to the provisions of Article 370 of the CEC. All boxes shall be of the proper size to accommodate the quantity of conductors enclosed in the box. Minimum box size shall be 4" square x $1-\frac{1}{2}$ " deep.
- 2.3 Boxes generally shall be hot dipped galvanized steel with knockouts. Boxes on exterior surfaces or in damp locations shall be corrosion resistant, cast feraloy and shall have threaded hubs for rigid conduit and neoprene gaskets for their covers. Boxes shall be Appleton Type FS, Crouse-Hinds, or the approved equal. Conduit bodies shall be corrosion resistant, cast malleable iron. Conduit bodies shall have threaded hubs for rigid conduit and neoprene gaskets for their covers. Conduit bodies shall be Appleton Unilets, Crouse-Hinds, or the approved equal. Where recessed, boxes shall have square cut corners.
- 2.4 Deep boxes shall be used in wall covered by wainscot or paneling and in walls or glazed tile, brick, or other masonry which will not be covered with plaster. Through the wall type boxes shall not be used unless specifically called for. All boxes shall be nongangable. Boxes in concrete shall be of a type to allow the placing of conduit without displacing the reinforcing bars. All lighting fixture outlet boxes shall be equipped with the proper fittings to support and attach a light fixture.
- 2.5 All light, switch, receptacle, fire alarm devices and similar outlets shall be provided with approved boxes, suitable for their function. Back boxes shall be furnished and installed as required for the equipment and/or systems under this contract.
- 2.6 Pull and junction boxes shall be code gauge boxes with screw covers. Boxes shall be rigid under torsional and deflecting forces and shall be provided with angle from framing

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where required. Boxes shall be 4" square with a blank cover in unfinished areas and with a plaster ring and blank cover in finished areas. Covers for flush mounted oversize boxes shall extend $\frac{3}{4}$ " past boxes all around. Covers for 4" square boxes shall extend $\frac{1}{4}$ " past box all around.

- 2.7 All terminal cabinets and junction boxes or equipment back boxes which are required as a part of systems specified in Divisions 27 or 28, or any other low voltage communication systems, shall be furnished and installed by the Division 26 Contractor.
 - 2.7.1 The Division 26 Contractor shall coordinate all box requirements with each system supplier prior to bid to determine special cabinet or back box requirements. The Contractor shall also provide stainless steel blank cover plates for all low voltage systems installed for future equipment.
 - 2.7.2 The Contractor shall provide all plywood backboards indicated on walls or inside equipment enclosures. All backboards shall be a minimum of 3/4" thick fire rated type plywood.
 - 2.7.3 The Contractor shall coordinate exact rough in locations and requirements with each system supplier.
- 2.8 In addition to the above requirements, boxes for data networking wiring and equipment shall comply with the following:
 - 2.8.1 All boxes shall be a minimum of 4-11/16" square x 2-1/8" deep.
 - 2.8.2 Where pull boxes are required on individual conduits 1-1/4" or smaller, provide 4-11/16" square x 2-1/8" deep boxes. Where pull boxes are required on conduits larger than 1-1/4" for straight pull through, provide eight times the conduit trade size for box length. Where pull boxes are required on conduits larger than 1-1/4" for an angle or a U-pull through installation, provide a minimum distance of six times the conduit trade size between the entering and exiting conduit run for each cable.
- 2.9 Recessed boxes installed in fire rated floors/walls and /or smoke walls shall be sealed by Fire stopping material to comply with Division 1 to seal off flame, heat, smoke and fire gases. The Contractor shall submit copies of the manufacturers UL system design details proposed for use on this project. All Fire stopping material shall have an hourly fire-rating equal to or higher than the fire rating of the floor or wall through which the conduit, cables, or cable trays pass.

PART 3 - EXECUTION

- 3.1 Boxes shall be installed where required to pull cable or wire, but in finished areas only by approval of the Architect. Boxes shall be rigidly attached to the structure, independent of any conduit support. Boxes shall have their covers accessible. Covers shall be fastened to boxes with machine screws to ensure continuous contact all around. Covers for surface mounted boxes shall line up evenly with the edges of the boxes.
- 3.2 Outlets are only approximately located on the plans and great care must be used in the actual location of the outlets by consulting the various detailed drawings and specifications. Outlets shall be flush with finished wall or ceiling, boxes installed symmetrically on such trim or fixture. Refer to drawings for location and orientation of all outlet boxes.

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- 3.3 Furnish and install all plaster rings as may be required. Plaster rings shall be installed on all boxes where the boxes are recessed. Plaster rings shall be of a depth to reach the finished surface. Where required, extension rings shall be installed so that the plaster ring is flush with the finished surface.
- 3.4 All cabinets and boxes shall be secured by means of toggle bolts on hollow masonry; expansion shields and machine screws or standard precast inserts on concrete or solid masonry; machine screws or bolts on metal surfaces and wood screws on wood construction. All wall and ceiling mounted outlet boxes shall be supported by bar supports extending from the studs or channels on either side of the box. Boxes mounted on drywall or plaster shall be secured to wall studs or adequate internal structure.
- 3.5 Boxes with unused punched-out openings shall have the openings filled with factory-made knockout seals.
- Where standby power and normal power are to be located in the same outlet box or 480V in a switch box, install partition barriers to separate the various systems.
- 3.7 All device boxes and junction boxes for fire alarm system shall be painted red and shall be 4-11/16" square by 2-1/8" deep. No exceptions.

SECTION 26 2416 PANEL BOARDS

PART 1 - GENERAL

- 1.1 Furnish and install branch circuit panel boards as specified herein and as indicated on the drawings. Submit manufacturers' data on all items.
- 1.2 Submit manufacturers' data on all panel boards and components including:
 - 1.2.1 Enclosures and covers
 - 1.2.2 Breakers
 - 1.2.3 Surge Protective Device (SPD) equipment
 - 1.2.4 Incident energy level calculations
 - 1.2.5 Common submittal mistakes which will result in the submittals being rejected:
 - 1.2.5.1 Not arranging the circuit breakers in panels to match the orientations indicated on the drawings. In other words, if a 30 amp breaker is shown on the drawing in Space #2, this must be the location it appears on the submittal schedule. Standard factory arrangements will not be accepted.
 - 1.2.5.2 Not including all items listed in the above itemized description.
 - 1.2.5.3 Including catalog cut sheets which have several items on a page, and not clearly identifying by highlighting, underlining or clouding the items to be reviewed, or crossing out the items which are not applicable.
 - 1.2.5.4 Not including actual manufacturer's catalog information of proposed products.
 - 1.2.5.5 Do not include multiple manufacturers for similar products and do not indicate "or approved equal" statements or "to be determined later" statements. The products being submitted must be the products installed.

PART 2 - PRODUCTS

- 2.1 The interrupting rating of circuit breakers shall be 10,000 amps for the 120/208 system and 14,000 amp for 277/480 volt systems. Refer to drawings for higher interrupting rating requirements. All components and equipment enclosures shall be manufactured by the same manufacturer. Circuit breakers shall be permitted to be series rated to limit the available fault current to no more than the above ratings.
- 2.2 All panels shall be fully bussed. Recessed panel enclosures shall be a maximum of 20" wide and 5-3/4" deep for all panels 600 amp rated and less.
- 2.3 All busses shall be copper and shall be located in the rear of the panelboard cabinet. Individual circuit breakers shall be bolt on type and removable from the cabinet without disturbing the bussing in any way. All panel boards shall contain ground busses.

- 2.4 Panel covers shall be door in door style, with one lock. Door lock shall allow access to breakers only. Access to wireways without removal of cover shall be permitted by (non removable) screws behind the locked door. Panel cover shall be provided with full length piano hinge. All locks for all panels provided in this project shall be keyed alike.
- 2.5 Each panel shall have a two-column circuit index card set under glass or glass equivalent on the inside of the door. Each circuit shall be identified as to use and room or area. Areas shall be designated by room numbers. Room numbers shown on the drawings may change and contractor shall verify final room numbers with the architect prior to project completion.
- 2.6 Tandem mounted or wafer type breakers are not acceptable.
- 2.7 Multiple breakers shall have one common trip handle or be internally connected. Handle ties are not acceptable.
- 2.8 Breaker arrangements shown in the drawings shall be maintained. The circuit breakers in panels must match the orientations indicated on the drawings. In other words, if a 30 amp breaker is shown on the drawing in Space #2, this must be the location it appears on the submittal schedule. Standard factory arrangements will not be accepted.
- 2.9 Circuit breakers for a multi-wire branch circuit shall be tied together with a factory breaker handle tie.
- 2.10 Where conductor sizes exceed the standard breaker lug wire range, or where multiple conductors per phase are required, the panelboard manufacturer shall provide the breaker with suitable lugs for terminating the specified conductors.
- 2.11 Acceptable manufacturers are Eaton, Siemens or General Electric.
- 2.12 Equipment manufactured by any other manufacturers not specifically listed in Section 2.10 are <u>not</u> considered equal, or approved for use on this project.

Surge Protective Devise (SPD)

- 2.13 Surge Protective Device (SPD) panelboards, shall be provided with an integrated circuit breaker panelboard and parallel connected suppression / filter system in a single enclosure. The SPD panelboard shall meet the following parameters: IEEE C62.41.1, IEEE C62.41.2, IEEE C62.45, UL 1283 and the UL 1449, Third Edition, effective September 29, 2009.
- 2.14 The panelboard shall be UL 67 Listed and the SPD shall be UL 1449 labeled as Type 1 or Type 2 or as Type 4 intended for Type 1 or Type 2 applications. SPD shall be factory installed integral to the panel board.
- 2.15 The SPD panelboard shall be top or bottom feed according to requirements. A circuit directory shall be located inside the door.
- 2.16 SPD shall meet or exceed the following criteria:
 - 2.16.1 For standard areas supply SPD having 100kA per phase surge current capacity. For mountain and desert areas (areas with over 5 lightning strikes per year), SPD shall have a per phase surge current capacity of 200kA.

2.16.2 UL 1449 – Third Edition Revision; effective September 29, 2009, Voltage Protection Ratings shall not exceed the following:

<u>VOLTAGE</u>	<u>L-N</u>	<u>L-G</u>	<u>N-G</u>	<u>L-L</u>	<u>MCOV</u>
208Y/120	700V	700V	700V	1200V	150V
480Y/277	1200V	1200V	1200V	2000V	320V

- 2.16.3 SPD shall be UL labeled with 100kA Short Circuit Current Rating (SCCR).
- 2.17 UL 1449 Third Edition Revision; effective September 29, 2009, Voltage Protection Ratings shall not exceed the following:

<u>VOLTAGE</u>	<u>L-N</u>	L-G	<u>N-G</u>	<u>L-L</u>	MCOV
208Y/120	700V	700V	700V	1200V	150V
480Y/277	1200V	1200V	1200V	2000V	320V

- 2.18 SPD shall be UL labeled with a minimum 100kVA short circuit rated (SCCR).
- 2.19 UL 1449 Listed Maximum Continuous Operating Voltage (MCOV) (verifiable at UL.com):

System Voltage	Allowable System Voltage Fluctuation (%)	MCOV
208Y/120	25%	150V
480Y/277	15%	320V

- 2.20 SPD shall incorporate a UL 1283 listed EMI/RFI filter with minimum attenuation of 50dB at 100 kHz. No filtering is required for a 100kA SPD.
- 2.21 Suppression components shall be heavy duty 'large block' MOVs, each exceeding 30mm diameter.
- 2.22 Type 4 SPD shall include a serviceable, replaceable module.
- 2.23 SPD shall be equipped with the following diagnostics:
 - 2.23.1 Visual LED diagnostics including a minimum of one green LED indicator per phase, and one red service LED.
 - 2.23.2 No other test equipment shall be required for SPD monitoring or testing before or after installation.
- 2.24 SPD shall have a response time no greater than 1/2 nanosecond
- 2.25 SPD shall have a 10 year warranty
- 2.26 The SPD panelboard shall have removable interior
- 2.27 The SPD panelboard main bus shall be aluminum and rated for the load current required
- 2.28 The SPD panelboard shall include a 200% rated neutral assembly with copper neutral bus
- 2.29 The unit shall be provided with a safety ground bus

(SPD) Quality Assurance

- 2.30 Manufacturer Qualifications: Engage a firm with at least 5 years experience in manufacturing transient voltage surge suppressors.
- 2.31 Manufacturer shall be ISO 9001 or 9002 certified.
- 2.32 The manufacturer of this equipment shall have produced similar electrical equipment for a minimum period of ten (10) years. When requested by the Engineer, an acceptable list of installations with similar equipment shall be provided demonstrating compliance with this requirement.
- 2.33 The SPD shall be compliant with the Restriction of Hazardous Substances (RoHS) Directive 2002/95/EC.

Short-Circuit and Coordination Studies

- 2.34 The contractor shall provide the following studies; a time current and complete short-circuit study, equipment-interrupting or withstand evaluation, and a protective-device coordination study as described below for the distribution system. The equipment study shall be included with the equipment submittals. The studies shall include all portions of the electrical distribution system from the normal and alternate sources of power throughout the low-voltage distribution system. Normal system operating method, alternate operation, and operations which could result in maximum-fault conditions shall be thoroughly covered in the study. The studies are to be reviewed by a Professional Engineer registered in the State of California.
 - 2.34.1 All studies shall be performed by "Emerson Electric" (858) 695-9551, MTA (858) 472-0193, or Terra Power Solutions (858) 380-8170. Studies performed by manufactures or other engineering or testing companies must submit qualifications for approval by Johnson Consulting Engineers, 7 days prior to bid for this project.

2.35 Short-Circuit Study

- 2.35.1 The study shall be in accordance with applicable ANSI and IEEE standards.
- 2.35.2 The study input data shall include the short-circuit single- and three-phase contributions from all sources, with the X/R ratio, the resistance and reactance components of each branch impedance, motor and generator contributions, base quantities selected, and all other applicable circuit parameters.
- 2.35.3 Short-circuit momentary duties and interrupting duties shall be calculated on the basis of maximum available fault current at each switchgear bus, switchboard, motor control center, distribution panelboard, pertinent branch circuit panelboards, and other significant locations through the system.
- 2.35.4 For the portions of a system utilizing medium- and high-voltage breakers, separate calculations shall be made for one-half cycle (close and latch) currents and interrupting currents. Calculations shall be for three-phase and phase-to-ground faults at each bus under consideration.
- 2.35.5 For the portions of a system utilizing low-voltage breakers (less than 1,000 volts), calculations shall be made for three-phase and phase-to-ground interrupting currents at each bus under consideration.

2.36 Equipment Evaluation Study

2.36.1 An equipment evaluation study shall be performed to assure the adequacy of circuit breakers, controllers, surge arresters, busways, switches, and fuses by tabulating and comparing the short-circuit ratings of these devices with the maximum short-circuit momentary and interrupting duties. Series rating of over current protective devices shall be permitted to reduce the maximum available short circuit current to panelboard branch circuit breakers to no more than 10,000 amps symmetrical for the 120/208 volt system and 14,000 amps symmetrical for the 277/480 volt system.

2.37 Protective-Device Coordination Study

- 2.37.1 A protective-device coordination study shall be performed to select or to verify the selection of power fuse ratings, protective-relay characteristics and settings, ratios, and characteristics of associated voltage and current transformers, and low-voltage breaker trip characteristics and settings. Time current curves are to be colored to clearly indicate coordination.
- 2.37.2 The coordination study shall include all voltage classes of equipment from the source's incoming line protective device down to and including each motor control center and/or panelboard. The phase and ground over current protection shall be included as well as settings for all other adjustable protective devices. Ground fault settings are to, as a minimum coordinate with a downstream 50 amp branch circuit breaker.
- 2.37.3 Protective device selection and settings shall be in accordance with requirements of the National Electrical Code and the recommendations of the ANSI/IEEE Standard 399, as applicable.

2.38 Study Report

- 2.38.1 The results of the power-system studies shall be summarized in a final report. The report shall include the following sections:
 - 2.38.1.1 Description, purpose, basis, and scope of the study and a single-line diagram of the portion of the power system which is included within the scope of study.
 - 2.38.1.2 Tabulations of circuit breaker, fuse, and other equipment ratings versus calculated short-circuit duties and commentary regarding same.
 - 2.38.1.3 Protective device coordination curves, with commentary.
 - 2.38.1.4 The selection and settings of the protective devices shall be provided separately in a tabulated form listing circuit identification, IEEE device number, current transformer ratios, manufacturer, type, range of adjustment, and recommended settings. A tabulation of the recommended power fuse selection shall be provided for all fuses in the system.
 - 2.38.1.5 Fault-current tabulations including a definition of terms and a guide for interpretation.

2.38.1.6 The report must be submitted with the material submittal for the engineers approval.

2.39 Implementation

2.39.1 The equipment manufacturer is to be responsible for providing over current devices which are in compliance with the results of the above study.

PART 3 - EXECUTION

- 3.1 Painting of panelboard covers in finished areas shall be done by the general contractor.
- 3.2 Provide a spare 3/4" conduit stubbed to an accessible area for each of every three (3) spares or spaces provided in recessed panel boards.
- 3.3 All lugs shall be torque tested in the presence of the inspector of record.

Arc Flash and Shock Hazard

- 3.4 The Contractor is to provide, and submit to the engineer for approval, incident energy level calculations as determined using the methodologies described in NFPA 70E or IEEE standard 1584-2002.
 - 3.4.1 All studies shall be performed by "Emerson Electric" (858) 695-9551, MTA (858) 472-0193, or Terra Power Solutions (858) 380-8170. Studies performed by manufactures or other engineering or testing companies must submit qualifications for approval by Johnson Consulting Engineers, 7 days prior to bid for this project.
- 3.5 A warning label, as specified in the above standard, shall be placed on each switchboard, panelboard, and safety switch indicating the incident energy levels on the equipment to warn qualified personnel in accordance with NFPA 70E, section 110.16 Labels shall be laminated white micarta with black lettering on each. Letters shall be no less than 3/8" high.
- 3.6 The incident level calculations for each piece of equipment shall be given to the owner and maintained on file by the maintenance department
- 3.7 The design goal is to minimize the incident energy to which a maintenance employee may be exposed.

SECTION 2 272 SWITC ES AND RECEPTACLES

PART 1 GENERAL

- 1.1 Furnish and install all wiring devices as shown on drawings and as herein specified. Unless otherwise noted, device and plate numbers shown are Hubbell and shall be considered the minimum standard acceptable. Other acceptable manufacturers are Pass and Seymour, Leviton, General Electric and Bryant.
- 1.2 Submit manufacturers' data on all items.
- 1.3 Common submittal mistakes which will result in the submittals being rejected
 - 1.3.1 Not correctly indicating ampacity rating of proposed devices.
 - 1.3.2 Not including all items listed in the above itemized description.
 - 1.3.3 Including catalog cut sheets which have several items on a page, and not clearly identifying by highlighting, underlining or clouding the items to be reviewed, or crossing out the items which are not applicable.
 - 1.3.4 Not including actual manufacturer's catalog information of proposed products.
 - 1.3.5 Do not include multiple manufacturers for similar products and do not indicate "or approved equal" statements or "to be determined later" statements. The products being submitted must be the products installed.

PART 2 PRODUCTS

2.1 All switches shall be of the quiet mechanical type, Specification Grade, 20 amp, 120/277 volt AC as follows:

	HUBBELL	LEVITON	PASS SE MOUR
Single Pole	CS120	CS1202	CS20AC1
Two Pole	CS1222	CS2202	CSB20AC2
Three-way	CS320	CS3202	CS20AC3
ey Switch	HBL1221L	1221-2L	PS20AC1-L

- 2.2 All switches shall have the on and the off position indicated on the handle. If switches of higher ampere ratings are required, they shall be of similar type and quality as those shown above. Groups of switches shown at one location shall be installed under a single plate up to a maximum of six where more than six switches are shown coordinate
- 2.3 All convenience receptacles and special outlets throughout shall be grounding type. Convenience receptacles shall be side wired, parallel slot, two pole, three wire, 20 amp as follows:

	HUBBELL	LEVITON	PASS SE MOUR
Duplex	5352	5362	PS5362
GFCI	GFR5362	7899	2097
Isolated Ground	IG5362	5362IG	IG6300
Tamper Proof		8300SG	TR63H

USB		T5832		min. 3.6 amp charging
				capability
Controlled Type	BR20C2GN	5362-S2N	5362CI	DGN

- 2.4 All safety or tamper proof receptacles shall have no exposed external current carrying metal parts, and shall have integral wiring leads suitable for two or three wire installations. All Controlled Receptacles shall be solid color 'Green' marked "Controlled" and with Universal Power Symbol.
- 2.5 Special receptacles shall be as noted on the drawings.
- 2.6 Weatherproof plates shall be designed to meet CEC Article 410-57, wet location listed with cover "open." Where weatherproof receptacles have been identified to be provided with locking covers, the cover shall be as manufactured by Pass Seymour 4600-8 or Cole Lighting 310 Series. Rough-in requirements vary between manufacturers. Contractor to field verify requirements prior to installation.
- 2.7 All plates throughout shall be stainless steel. Where wiring devices are installed in concrete block walls, provide oversized 3-1/2 x 5 coverplates.
- 2.8 All devices shall be white unless otherwise noted or a special purpose outlet.

PART 3 EXECUTION

- 3.1 All receptacles and line voltage switches shall be labeled on faceplate utilizing white Dymo-Tape with black lettering. Labeling format shall be 'XX-YY'. XX represents panel name and represents circuit number. Labels shall be placed below the top faceplate fastener and above the top edge of faceplate opening. In no circumstance shall they overlap the fastener or the receptacle.
- 3.2 Switches for room lighting shall be located no more than 12 center line from door jamb at plus 48 center line above finished floor or 46 to top of devices where located over casework, reference CBC Figure 11B-5D.
- 3.3 All receptacles shall be mounted at plus 18 to center line above finished floor unless noted or shown otherwise. All receptacles shall be installed with the ground pin up, at the top of the receptacle to comply with IEEE 602-1986.
- 3.4 Furnish and install wall plates for all wiring devices, and outlet boxes, including special outlets, sound, communication, signal, and telephone outlets, etc. as required. All cover plates shall be appropriate for type of device.

SECTION 26 2816 DISCONNECTS

PART 1 - GENERAL

- 1.1 Furnish and install all disconnect switches as shown on the drawings and as required by the CEC.
- 1.2 Submit manufacturers' data for all disconnects and fuses.
 - 1.2.1 Disconnects
 - 1.2.2 Fuses

1.3 Common submittal mistakes which will result in the submittals being rejected:

- 1.3.1 Not including all items listed in the above itemized description.
- 1.3.2 Including catalog cut sheets which have several items on a page, and not clearly identifying by highlighting, underlining or clouding the items to be reviewed, or crossing out the items which are not applicable.
- 1.3.3 Not including actual manufacturer's catalog information of proposed products.
- 1.3.4 Do not include multiple manufacturers for similar products and do not indicate "or approved equal" statements, or "to be determined later" statements. The products being submitted must be the products installed.

PART 2 - PRODUCTS

- 2.1 Acceptable manufacturers shall be Square D, Cutler Hammer, Siemens or General Electric.
- 2.2 Equipment manufactured by any other manufacturers not specifically listed in Section 2.1 are <u>not</u> considered equal, or approved for use on this project.
- 2.3 All switches shall be heavy-duty type, externally operated, quick-make, quick-break, rated 600 volts or 240 volts as required, with the number of poles and ampacity as noted. All switches for motors shall be HP rated. Switches shall have NEMA-Type 1 enclosures, except switches located where exposed to outdoor conditions shall have NEMA Type 3R enclosure. Switches generally shall be fused except where noted to be non-fused on the drawings.
- 2.4 Where fuses are indicated, fuses shall be Bussman or Littlefuse (no known equal). Fuses shall be current limiting type with time delay characteristics to suit the equipment served.

PART 3 - EXECUTION

- 3.1 Mount all switches to structure or U-channel support. U-channel supports shall be cleaned and painted to prevent rust.
- 3.2 Switches shall be accessible with proper clearances in front per CEC 110-16.

- 3.3 All lugs shall be torque tested in the presence of the inspector of record.
- 3.4 Arc Flash and Shock Hazard
 - 3.4.1 The contractor is to provide, and submit to the engineer for approval, incident energy level calculations as determined using the methodologies described in NFPA 70E or IEEE standard 1584-2002.
 - 3.4.2 A warning label, as specified in the above standard, shall be placed on each switchboard, panelboard, and safety switch indicating the incident energy levels on the equipment to warn qualified personnel in accordance with NFPA 70E, section 110.16 Labels shall be laminated white micarta with black lettering on each. Letters shall be no less than 3/8" high.
 - 3.4.3 The incident level calculations for each piece of equipment shall be given to the owner and maintained on file by the maintenance department.
 - 3.4.4 The design goal is to minimize the incident energy to which a maintenance employee may be exposed and in no case more than 8 cal./cm².

SECTION 26 9090 ELECTRICAL CLOSEOUT

PART 1 – GENERAL

- 1.1 Upon completion of the electrical work, the entire installation shall be tested by the Contractor, and demonstrated to be operating satisfactorily to the Architect, Engineer, Inspector and Owner.
- 1.2 All testing and corrections shall be made prior to demonstration of operation to the Architect, Engineer, Inspector and Owner.
- 1.3 In addition to the demonstration of operation, the Contractor is also required to review the content and quality of instructions provided on items demonstrated with the Architect, Engineer, Inspector and Owner.

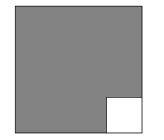
PART 2 - EXECUTION

- 2.1 Wiring shall be tested for continuity, short circuits and/or accidental grounds. All systems shall be entirely free from "grounds," "short circuits," and any or all defects.
- 2.2 Motors shall be operating in proper rotations, and control devices functioning properly. Check all motor controllers to determine that properly sized overload devices are installed, and all other electrical equipment for proper operation.
- 2.3 Tests and adjustments shall be made prior to acceptance of the electrical installation by the Architect, and a certificate of inspection and acceptance of the electrical installation by local inspection authorities shall be provided.
- 2.4 All equipment or wiring provided which tests prove to be defective or operating improperly shall be corrected or replaced promptly, at no additional cost to the Owner.
- 2.5 Test all motor and feeder circuits with a "megger" tester to determine that insulation values conform to Section 110-20, California Electrical Code (CED). Test reports must be submitted and approved by the engineer before final acceptance.
- 2.6 Test all grounding electrode connections to assure a resistance of no more than 10 ohms is achieved. Augment grounding until the ohmic value stated above is achieved. Provide certified test results to the Architect, Engineer and Inspector.

LMSV Warehouse Freezer	26 9090 - 1	Electrical Closeout
©JCE #23060		

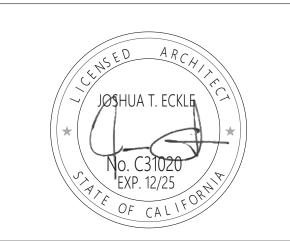
NEW WAREHOUSE FREEZER OPERATIONS CENTER - LMSVSD

ALPHASTUDIO DESIGN GROUP



6152 INNOVATION WAY CARLSBAD, 92009 760-431-2444 www.alphastudio-design.com

ARCHITECT OF RECORD



ENGINEER OF RECORD

SHEET TOTAL: 32

SHEET INDEX

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COVER SHEET & GENERAL INFO

COVER SHEET APPLICABLE CODES AND GENERAL NOTES

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FLOOR PLANS

DEMOLITION FLOOR PLAN NEW WORK FLOOR PLAN FLOOR PLAN DETAILS

REFLECTED CEILING PLANS

DEMOLITION REFLECTED CEILING PLAN NEW WORK REFLECTED CEILING PLAN

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FOODSERVICE EQUIPMENT ELEVATIONS

FOODSERVICE SECTIONS & DETAILS FOODSERVICE REFRIDGERATION PLAN

FOODSERVICE REFRIDGERATION PLAN

PROJECT DIRECTORY

LA MESA - SPRING VALLEY SCHOOL DISTRICT 4750 DATE AVE

LA MESA, CA 91942 P: 858-794-7100

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MECHANICAL/ PLUMBING: J & R ENGINEERING & CONSULTING INC.

SAN DIEGO, CALIFORNIA 92128

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ORNESS DESIGN GROUP

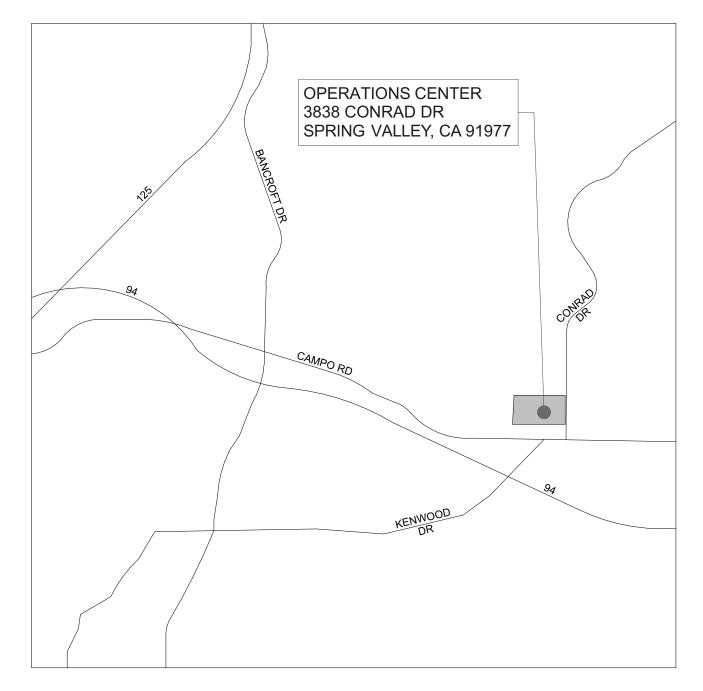
5955 MIRA MESA BLVD. STE H

SAN DIEGO, CALIFORNIA 92121

PROJECT SCOPE

THE SCOPE OF THIS PROJECT IS THE DEMOLITION OF (1) EXISTING COOLER AND FREEZER AND THE CONSTRUCTION OF (1) NEW FREEZER UNIT. THIS INCLUDES THE DEMOLITION OF THE (E) CONCRETE SLAB, (E) PIPE BOLLARDS FOR A (N) CONCRETE SLAB, (N) PIPE BOLLARDS, AND (N) ROOFTOP EQUIPMENT.

VICINITY MAP



REVISIONS MARK DATE DESCRIPTION 03/25/2024 BID SET PROJECT NO: 23-029

MODEL FILE: 23-029 LMSV WH Cooler and Freezer_Draft_23-09-12 aRCHICAD 26.pln

PLOT DATE:

3/25/2024

SHEET TITLE **COVER SHEET**

T-001

NEW WAREHOUSE FREEZER OPERATIONS CENTER - LMSVSD

GENERAL CONSTRUCTION NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE CODES LISTED ON THIS SHEET IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILAR WITH ALL CODES AND ORDINANCES, CITY OR STATEAS REQUIRED FOR THE CONSTRUCTION OF THE FOLLWOING PROJECT. WHERE CONFLICTS OCCUR BETWEEN FEDERAL, STATE, AND LOCAL LAWS, CODES, ORDINANCES, AND REGULATIONS, THE MOST STRINGENT SHALL GOVERN.
- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE START OF WORK. THE EXISTING CONDITIONS SHALL INCLUDE, BUT NOT BE LIMITED TO: IRRIGATION, DRAINAGE, SITE MEHCANICAL, PLUMBING, AND ELECTRICAL. THE CONTRACTOR SHALL NOTIFY THE ARCHTIECT OF ANY DISCREPANCIES IN SITE CONDITIONS AND CONTRACT DOCUMENTS. FAILURE TO NOTIFY WHILE PROCEEDING WITH WORK SHALL IMPLY ACCEPTANCE OF THE SITE CONDITIONS BY THE CONTRACTOR FOR THE WORK INTENDED.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE AND SAFE BRACING TO SUPPORT THE COMPONENTS OF THE STRUCTURE UNTIL THE STRUCTURE ITSELF, FLOOR AND ROOF DIAPHRAGMS ARE COMPLETE ENOUGH TO SUPPORT ITSELF. THE SAFETY AND ERECTION OF BRACING SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THERE ARE NO DISCREPENCIES BEWTEEN THE ARCHITECTURAL DRAWINGS AND THE CONSULTING ENGINEER'S DRAWINGS WHICH WOULD CAUSE A CONFLICT IN THE INSTALLATION OF THE SYSTEMS. IF SUCH A CONFLICT DOES OCCUR, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ALERT THE ARCHITECT TO THE SITUATION PRIOR TO INSTALLATION. ANY WORK INSTALLED IN CONFLICT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REMEDY WITH NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR A COMPLETE LIST OF GENERAL CONDITIONS, SPECIAL CONDITIONS, AND MATERIAL INSTALLATION METHODOLOGY.
- TYPICAL NOTES AND DETAILS SHALL APPLY UNLESS SHOWN OTHERWISE, WHERE A CONSTRUCTION DETAIL IS NOT SHOWN OR NOTED, THE DETAIL SHALL BE THE SAME AS FOR A SIMILAR CONDITION.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS, SERVICES, POINTS OF CONNECTION. AND IRRIGATION LINES IN THE CONSTRUCTION AREA PRIOR TO COMMENCEMENT OF WORK. IF PROPER VERIFICATION IS NOT DONE PRIOR TO WORK COMMENCING, AND DAMAGE IS INCURRED THE CONTRACTOR SHALL REPAIR THE DAMAGE AT NO COST TO THE OWNER
- ALL DRAWINGS ARE FOR ILLUSTRATION ONLY, THE CONTRACTOR AND SUBCONTRACTORS, SHALL NOT LOCATE ITEMS BY SCALING. IF ITEMS ARE MISLOCATED DUE TO SCALING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND CORRECTLY INSTALLING THE ITEMS AT NO EXPENSE TO THE
- 10. IT IS THE INTENT OF THESE DRAWINGS TO INDICATE A COMPLETE AND FINISHED PRODUCT AND / OR ABUTING EXISTING CONDITION IN A FINSHED AND PROFESSIONAL MANNER.
- 11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO KEEP THE AREA AROUND THE WORK IN A CLEAN AND SAFE CONDITION. ALL TRASH AND DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER. AREA OF WORK SHALL BE COMPLETELY CLEANED AND READY FOR OCCUPANCY UPON COMPLETION OF WORK.
- 12. ALL WORK SHALL CONFORM TO 2022 TITLE 24 CA CODE OF REGULATIONS. A COPY OF TITLE 24, PARTS 1-5. SHALL BE AVAILABLE ON THE JOBSITE ATALL TIMES.
- 13. CHANGES TO THE APPROVED DRAWINGS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY DSA, AS REQUIRED BY SEC. 4-338, PART 1, T-24, CCR. ALL ADDENDA AND CONSTRUCTION CHANGE DOCUMENTS SHALL BE SIGNED BY THE ARCHITECT.
- 14. A PROJECT INSPECTOR EMPLOYED BY THE OWNER AND APPROVED BY DSA, ARCHTIECT OF RECORD & STRUCTURAL ENGINEER OF RECORD (WHERE APPLICABLE). SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342 PART 1, T-24 CCR. THE INSPECTOR SHALL BE A CLASS III.
- A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE OWNER SHALL CONDUCT ALL REQUIRED TESTING AND SPECIAL INSPECTIONS FOR THE PROJECT AS IDENTIFIED ON THE DSA 103 TESTING AND INSPECTION FORM.
- 16. THE PROJECT SHALL CONFORM TO CURRENT ADA STANDARDS 2022 CBC CHAPTER 11 B.
- 17. FOOD HANDLING FACILITIES SHALL COMPLY WITH ALL LOCAL HEALTH REQUIREMENTS AND CALIFORNIA UNIFORM RETAIL FOOD FACILITIES LAWS.
- 18. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OF NONCOMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TILE 24, CALIFORNIA CODE OF REGULATIONS, A CCD, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE DIVISION OF STATEARCHITECT BEFORE PROCEEDING WITH THE WORK.
- 19. THE ARCHITECT AND OR ENGINEER SHALL MAKE PERIODIC SITE VISITS DURING CONSTRUCTION TO OBSERVE THE PROGRESS OF THE WORK AND VERIFY GENERAL CONFORMANCE TO THE PLANS AND SPECIFICATIONS IS BEING MET. THESE VISIT DO NOT CONSTITUTE A GUARANTEE OF THE CONTRACTOR'S WORK. A CONTRACTOR'S ERROR THAT GOES UNDETECTED DURING A PERIODIC VISIT DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR PROPERLY PERFORMING THE SCOPE OF THE PROJECT.
- 20. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ADJACENT STRUCTURES, PROPERTY, AND SITE FEATURES DURING CONSTRUCTION. ANY DAMAGE TO SUCH ITEMS SHALL BE PROMPTLY RESTORED TO THE SATISFACTION OF THE OWNER AND ARCHITECT.
- 21. CONTRACTORS AND SUBCONSTRATORS ARE REQUIRED TO SUBMIT THEIR BIDS BASED ON ALL DRAWINGS AND SPECIFICATIONS, NOT SOLELY THE SHEETS OR SECTIONS RELEVANT TO THEIR TRADE.
- 22. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE COMPLIMENTARY IN NATURE, HOWEVER IF A DISCREPANCY OCCURS BETWEEN THE TWO DOCUMENTS. THE MORE STRINGENT REQUIREMENT AND HIGHEST LEVEL OF QUALITY SHALL TAKE PRECENDENCE
- 23. ALL DETAILS PROVIDED IN THE CONSTRUCTION DOCUMENTS ARE A PART OF THE CONSTRUCTION SCOPE REGARDLESS OF WHETHER THEY ARE SPECIFICALLY REFERENCED.
- 24. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

GENERAL DEMOLITION NOTES

- DEMOLITION PLANS REFERENCE GENERAL ITEMS AND CONDITION VARIATIONS MAY OCCUR WITHIN AREA OF DEMOLITION AND SHALL BE TREATED AS SIMILAR.
- NOT ALL LOCATIONS FOR DEMOLITION MAY BE NOTED. CONTRACTOR SHALL REVIEW THE PROJECT REQURIEMENTS AND BE FAMLIAR WITH THE EXISTING SITE CONDITIONS FOR EVALUATION OF DEMOLITION WORK NECESSARY TO COMPLETE THE NEW WORK.
- KEY NOTES REFERENCE GENERAL ELEMENTS FOR DISPOSAL OR SALVAGE. VARIOUS ASSOCIATED ITEMS MAY OCCUR AND SHALL BE REMOVED ACCORDING TO THE NEEDS AND DESIGN INTENT OF THE NEW CONSTRUCTION.
- 4. THE CONTRACTOR SHALL NOT REMOVE OR ALTER ANY BUILDING ELEMENTS OR SYSTEMS NECESSARY FOR THE BUILDING'S STRUCTURAL INTERGRITY WITHOUT PRIOR AUTHORIZATION FROM THE ARCHITECT AND/OR STRUCTURAL ENGINEER OF RECORD.
- CONTRACTOR SHALL NOT ALTER OR REMOVE ANY SHEAR WALLS OR BEARING WALLS UNLESS IDENTIFIED ON THE DRAWINGS WITH APPROPRIATE DETAILS. THE COTNRACTOR SHALL TAKE PRECAUTIONS DURING DEMOLITION AND CONSTRUCTION ACITIVITES TO NOT EFFECT THE EXISTING STRUCTURAL SYSTEM OF THE BUILDING. IF DURING THE COURSE OF THE WORK, ELEMENTS THAT ARE IDENTIFIED TO BE DEMOLISHED, BUT APPEAR STRUCTURAL IN NATURE AND NOT IDENTIFIED AS SUCH. THE CONTRACTOR SHALL NOTFIY THE ARCHITECT IMMEDIATELY. THE CONTRACTOR SHALL NOT PROCEED WITH THE DEMOLITION OF SUCH ELEMENTS WITHOUT THE DIRECTION OF THE ARCHITECT AND/OR STRUCTURAL ENGINEER OF RECORD.
- AFTER THE DEMOLITION AND REMOVAL OF ELEMENTS, REPAIR AND RESTORE EXISTING FINISHES TO BE LEFT EXPOSED TO THEIR ORIGINAL CHARACTER. WHERE EXISTING FINISHES ARE TO BE HIDDEN WITH NEW MATERIALS, THOSE FINISHES SHALL BE RESTORED TO PROVIDE ADEQUATE SUITABILITY, STRENGTH, AND SUBSTRATE FOR NEW CONSTRUCTION AND FINISHES.
- CONTRACTOR SHALL COMPLY WITH THE FOLLOWING SECTIONS OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION:
 - 5-2 PROTECTION
 - 5-3 REMOVAL

CONDITIONS.

CONSTRUCTION ACTIVITIES.

- 5-4 RELOCATION 7-8 PROJECT SITE MAINTENANCE
- 7-9 PROTECTION AND RESTORATION OF EXIST. IMPROVEMENTS
- 7-10 PUBLIC CONVENIENCE AND SAFETY
- CHAPTER 33 C.F.C.

9. THE CONTRACTOR SHALL DISPOSE OF DEMOLITION MATERIALS IN A LEGAL AND

SAFETY DURING CONSTRUCTION SHALL COMPLY WITH CHAPTER 33 C.B.C. AND

- 10. CONTRACTOR SHALL MAKE AVAILABLE TO OWNER ANY MATERIALS OR EQUIPMENT
- LISTED FOR DEMOLITION, DISPOSAL. REMOVAL, ETC. UPON OWNERS REQUEST. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGABLE ITEMS. 11. CONTRACTOR SHALL KEEP OPERATING EQUIPMENT OR MATERIALS INDICATED FOR
- MATERIAL OR EQUIPMENT FROM DAMAGE. 12. THE CONTRACTOR IS RESPONSIBLE TO PERFORM ALL DEMOLITION WORK NECESSARY TO ALLOW EXECUTION OF ALL REQUIREMENTS OF THE NEW CONSTRUCTION UNDER

THIS CONTRACT. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL EXISTING

REUSE, RELOCATION, OR OWNER RETENTION IN A SAFE MANNER TO PROTECT THE

- 13. THE RECORD DRAWINGS FOR THE FACILITIES TO BE MODERNIZED MAY BE AVAILABLE FROM THE DISTRICT FOR REFERENCE. CONTRACTOR SHALL REQUEST DRAWINGS OR OTHER OWNER SUPPLIED DOCUMENTS PRIOR TO BEGINNING DEMOLITION OR CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL REVIEW THE RECORD DOCUMENTS TO DETERMINE ANY CONDITIONS WHERE CONFLICTS, HARDSHIPS, OR SIMILIAR ISSUES MAY ARISE. THE CONTRACTOR SHALL NOTIFY THE ARCHTIECT OF ANY CONDITIONS WHERE CONFLICTS MAY ARISE PRIOR TO DEMOLITION OR
- 14. AREA OF FLOOR SLAB OR PAVING DEMOLITION IS SHOWN AS AN APPROXIMATION ONLY TO DEFINE GENERAL SCOPE OF WORK. EXISTING CONDITIONS MAY REQUIRE A LARGER / DIFFERENTLY CONFIGURED AREA OF DEMOLITION. REMOVAL SHALL BE IN ACCORDANCE TO THE NEEDS AND DESIGN INTENT OF THE NEW CONSTRUCTION. COORDINATE DEMOLITION REQUIREMENTS WITH CIVIL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DESIGN AND DRAWINGS.
- 15. ALL FLOOR SLAB AND/OR PAVING SAWCUTS SHALL BE DONE IN A MANNER THAT CREATES A SHARP, STRAIGHT, AND SQUARE EDGE. SAW CUT EDGES EXPOSED FOR LONG DURATIONS DURING CONSTRUCTION SHALL BE PROTECTED BY THE CONTRACTOR IN ORDER TO LIMIT CHIPPING OF CONCRETE EDGE. IF CHIPPING OR OTHER DAMAGE OCCURS, CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ADDITIONAL FLOOR SLAB AND/OR PAVING TO NEXT AVAILABLE JOINT OR AS DETERMINED BY ARCHITECT AT THE CONTRACTOR'S OWN COST.
- 16. WHERE EQUIPMENT AND/OR FIXTURES ARE INDICATED TO BE REMOVED ALL RELATED EXPOSED PIPING, CONDUITS, AND ASSOCIATED ITEMS SHALL ALSO BE REMOVED AND/ OR PROPERLY TERMINATED TO PROVIDE COMPLETE DEMOLITION.
- 17. WHERE EXISTING CONSTRUCTION ELEMENTS (FRAMING, FINISHES, PIPES, CONDUITS, DUCTWORK, EQUIPMENT, ETC.) INTERFERE WITH THE INTENDED NEW CONSTRUCTION OR WOULD BE EXPOSED IN OTHERWISE 'FINISHED' AREAS, THESE ITEMS SHALL ALSO BE REMOVED AND/OR RELOCATED.
- 18. AT DEMOLITION OF DOORS, WINDOWS, FLASHINGS, SOFFITS, ETC. WHERE PLASTER IS DISTURBED AT FINISHES TO REMAIN, REMOVE PLASTER BACK 6" MINIMUM TO EXPOSE LATH TO PERFORM PROPER PLASTER PATCH.
- 19. REFER TO STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ALL DEMOLITION WORK SPECIFIC TO THOSE BUILDING SYSTEMS.
- 20. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REQUEST ANY HAZARDOUS ABATEMENT DOCUMENTS FOR THE SCOPE OF WORK TO FULLY UNDERSTAND THE EXTENT OF REMOVAL AND DISPOSAL REQUIREMENTS FOR THOSE MATERIALS.
- 21. ALL ABATEMENT WORK SHALL BE COMPLETED BY THE CONTRACTOR PRIOR TO DEMOLITION WORK.
- 22. CONTRACTOR OPERATIONS SHALL NOT BLOCK, HINDER, IMPEDE OR OTHERWISE INHIBIT THE USE OF REQUIRED EXITS AT ANY TIME. CONTRACTOR SHALL MAINTAIN UNOBSTRUCTED ACCESS TO FIRE EXTINGUISHERS, FIRE HYDRANTS, TEMPORARY FIRE PROTECTION FACILITIES, STAIRWAYSAND OTHER ACCESS ROUTES FOR FIRE-FIGHTING EQUIPMENT AND OR PERSONNEL.
- 23. MAINTAIN INTEGRITY OF ALL EXISTING FIRE-RATED ASSEMBLIES UNLESS OTHERWISE

GENERAL ACCESIBILITY NOTES

- EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE. HAND-ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 36" TO 42" ABOVE THE FLOOR (PANIC HARDWARE SHALL BE BETWEEN 36" TO 44" ABOVE FIN. FLR.). LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND IN A PATH OF TRAVEL, SHALL BE OPENABLE WITH A SINGLE EFFORT BY LEVER-TYPE HARDWARE, BY EXIT DEVICE, OR PUSH-PULL ACTIVATING BARS. LOCKED EXIT DOORS SHALL OPERATE BY ABOVE IN DIRECTON OF EGRESS
- MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5.0 POUNDS FOR EXTERIOR AND INTERIOR DOORS, SUCH PUSH OR PULL EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS.
- DOOR CLOSERS AND GATES CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM.
- THE FLOOR OR LANDING SHALL NOT BE MORE THAN 1/2 INCH LOWER THAN THE THRESHOLD OF THE DOORWAY.CHANGE IN LEVEL BETWEEN 1/4 AND 1/2 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1 UNIT VERTICAL TO 2 UNITS HORIZONTAL.
- ACCESSIBLE FIXTURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH CALIFORNIA PLUMBING CODE, 2022 EDITION.
- EXPOSED LAVATORYP-TRAP ASSEMBLIES AND WATER SUPPLY LINES SHALL BE INSTALLED WITH REMANUFACTURED VINYL COVERED P-TRAP, VALVE, AND SUPPLY INSULATED COVER.
- THE FORCE REQUIRED TO OPERATE LAVATORY OR SINK FAUCETS SHALL BE NO GREATER THAN 5 POUNDS. SELF-CLOSING FAUCETS SHALL HAVE A MINIMUM 10 SECOND CYCLE TIME.
- ALL ACCESSIBLE GATES WITHIN THE PATH OF TRAVEL SHALL HAVE NON-GRIP HARDWARE MOUNTED BETWEEN 34" TO 44" ABOVE FINISH PAVING. THERE SHALL BE 24" MINIMUM CLEAR SPACE PROVIDED AT THE STRIKE SIDE OF THE GATE FOR
- ALL DIMENSIONS FOR ACCESSIBLE COMPONENTS, FEATURES, OR CLEAR FLOOR SPACE ARE TO FACE OF FINISH UNLESS OTHERWISE NOTED.

ACCESSIBLE MANEUVERING CLEARANCES.

- 10. WHERE FLOOR DRAINS ARE PROVIDED, FINISHED SURFACE SHALL SLOPE TO DRAIN NO MORE THAN 2% IN ANY DIRECTION. FLOOR DRAINS AND FLOOR SINKS SHALL HAVE 1/2" MAXIMUM GRATE OPENINGS IN ALL DIRECTION.
- 11. ACCESSIBLE PATH OF TRAVEL (POT) SHALL BE A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" BEVELED 1:2 MAX SLOPE OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAX. POT SHALL BE AT LEAST 48" IN WIDTH WITH A STABLE, FIRM, AND SLIP RESISTANT SURFACE. CROSS SLOPE SHALL NOT EXCEED 2% MAX AND THE SLOPE IN THE DIRECTION OF TRAVEL SHALL NOT EXCEED 5%. POT SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM ABOVE FINISHED SURFACE AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM THE WALLAND 27" ABOVE FINISHED SURFACE, BUT LESS THAN 80" ABOVE FINISHED SURFACE. REFERENCE CBC 11B-202.4.
- 12. OPENINGS IN GRATINGS OR STRAINERS LOCATED IN THE PEDESTRIAN CIRCULATION PATHS OR PATH OF TRAVEL SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL IN COMPLIANCE WITH CBC 11B-302.
- GATES IN THE PATH OF TRAVEL SHALL COMPLY WITH EXIT DOOR REQUIREMENTS.

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT

THE PATH OF TRAVEL (POT) IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS. ADDITIONS, AND STRUCTURAL REPAIRS AS PART OF THE DESIGN OF THIS PROJECT. THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS, OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT HAVE BEEN IDENTIFIED AND, THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT THROUGH DETAILS, DRAWINGS, AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS, OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINIDNG OF UNREASONABLE HARDSHIP ARE INDICATED IN THESE CONSTRUCTION DOCUMENTS.

DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS COMPLIANT ARE FOUND TO BE NON-CONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGH INTO COMPLIANCE BY MEANS OF A CONSTRUCTION CHANGE CHANGE DOCUMENT (CCD).

GENERAL FIRE NOTES

- FIRE SAFETY AND EVACUATION PLANS SHALL BE MADE AVAILABLE IN THE WORKPLACE FOR REFERENCE AND REVIEW BY EMPLOYEES AND COPIES SHALL BE FURNISHED TO THE FIRE CODE OFFICIAL FOR REVIEW UPON REQUEST
- THROUGH PENETRATION FIRE STOPPING FOR ALL FIRE WALLS, FLOORS/CEILING, AND ASSEMBLIES SHALL HAVE AN 'F' OR 'T' RATING PER THE CBC AND STANDARDS. INSTALLATION OF FIRE STOPPING SHALL COMPLY WITH APPROVED METHODS.
- ALL CONTRACTORS PERFORMING WORK ON THIS PROJECT SHALL COMPLY WITH THE REQUIREMENTS OF 2022 CFC 901.7, SPECIFICALLY 901.7.4 CHAPTER 11 AND 33 AS WELL AS NFPA 241 FIRE PREVENTION PROGRAM THROUGHOUT ALL PHASES OF CONSTRUCTION.

APPLICABLE CODES

2022 BUILDING STANDARDS ADMINISTRATIVE CODE (C.A.C.) PART 1, TITLE 24, C.C.R.

2022 CALIFORNIA BUILDING CODE (C.B.C.) PART 2. TITLE 24. C.C.R. (2021 I.B.C., VOL 1-2 AND 2022 CA AMENDMENTS)

2022 CALIFORNIA ELECTRIC CODE (C.E.C.), PART 3, TITLE 24, C.C.R. (2020 N.E.C. AND 2022 CA

2022 CALIFORNIA MECHANICAL CODE (C.M.C.) PART 4, TITLE 24, C.C.R. (2021 U.M.C. AND 2022

2022 CALIFORNIA PLUMBING CODE (C.P.C.), PART 5, TITLE 24, C.C.R. (2021 U.P.C. AND 2022 CA AMENDMENTS)

2022 CALIFORNIA ENERGY CODE, PART 6, TITLE 24, C.C.R.

2022 CALIFORNIA FIRE CODE, PART 9, TITLE 24, C.C.R. (2021 I.F.C. AND 2022 CA AMENDMENTS)

2022 CALIFORNIA EXISTING BUILDING CODE (C.E.B.C.) PART 10, TITLE 24, C.C.R. (2021 I.B.C. AND 2022 CA AMENDMENTS)

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24, C.C.R.

2022 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24, C.C.R. TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

TITLE 19 CCR. PUBLIC SAFETY. STATE FIRE MARSHAL REGULATIONS

APPLICABLE STANDARDS

FOR A LIST OF APPLICABLE STANDARDS, INCLUDING CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS, REFER TO C.B.C. CHAPER 35 AND C.F.C. CHAPTER 80.

GENERAL ENERGY CODE NOTES

ACCEPTACNE TESTS HAVE BEEN COMPLETED.

- THE CALIFORNIA ENERGY CODE SECTION 10-103 REQUIRES ACCEPTANCE TESTING ON ALL NEWLY INSTALLED LIGHTING CONTROLS, MECHANICAL SYSTEMS, ENVELOPES, AND PROCESS EQUIPMENT AFTER INSTALLATION AND BEFORE PROJECT COMPLETION. AN ACCEPTANCE TEST IS A FUNCTIONAL PERFORMANCE TEST TO HELP ENSURE THAT NEWLY INSTALLED EQUIPMENT IS OPERATING AND IN COMPLIANCE WITH THE ENERGY
- LIGHTING CONTROLS ACCEPTANCE TEST MUST BE PERFORMED BY A CERTIFIED LIGHTING TEST TECHNICIAN (ATT).
- MECHANICAL SYSTEM ACCEPTANCE TEST MUST BE PERFORMED BY A CERTIFIED MECHANICAL ATT FOR PROJECTS SUBMITTED ON OR AFTER OCTOBER 1,2021.
- ENVELOPE AND PROCESS EQUIPMENT ACCEPTANCE TESTS SHALL BE PERFORMED BY THE INSTALLING CONTRACTOR, ENGINEER/ARCHITECT OF RECORD OR THE OWNER'S
- A LISTING OF CERTIFIED ATT CAN BE FOUND AT: HTTPS://WWW.ENERGY.CA.GOV/ PROGRAMS-AND-TOPICS/PROGRAMS/ACCEPTANCE-TEST-TECHNICIAN-CERTIFICATION-PROVIDER-PROGRAM/ACCEPTANCE.
- THE ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED, AND DEFICIENCIES MUST BE CORRECTED BY THE BUILDER OR INSTALLING CONTRACTOR UNTIL THE CONSTRUCTION/INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTED CRITERIA.
- PROJECT INSPECTORS WILL COLLECT THE FORMS TO CONFIRM THAT THE REQUIRED



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	03/25/2024	BID SET

PROJECT NO: 23-029 MODEL FILE:

PLOT DATE: 3/25/2024

SHEET TITLE

APPLICABLE CODES AND **GENERAL NOTES**

23-029 LMSV WH Cooler and Freezer_Draft_23-09-12 aRCHICAD 26.pln

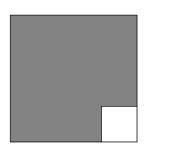
NEW WAREHOUSE FREEZER OPERATIONS CENTER - LMSVSD

TYPICAL SYMBOLS

'X' INDICATES CORRESPONDING

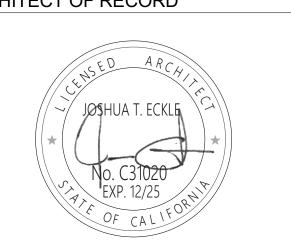
ELEVATION REFERENCE

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REVISIONS MARK DATE DESCRIPTION 03/25/2024 BID SET

PROJECT NO: 23-029 MODEL FILE:

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SHEET TITLE

ABBREVIATIONS AND TYPICAL SYMBOLS

T-003

CTANDADD ADDDEVIATIONS

STAND	ARD ABBREVIATION	<u>1S</u>			
&	AND	GA.	GAUGE	STD.	STANDARD
<	ANGLE	GALV.	GALVANIZED	STL.	STEEL
@ A	AT AMP	GB. GC.	GRAB BAR GENERAL CONTRACTOR	ST. STO.	STEEL STORAGE
AB.	ANCHOR BOLT	GL.	GLASS	STRUC.	STRUCTURAL
ABV. AC.	ABOVE ASPAHLT	GI. GND.	GALVANIZED IRON GROUND	STR. SUSP.	STRUCTURAL SUSPENDED
A/C.	AIR CONDITIONING	GPDW.	GYPSUM DRYWALL	SYM.	SYMMETRICAL
ACOUS. AD.	ACOUSTICAL AREA DRAIN	GRD. GV.	GRADE GATE VALVE	T TB.	TREAD TOWEL BAR
ADJ.	ADJUSTABLE	GYP.	GYPSUM	T&B	TOP AND BOTTOM
AGGR. AFF.	AGGREGATE ABOVE FINISH FLOOR	HB. HC.	HOSE BIB HOLLOW CORE	TOC TEL.	TOP OF CURB TELEPHONE
AL.	ALUMINUM	HD.	HEAD	TEM.	TEMPERED
AP. APPROX.	ACCESS PANEL APPROXIMATE	HDR. HDW.	HEADER HARDWARE	TER. TF.	TERAZZO TOP OF FOOTING
ARCH.	ARCHITECTURAL	HM.	HOLLOW METAL	T&G	TONGUE AND GROOVE
ASC. AS.	ABOVE SUSPENDED CEILING AUTOMATIC SPRINKLER	HDWD. HNDRL.	HARDWARE HANDRAIL	THK. TP.	THICK TOP OF PARAPET
AUTO.	AUTOMATIC	HORIZ.	HORIZONTAL	TPD.	TOILET PAPER DISPENSER
BD BFG.	BOARD BELOW FINISH GRADE	HVAC. ID.	HEATING, VENTILATING, AIR CONDITIONING INSIDE DIAMETER	TS TTB.	TOP OF STRUCTURE TELEPHONE TERMINAL BACKBOARD
BITUM.	BITUMINOUS	IE.	INVERT ELEVATION	TV.	TELEVISION
BLDG. BLK.	BUILDING BLOCK	IF. IN.	INSIDE FACE INCH	TOW. TYP.	TOP OF WALL TYPICAL
BM.	BEAM	INC.	INCLUDE	UG.	UNDERGROUND
BRG. BRK.	BEARING BRICK	INFO. INSUL.	INFORMATION INSULATION	UNF. UNO	UNFINISHED UNLESS NOTED OTHERWISE
BOT.	BOTTOM	INT.	INTERIOR	UON	UNLESS OTHERWISE NOTED
BTU. C.	BRITISH THERMAL UNIT CONDUIT	INV. JAN.	INVERT	UR UTIL.	URINAL UTILITY
CAB.	CABINET	JST.	JANITOR JOIST	VAR.	VARIES
CB. CD.	CATCH BASIN CEILING DIFFUSER	JT. KIT.	JOINT	VB. VCT.	VAPOR BARRIER VINYL COMPOSITION TILE
CEM.	CEMENT	KP.	KITCHEN KICK PLATE	VERT.	VERTICAL
CER. CF.	CERAMIC CUBIC FEET	KVA KW	KILOVOLTAMPERES	VEST. VIF.	VESTIBULE VERIFY IN FIELD
CF. CFM.	CUBIC FEET CUBIC FEET PER MINUTE	KW MAS.	KILOWATT MASONRY	VTR.	VENT THROUGH ROOF
CG.	CORNER GUARD	MAT'L.	MATERIAL	W W/	WEST WITH
CI. CIP.	CAST IRON CAST IN PLACE	MAX. MC.	MAXIMUM MEDICINE CABINET	WC.	WATER CLOSET
CKT. BKR.	CIRCUIT BREAKER	MECH.	MECHANICAL	WCO. WD.	WALL CLEAN OUT WOOD
CL. CLG.	CENTERLINE CEILING	MFR. MH.	MANUFACTURER MANHOLE	WDW.	WINDOW
CLR.	CLEAR	MIN.	MINIMUM	WH. W/O	WATER HEATER
CMU. CNTR.	CONCRETE MASONRY UNIT COUNTER	MIR. MISC.	MIRROR MISCELLANEOUS	WP.	WITHOUT WATERPROOF
CO.	CLEANOUT	MO.	MASONRY OPENING	WSCT.	WAINSCOT
COTG. COL.	CLEANOUT TO GRADE COLUMN	MTD. MTL.	MOUNTED METAL	WT. WWF.	WEIGHT WELDED WIRE FABRIC
CONC.	CONCRETE	MUL.	MULLION	WWM.	WELDED WIRE MESH
CONN. CPT.	CONNECTION CARPET	N. NIC.	NORTH NOT IN CONTRACT		
CTR.	CENTER	NO.	NUMBER		
CTSK. CW.	COUNTERSINK COLD WATER	NOM. NTS.	NOMINAL NOT TO SCALE		
D.	DRAIN	OA.	OUTSIDE AIR		
DBL. DEPT.	DOUBLE DEPARTMENT	O/A OBS.	OVERALL OBSCURE		
DET.	DETAIL	OC.	ON CENTER		
DF. DIA.	DINKING FOUNTAIN DIAMETER	OD. OFF.	OUTSIDE DIAMETER		
DIM.	DIMENSION	OH.	OFFICE OPPOSITE HAND		
DISP.	DISPENSER	OPNG. OPP	OPENING OPPOSET		
DMT. DN.	DEMOUNTABLE DOWN	OPP OVHD.	OVERHEAD		
DO.	DOOR OPENING	PAV.	PAVING		
DR. DS.	DRAIN DOWNSPOUT	PC. PCC.	PRECAST CONCRETE PORTLAND CEMENT CONCRETE		
DWG.	DRAWING	PHP.	PARTIAL HEIGHT PARTITION		
DWR. EXIST.	DRAWER EXISTING	PLT. PL	PLATE PROPERTY LINE		
E.	EAST	PLAM	PLASTIC LAMINATE		
EA. EF.	EACH EXHAUST FAN	PLAS. PLYWD.	PLASTER PLYWOOD		
EJ.	EXPANSION JOINT	PLBG.	PLUMBING		
ELEC. ELEV.	ELECTRICAL ELEVATOR	POC. PP.	POINT OF CONNECTION POWER POLE		
EMER.	EMERGENCY	PRCST	PRE-CAST		
ENCL. EP.	ENCLOSURE ELECTRICAL PANELBOARD	PSI. PT.	POUNDS PER SQUARE INCH POINT		
EQ.	EQUAL	PTD.	PAPER TOWEL DISPENSER		
EQUIP. EW.	EQUIPMENT EACH WAY	PTN. PVMT.	PARTITION PAVEMENT		
EWC.	ELECTRIC WATER COOLER	QT.	QUARRY TILE		
EH. EXIST.	EXHAUST EXISTING	R. RAD.	RISER RADIUS		
EXPO.	EXPOSED	RD.	ROOF DRAIN		
EXP. EXT.	EXPANSION	REF. REFR.	REFERENCE REFRIGERATOR		
FAS.	EXTERIOR FASTNER	REINF.	REINFORCED		
FA. FB.	FIRE ALARM	REQ'D. REV.	REQUIRED REVISION		
FCO.	FACE BRICK FLOOR CLEANOUT	RESIL.	RESILIENT		
FD. FDN.	FLOOR DRAIN	RM. RO.	ROOM ROUGH OPENING		
FE.	FOUNDATION FIRE EXTINGUISHER	RO. RDWD.	REDWOOD		
FEC.	FIRE EXTINGUISHER CABINET	S.	SOUTH SOUD CORE		
FF. FG.	FINISH FLOOR FINISH GRADE	SC. SCHED.	SOLID CORE SCHEDULE		
FH.	FIRE HYDRANT	SD.	SOAP DISPENSER		
FHC. FIN.	FIRE HOUSE CABINET FINISH	SECT. SF.	SECTION SQUARE FOOT		
FL.	FLOW LINE	SH.	SHELF		
FLR. FLOUR.	FLOOR FLOURESCENT	SHR. SHT.	SHOWER SHEET		
FOC.	FACE OF CONCRETE	SIM.	SIMILAR		
FOF. FOM.	FACE OF FINISH FACE OF MASONRY	SMH SND.	SEWER MANHOLE SANITARY NAPKIN DISPENSER		
FOS.	FACE OF STUD	SOV.	SHUT OFF VALVE		
FPRF. FS	FIREPROOFING FINISH SURFACE	SPEC. SPKR.	SPECIFICATIONS SPRINKLER		

STAINLESS STEEL

SQUARE

STATION

SQ.

SS.

STA.

FOOT

FOOTING

FUTURE

FT.

FTG.

FUT.

ACOUSTIC TILE CEILING (ATC) IN SUSPENDED T-BAR CEILING GRID (2'X4') GYPSUM BOARD CEILING (INTERIOR) STUCCO SOFFIT (EXTERIOR) SUSPENDED LIGHT FIXTURE IN ATC LIGHT FIXTURE AIR DIFFUSER (SUPPLY) AIR DIFFUSER (RETURN) FINISHED CEILING HEIGHT, WHERE HEIGHTS N'-N" ARE NOT INDICTAED REFER TO FINISH EXISTING WALL TO REMAIN **NEW WALL** EXISTING WALL TO BE DEMOLISHED HATCH MAY VARY BASED ON RATING -

RATED WALL (NEW OR EXISTING) WINDOW (NEW OR EXISTING) WINDOW TO BE DEMOLISHED DOOR (NEW OR EXISTING)

DOOR TO BE DEMOLISHED DIRECTION OF FLOW

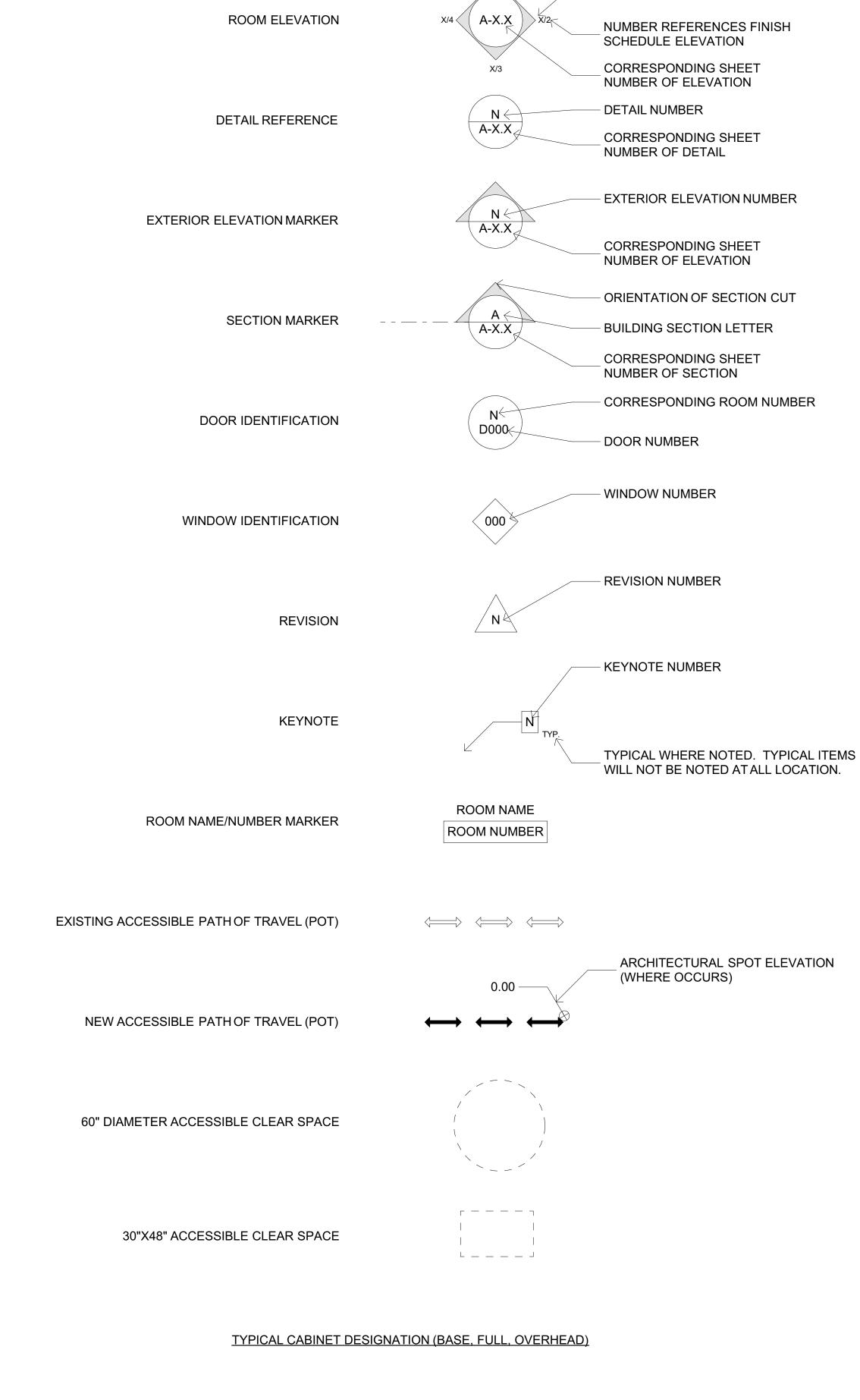
ROOF DRAIN/OVERFLOW DRAIN

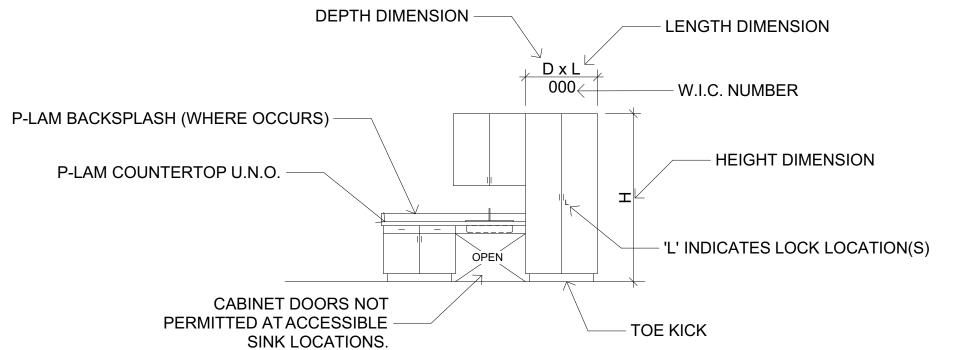
CRICKET

APPROXIMATE LOCATION OF PROTECTIVE **ROOF WALKTOP**









NORTH

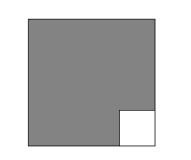
1 OVERALL SITE PLAN

SCALE: 1/32" = 1'-0"

NOTES

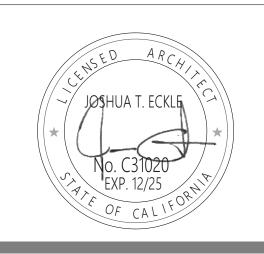
- EXISTING BUILDING TO REMAIN
 EXISTING PROPERTY LINE TO REMAIN.
- 3. EXISTING PARKING TO REMAIN.
- 4. EXISTING ASPHALT TO REMAIN.
- EXISTING CONCRETE TO REMAIN.
- 6. EXISTING LANDSCAPE TO REMAIN. HATCHING INDICATES AREA OF WORK.
- EXISTING CONDENSING UNITS TO BE DEMOLISHED. REFER TO 2/E-3.1 . REPAIR CONCRETE AS NEEDED AFTER DEMOLITION.

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GENERAL NOTES

TRENCHING.

- ALL LANDSCAPE AREAS, PAVING, AND SURFACING DISTURBED BY THE WORK OF THIS CONTRACT SHALL BE REPAIRED AND/OR REPLACED BY THE CONTRACTOR TO ORIGINAL INDUSTRY STANDARD OF QUALITY. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO ELECTRICAL, SIGNAL, PLUMBING, ETC. THE CONTRACTOR SHALL PROTECT AND MAINTAIN EXISTING UTILITIES DURING CONSTRUCTION AND/OR

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PROJE	CT NO: 23-0	029

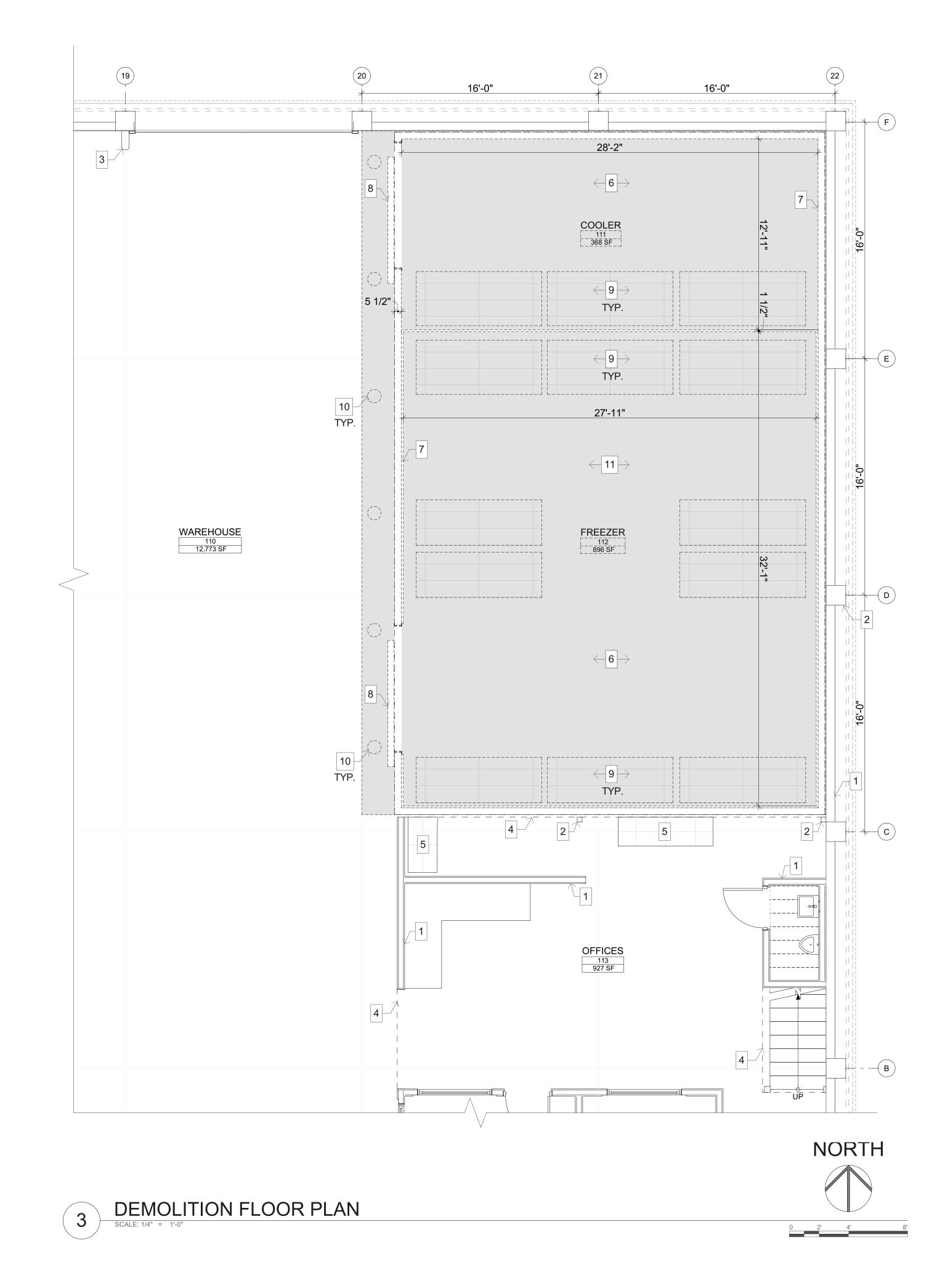
MODEL FILE:

23-029 LMSV WH Cooler and Freezer_Draft_23-09-12 aRCHICAD 26.pln

PLOT DATE: 3/25/2024

SHEET TITLE

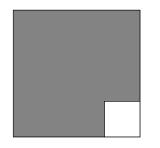
OVERALL SITE PLAN



NOTES

- 1. EXISTING WALL TO REMAIN. REFER TO WALL LEGEND. PROTECT IN
- 2. EXISTING COLUMN TO REMAIN. PROTECT IN PLACE.
- EXISTING ROLL UP GARAGE DOOR TO REMAIN. PROTECT IN PLACE. 4. DASHED LINE INDICATES OVERHEAD SECOND LEVEL FLOORING. 5. EXISTING SHELVING UNITS TO BE REMOVED AND GIVEN TO DISTRICT
- DURING CONSTRUCTION. 6. SHADING REPRESENTS EXISTING CONCRETE SLAB TO BE
- DEMOLISHED AND REPLACED PER NEW WORK PLAN.
- 7. EXISTING COOLER AND FREEZER WALLS TO BE DEMOLISHED. 8. EXISTING SLIDING DOORS AND HARDWARE TO BE DEMOLISHED.
- EXISTING SHELVING UNITS TO BE REMOVED AND TURNED OVER TO THE DISTRICT.
- 10. EXISTING PRE-FAB PIPE BOLLARDS TO BE DEMOLISHED. 11. CONTRACTOR SHALL SAWCUT AND REMOVE ALL EXISTING CONCRETE SLABS AND INSULATION AT THE (E) FREEZER AS NEEDED FOR (N) FREEZER IMPROVEMENTS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE ALL SLAB REMOVAL, AND REPAIR REQUIRED TO COMPLETE THE SCOPE OF THE PROJECT.

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1 1/2" INSULATED FREEZER WALL TO BE DEMOLISHED

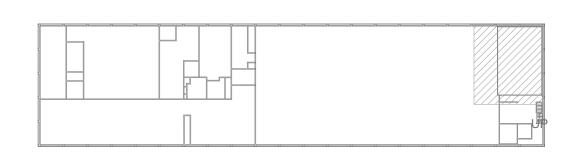
5 1/2" INSULATED COOLER WALL TO BE DEMOLISHED

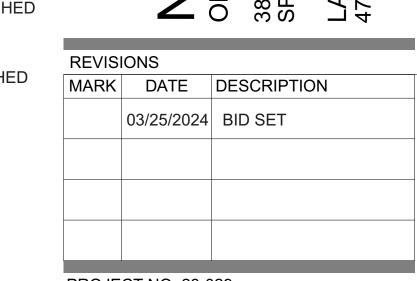
7 1/4" CONCRETE WALL TO REMAIN

NON-BEARING WOOD STUD WALL TO REMAIN

WALL LEGEND

KEY PLAN





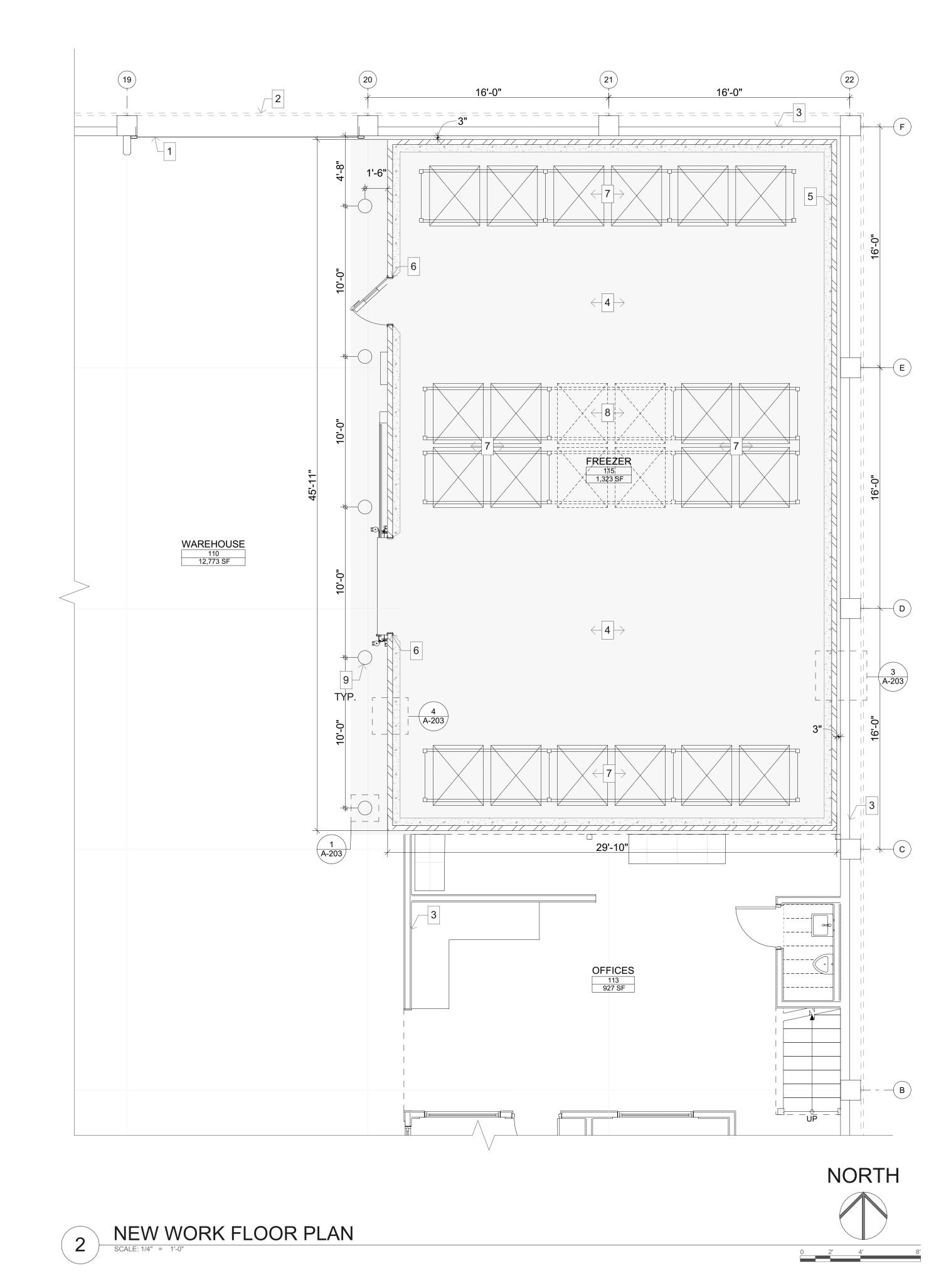
PROJECT NO: 23-029

MODEL FILE: 23-029 LMSV WH Cooler and Freezer_Draft_23-09-12 aRCHICAD 26.pln

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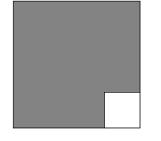
SHEET TITLE

DEMOLITION FLOOR PLAN



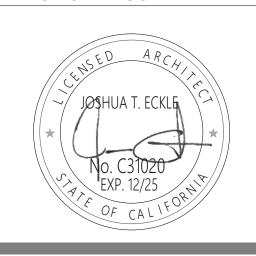
NOTES

- EXISTING ROLL-UP GARAGE DOOR TO REMAIN.
- 2. DASHED LINE INDICATES OVERHEAD ROOF FASCIA TO REMAIN. EXISTING WALL TO REMAIN. REFER TO WALL LEGEND.
- 4. NEW CONCRETE SLAB PER STRUCTURAL PLANS AND DETAILS ON SHEET A-203.
- 5. NEW FREEZER WALLS. REFER TO STRUCTURAL AND FOODSERVICE DETAILS.
- 6. NEW DOOR. REFER TO FOODSERVICE PLANS.
- NEW RACKS. REFER TO FOODSERVICE PLANS.
- 8. DASHED LINE INDICATES NEW ELEVATED RACKS. REFER TO FOODSERVICE PLANS.
- NEW PREFABRICATED PIPE BOLLARDS. REFER TO DETAIL 11/A-203. 10. NEW 6" WIDE CONCRETE CURB. REFER TO FOODSERVICE DRAWINGS AND DETAIL 4/A-203.
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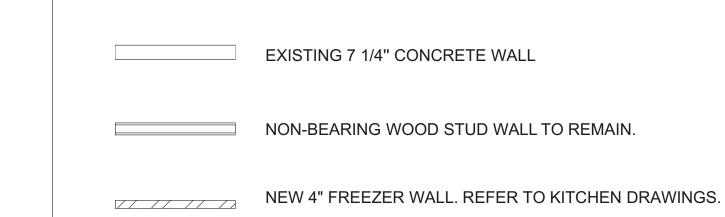
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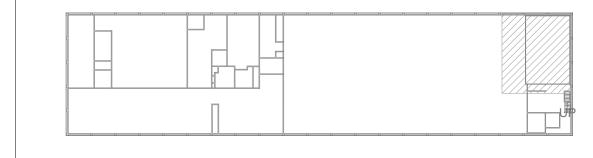
ENGINEER OF RECORD



WALL LEGEND



KEY PLAN





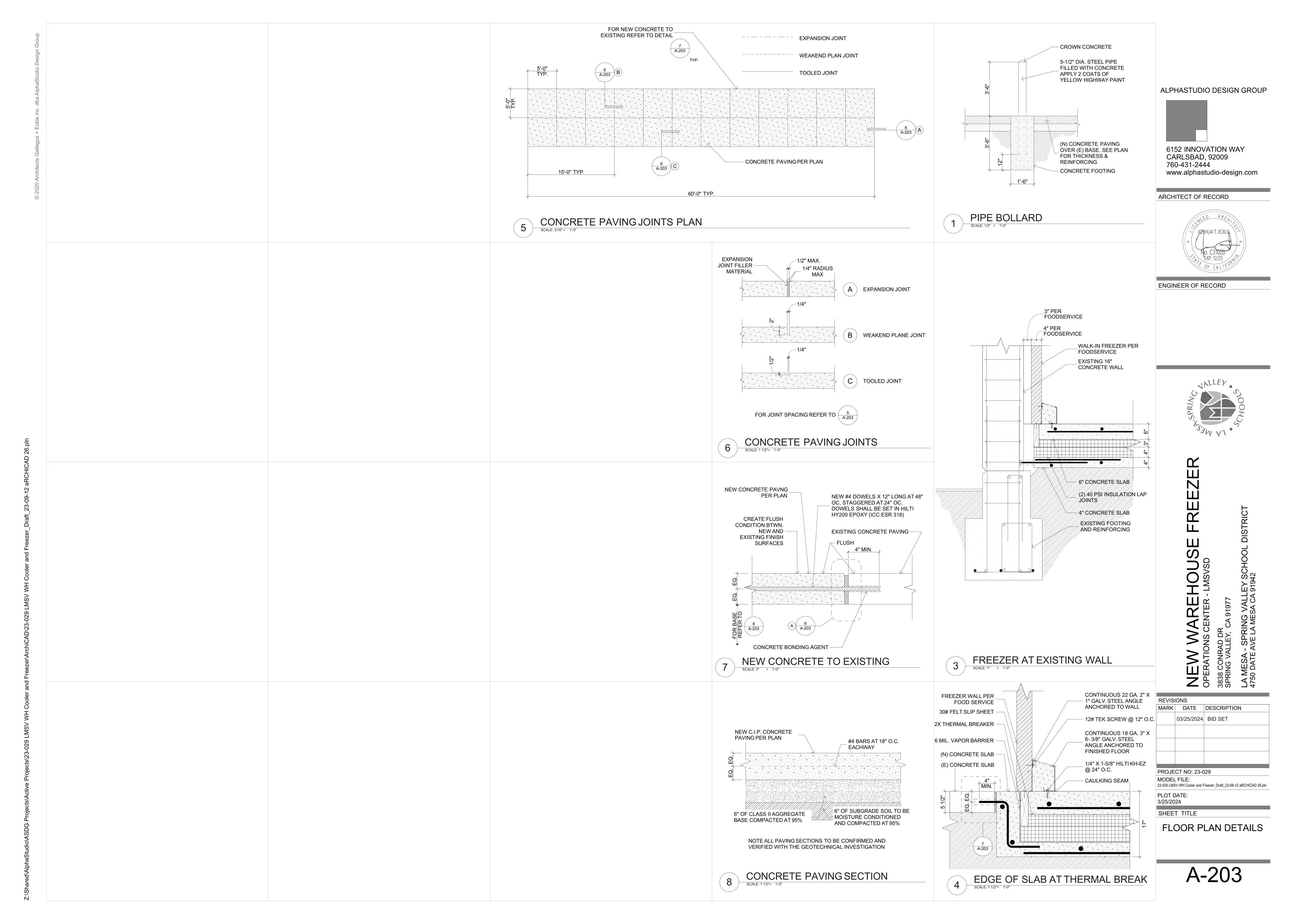
PROJECT NO: 23-029

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PLOT DATE: 3/25/2024

SHEET TITLE

NEW WORK FLOOR PLAN

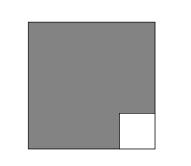


NOTES

DEMOLISHED.

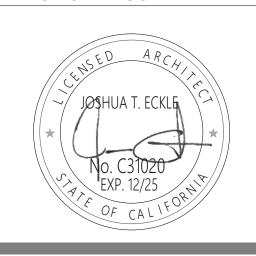
- 1. EXISTING EXPOSED CEILING TO REMAIN.
- EXISTING LIGHTING FIXTURE TO BE DEMOLISHED.
 EXISTING COOLER AND FREEZER CEILING TO BE DEMOLISHED.
 EXISTING SURFACE MOUNTED MECHANICAL EQUIPMENT TO BE

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SE FREEZER

EW WAREHOUSE FRERATIONS CENTER - LMSVSD

S CONRAD DR

ING VALLEY CA 91977

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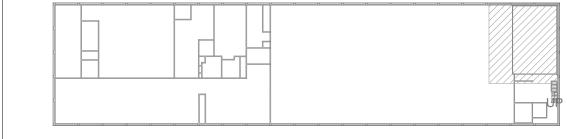
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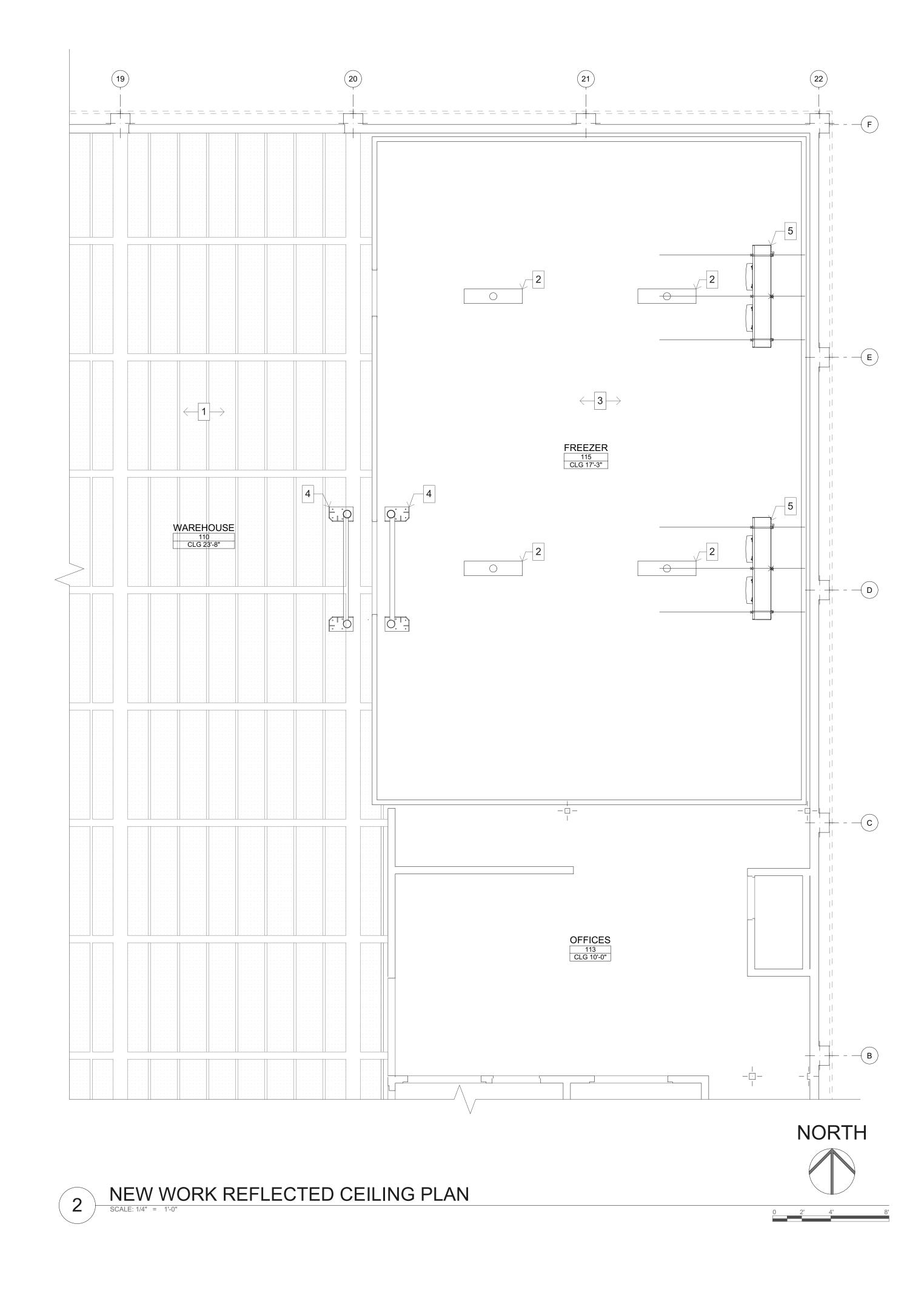
PLOT DATE: 3/25/2024

SHEET TITLE

DEMOLITION REFLECTED CEILING PLAN







NOTES

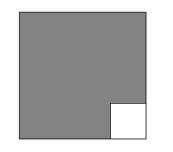
1. EXISTING EXPOSED CEILING.

DRAWINGS.

KEY PLAN

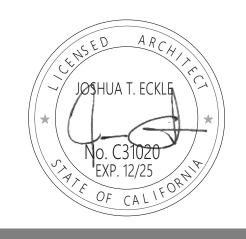
- 2. NEW LIGHTING FIXTURE. REFER TO FOODSERVICE AND ELECTRICAL
- 3. NEW PRE-FABRICATED CEILING PANELS. REFER TO FOODSERVICE
- 4. NEW SLIDING DOOR ASSEMBLY. REFER TO FOODSERVICE AND
- ELECTRICAL DRAWINGS. 5. NEW SURFACE MOUNTED MECHANICAL FREEZER EQUIPMENT. REFER TO FOODSERVICE, MECHANICAL, AND ELECTRICAL

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ARCHITECT OF RECORD



ENGINEER OF RECORD



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DATE	DESCRIPTION
03/25/2024	BID SET
	DATE

MODEL FILE:
23-029 LMSV WH Cooler and Freezer_Draft_23-09-12 aRCHICAD 26.pln

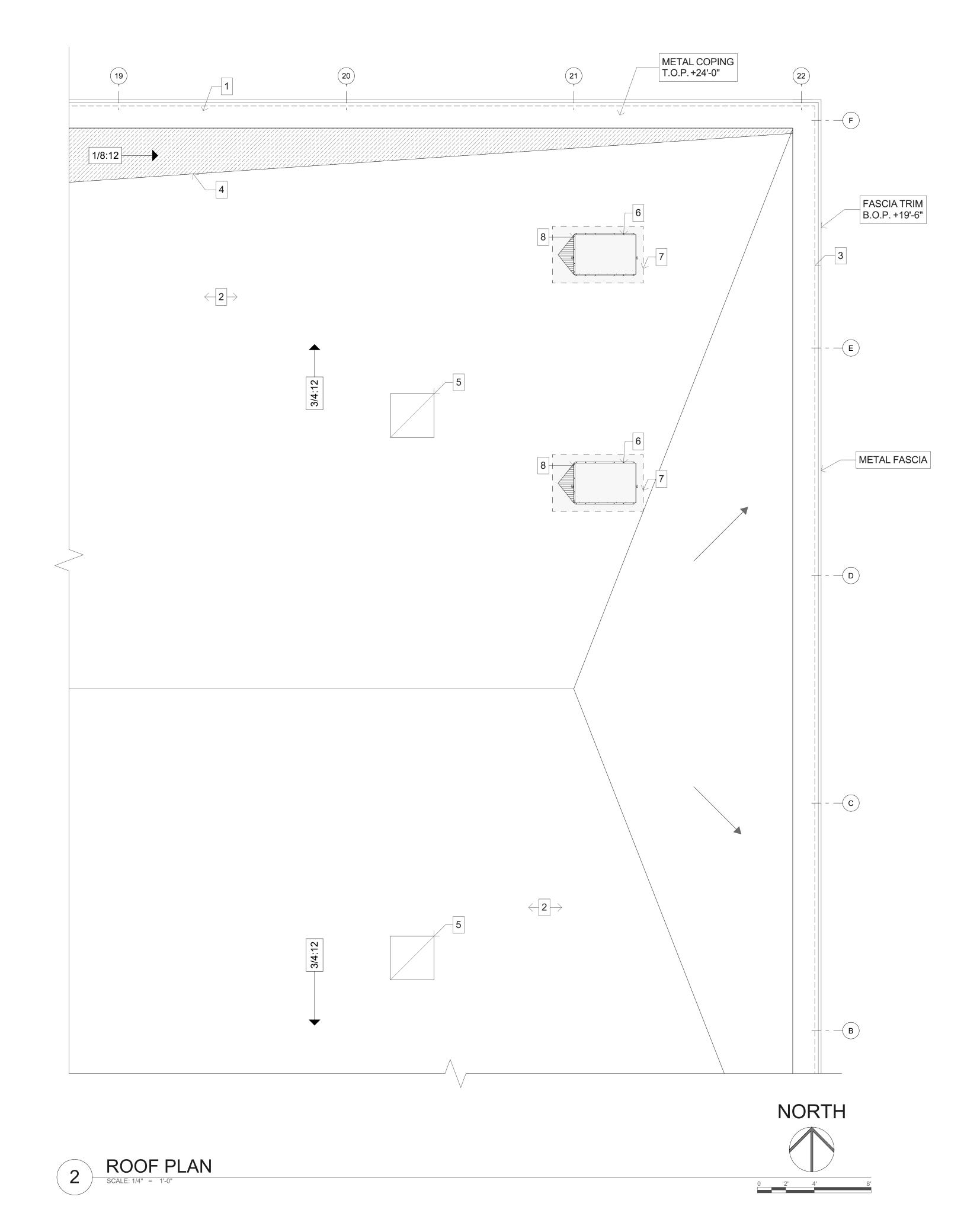
PLOT DATE: 3/25/2024

SHEET TITLE

NEW WORK REFLECTED

A-702

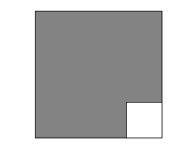
CEILING PLAN



NOTES

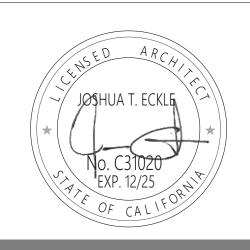
- 1. EXISTING PARAPET WALL. EXISTING MODIFIED BITUMEN BUILT-UP CLASS 'A' ROOFING OVER 1/2".
- DASHED LINE INDICATES BUILDING WALL LINE BELOW. 4. EXISTING RIGID INSULATION ROOF CRICKET.
- EXISTING 30" x 36" ROOF ACCESS HATCH & LADDER.
- NEW FREEZER CONDENSING UNIT PER FOODSERVICE DRAWINGS. APPROXIMATE LOCATION OF ROOF TO BE DEMOLISHED AS NEEDED FOR IMPROVEMENTS. REFER TO STRUCTURAL DRAWING ON S2.1. PATCHAND REPAIR ROOF AS NEEDED FOR PROJECT SCOPE.
- NEW MECHANICAL CURB. REFER TO DETAIL 1/A-802. 9. NEW ROOF CRICKET.

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LEGEND

EXISTING ROOFING

EXISTING DIRECTION OF ROOF SLOPE

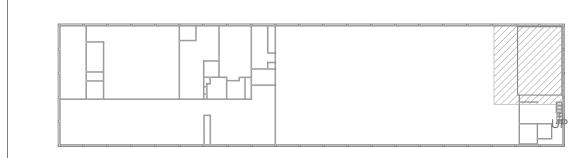
EXISTING ROOF DRAIN AND OVERFLOW DRAIN

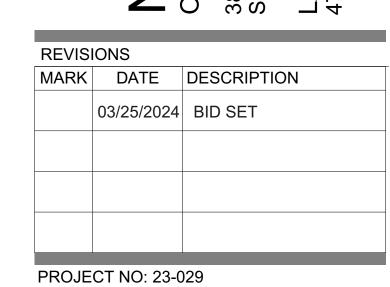
EXISTING CRICKET

NEW ROOF PATCH PER STRUCTURAL DETAIL -

NEW CRICKET

KEY PLAN





PROJECT NO: 23-029

MODEL FILE:
23-029 LMSV WH Cooler and Freezer_Draft_23-09-12 aRCHICAD 26.pln

PLOT DATE: 3/25/2024

SHEET TITLE

ROOF PLAN

SPECIAL INSPECTIONS & TESTING (CBC CHAPTER 17)

- 1. SPECIAL INSPECTIONS AND TESTING SHALL MEET THE REQUIREMENTS OF CBC CHAPTER 17.
- 2. SPECIAL INSPECTORS SHALL A. BE EMPLOYED BY THE OWNER AND ACT AS THE OWNER'S AGENT PER CBC SECTION 1704.2.
- B. BE CERTIFIED BY THE BUILDING DEPARTMENT TO PERFORM THE TYPES OF INSPECTIONS SPECIFIED. C. OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH APPROVED DRAWINGS AND SPECIFICATIONS.
- D. FURNISH INSPECTION REPORTS TO THE ENGINEER AND BUILDING DEPARTMENT. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION; THEN, IF NOT CORRECTED, TO THE ENGINEER AND BUILDING DEPARTMENT PER CBC SECTION 1704.2.4.
- E. SUBMIT TO THE ENGINEER AND BUILDING DEPARTMENT (FIELD INSPECTION DIVISION) A CERTIFICATE OF SATISFACTORY COMPLETION OF WORK REQUIRING SPECIAL INSPECTION, STATING THAT THE WORK WAS IN CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CBC
- 3. SUMMARY OF CONTINUOUS AND PERIODIC INSPECTIONS: CONSTRUCTION INSPECTIONS LISTED ARE IN ADDITION TO THE CALLED INSPECTIONS REQUIRED BY
- CBC SECTION 110. SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY A BUILDING OFFICIAL. SPECIALLY INSPECTED WORK WHICH IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE BUILDING OFFICIAL IS SUBJECT TO REMOVAL OR EXPOSURE
- B. CONTINUOUS INSPECTION IS REQUIRED DURING THE PERFORMANCE OF THE WORK UNLESS OTHERWISE SPECIFIED.
- 4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM THE SPECIAL INSPECTOR OR INSPECTION AGENCY AT LEAST ONE WORKING DAY BEFORE PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION.
- OFF-SITE FABRICATION: A. FABRICATOR SHALL SUBMIT APPLICATION TO THE BUILDING OFFICIAL (FIELD INSPECTION DIVISION)
- FOR APPROVAL PRIOR TO FABRICATION. B. FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE FOR OFF-SITE FABRICATION TO THE BUILDING OFFICIAL (FIELD INSPECTION DIVISION) PRIOR TO ERECTION OF PREFABRICATED COMPONENTS.

R	TABLE 1705.3 EQUIRED VERIFICATION AND INS				RUCTION
	ТҮРЕ	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD	IBC REFERENCE
1.	INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.		Х	ACI 318 CH. 20, 25.2, 25.3, 26.13.3.2	1908.4
2.	REINFORCING BAR WELDING: A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706;		Х	AWS D1.4 ACI 318: 26.5.2	
	B. INSPECT SINGLE-PASS FILLET-WELDS, MAXIMUM 5/16" AND		х		
	C. INSPECT ALL OTHER WELDS.	Х			
3.	INSPECT ANCHORS CAST IN CONCRETE.		Х	ACI 318: 26.13.3.3	
4.	INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBER. A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS. B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS	Х	X	ACI 318: 26.13.3.2 (e) ACI 318: 26.13.3.3	
	NOT DEFINED IN 4.A.				
5.	VERIFYING USE OF REQUIRED DESIGN MIX.		X	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6.	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	Х		ASTM C 172 ASTM C 31 ACI 318: 26.5.3, 26.12	1908.10
7.	INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	Х		ACI 318: 26.5.2	1908.6 1908.7 1908.
8.	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		Х	ACI 318: 26.5.3	1908.9
12.	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.		Х	ACI 318: 26.11.1.1	

 a. WHERE APPLICABLE, SEE ALSO SECTION 1705.12, SPECIAL INSPECTION FOR SEISMIC RESISTANCE. . SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH 26.13 IN ACI 318, OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO COMMENCEMENT OF THE WORK.

REQUIRED VERIFICATION AND INSPECTION OF ADHESIVE (EPOXY)					
OR EXPANSION ANCHOR	S IN CONCRETE AND	MASONRY			
VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTEI			
FIELD INSPECTION OF INSTALLATION OF ANCHORS TO MEET MANUFACTURER REQUIREMENTS.	X				

CONCRETE-EXPANSION ANCHORS

- 1. SPECIAL INSPECTION IS REQUIRED. 2. MATERIALS: (ICC ESR 4266)
- HILTI ANCHORS......ICC ESR 4266.. ...KWIK-BOLT TZ2 3. INSTALLATION:

MIN EMBED NOMINAL EMBED STAINLESS STL. 30 ft-lb 1 1/2" 1 7/8" 30 ft-lb 2 1/2" 40 ft-lb 50 ft-lb 2 3/4" 40 ft-lb 60 ft-lb 3 1/4"

110 ft-lb 125 ft-lb 3 1/4" A. SHALL BE IN ACCORDANCE WITH ICC ESR 4266.

B. USE CARBIDE-TIPPED DRILL BITS CONFORMING TO ANSI B212.15. DRILL BIT SIZE IS EQUAL TO ANCHOR DIAMETER. C. CLEAN HOLES OF DUST AND DEBRIS USING OIL-FREE COMPRESSED AIR AND A STEEL WIRE BRUSH.

HOLE DEPTH TO EXCEED EMBEDMENT DEPTH BY TWO ANCHOR DIAMETERS. 4. DO NOT INSTALL ANCHORS IN CONCRETE THAT IS LESS THAN 7 DAYS OLD. CONCRETE SHALL ATTAIN THE MINIMUM DESIGN STRENGTH PRIOR TO INSTALLATION.

5. PROVIDE STAINLESS STEEL ANCHORS OR MECHANICALLY GALVANIZED ANCHORS (PER ASTM B-695) WHERE ANCHORS ARE USED IN EXTERIOR CONDITIONS. TESTS AND INSPECTIONS SHALL MEET THE REQUIREMENTS OF CBC 1910A.5.

ANCHORS SHALL BE USED ONLY WHERE SPECIFICALLY INDICATED ON PLANS AND DETAILS.

CONCRETE-EPOXY ANCHORED REINFORCEMENT & THREADED RODS

- SPECIAL INSPECTION IS REQUIRED. 2. MATERIALS: (ICC ESR 2508)
- EPOXY ADHESIVE......SIMPSON..... 3. INSTALLATION OF REINFORCEMENT AND THREADED RODS:
- A. SHALL BE IN ACCORDANCE WITH ICC ESR 2508. B. USE CARBIDE-TIPPED DRILL BITS CONFORMING TO ANSI B212.15.
- C. CLEAN HOLES OF DUST AND DEBRIS USING SIMPSON STRONG-TIE HOLE CLEANING BRUSH AND COMPRESSED AIR WITH NOZZLE CAPABLE OF REACHING BOTTOM OF DRILLED HOLE.
- 4. DO NOT INSTALL REINFORCEMENT OR ANCHORS IN CONCRETE THAT IS LESS THAN 21 DAYS OLD. 5. ANCHORS SHALL BE USED ONLY WHERE SPECIFICALLY INDICATED ON PLANS AND DETAILS.

CONCRETE-SCREW ANCHORS

- SPECIAL INSPECTION IS REQUIRED. 2. MATERIALS: (ICC ESR 3027)
- SCREW ANCHORS.....
-HILTI.... ...KWIK HUS-EZ 3. INSTALLATION:

MAX. INSTALLATION TORQUE ANCHOR DIA. (FT LB) THROUGH STEI

- A. SHALL BE IN ACCORDANCE WITH ICC ESR 3027. B. USE CARBIDE-TIPPED DRILL BITS CONFORMING TO ANSI B212.15. DRILL BIT SIZE IS EQUAL TO ANCHOR DIAMETER.
- C. CLEAN HOLES OF DUST AND DEBRIS USING OIL-FREE COMPRESSED AIR AND A STEEL WIRE BRUSH. D. MINIMUM CONCRETE EDGE DISTANCE SHALL BE 1 3/4".
- THE CONCRETE MUST HAVE ATTAINED ITS MINIMUM DESIGN STRENGTH PRIOR TO INSTALLATION.
- 5. USE OF ANCHORS IS LIMITED TO DRY, INTERIOR CONDITIONS. 6. ANCHORS SHALL BE USED ONLY WHERE SPECIFICALLY INDICATED ON PLANS AND DETAILS.

ABBREVIATIONS

FND. FOUNDATION FIN. FINISH(ED)

F.F. FINISH FLOOR

A.B.	ANCHOR BOLT ABOVE ADDITIONAL ADJACENT ALTERNATE ARCHITECT . ARCHITECTURAL BELOW BRACED FRAME BUILDING BLOCK BLOCKING BEAM BOUNDARY NAILING	FLG.	FLANGE FLOOR FIELD(FACE)NAIL FACE OF CONCRETE FACE OF MASONRY FACE OF STUD FACE OF WALL FRAME FRAMING FAR SIDE FOOT(FEET)	P/C	PRECAST CONCRETE
ABV.	ABOVE	FLR.	FLOOR	PERP.	PERPENDICULAR
ADD'L.	ADDITIONAL	F.N.	FIELD(FACE)NAIL		PLATE
ADJ.	ADJACENT	F.O.C.	FACE OF CONCRETE		PARALAM BEAM
ALT.	ALTERNATE	F.O.M.	FACE OF MASONRY	PLY.	PLYWOOD
ARCH.	ARCHITECT	F.O.S.	FACE OF STUD	P.S.F.	POUNDS PER SQUARE FOOT
ARCH'L	. ARCHITECTURAL	F.O.W.	FACE OF WALL	P.S.I.	POUNDS PER SQUARE INCH
BLW.	BELOW	FRM.	FRAME		PRESSURE TREATED
B.F.	BRACED FRAME	FRMG.	FRAMING	P.T.D.F.	PRESSURE TREATED DOUGLAS FIR
BLDG.	BUILDING	F.S.	FAR SIDE	P/T	POSTTENSIONED
BLK.	BLOCK	FT.(')	FOOT(FEET)	P/S	PRE-STRESSED
BLKG.	BLOCKING	FTDF	FIRE-RETARDANT TREATED		QUANTITY
BM.	BEAM		DOUGLAS FIR	RAD. (R)	RADIUS
B.N.	BOUNDARY NAILING BOTTOM OF FOOTING BRACE BRIDGE(ING) BEARING BOTTOM BETWEEN CAMBER(ED) CANTILEVERED CUBIC FEET(FOOT) CENTER OF GRAVITY CAST IN PLACE CONSTRUCTION JOINT CENTER LINE CEILING CLEAR CONC. MASONRY UNIT COLUMN CONCRETE CONNECTION	FTG.	FIRE-RETARDANT TREATED DOUGLAS FIR FOOTING GAUGE GALVANIZED GRADE BEAM GLUED LAMINATED BEAM GRADE GYPSUM WALLBOARD HOLD DOWN HEADER HANGER HORIZONTAL HIGH STRENGTH BOLT HOLLOW STRUCTURAL SECTION		REFERENCE
B.O.F.	BOTTOM OF FOOTING	GA.	GAUGE	REINF.	REINFORCEMENT(ING)
BR.	BRACE	GALV.	GALVANIZED	REQ'D.	REQUIRED
BRDG.	BRIDGE(ING)	GB.	GRADE BEAM	M.F.	MOMENT FRAME
BRG.	BEARING	GLB.	GLUED LAMINATED BEAM		ROUGH OPENING
(B)	BOTTOM	GRD.	GRADE	RO.S.	ROUGH SAWN
BTWN.	BETWEEN	GYPBD.	GYPSUM WALLBOARD	R.S.	RE-SAWN
С	CAMBER(ED)	HD	HOLD DOWN	SCH.	SCHEDULE
CANT.	CANTILEVERED	HDR.	HEADER	SHR	SHEAR
C.F.	CUBIC FEET(FOOT)	HGR.	HANGER	SHT.	SHEET
C.G.	CENTER OF GRAVITY	HORIZ.	HORIZONTAL	SIM.	SIMILAR
C.I.P.	CAST IN PLACE	(H)	HORIZONTAL	SKW.	SKEW(ED)
C.J.	CONSTRUCTION JOINT	HSB	HIGH STRENGTH BOLT	SPEC.	SPECIFICATION(S)
CL.	CENTER LINE	HSS	HOLLOW STRUCTURAL SECTION		SQUARE
CLG.	CEILING	HT.	HEIGHT	SS	SELECT STRUCTURAL
CLR.	CLEAR	I.D.	INSIDE DIAMETER	STD.	STANDARD
CMU.	CONC. MASONRY UNIT	I.E.	INVERT ELEVATION	STG.	STRONG
COL.	COLUMN	I.F.	INSIDE FACE		STAGGER(ED)
CONC.	CONCRETE	IN.(")	INCH(S)	STIFF.	STIFFENER(S)
CONN.	CONNECTION	INT.	INTERIOR		STIRRUP(S)
CONST	CONNECTION R. CONSTRUCTION CONTINUOUS COUNTERSINK CENTER(ED) CUBIC YARD PENNY(NAILS) DOUBLE DOUGLAS FIR DIAMETER DIAGONAL DIAPHRAGM DIMENSION DOWN DEEP(DEPTH) DRAWING(S)	JST.	INCLEAN STRUCTURAL SECTION HEIGHT INSIDE DIAMETER INVERT ELEVATION INSIDE FACE INCH(S) INTERIOR JOIST JOINT KIPS(1000) LATERAL POUNDS LEDGER LINEAL FEFT/FOOT)	STL.	STEEL
CONT.	CONTINUOUS	JT.	JOINT	STRUC.	STRUCTURAL
CTSK.	COUNTERSINK	K	KIPS(1000)		SUSPENDED
CTR.	CENTER(ED)	LAT.	LATERAL	SYMM.	SYMMETRICAL
C.Y.	CUBIC YÀRD	LB(#)	POUNDS	(A)	TOP
d	PENNY(NAILS)	LDGR.	LEDGER		TOP AND BOTTOM
DBL.	DOUBLE	L.F.	LEDGER LINEAL FEET(FOOT) LONGITUDINAL LENGTH LONG LEG HORIZ. LONG LEG VERT. LIGHT WEIGHT LAG SCREW MASONRY MATERIAI	TEMP.	TEMPERATURE
D.F.	DOUGLAS FIR	LONG.	LONGITUDINAL		TONGUE AND GROOVE
DIA.(Φ)	DIAMETER	LGTH.	LENGTH	THK.	THICK(NESS)
DIAG.	DIAGONAL	LLH	LONG LEG HORIZ.	THRD.	THREADED
DIAPH.	DIAPHRAGM	LLV	LONG LEG VERT.	TEMP.	TEMPORARY
DIM.	DIMENSION	LT. WT.	LIGHT WEIGHT	T.N.	TOE NAIL
DN.	DOWN	L.S.	LAG SCREW	T.O.C.	TOP OF CONCRETE
DP (D)	DEEP(DEPTH)	MAS.	MASONRY	T.O.F.	TOP OF FOOTING
DWG.	DRAWING(S)	MAT'L.	MATERIAL	T.O.P.	TOP OF PARAPET
DWL.	DOWEL(S)	MAX.	MAXIMUM	T.O.S.	TOP OF SHEATHING
E.F.	EACH FACE	M.B.	MACHINE BOLT	T.S.	TOP OF STEEL
E.J.	EXPANSION JOINT	MECH.	MECHANICAL	T.O.W.	TOP OF WALL
EL.	ELEVATION	MEZZ.	MEZZANINE	TRANS.	TRANSVERSE
ELEC.	ELECTRICAL	MFR.	MANUFACTURER	TYP.	TYPICAL
ELEV.	ELEVATOR	MISC.	MISCELLANEOUS	U.O.N.	UNLESS OTHERWISE NOTED
EMBED	. EMBEDMENT	MTL.	METAL	VERT.(V))VERTICAL
E.N.	EDGE NAIL	(N)	NEW	VIF	VERIFY IN FIELD
ENG.	ENGINEER	NO.(#)	NUMBER	(V)	WIDE(WIDTH)
E.O.D.	EDGE OF DECK	N.S.	NEAR SIDE	W/	WITH
E.O.S.	EDGE OF SLAB	N.T.S.	NOT TO SCALE	WD.	WOOD
EQ.	EQUAL	N. WT.	NORMAL WEIGHT	W.F.	WIDE FLANGE
EQPT.	EQUIPMENT	O.C.	ON CENTER	W.P.	WORK POINT
EXP.	EXPANSION	O.D.	OUTSIDE DIAMETER	WPJ	WEAKENED PLANE JOINT
EXIST	EXISTING	O.F.	OUTSIDE FACE	W.S.	WOOD SCREW(S)
(E)	EXISTING	O.H.	OPPOSITE HAND	WT.	WEIGHT
ÈXT.	EXTERIOR	OPNG.	OPENING	WWF	WELDED WIRE FABRIC
FAB.	FABRICATION		ORIENTATE(ION)	X-STG	EXTRA STRONG
END	EOLINDATION.	\cap W I	OPEN WER JOISTS	V// OTO	DOLIBLE EXTRA STRONG

O.W.J. OPEN WEB JOISTS

PAR. (//) PARALLEL

O.W..J. OPEN WEB STEEL JOISTS

XX-STG DOUBLE EXTRA STRONG

REINFORCED CONCRETE (CBC CHAPTER 19A)

- 1. CEMENT SHALL CONFORM TO ASTM C150, TYPE II.
- 2. AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33 AND SECTION 1903A.5, TITLE 24, PART 2, CCR.
- READY-MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C94.
- 4. CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", EXCEPT AS MODIFIED BY THESE NOTES.
- CONCRETE SHALL BE STANDARD WEIGHT CONCRETE (145 PCF) AND HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS FOLLOWS:
- SLAB ON GRADE. 6. CONCRETE SHALL BE PROPORTIONED SUCH THAT THE 7 DAY STRENGTHS ARE A MINIMUM OF SEVENTY
- PERCENT OF THE SPECIFIED 28 DAY STRENGTH FOR ANY CONCRETE CONSTRUCTION REQUIRING SHORING, BRACING OR TO RECEIVE CONSTRUCTION LOADS. ALSO, SLABS ON GRADE SHALL HAVE A
- COMPRESSION STRENGTH OF 1800 PSI MINIMUM AT 3 DAYS IF SUBJECT TO CONSTRUCTION TRAFFIC $^\prime$. ADMIXTURES MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER AND DSA. ADMIXTURES SHALL COMPLY WITH ASTM C494 & C1017 AND BE OF A TYPE THAT INCREASES THE WORKABILITY OF THE CONCRETE, BUT SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT
- (CALCIUM CHLORIDE SHALL NOT BE USED). 8. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS AND INSERTS SHALL BE WELL SECURED IN POSITION WITH WIRE POSITIONERS PRIOR TO FOUNDATION INSPECTION AND BEFORE PLACING
- 9. NO CONDUIT PLACED IN A CONCRETE SLAB SHALL HAVE AN OUTSIDE DIAMETER GREATER THAN 1/3 THE THICKNESS OF THE SLAB. NO CONDUIT SHALL BE EMBEDDED IN A SLAB THAT IS LESS THAN 3 1/2" THICK.
- EXCEPT FOR LOCAL OFFSETS, MINIMUM CLEAR DISTANCE BETWEEN CONDUITS SHALL BE THREE DIAMETERS ON CENTER. 10. PROJECTING CORNERS OF SLABS, BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH A 3/4"
- CHAMFER. 11. REFER TO DRAWINGS OF OTHER DISCIPLINES FOR MOLDS, GROOVES, CLIPS, ORNAMENTS, OR GROUNDS REQUIRED TO BE CAST INTO CONCRETE
- 12. LOCATION OF ALL CONSTRUCTION, CONTROL AND WEAKENED PLANE JOINTS NOT SPECIFICALLY INDICATED ON THE DRAWINGS SHALL BE APPROVED BY THE ENGINEER PRIOR TO REINFORCEMENT PLACEMENT.
- 13. ALL CONSTRUCTION JOINTS IN WALLS OR OTHER ELEMENTS NOT HAVING PREFORMED KEYS, SHALL BE WIRE BRUSHED, AND ROUGHENED TO A MINIMUM AMPLITUDE OF 1/4 INCH, CLEANED AND MOISTENED IMMEDIATELY PRIOR TO PLACEMENT OF NEW CONCRETE.
- 14. CONTRACTOR SHALL SUBMIT MIX DESIGNS FOR REVIEW BEFORE FABRICATION AND INSTALLATION. MIX DESIGNS SHALL BE DESIGNED AND SIGNED BY A CALIFORNIA REGISTERED PROFESSIONAL ENGINEER.

WOOD (CBC CHAPTER 23)

- 1. ALL WOOD MEMBERS SHALL BE DOUGLAS FIR (DF) OR LARCH GRADE MARKED BY A RECOGNIZED GRADING AGENCY (WCLIB & WWPA)
- WOOD GRADES:
- A. FOR HORIZONTAL MEMBERS: ...GRADE #1 (FOR PANELIZED CONSTRUCTION) 2 X 4 SUB-PURLINS: . 3 X & LARGER BEAMS & HEADERS:GRADE #1

...GRADE #2

- B. FOR VERTICAL MEMBERS:
- 2 X & 3 X STUDS: ..GRADE #2 4 X & LARGER STUDS OR POSTSGRADE #1
- 3. APA RATED SHEATHING CONFORMING TO APA STANDARD PS-1 SHALL BE USED FOR FLOOR, ROOF, AND WALL SHEATHING IN ACCORDANCE WITH CBC SECTION 2303.1.5, TITLE 24, PART 2, CCR. PLYWOOD AND OSB SHALL COMPLY WITH DSA IR 23-6.
- 4. NOTCHING AND BORING OF STUDS AND JOISTS SHALL BE PERMITTED ONLY AS DETAILED OR APPROVED BY THE ENGINEER.
- 5. AS A MINIMUM, ALL NAILING SHALL BE WITH COMMON NAILS, EXCEPT AS NOTED IN CBC TABLE 2304.10.2. 10d COMMON NAILS SHALL BE USED FOR ATTACHMENT OF PLYWOOD SHEATHING WITH MINIMUM 1 1/2"
- PENETRATION INTO FRAMING MEMBER. 7. ALL SILLS OR PLATES RESTING ON CONCRETE OR MASONRY, WHICH IS IN CONTACT WITH EARTH OR RESTING ON FOUNDATIONS, SHALL BE PRESSURE TREATED DOUGLAS FIR. NEWLY EXPOSED SURFACES
- RESULTING FROM FIELD CUTTING, BORING OR HANDLING SHALL BE FIELD TREATED IN ACCORDANCE WITH AWPA M-4. 8. BOLTS: ALL BOLT HOLES IN WOOD SHALL BE DRILLED 1/32" DIAMETER LARGER THAN NOMINAL BOLT DIAMETERS. BOLTS IN WOOD SHALL NOT BE LESS THAN 7 DIAMETERS FROM THE END AND 4 DIAMETERS
- FROM THE EDGE OF THE MEMBER. THREAD PROJECTION SHALL BE 1/16 INCH MINIMUM. ALL NUTS SHALL BE TIGHTENED WHEN INSTALLED AND RE-TIGHTENED AT THE COMPLETION OF WORK OR BEFORE CLOSING IN. 9. MACHINE BOLT ANCHOR BOLTS SHALL BE PROVIDED WITH FULL BODY DIAMETER AS FOLLOWS:

```
NOMINAL SIZE
                      BODY OR SHANK DIAMETER
  (INCHES)
                                (INCHES)
         0.500
         0.625
                            0.642
                                       0.605
                           0.768
         0.750
                                       0.729
         0.875
                            0.895
                                       0.852
                            1.022
                                       0.976
```

- 1.000 A. ADOPTED FROM ANSI B18.2.1.
- B. FOR BOLT DIAMETERS NOT INDICATED, REFER TO ASME B18.2.1 AND B18.2.6.
- C. THE BODY AND SHANK OF A BOLT IS THE SMOOTH PORTION BETWEEN THE HEAD AND THE THREADS. 10. LAG SCREWS: SHALL BE FULL BODY DIAMETER ACCORDING TO ANSI B18.2.1 PRE-DRILL LEAD WITH A BIT SIZE OF 40% TO 70% OF THE SHANK DIAMETER FOR THE THREADED PORTION. CLEARANCE HOLE TO BE THE SAME LENGTH AND DIAMETER AS THE UN-THREADED SHANK. LUBRICATE LAGS AND SCREW INTO
- 11. WOOD SCREWS SHALL BE CUT THREAD ACCORDING TO ANSI B18.6.1
- 12. WASHERS: ALL BOLT HEADS, LAG SCREWS AND NUTS BEARING ON WOOD SHALL HAVE STANDARD CUT WASHERS. SEE SHEARWALL SCHEDULE FOR ADDITIONAL SILL PLATE WASHER REQUIREMENTS. 13. ALL FRAMING ANCHORS, POST CAPS, BASES, HANGERS, STRAPS, ETC., SHALL BE AS MANUFACTURED
- BY "SIMPSON STRONG-TIE COMPANY" LATEST CATALOG OR ENGINEER APPROVED EQUAL. SUBMIT LOAD COMPARISONS WITH CATALOG AND ICC REPORTS TO THE ENGINEER FOR APPROVAL.
- 14. MOISTURE CONTENT OF WOOD AT TIME OF PLACING SHALL NOT EXCEED 19%. 15. OVER DRIVING OF NAILS THROUGH SHEARWALL, ROOF, OR FLOOR SHEATHING IS NOT ALLOWED. NAILS
- SHALL BE DRIVEN SO THAT THE HEADS ARE FLUSH WITH THE SURFACE OF SHEATHING 16. FASTENERS, NAILS AND CONNECTORS IN CONTACT WITH PRESERVATIVE TREATED WOOD AND
- EXTERIOR WALL COVERINGS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-653 HOT DIPPED ZINC COATED GALVANIZED OR SHALL BE STAINLESS STEEL.
- 17. WHEN HARDWARE THAT REQUIRES 10d x 1 1/2" NAILS ARE INSTALLED OVER SHEATHING. THE LENGTH OF THE NAILS USED SHALL BE INCREASED BY THE THICKNESS OF THE SHEATHING.

STRUCTURAL STEEL (CBC CHAPTER 22)

- ALL WORKMANSHIP AND MATERIALS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS SHALL CONFORM TO THE 15th EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION.
- MATERIALS: . ASTM A36 GRADE 36
- BOLT HOLES: A. ALL CONNECTIONS MAY BE SNUG-TIGHTENED UNLESS OTHERWISE NOTED.
- 4. ALL WELDING SHALL BE DONE BY THE FLUX-CORE PROCESS USING APPROVED ELECTRODES PER AWS SPECIFICATION E70XX (LOW HYDROGEN ELECTRODES). WELDING SHALL CONFORM TO THE LATEST EDITION OF AWS D1.1 AND AWS D1.4 AND SHALL BE PERFORMED BY CERTIFIED WELDERS QUALIFIED UNDER THE PROCEDURES CONTAINED THEREIN.
- 5. WHERE WELD LENGTH IS NOT SHOWN, IT SHALL BE THE FULL LENGTH OF THE JOINT. WHERE MINIMUM AISC FILLET WELD THICKNESS REQUIREMENT EXCEEDS WELDS SHOWN ON DETAILS.
- PROVIDE MINIMUM AISC WELD. WELDS IDENTIFIED AS REQUIRING CONTINUOUS OR PERIODIC SPECIAL INSPECTION NEED NOT HAVE SPECIAL INSPECTION WHEN THE WELDING IS DONE IN AN APPROVED FABRICATOR'S SHOP. HOWEVER. THE APPROVED FABRICATOR MUST SUBMIT A CERTIFICATE OF COMPLIANCE IN ACCORDANCE WITH CBC SECTION 1704.2.5.1.
- 8. STRESSES OCCURRING DURING FABRICATION, SHIPMENT, AND ERECTION SHALL BE TEMPORARY AND NOT EXCESSIVE. STRESSES AT ALL TIMES SHALL BE LESS THAN DESIGN AND ALLOWABLE STRESSES. THE FULL DESIGN AND LOAD CARRYING CAPACITY OF THE STEEL WORK SHALL NOT BE IMPAIRED DUE TO FABRICATION, SHIPMENT, OR ERECTION PROCEDURES. THROUGHOUT THE COMPLETE PROCESS, THE STABILITY OF INDIVIDUAL MEMBERS AND ASSEMBLIES SHALL BE MAINTAINED.
- 9. ALL ADDITIONAL STEEL REQUIRED FOR ERECTION PURPOSES SHALL BE PROVIDED AT NO ADDITIONAL
- COST AND SHALL BE REMOVED UNLESS APPROVED BY THE OWNER IN WRITING. CERTIFICATIONS FROM THE STEEL FABRICATOR SHALL BE PROVIDED TO THE CITY BUILDING DIVISION FOR ALL STEEL DELIVERED TO THE JOB SITE PRIOR TO REQUESTING INSPECTIONS FOR STEEL FRAME,
- FLOOR SHEATHING, OR ROOF SHEATHING INSPECTION, WHICHEVER OCCURS FIRST. 11. STRUCTURAL STEEL SHOP DRAWINGS SHALL BE SUBMITTED TO AND REVIEWED BY THE ENGINEER BEFORE FABRICATION.

GENERAL NOTES

- 1. NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS TAKE PRECEDENCE OVER THESE STANDARD STRUCTURAL NOTES. TYPICAL DETAILS SHALL BE USED WHENEVER APPLICABLE. REFER TO SPECIFICATIONS FOR INFORMATION NOT COVERED BY THESE NOTES OR DRAWINGS. THESE NOTES
- TAKE PRECEDENCE OVER ANY OTHER BOOK SPECIFICATIONS. 2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK, AND THE ENGINEER/ ARCHITECT SHALL BE IMMEDIATELY NOTIFIED, IN WRITING, OF ANY DISCREPANCIES. IN NO CASE SHALL DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS
- ON THE STRUCTURAL DRAWINGS. 3. ALL OMISSIONS AND CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE DRAWINGS AND/OR
- SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF, AND RESOLVED WITH, THE ENGINEER
- BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
- 4. WHERE A CONSTRUCTION DETAIL IS NOT SHOWN OR NOTED, THE DETAIL SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
- 5. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES IN THE AREA TO BE EXCAVATED, BEFORE BEGINNING EXCAVATION. NO PIPES, DUCTS, SLEEVES, CHASES, ETC. SHALL BE PLACED IN SLABS, BEAMS, OR WALLS, NOR SHALL
- ANY STRUCTURAL MEMBER BE CUT FOR PIPES, DUCTS, ETC. THE CONTRACTOR SHALL OBTAIN PRIOR
- APPROVAL FOR INSTALLATION OF ANY ADDITIONAL PIPES, DUCTS, ETC. 7. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE 2022 CALIFORNIA
- BUILDING CODE (CBC). 8. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE ENGINEER FREE AND HARMLESS FROM ALL CLAIMS, DEMANDS, AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH
- THE PERFORMANCE OF WORK ON THIS PROJECT. 9. SITE VISITS PERFORMED BY THE ARCHITECT/ENGINEER DO NOT INCLUDE INSPECTIONS OF MEANS AND METHODS OF CONSTRUCTION PERFORMED BY THE CONTRACTOR. ALSO, SITE VISITS DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSIDERED AS SUPERVISION OF CONSTRUCTION.
- 10. RETAIN A CALIFORNIA REGISTERED CIVIL ENGINEER TO DESIGN ALL TEMPORARY BRACING, SHORING, AND SUPPORT REQUIRED DURING CONSTRUCTION, INCLUDING CONSTRUCTION LOADS AND EQUIPMENT. 11. INCLUDE ENGINEERING FEES, ENGINEERING DESIGN TIME, AND BUILDING DEPARTMENT APPROVAL TIME IN THE COST OF PROPOSED MATERIAL ALTERNATES. CONTACT ENGINEER FOR FEE AMOUNT. SUBMIT

MATERIAL ALTERNATE FOR REVIEW BEFORE CONSTRUCTION.

- 12. STRUCTURAL CAD DRAWINGS SHALL NOT BE USED FOR SHOP DRAWINGS UNLESS AN AGREEMENT BETWEEN THE STRUCTURAL ENGINEER AND CONTRACTOR HAS BEEN ESTABLISHED ACCORDING TO CASE DOCUMENT . CONTACT ENGINEER FOR FEE AMOUNT
- 13. SHOP DRAWINGS: THE CONTRACTOR SHALL REVIEW SHOP DRAWINGS FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS. CONTRACTOR SHALL STAMP SHOP DRAWINGS PRIOR TO SUBMISSION TO ARCHITECT/ENGINEER. THE ARCHITECT'S/ENGINEER'S REVIEW OF THE SHOP DRAWINGS SHALL NOT BE CONSTRUED AS AN AUTHORIZATION TO DEVIATE FROM THE CONTRACT DOCUMENTS. ALSO, SHOP DRAWINGS WILL NOT BE PROCESSED DUE TO INCOMPLETENESS, LACK OF COORDINATION WITH RELEVANT PORTIONS OF CONTRACT DOCUMENTS, LACK OF CALCULATIONS WHEN REQUIRED, OR WHERE DEVIATIONS, MODIFICATIONS, OR SUBSTITUTIONS ARE INDICATED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT/ENGINEER.
- 14. ANY REFERENCE TO THE WORDS "APPROVED" OR "APPROVAL" IN THESE DOCUMENTS SHALL BE HERE DEFINED TO MEAN GENERAL ACCEPTANCE OR REVIEW AND SHALL NOT RELIEVE THE CONTRACTOR AND/OR SUB-CONTRACTORS OF ANY LIABILITY IN FURNISHING THE REQUIRED MATERIALS OR LABOR
- 15. CONNECTION OF ALL ITEMS SUPPORTED BY THE STRUCTURE ARE THE RESPONSIBILITY OF THE DISCIPLINES WHO ARE MAKING THESE ATTACHMENTS. THESE ATTACHMENTS SHALL BE DESIGNED TO RESIST ALL GRAVITY, WIND, SEISMIC, THERMAL LOADS, ETC. SPRINKLER PIPING SHALL BE SUPPORTED AND BRACED PER APPLICABLE STANDARDS. SUSPENDED CEILING SYSTEMS OF ACOUSTICAL TILE OR LAY-IN PANELS SHALL BE SUPPORTED AND BRACED PER CURRENT CODE REQUIREMENTS, SEE ARCHITECTURAL DRAWINGS.

DESIGN CRITERIA

```
    LATERAL LOADS:

   A. SEISMIC: PER ASCE 7-16 (CBC 2022)
      RISK CATEGORY.
       SEISMIC IMPORTANCE FACTOR (IE)....
            RHO (N-S)..
             RHO (E-W)...
       MAPPED SPECTRAL RESPONSE ACCELERATIONS:
            SS= 0.785 G
            S1= 0.285 G
       SITE CLASS:..
       SPECTRAL RESPONSE COEFFICIENTS:
            Sds= 0.628 G
            Sd1= 0.386 G
       SEISMIC DESIGN CATEGORY:.
```

FOUNDATION (CBC CHAPTER 18A)

- 1. SOILS INFORMATION: 2022 CBC TABLE 1806A.2
- SOIL DESIGN PARAMETERS: ALLOWABLE BEARING PRESSURE.
- ALL FOUNDATION WORK SHALL BE FOUNDED ON FIRM UNDISTURBED NATURAL SOILS. 3. THE FINISH EXCAVATION FOR FOUNDATIONS SHALL BE NEAT & TRUE TO LINE.
- 4. FOUNDATION EXCAVATIONS SHALL BE KEPT FREE OF LOOSE MATERIAL.

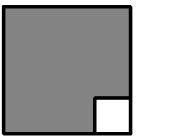
REINFORCING STEEL

- BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60 DEFORMED BARS.
- 2. MINIMUM LAP SPLICES OF REINFORCING BARS SHALL BE AS SPECIFIED IN THE DRAWINGS.
- 3. REINFORCING DETAILING, BENDING, AND PLACING SHALL BE IN ACCORDANCE WITH ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT". 4. REINFORCING STEEL SHALL BE PROVIDED WITH THE FOLLOWING MINIMUM CONCRETE COVER FOR
- CAST IN PLACE CONCRETE: A. CONCRETE DEPOSITED AGAINST EARTH:.. B. CONCRETE SURFACE (FORMED) EXPOSED TO EARTH OR WEATHER:
- #6 THROUGH #18 BARS:. #5 BAR AND SMALLER: C. CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
- SLABS, WALLS AND JOISTS #11 BAR AND SMALLER: BEAMS, COLUMNS: PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS:.....1-1/2"
- POSITION WITH WIRE POSITIONERS PRIOR TO FOUNDATION INSPECTION AND BEFORE PLACING CONCRETE OR GROUT.

5. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS AND INSERTS SHALL BE WELL SECURED IN

- 6. CONTRACTOR SHALL SUBMIT REINFORCING STEEL SHOP DRAWINGS FOR REVIEW BEFORE FABRICATION AND INSTALLATION.
- 7. WHERE HOOKS ARE ILLUSTRATED AS 90-DEGREE HOOKS, 180 DEGREE HOOKS MAY BE USED IN LIEU OF 90-DEGREE HOOKS.

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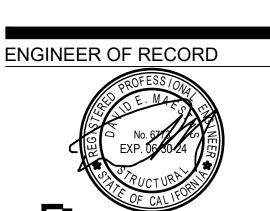


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ARCHITECT OF RECORD





 \blacksquare WISEMAN + ROHY

STRUCTURAL ENGINEERS

TEL 858 536 5166



9915 MIRA MESA BLVD

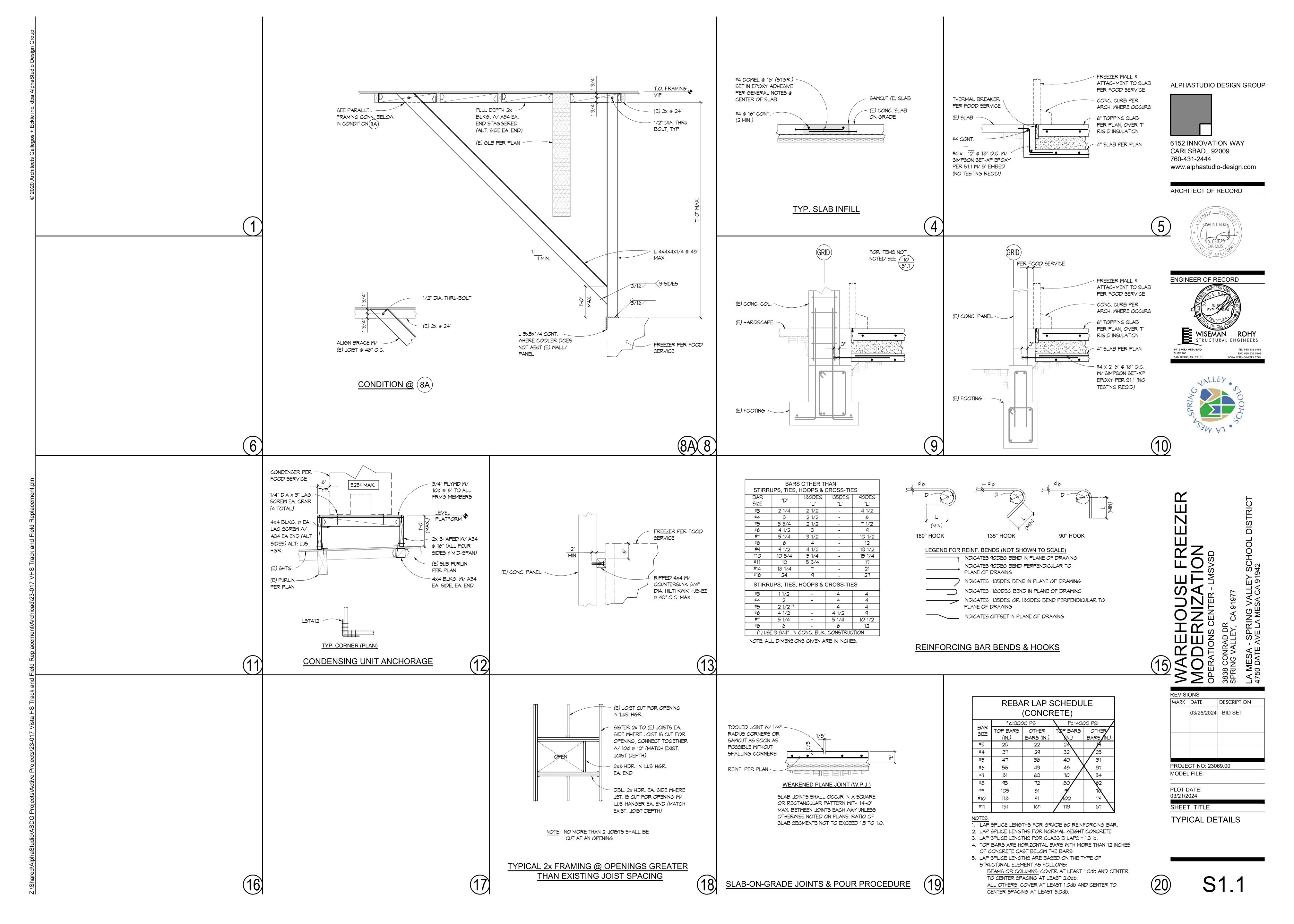
REVISIONS MARK DATE DESCRIPTION 03/25/2024 BID SET

PROJECT NO: 23069.00 MODEL FILE:

PLOT DATE: 03/21/2024

SHEET TITLE

STRUCTURAL NOTES





FOUNDATION PLAN NOTES

- 1. CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES WITH THE STRUCTURAL REQUIREMENTS INDICATED. REFER TO CIVIL, MECHANICAL,
- PLUMBING, AND ELECTRICAL DRAWINGS. 2. SLAB-ON-GRADE CONSTRUCTION JOINT LOCATIONS SHALL BE APPROVED
- BY THE ARCHITECT PRIOR TO PLACEMENT OF CONCRETE. 3. FOR NATURE AND EXTENT OF DRAINS, SUMPS, EXTERIOR HARDSCAPE, ETC.,
- REFER TO OTHER DRAWINGS. 4. FOR SIZE AND LOCATION OF DEPRESSED SLABS, CURBS, AND SLAB
- OPENINGS, REFER TO ARCHITECTURAL DRAWINGS. 5. FOR ITEMS EMBEDDED INTO CONCRETE SLABS AND WALLS, REFER TO
- ARCHITECTURAL AND STRUCTURAL DRAWINGS. 6. FOR DIMENSIONS, EXTENT, AND NATURE OF ALL WALLS, REFER TO
- ARCHITECTURAL DRAWINGS.
- 7. COORDINATED WITH THE ELEVATOR MANUFACTURER.
- 8. ALL REINFORCEMENT SHALL BE CONTINUOUS THROUGH PAD FOOTINGS OR
- OTHER CONTINUOUS FOOTINGS.

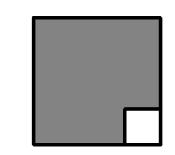
 9. LAPS OF FOOTING REINFORCEMENT SHALL CONFORM TO 51.1

FOUNDATION LEGEND

AN AREA OF NEW CONCRETE SLAB ON GRADE.
SEE PLAN FOR DETAILS

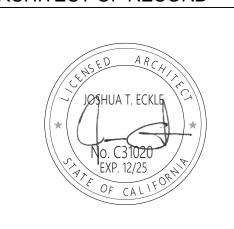
 \longrightarrow SLAB ON GRADE JOINT PER $\begin{pmatrix} 19\\ 51.1 \end{pmatrix}$

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ENGINEER OF RECORD

WISEMAN + ROHY
STRUCTURAL ENGINEERS 9915 MIRA MESA BLVD SUITE 200 SAN DIEGO, CA 92131 FAX 858 536 5163 WWW.WRENGINEERS.COM



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PROJECT NO: 23069.00 MODEL FILE:

PLOT DATE: 03/21/2024 SHEET TITLE

PARTIAL FOUNDATION PLAN

KEYPLAN

AREA OF WORK



ROOF FRAMING NOTES

- 1. CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES WITH THE STRUCTURAL REQUIREMENTS INDICATED. REFER TO CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.
- 2. FOR SIZE AND LOCATION OF ROOF OPENINGS FOR PIPES AND DUCTS, REFER TO MECHANICAL AND PLUMBING DRAWINGS.
- 3. FOR DIMENSIONS, EXTENT, AND NATURE OF ALL WALLS, REFER TO ARCHITECTURAL DRAWINGS.
- 4. SIZE AND LOCATION OF ALL MECHANICAL EQUIPMENT TO BE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO PLACEMENT.

ROOF FRAMING NOTES

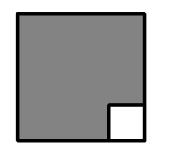
APPROXIMATE SIZE, LOCATION, AND ASSUMED MAXIMUM WEIGHT OF MECHANICAL EQUIPMENT. COORDINATE EXACT LOCATION OF EQUIPMENT WITH MECHANICAL DRAWINGS. WEIGHT INDICATED

SHALL NOT BE EXCEEDED NOR UNIT RELOCATED WITHOUT PRIOR

| 500# | WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.

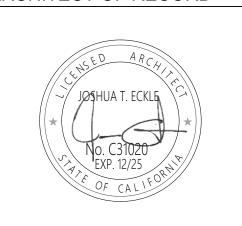
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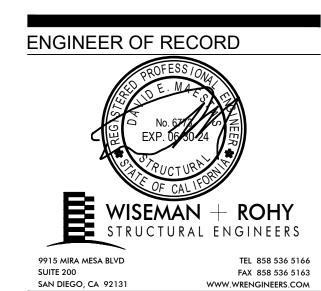
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	03/25/2024	BID SET	

PROJECT NO: 23069.00 MODEL FILE:

PLOT DATE: 03/21/2024

SHEET TITLE PARTIAL ROOF FRAMING PLAN

KEYPLAN

AREA OF WORK

ABBREVIATIONS

AMPERE (AMPS) ALTERNATING CURRENT AMPS-FRAME (RATING) AMP INTERRUPTING CURRENT AMP SMITCH (FUSED SMITCH RATING) AMPS-TRIP (RATING) AMERICAN WIRE GAUGE BARE COPPER BUILDING CONDUIT CIRCUIT BREAKER CONDUIT ONLY CURRENT TRANSFORMER COPPER CF01 CONTRACTOR FURNISHED OWNER INSTALLED CFCI CONTRACTOR FURNISHED CONTRACTOR INSTALLED DPDT DOUBLE POLE DOUBLE THROW DOUBLE POLE SINGLE THROM DRAWING DMG EXISTING FULL LOAD AMPS FULL YOLTAGE REVERSING FVNR FULL VOLTAGE NON-REVERSING GROUND FAULT INTERRUPTER GRD/GND GROUND HIGH INTENSITY DISCHARGE HAND-OFF-AUTOMATIC HORSEPOWER HIGH PRESSURE SODIUM KILOMATT LONG CONTINUOUS LOAD LOCKED ROTOR AMPS LRA LIGHTING MOTOR CONTROL CENTER MCM (KCM) THOUSAND CIRCULAR MILS MECHANICAL NORMALLY CLOSED NON-FUSED NORMALLY OPEN/NUMBER OWNER FURNISHED CONTRACTOR INSTALLED 0F0I OMNER FURNISHED OMNER INSTALLED PHASE POINT OF CONNECTION PVC COATED RIGID STEEL (CONDUIT) POTENTIAL TRANSFORMER POLYVINYL CHLORIDE DUCT SMITCHBOARD TYPICAL

UNDERGROUND

VOLTAMPERES

VOLTMETER VERIFY LOCATION MIRE/WATTS

MATERTIGHT

YOLT

UNLESS OTHERWISE NOTED

WEATHERPROOF (NEMA TYPE 3R)

EXPLOSION PROOF (RATED FOR AREA HAZARD)

ELECTRICAL SYMBOL LEGEND

POWER DUPLEX RECEPTACLE, WALL MOUNTED, +18" A.F.F. (U.O.N.) FOURPLEX RECEPTACLE, WALL MOUNTED, +18" A.F.F. (U.O.N.) CONDUIT AND WIRE, CONCEALED IN CEILING OR WALL

CONDUIT AND WIRE, CONCEALED IN OR UNDER FINISHED FLOOR OR UNDER FINISHED GRADE.

FLEXIBLE CONDUIT CONNECTION

BRANCH CIRCUIT HOMERUN TO PANEL. SLASHES INDICATE NUMBER OF CONDUCTORS. EQUIPMENT GROUND WIRE NOT INDICATED U.O.N. #12 CONDUCTORS ARE MINIMUM, NO HASH MARKS = MIN (2) #12

3/4" CONDUIT STUBBED FROM DEVICE TO ABOVE ACCESSIBLE

BRANCH CIRCUIT HOMERUN, NUMBER INDICATES INCREASED CONDUCTOR SIZE, CONDUCTORS SHALL REMAIN AS INDICATED FOR SIZE THROUGHOUT THE ENTIRE CIRCUIT.

PANELBOARD, SURFACE MOUNTED. PANELBOARD, RECESSED

MEP COMPONENT ANCHORAGE NOTE

GENERAL PROJECT NOTES:

OF THE DEVICE.

ANY SPECIFIC ITEMS.

STATE ARCHITECT.

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA-APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26, AND 30:

1. UNLESS WHERE OTHERWISE NOTED, ALL WORK INDICATED ON THESE

2. UNLESS WHERE OTHERWISE NOTED, ALL DIMENSIONS ARE TO BE CENTERLINE

3. "GENERAL NOTES" SHOWN ON AN INDIVIDUAL DRAWING APPLY TO ALL WORK

4. UNLESS SPECIFICALLY SHOWN ON THESE PLANS, NO STRUCTURAL MEMBER

SHALL BE CUT, NEITHER DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN

AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND THE DIVISION OF THE

SHOWN ON THAT SHEET. "KEY NOTES" ONLY APPLY TO SPECIFIC ITEMS WHERE

ANNOTATED AT SPECIFIC LOCATIONS. SOME KEY NOTES MAY NOT APPLY TO

DRAWINGS SHALL BE CONSIDERED NEW WORK.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.

2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G., HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE. 3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVING A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.

B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2022 CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., HCAI OPM FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP MD PP E Ø OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

MP MD PP E OPTION 2: SHALL COMPLY WITH HCAI (OSHPD) PREAPPROVAL (OPM , AS INCLUDED IN THESE DRAWINGS WITH PROJECT-SPECIFIC NOTES AND

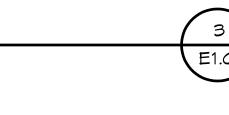
- FRONT APPROACH WITH KNEE CLEARANCE SPACE. -BOTTOM OF CONTROL/ OUTLET/ SMITCH BOX CONTROL/ CONTROL/ OUTLET/ OUTLET/ SWITCH BOX SMITCH BOX +15" +18" MIN. -FINISHED FLOOR FLOOR PERPENDICULAR APPROACH SIDE APPROACH

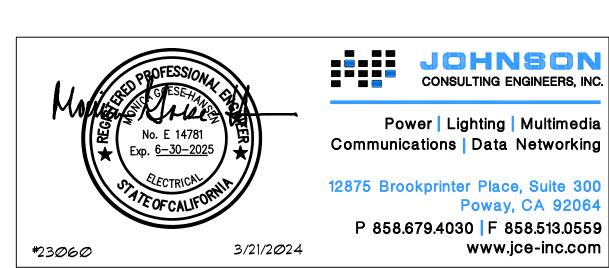
NOTE: 1. MAINTAIN MINIMUM 30"X48" CLEAR FLOOR SPACE AT EACH APPROACH.

> 2. PROVIDE 30"W X 27"H X 25"D MIN. TOE/KNEE CLEARANCE FOR FRONT APPROACH OVER OBSTRUCTION.

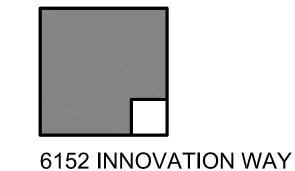
MOUNTING HEIGHT OVER OBSTRUCTION

NO SCALE





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ARCHITECT OF RECORD



ENGINEER OF RECORD



REVISIONS MARK DATE DESCRIPTION 03/25/2024 BID SET

PROJECT NO: 23-029 MODEL FILE: 23-029 LMSV WH Cooler and Freezer_Draft_23-09-12 aRCHICAD 26.pln

PLOT DATE: 2/21/2024

SHEET TITLE

ELECTRICAL LEGEND AND NOTES

E-1.0

(EX) CONDUIT AND —

REMOVED BACK TO

-(EX) CONDUIT, BOXES AND

POWERED SLIDING DOOR SHALL BE REMOVED. REMOVE CONDUIT AND WIRING BACK TO SOURCE.

MIRING ASSOCIATED MITH

- (EX) CONDUIT AND MIRING FOR DOOR HEAT SHALL BE REMOVED. REMOVE WIRING

BACK TO SOURCE.

- CAP CONDUIT

368 SF

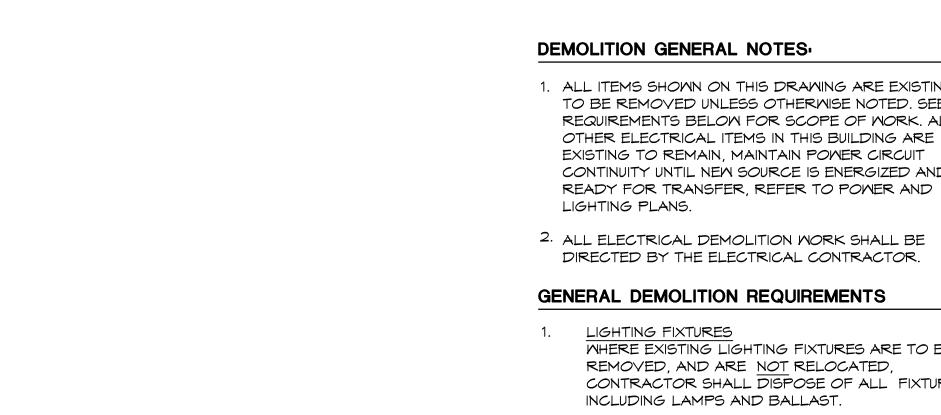
-ALL JUNCTION BOXES, CONDUITS MOUNTED ON TOP OF THE EXISTING FREEZER AND COOLER SHALL BE REMOVED. ALL CONDUCTORS SHALL BE REMOVED BACK TO SOURCE.

SMITCH SHALL BE

SOURCE (TYP.)

WIRING FOR LTG AND





- (EX) CONDUIT

AND WIRING

FOR EVAP

COIL SHALL

BACK TO

D EVAP COIL

(EX) RECEPTAGLE TO

(EX) CONDUIT AND

REMAIN.

896 SF CONDUCTORS TO REMAIN

(EX) CONDUIT AND -CONDUCTORS TO

REMAIN

(EX) PANEL 'WH' — TO REMAIN

BE REMOVED

SOURCE (TYP.)

WHERE EXISTING LIGHTING FIXTURES ARE TO BE

- **WIRING DEVICES** WHERE EXISTING SMITCHES OR RECEPTACLES ARE TO BE REMOVED, THE CONTRACTOR SHALL DISPOSE OF ALL DEVICES AS REQUIRED.
- 3. ALL BOXES, EXPOSED CONDUIT, WIRE, AND OTHER ITEMS ASSOCIATED WITH ELECTRICAL EQUIPMENT TO BE REMOVED, SHALL BE DISCONNECTED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AS REQUIRED, UNLESS SPECIFICALLY NOTED OTHERWISE. CUT AND CAP CONCEALED CONDUITS. PATCH, SEAL AND
- REPAIR SURFACE TO MATCH ADJACENT AREA

1. ALL ITEMS SHOWN ON THIS DRAWING ARE EXISTING TO BE REMOVED UNLESS OTHERWISE NOTED. SEE REQUIREMENTS BELOW FOR SCOPE OF WORK. ALL OTHER ELECTRICAL ITEMS IN THIS BUILDING ARE EXISTING TO REMAIN, MAINTAIN POWER CIRCUIT CONTINUITY UNTIL NEW SOURCE IS ENERGIZED AND

2. ALL ELECTRICAL DEMOLITION WORK SHALL BE

- CONTRACTOR SHALL DISPOSE OF ALL FIXTURES
- WHERE BOXES ARE REMOVED.

- (EX) JUNCTION BOX,

(EX) 1"C. AND (EX) (4) #6 CONDUCTORS

- (EX) CONDUIT AND WIRING TO REMAIN

- (EX) CONDUIT, WIRING AND J-BOX SHALL BE TEMPORARILY REMOVED. RE-INSTALL ON ADJACENT CONCRETE WALL AS REQUIRED.

ENLARGED FLOOR PLAN - DEMOLITION | 1/4" = 1'-0" | 2

(EX) RECEPTACLE TO REMAIN

- (EX) 1"C. TO REMAIN.

BE REMOVED.

(EX) DISTRIBUTION
SMITCHBOARD 'MSB'
TO REMAIN

(EX) (4) #6 CONDUCTORS TO

TO BE REMOVED.

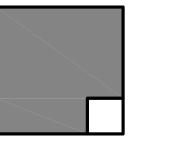
DISCONNECTS, CONDUIT AND WIRING TO BE REMOVED.

GENERAL NOTES

- . REFERENCE FOODSERVICE DRAWINGS FOR ALL DEVICE HEIGHTS.
- 2. ALL GENERAL USE RECEPTACLES SHALL BE
- GFCI TYPE IN KITCHEN AREAS.
- 3. VERIFY ALL LOCATIONS AND REQUIREMENTS WITH FOODSERVICE DRAWINGS.
- 4. REFER TO FOODSERVICE DRAWINGS FOR ADDITIONAL ELECTRICAL REQUIREMENTS.
- 5. REFERENCE ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATION OF ALL MALL MOUNTED POWER DEVICES WHERE INDICATED AT MOUNTING HEIGHTS OTHER THAN
- 6. REFERENCE E3 SERIES SHEETS FOR TYPICAL CONDUIT AND BACKBOX INSTALLATION DETAILS.
- 7. NUMBERS ADJACENT TO EACH POWER DEVICE INDICATES THE CIRCUIT NUMBER TO WHICH THE DEVICE IS TO BE CONNECTED.
- 8. CIRCUIT HOMERUNS ARE INDICATED TO SHOW THE LOCATION AND NUMBER OF CIRCUITS TO BE GROUPED TOGETHER.
- 9. PROVIDE MINIMUM 3/4" CONDUIT AND #12 CIRCUIT CONDUCTORS AS REQUIRED TO CONNECT EACH POWER DEVICE TO THEIR INDICATED CIRCUIT (U.O.N.).

- (1) FIELD VERIFY EXACT LOCATION.
- 2 PROVIDE (1) 30A/2P BREAKER IN EXISTING SPACE '17' AND '19'.
- 3 PROVIDE NEMA 3R, 30A/3P DISCONNECT SMITCH MITH 30A FUSES.
- (4) 3/4"C. 2 #12, 1 #12 GND.

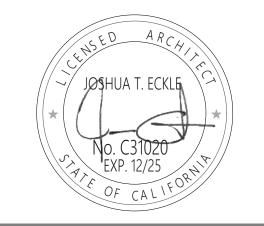
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ARCHITECT OF RECORD



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REVISIONS DESCRIPTION 03/25/2024

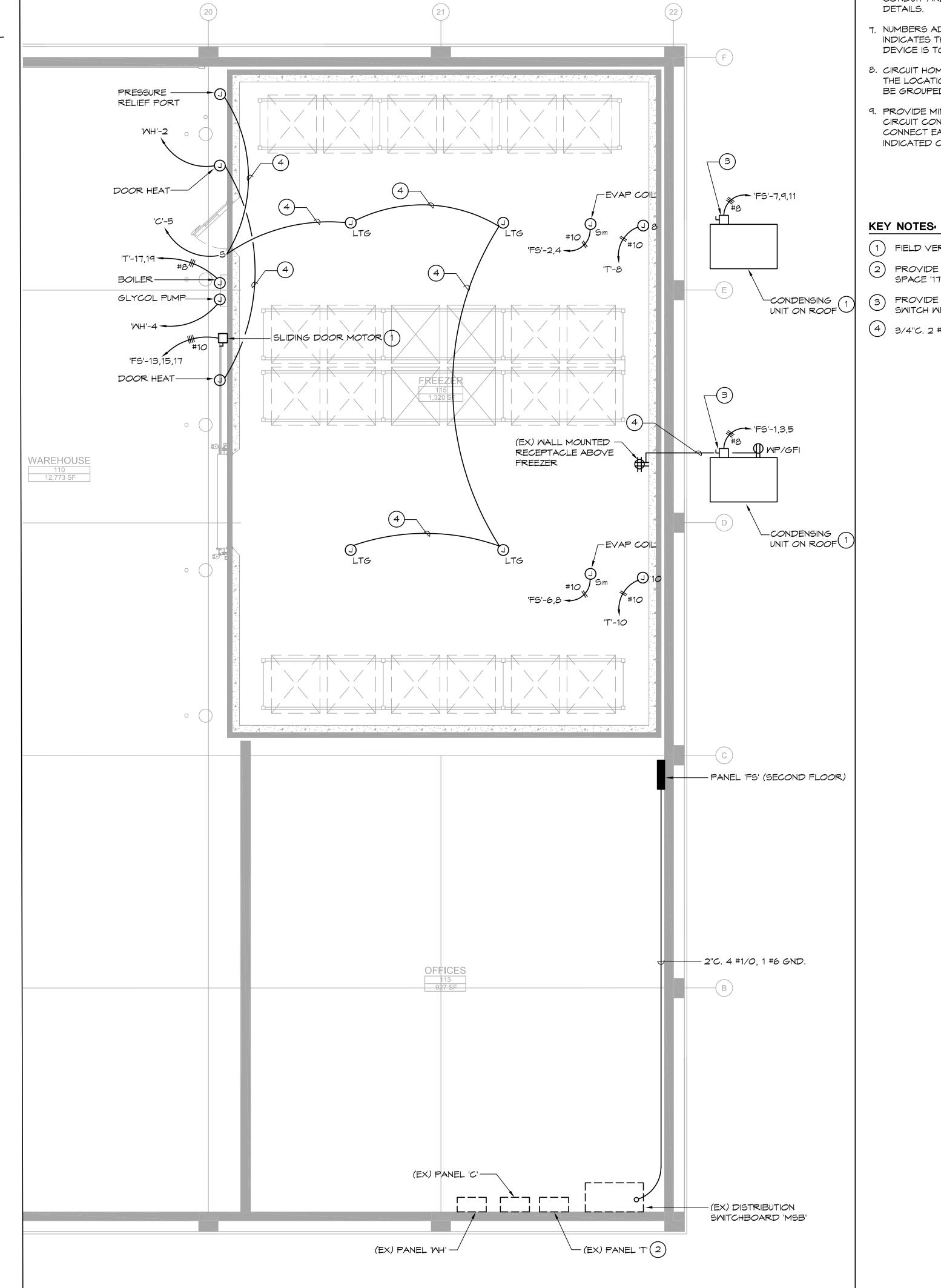
PROJECT NO: 23-029 MODEL FILE: 23-029 LMSV WH Cooler and Freezer_Draft_23-09-12 aRCHICAD 26.pln

PLOT DATE: 2/21/2024

SHEET TITLE

ENLARGED FLOOR PLAN - DEMOLITION & NEW WORK

E-3.1





*****23*0*6*0*

No. E 14781

 \bigstar Exp. 6-30-2025 \bigstar

3/25/2024

ENLARGED FLOOR PLAN - NEW WORK | 1/4" = 1'-0"

12875 Brookprinter Place, Suite 300 Poway, CA 92064 P 858.679.4030 | F 858.513.0559 www.jce-inc.com

JOHNSON CONSULTING ENGINEERS, INC.

Communications | Data Networking

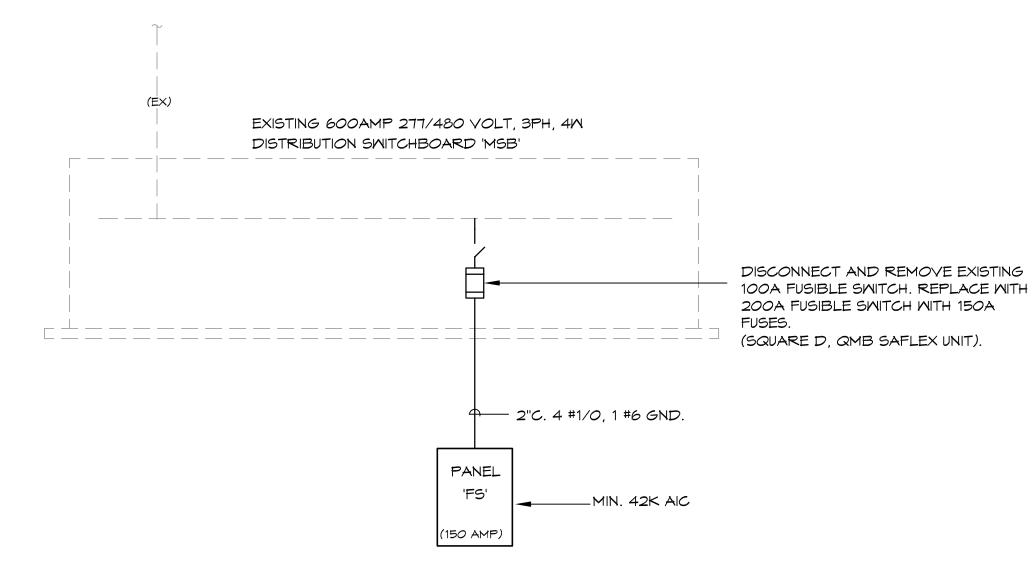
Power | Lighting | Multimedia

GENERAL NOTES

- 1. A FAULT CURRENT AND TIME CURRENT STUDY MUST BE PROVIDED AS DESCRIBED IN THE SPECIFICATIONS PRIOR TO FINAL APPROVAL OF THE POWER EQUIPMENT.
- 2. UNLESS WHERE OTHERWISE NOTED. ALL WORK INDICATED ON THESE DRAWINGS SHALL BE CONSIDERED NEW WORK.
- 3. ALL ELECTRICAL GEAR AND EQUIPMENT SHOWN ON ONE-LINE DIAGRAM SHALL BE NEMA 3R UNLESS OTHERWISE NOTED.

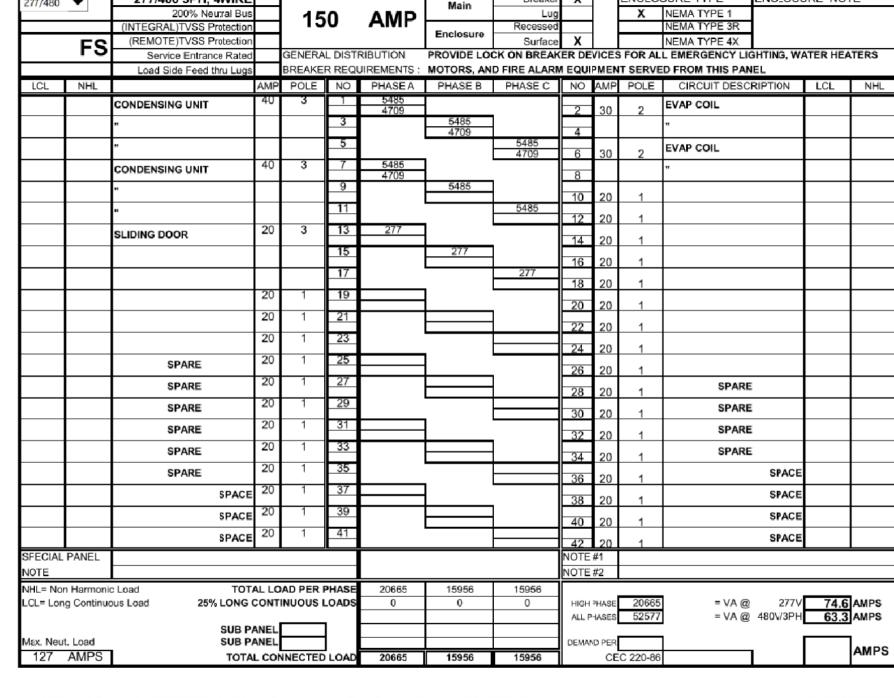
600V FEEDER SCHEDULE GENERAL NOTES

- ALL CONDUCTOR SHALL BE PROVIDED WITH TYPE THWN-2 INSULATION. REFERENCE SPECIFICATION SECTION 26 05 19 FOR ADDITIONAL REQUIREMENTS.
- 2. PROVIDE 60 DEGREE COPPER/ALUMINUM RATED TERMINATION FOR ALL FEEDERS SIZED WITH #2 OR SMALLER CONDUCTORS. PROVIDE 75 DEGREE COPPER/ALUMINUM RATED TERMINATIONS FOR ALL FEEDERS SIZED WITH #1 OR LARGER CONDUCTORS.
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR ORDERING LUG CONFIGURATION AN ALL EQUIPMENT, BREAKER OF DISCONNECTS TO MATCH FEEDER CONFIGURATIONS INDICATED.
- 4. WHERE MULTIPLE CONDUIT QUANTITIES ARE INDICATED, CONDUCTOR QUANTITIES AND SIZES SHOWN IN SCHEDULE SHALL BE PROVIDED IN EACH CONDUIT.



ELECTRICAL ONE LINE DIAGRAM

NO SCALE



M:\Panel Schedule\2023\23060 La Mesa Spring Valley Ops Center Freezer\FS- 3PH - Panel.xls

11:59 AM3/25/2024

OUTER DOOR.

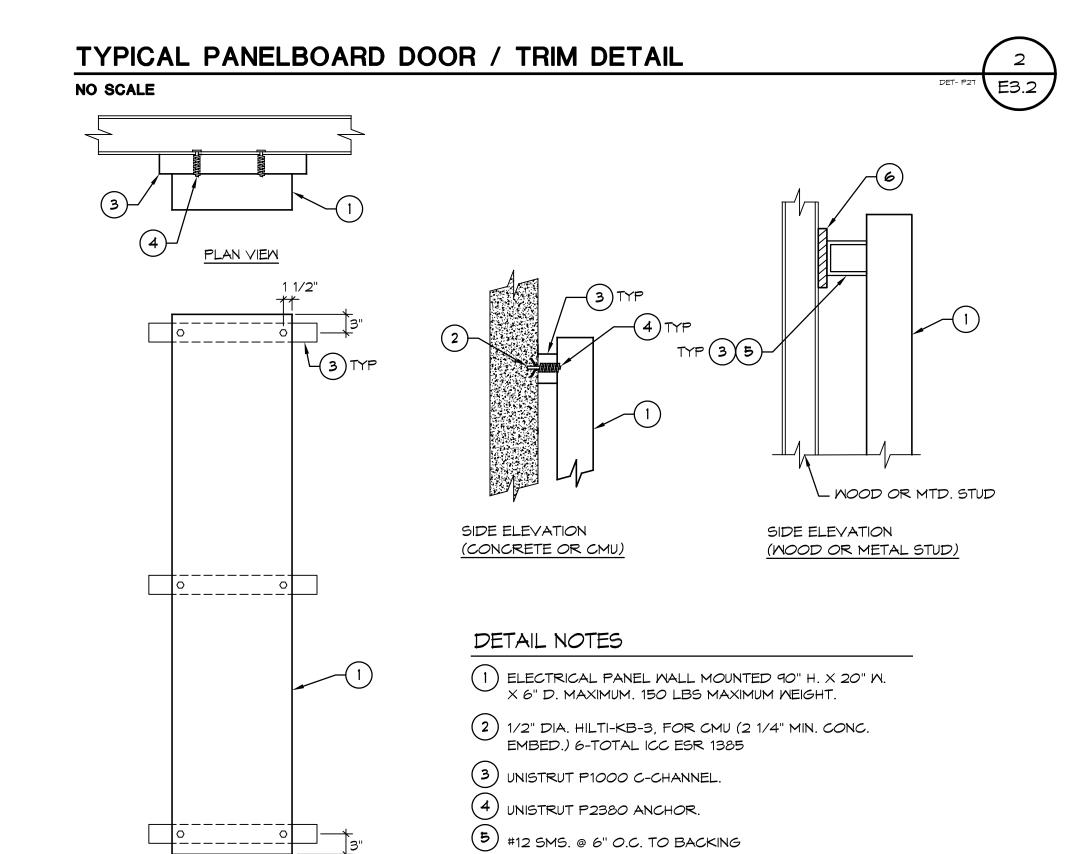
— TRIM SECURED TO BACKBOX TO ALLOW FOR ACCESS TO INTERIOR GUTTER AREA WITHOUT HAVING TO COMPLETELY REMOVE COVER. - NON REMOVABLE (CAPTURED) PANELBOARD COVER MOUNTING SCREWS BACKBOX — PANEL NAMERLATE - CONTINUOUS PIANO STYLE HINGE FOR HINGED TRIM -DOOR -LOCK **PLAN VIEW** HINGED TRIM -DOOR ALLOWS ACCESS TO BREAKERS AND COVERS ACCESS
SCREWS TO DEAD FRONT AREA.

DETAIL GENERAL NOTES

FRONT ELEVATION

1. PROVIDE FOR ALL PANELBOARDS FOR THIS PROJECT - SURFACE, RECESSED NEMA 1, OR NEMA 3R CONFIGURATION.

2. SEE REFERENCE ONE LINE DIAGRAM FOR ALL PANELBOARD AIC RATINGS.



SURFACE WALL MOUNTED ELECTRICAL PANEL DETAIL NO SCALE

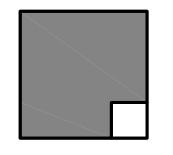
#23*0*6*0*

6 6"X16GA (54 MINUS) NOTCHED TRACK ANCHOR

BACKING TO (3) STUDS MIN.

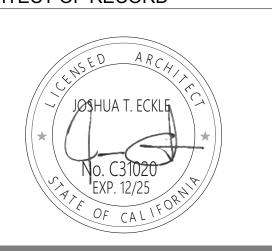
E3.2 JOHNSON CONSULTING ENGINEERS, INC. Power | Lighting | Multimedia Communications | Data Networking 12875 Brookprinter Place, Suite 300 Poway, CA 92064 P 858.679.4030 | F 858.513.0559 3/25/2*0*24 www.jce-inc.com

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REVISIONS MARK DATE DESCRIPTION 03/25/2024 BID SET

PROJECT NO: 23-029 MODEL FILE: 23-029 LMSV WH Cooler and Freezer_Draft_23-09-12 aRCHICAD 26.pln

PLOT DATE: 2/21/2024

SHEET TITLE

PANEL SCHEDULES

E-3.2

ES AND I			ND (SYMBOLS) AND	SYMB	
		_	SEWER OR WASTE BELOW FLOOR OR GRADE		FLOOR SINK
5 - — ∈	BALL VALVE	w	SEWER OR WASTE ABOVE FLOOR OR GRADE	<u> </u>	FLOOR DRAIN
— (CHECK VALVE		GREASE WASTE BELOW FLOOR OR GRADE	<u></u>	ROOF DRAIN / OVERFLOW DRAIN
1	BACKFLOW PREVENTOR	——RD——		_	AREA DRAIN / DECK DRAIN
✓	SATE VALE				,
	PRESSURE REDUCING VALVE		OVERFLOW ROOF DRAIN	(s)	SEWER CONNECTION
^	CONTROL VALVE		CONDENSATE DRAIN SANITARY VENT	R —	GAS REGULATOR
	CALIBRATED BALANCING VALVE		DOMESTIC COLD WATER (CW)	$\overline{\mathbb{W}}$	WATER CONNECTION
	BUTTERFLY VALVE PLUG VALVE		DOMESTIC HOT WATER (HW)	(SD)	STORM DRAIN CONNECTION
	AUTOMATIC FLOW CONTROL VALVE		DOMESTIC HOT WATER RETURN (HWR)	30)	
_	TRIPLE DUTY VALVE		INDUSTRIAL COLD WATER (ICW)	$\left\langle \begin{array}{c} A \\ B \end{array} \right\rangle$	EQUIPMENT TAG A = TYPE
্ব া	IRIPLE DOTT VALVE	—— D ——	DRAIN	B	B = EQUIPMENT NUMBER / UNIQUE IDENTIFIER
芦— 9	SOLENOID VALVE	G	PIPE DOWN		PLUMBING FIXTURE TAG
 F	BLIND FLANGE		PIPE UP	(A-B)	A = FIXTURE TYPE
			PIPE DOWN		B = FIXTURE IDENTIFIER
	PIPE CAPE	-		A	DETAIL/SHEET REFERENCE
	JNION			B	(DETAIL "A" ON DRAWING "B")
	REDUCER				SECTION REFERENCE
	STRAINER			B	(SECTION "A" ON DRAWING "B") CONNECT TO EXISTING EQUIPMENT, DUCTWORK, PIPING
	THERMOMETER		7	7) +++++	REMOVE EXIST. EQUIP. OR PIPES SHOWN HATCHED
	PRESSURE GAUGE			⊕	CONNECTION TO EXISTING PIPE
A E	RELIEF VALVE			Θ	LIMITS OF PIPING DISCONNECTION
c	CLEAN-OUT TO GRADE		<u> </u>		TRAP PRIMER
<u> </u>	LOOR CLEAN OUT			<u> </u>	WATER HAMMER ARRESTOR (P.D.I. SIZE)
	VALL CLEAN-OUT OR CLEAN-OUT BELOW FL	.OOR	_	. 	
			ABBREVIATIONS		
)	ABOVE CEILING	FPM	FEET PER MINUTE	PH	PHASE
-	AREA DRAIN	FPS	FEET PER SECOND	PLBG	PLUMBING
	ABOVE FINISHED FLOOR	GAL.	GALLON	PSIG	POUNDS PER SQUARE INCH GAUGE
;	ABOVE FINISHED GRADE ACCESS PANEL	GPH GPM	GALLON PER HOUR GALLON PER MINUTE	QTY S	QUANTITY SINK
CH	ARCHITECT OR ARCHITECTURAL	HDR	HEADER	S.S.	STAINLESS STEEL
}	BELOW GRADE	HP	HORSE POWER	SEC	SECOND
-	BELOW FLOOR	HPG	HIGH PRESSURE GAS	SH	SHOWER
	BELOW	HVAC	HEATING VENTILATING AND AIR-CONDITION		SHEET
^	CONCRETE	HZ	HERTZ	SOV SDEC	SHUT— OFF VALVE
C T	CONCRETE CONTINUATION	I.E. IN	INVERT ELEVATION INCHES	SPEC SQ.FT.	SPECIFICATION SQUARE FEET OR SQUARE FOOT
TR	CONTRACTOR	IN WG	INCHES OF WATER GAUGE	SQ.FT. STD	STANDARD
F	DEGREES FAHRENHEIT	INV	INVERT	STRUCT	STRUCTURAL
	DIAMETER	K.W.	KILOWATTS	TBR	TO BE REMOVED
	DOWN	LAV	LAVATORY	TEMP.	TEMPERATURE
S	DRAWINGS	LPG	LOW PRESSURE GAS	TYP	TYPICAL
	DOWN THROUGH ROOF	MAX	MAXIMUM	UR	URINAL
Т	EXISTING ELECTRICAL	MECH MFR.	MECHANICAL MANUFACTURER	U.N.O. UTR	UNLESS NOTED OTHERWISE UP THROUGH ROOF
1	ELECTRICAL ELEVATION	MFR. MIN	MINIMUM MINIMUM	VTR	VENT THROUGH ROOF
	EXISTING TO REMAIN	MPG	MEDIUM PRESSURE GAS	WC	WATER CLOSET
	ELECTRIC WATER COOLER	MS	MOP SINK	W/	WITH
	FINISH FLOOR ELEVATION	MTD	MOUNTED	w/o	WITHOUT
	FINISH OR FINISHED	NIC	NOT IN CONTRACT	VFD	VARIABLE FREQUENCY DRIVE
	FLOOR	NO	NUMBER		
	FEET OR FOOT	NP NTS	NON-POTABLE		
	FLEXIBLE CONNECTION	NTS OPER	NOT TO SCALE OPERATING		

PLUMBING PLAN CHECK NOTES

- 1. WHERE PLUMBING PENETRATES THE FIRE RESISTIVE WALLS (AREA SEPARATION AND OCCUPANCY SEPARATION), THE SECTION PASSING THROUGH THE WALL SURFACE, AND THE FIXTURE CONNECTIONS ATTACHED THERETO, SHALL MEET CBC, FIRE AND TEMPERATURE RATING.
- 2. VALVES, FIXTURES AND ALL OTHER APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF CALIFORNIA ASSEMBLY BILL AB1953, LOW LEAD CONTENT AS APPLICABLE.

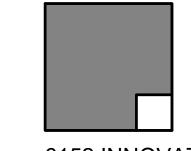
PIPE MATERIAL SCHEDULE

CONDENSATE PIPING:

1. FOR COOLING COILS: TYPE "M" COPPER CONFORMING TO ASTM B 88M, TYPE C WITH WROUGHT COPPER FITTINGS CONFORMING TO ASTM B 16.22M. PROVIDE INSULATION ON ALL CONDENSATE PIPING WITHIN BUILDING.

PLUMBING GENERAL NOTES

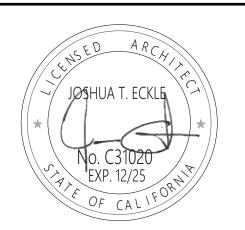
- 1. CONTRACTOR SHALL CAREFULLY REVIEW THESE PLANS AND SPECIFICATIONS PRIOR TO BID. CONTRACTOR SHALL ALSO REVIEW PLANS AND SPECIFICATIONS OF OTHER RELATED TRADES (INCLUDING CIVIL, STRUCTURAL, AND ELECTRICAL) PRIOR TO BID TO INSURE AN ACCURATE UNDERSTANDING OF EXACT SCOPE OF WORK. ANY ITEMS REQUIRING CLARIFICATION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN SUFFICIENT TIME TO BE INCORPORATED INTO THE BID.
- 2. CONTRACTOR SHALL VERIFY ALL EQUIPMENT MODEL NUMBERS, CAPACITIES, SIZES, VOLTAGES, AND ALL OTHER SCHEDULED INFORMATION WITH OTHER APPLICABLE TRADES AND WITH THE MANUFACTURER PRIOR TO INSTALLATION.
- 3. CONTRACTOR SHALL VERIFY ALL LOCATIONS, SIZES, POCs, INVERT ELEVATIONS, AND AVAILABILITY OF ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF ANY MATERIAL OR EQUIPMENT.
- 4. THESE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ARE NOT INTENDED TO INDICATE ALL DETAILS AND NECESSARY OFFSETS OF PIPING. THE CONTRACTOR SHALL INSTALL MATERIAL AND EQUIPMENT IN A MANNER AS TO CONFORM TO STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEADROOM, AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. ALL INSTALLATIONS SHALL BE CONSISTENT WITH NORMALLY ACCEPTABLE INDUSTRY STANDARDS.
- 5. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES OR CONFLICTS THAT WOULD EFFECT THE SYSTEM PERFORMANCE OR INCUR ADDITIONAL COSTS. THIS NOTIFICATION SHALL BE SUBMITTED PRIOR TO INSTALLATION OF THE ITEMS CONCERNED.
- 6. NEW AND/OR EXISTING EQUIPMENT INDICATED ON THIS DRAWING IS SHOWN IN APPROXIMATE POSITION(S). CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING EQUIPMENT LOCATIONS, POC'S AND STRUCTURAL MEMBERS PRIOR TO INSTALLATION. IN ALL CASES, ADEQUATE ACCESS (PER MANUFACTURERS RECOMMENDATIONS AND CODE COMPLIANCE) FOR MAINTENANCE AND REPLACEMENT OF EQUIPMENT SHALL BE PROVIDED.
- 7. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES. NOTHING SHOWN ON THE PLANS OR STATED IN THE SPECIFICATIONS IS INTENDED TO INDICATE THAT THE INSTALLATIONS OR CONNECTIONS OF ANY ITEM OR DEVICE SHOULD BE DONE CONTRARY TO MANUFACTURERS INSTRUCTIONS AND ALL APPLICABLE CODES AND REGULATIONS.
- 8. THE CONTRACTOR IS RESPONSIBLE TO INSURE THAT THE INSTALLATIONS AND CONNECTIONS OF ALL ITEMS AND DEVICES CONFORMS TO MANUFACTURERS INSTRUCTIONS AND TO ALL APPLICABLE CODES AND RECULLATIONS
- 9. SUBSTITUTION OF PLUMBING EQUIPMENT WITH EFFICIENCIES LOWER THAN THOSE INDICATED ON THE PLANS MAY REQUIRE RE—CALCULATION OF TITLE 24 DOCUMENTS. IF THE CONTRACTOR CHOOSES TO UTILIZE SUCH EQUIPMENT, HE ASSUMES FULL RESPONSIBILITY FOR THE RE—CALCULATION AND JURISDICTIONAL APPROVAL OF TITLE 24 DOCUMENTS.
- 10. IF THE CONTRACTORS' USE OF SUBSTITUTE MATERIALS, EQUIPMENT OR METHODS OF INSTALLATION REQUIRES ANY CHANGES IN OTHER TRADES WORK FROM THAT SHOWN ON THE DRAWINGS, THE EXTRA COST OF THE OTHER TRADES' WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR INITIATING THE SUBSTITUTION.
- 11. SUBMITTALS: APPROVAL, "TAKING NO EXCEPTION TO", OR REVIEW OF THE SUBMITTALS DOES NOT RELEASE THE CONTRACTOR FROM OBLIGATIONS TO FULLY COMPLY WITH ALL REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS OR APPLICABLE CODE REGULATIONS.
- 12. ALL PLUMBING EQUIPMENT, MATERIAL, AND ALL CONNECTIONS THERETO SHALL BE INSTALLED COMPLETE PER MANUFACTURERS INSTRUCTIONS TO PROVIDE A COMPLETE AND FULLY OPERATIONAL SYSTEM.
- 13. CONDENSATE DRAIN PIPING FROM EQUIPMENT WITHIN BUILDING SHALL BE INSULATED A MINIMUM DISTANCE OF 20 (TWENTY) FEET FROM SAID EQUIPMENT.
- 14. ALL INSULATING MATERIALS INSTALLED MUST BE CERTIFIED BY CALIFORNIA ENERGY COMMISSION TO MEET C.E.C. ENERGY EFFICIENCY STANDARDS (E.E.S.) SECTION 118, 123 AND 124.
- 15. ALL PLUMBING SOLDER SHALL BE LEAD FREE.



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WAREHOUSE FREEZE

REVISIONS

MARK DATE DESCRIPTION

03/25/2024 BID SET

PROJECT NO: 23-034
MODEL FILE:

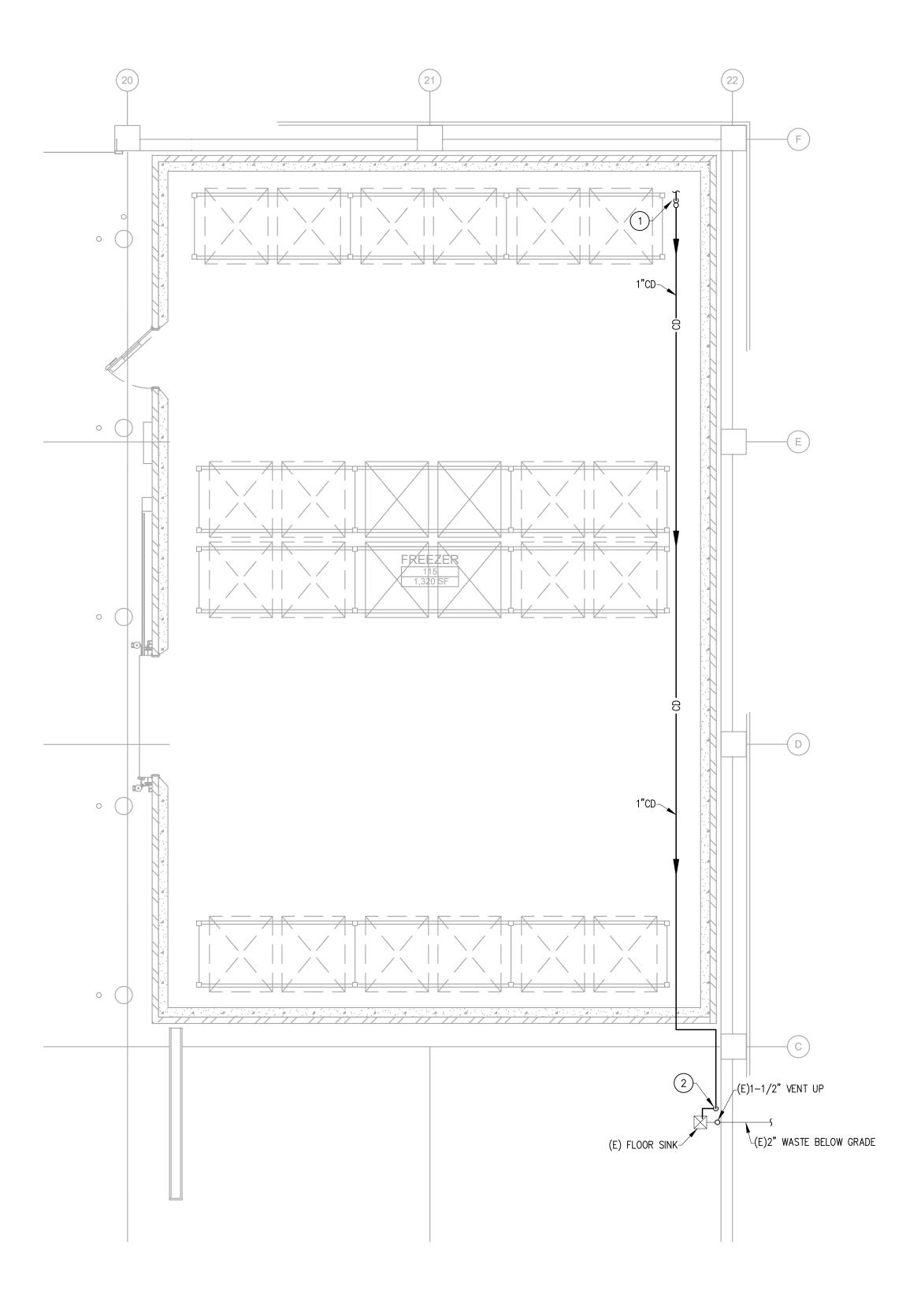
PLOT DATE: 3/21/2024

SHEET TITLE

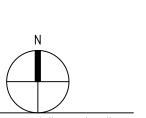
PLUMBING LEGEND & NOTES







PLUMBING FLOOR PLAN

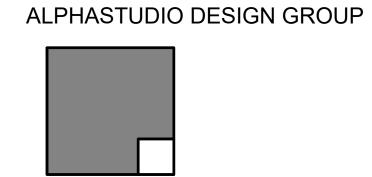


KEY NOTES

KEY PLAN

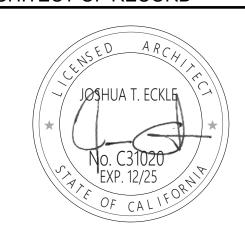
1" TRAPPED AND VENTED CONDENSATE TO EVAPORATOR. FIELD VERIFY EXACT LOCATION WITH FREEZER MANUFACTURER.

 2 1" CONDENSATE DOWN TO EXISTING FLOOR SINK. TERMINATE WITH 1" AIR GAP.



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EW WAREHOUSE FREEZEI

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MARK DATE DESCRIPTION

03/25/2024 BID SET

PROJECT NO: 23-034
MODEL FILE:

PLOT DATE: 3/21/2024 SHEET TITLE

> PLUMBING FLOOR PLAN



NOTES TO GENERAL CONTRACTOR

HE FOLLOWING ITEMS AND/OR WORK ARE TO BE PROVIDE AND/OR PERFORMED BY THE GENERAL CONTRACTOR AND/OR HIS SUBCONTRACTORS UNDER THE GENERAL CONTRACT.

- PROVIDE ALL PLUMBING & ELECTRICAL ROUGH-INS, INTERCONNECTIONS, AND FINAL CONNECTIONS TO ALL RESTAURANT FIXTURES & EQUIPMENT AS SHOWN ON FOOD SERVICE EQUIPMENT CONTRACTOR PLUMBING, ELECTRICAL. REFRIGERATION, AND EXHAUST & MAKE-UP AIR PLANS.
- 2. VERIFY ALL FIXTURE CURBS DIMENSIONS FOR ALL CAFETERIA COUNTERS.
- PROVIDE & INSTALL ALL CONDUITS & PULL BOXES AS SHOWN ON THE FIXTURE REFRIGERATION & ELECTRICAL PLAN. PROVIDE MINIMUM 6" HIGH LEVEL PLATFORM, COMPLETE WITH METAL TOP & FLASHING FOR REFRIGERATION RACK.
- 4. G.C. TO PROVIDE & INSTALL BACKING OR BLOCKING IN WALLS & CEILINGS TO PROVIDE SUPPORT AS NECESSARY FOR ALL EQUIPMENT, FIXTURES, & SHELVING (INCLUDING HOODS & FIXTURE CANTILEVER SUPPORTS). SEE ELEVATION SHEETS, EQUIPMENT SCHEDULE, & FABRICATOR'S SHOP DRAWINGS FOR REQUIREMENTS & NOTES.
- INSTALL CANTILEVER SUPPORTS FOR KITCHEN EQUIPMENT & SLEEVES FOR CANTILEVERED COUNTER STOOLS & KITCHEN EQUIPMENT AS SHOWN ON FIXTURE CURB PLAN. ALL CANTILEVER SUPPORTS & SLEEVES TO BE PROVIDED TO GENERAL CONTRACTOR BY FIXTURE CONTRACTOR & INSTALLED BY GENERAL CONTRACTOR.
- PROVIDE & INSTALL ALL RESTROOM ACCESSORIES AS SHOWN ON FIXTURE FLOOR PLAN, AND AS NOTED ON FIXTURE SCHEDULES & ARCHITECT'S PLANS.
- PROVIDE & INSTALL ALL TILE FOR FLOORS, BASES, WAINSCOTS, AND WALLS WHERE SHOWN ON THESE PLANS & ARCHITECTURAL PLANS & AS SPECIFIED BY ARCHITECT & DECORATOR. TILE ON WALLS IN KITCHEN & SCULLERY AREA TO BE INSTALLED PRIOR TO INSTALLATION OF FIXTURES. DECORATIVE TILE ON WALLS IN SEMI-EXHIBITION COOKING & SERVING AREAS TO BE INSTALLED AFTER INSTALLATION OF FIXTURES.
- 8. PROVIDE & INSTALL ALL ITEMS NOTED G.C. ON FIXTURE EQUIPMENT SCHEDULES.
- PROVIDE ALL OPENINGS THROUGH CEILING & ROOF INCLUDING SHAFTS, ENCLOSURES, ETC., FOR FIXTURE MAKE-UP AIR & EXHAUST SYSTEMS, AND PROVIDE PADS AND/OR CURBS ON ROOF. SEE EXHAUST & MAKE-UP AIR PLANS FOR LOCATIONS. REPAIR AND/OR REPLACE ROOF SEAL TO ORIGINAL CONDITION & IN ACCORDANCE TO ANY REQUIREMENT AS TO NOT VOID WARRANTY IF APPLICABLE.
- SPECIFICATIONS & DETAILS. 11. COORDINATE ALL PHASES OF CONSTRUCTION WITH FOOD SERVICE EQUIPMENT CONTRACTOR, INCLUDING NOTIFICATION

IN ADVANCE WHEN ROUGH & FINISHED PLUMBING & ELECTRICAL WORK, CURB FORMS, ETC., CAN BE CHECKED.

10. PROVIDE & INSTALL COMPLETE FIXTURE HOT WATER SYSTEM. SEE ARCHITECTURAL MECHANICAL PLANS FOR

- 12. SPRINKLER HEADS IN FREEZER BOXES WILL BE ADEQUATELY PROTECTED AGAINST FREEZING UP BY GENERAL CONTRACTOR IF APPLICABLE.
- 13. SWINGING DOORS IN PASSAGEWAY SHALL BE PROVIDED WITH WINDOWS WHICH SHALL BE 200 SQUARE INCHES OR OF A SUBSTANTIALLY EQUIVALENT AREA. THE GLASS SHALL BE EITHER SHATTERPROOF OR WIRE GLASS & THE BOTTOM OF THE WINDOWS SHOULD NOT BE MORE THAN 48" ABOVE THE FLOOR. DOORS TO MEET ALL LOCAL CODES.
- 14. IT IS THE RESPONSIBILITY OF THE OWNER AND/OR GENERAL CONTRACTOR TO INSURE THAT FOOD SERVICE EQUIPMENT CONTRACTOR RECEIVES COPIES OF ALL ADDENDA & CHANGES TO BUILDING PLANS WHICH ARE MADE PRIOR TO & **DURING CONSTRUCTION.**
- 15. WHERE NOISY OR VIBRATION PRODUCING EQUIPMENT IS LOCATED ADJACENT TO DINING AREAS, PROVISIONS SHOULD BE MADE TO "DOUBLE STUD" AND/OR SOUND-PROOF COMMON WALLS BY GENERAL CONTRACTOR.
- 16. GENERAL CONTRACTOR TO BE RESPONSIBLE FOR ALL GENERAL CLEAN UP & DISPOSAL OF ALL TRASH. CARTONS.
- CRATES, DEBRIS, ETC., PRIOR TO FINAL INSTALLATION OF ALL EQUIPMENT. 17. IT SHALL BE THE RESPONSIBILITY & ACCOUNTABILITY OF THE GENERAL CONTRACTOR TO ASSURE THAT HIS
- SUBCONTRACTORS OBTAIN ALL NECESSARY PERMITS REQUIRED FOR THOSE SECTIONS OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION INCLUDING ANY SCHEDULING OF HEALTH INSPECTIONS REQUIRED.
- 18. GENERAL CONTRACTOR SHALL BE PRESENT AT ALL INSPECTIONS AS REQUIRED BY HIS TRADE CONTRACT WITH OWNER.
- 19. GENERAL CONTRACTOR TO WARRANTY ALL LABOR & MATERIAL FOR A PERIOD OF ONE (1) YEAR FROM CERTIFICATE OF COMPLETION. OR AS CALLED OUT IN SPECIFICATIONS.
- 20. K-STYLE FIRE EXTINGUISHER(S) ARE REQUIRED IN THE KITCHEN AREA WHEN WET CHEMICAL FIRE SUPRESSION SYSTEMS ARE USED. GENERAL CONTRACTOR TO PROVIDE AND INSTALL K-STYLE FIRE EXTINGUISHER(S) AS REQUIRED BY LOCAL

FIXTURE REFRIGERATION NOTES

- ELECTRICAL CONTRACTOR TO SUPPLY & INSTALL ALL CONDUIT & PULL BOXES UNDER THE GENERAL CONTRACT FOR FIXTURE REFRIGERATION SYSTEM. ALL FULLY OR PARTIALLY EXPOSED PULL BOXES TO BE COMPLETE WITH STAINLESS STEEL COVER PLATES. SIZE OF PULL BOXES TO BE AS SHOWN ON FOOD SERVICE DRAWING UNDERGROUND PLAN.
- 2. CONDUIT TO BE ROUND APPROVED TYPE, DIAMETER AS INDICATED WITH MINIMUM BENDING RADIUS OF 24" (FACTOR L'S WILL NOT BE PERMITTED). VERIFY WITH CODES TYPE OF CONDUIT REQUIRED. GALVANIZED CONDUIT SHOULD NOT BE USED WITH COPPER REFRIGERATION SYSTEM.
- 3. ALL HORIZONTAL DIMENSIONS SHOWN ON FIXTURE REFRIGERATION PLAN ARE GIVEN FROM FACE OF FINISHED WALLS TO CENTER LINES OF PULL BOX OR CONDUIT AND/OR FROM CENTER LINE OF PULL BOX OR CONDUIT TO CENTER LINE OF PULL BOX OR CONDUIT, UNLESS
- 4. HEIGHT OF PULL BOXES ON WALL IS GIVEN FROM FINISHED FLOOR TO CENTER LINE OF PULL
- 5. ELECTRICAL CONTRACTOR TO SUPPLY & INSTALL CONDUIT FOR REMOTE Co2, SYRUP & BEER LINES FOR DISPENSING SYSTEMS AS CALLED FOR ON UNDERGROUND PLAN.
- 6. ELECTRICAL CONTRACTOR TO SUPPLY POWER AT COMPRESSOR RACK FOR & CONNECT COMPRESSORS COMPLETE WITH DISCONNECT SWITCHES, UNLESS NOTED OTHERWISE HEREIN. SEE FIXTURE REFRIGERATION SCHEDULE FOR REQUIREMENTS.
- FIXTURE REFRIGERATION CONTRACTOR TO SUPPLY & INSTALL ALL COMPRESSORS, LINES, FITTINGS & VALVES FOR COMPLETE FIXTURE REFRIGERATION SYSTEM.
- 8. FIXTURE REFRIGERATION CONTRACTOR TO SUPPLY & INSTALL WELDED ANGLE IRON RACK & PROTECTIVE HOUSING SIZE TO HOLD ALL REMOTE COMPRESSORS & CONDENSERS.
- 9. GENERAL CONTRACTOR TO SUPPLY AIR FLOW TO COMPRESSOR ROOM AS FOLLOWS: 1000 CFM's OF AIR PER H.P. ARE REQUIRED TO BE BROUGHT INTO COMPRESSOR ROOM & BLOWN DOWN ACROSS THE FACE OF COMPRESSOR, WITH PROPER GRILLS IN WALL TO SAME AMOUNT OF AIR. IF COMPRESSOR ROOM WILL EXCEED 100°F AT ANY TIME, THE AIR BROUGHT IN MUST BE COOLED.
- 10. ELECTRICAL CONTRACTOR TO PROVIDE 4-WIRE, OR 5-WIRE TO 7-WIRE COLOR CODED SERVICE FROM FREEZER COMPRESSOR & TIME CLOCK TO FREEZER BLOWER COIL IN FIXTURE FOR AUTOMATIC DEFROST SYSTEM.
- 11. GENERAL CONTRACTOR TO PROVIDE 6" HIGH PLATFORM ON ROOF. TOP OF PLATFORM COVERED WITH GALVANIZED SHEET METAL. SEE PLAN AND/OR SCHEDULE FOR SIZE.
- 12. REFRIGERATION CONTRACTOR TO PROVIDE HEATER TAPE FOR FREEZER DRAIN LINE. **ELECTRICAL CONTRACTOR TO HOOK-UP.**

VICINITY

HEALTH NOTES

- 1. A CONCRETE SLAB IS PROVIDED FOR TRASH, GARBAGE, AND GREASE CONTAINER. IF WALLS ENCLOSE AREA, THE INTERIOR WALL SURFACES WILL BE SMOOTH, SEALED & WASHABLE. ALL FOOD-RELATED AND UTENSIL-RELATED EQUIPMENT SHALL MEET OR BE EQUIVALENT TO SANITATION
- STANDARDS ESTABLISHED BY AN AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) ACCREDITED PROGRAM. ALL FLOOR MOUNTED EQUIPMENT WILL BE INSTALLED ON MINIMUM 6" SANITARY LEGS, CASTERS, OR COMPLETELY SEALED IN POSITION ON A 4" HIGH CURB w/CONTINUOUSLY COVED BASE. COUNTERTOP
- EQUIPMENT WILL BE ON 4" SANITARY LEGS OR SEALED TO THE COUNTER UNLESS READILY MOVABLE. I. IF SOFT DRINK, ICE OR OTHER DISPENSERS ARE SELF-SERVICE, OR IF REFILLS ARE PROVIDED THEY MUST BE PUSH BUTTON TYPES, OR LEVER TYPES WHERE THE LEVER CONTACTS THE CONTAINER AT LEAST 1" BELOW
- 5. ANY OPENABLE WINDOWS, VENT OPENINGS, OR OTHER SIMILAR OPENINGS MUST BE PROVIDED WITH TIGHT
- UTENSIL-WASHING, OPEN FOOD & UTENSIL STORAGE AREAS. ALL EXTERIOR DOORS OPEN OUTWARD AND ARE SELF-CLOSING (SC) & TIGHT FITTING.

FITTING SCREENS OF MINIMUM 16 MESH TO THE INCH. WINDOWS TO BE FIXED AT FOOD PREP,

- 7. BI-FOLD, FRENCH, ACCORDION STYLE AND ROLL-UP DOORS CANNOT OPEN INTO THE FOOD PREP, UTENSIL WASHING OR UNPACKAGED FOOD SERVICE AREAS.
- TOILET ROOM & DRESSING ROOM DOORS MUST BE SELF-CLOSING (SC), TIGHT FITTING. 9. DELIVERY DOORS TO HAVE AIR CURTAIN FANS THAT SPAN THE WIDTH OVER THE DOOR. THE FAN MUST
- ACTIVATE VIA A MICROSWITCH PROVIDING A MINIMUM VELOCITY OF 1600 FPM MEASURED 3 FEET ABOVE THE 10. A MINIMUM OF 20 FOOT-CANDLES (215 LUX) OF LIGHT MEASURED 30" OFF FLOOR IS PROVIDED IN WALK-IN
- REFRIGERATED STORAGE & DRY STORAGE ROOMS & IS PROVIDED WHERE FOOD IS PROVIDED FOR CONSUMER SELF-SERVICE, WHERE FRESH PRODUCE OR PREPACKAGED FOODS ARE SOLD OR OFFERED FOR CONSUMPTION; INSIDE EQUIPMENT SUCH AS REACH-IN & UNDERCOUNTER REFRIGERATORS; IN AREAS USED FOR HANDWASHING, WAREWASHING, EQUIPMENT & UTENSIL STORAGE, AND IN TOILET ROOMS.
- 11. A MINIMUM OF 50 FOOT-CANDLES (538 LUX) OF LIGHT MEASURED 30" OFF FLOOR IS PROVIDED WHEN WORKING WITH FOOD OR WORKING WITH UTENSILS OR EQUIPMENT SUCH AS KNIVES, SLICERS, GRINDERS, OR SAWS WHERE EMPLOYEE SAFETY IS A FACTOR AND IN ALL AREAS DURING PERIODS OF CLEANING.

12. LIGHTS THAT ARE CAPABLE OF SHATTERING WILL BE PROVIDED WITH SHATTER-SHIELDS & ENDCAPS.

- 13. ALL WAREWASHING SINKS TO HAVE 3 COMPARTMENTS THAT ARE A MINIMUM SIZE OF AT LEAST 18"x18"x12" DEEP (OR 16"x20"x12" DEEP) WITH A MINIMUM 18" DRAINBOARD AT EACH END. IF AGAINST A WALL, IT MUST HAVE AN 8" INTEGRAL BACKSPLASH. HOWEVER, IT MUST BE CAPABLE OF ACCOMMODATING THE LARGEST UTENSIL TO BE WASHED. A WAREWASHING MACHINE DOES NOT SUBSTITUTE FOR THE SINK REQUIREMENT.
- 14. SINKS TO HAVE SPOUT(S) CAPABLE OF REACHING EACH COMPARTMENT. 15. FOOD PREP SINK COMPARTMENT(S) TO BE AT LEAST 18"x18"x12" DEEP (or 16"x20"x12" DEEP) WITH A MINIMUM
- OF 18" DRAINBOARD. SEPARATE FOOD PREP SINKS TO BE PROVIDED FOR MEATS & PRODUCE. 16. A SEPARATE WET WASTE DUMP FIXTURE SHALL BE PROVIDED FOR DISPOSAL OF DRINK OR WASTE ICE OR COFFEE WASTE.
- 17. EACH HANDWASHING SINK MUST HAVE PERMANENTLY MOUNTED SINGLE-SERVICE SOAP & PAPER TOWEL DISPENSERS.
- 18. THE HOT WATER HEATER WILL BE A COMMERCIAL TYPE CAPABLE OF CONSTANTLY SUPPLYING HOT WATER AT A TEMPERATURE OF 120°F TO ALL SINKS. IN SIZING THE WATER HEATER, THE PEAK HOURLY DEMAND FOR ALL
- SINKS, ETC., ARE ADDED TOGETHER TO DETERMINE THE MINIMUM REQUIRED RECOVERY RATE. 19. ALL LAVATORIES OR HAND SINKS WILL HAVE A COMBINATION FAUCET OR PREMIXING FAUCET CAPABLE OF SUPPLYING WATER TEMPERED TO 100°F. SELF-CLOSING OR METERED FAUCET TO PROVIDE AT LEAST 15
- SECONDS OF WATER WITHOUT REACTIVATION. 20. ALL PLUMBING, ELECTRICAL & GAS SHALL BE CONCEALED WITHIN THE BUILDING STRUCTURE TO AS GREAT AN EXTENT AS POSSIBLE. ALL EXPOSED CONDUITS, PLUMBING, ETC. SHALL BE INSTALLED AT LEAST 6" OFF FLOOR AND 3/4" FROM WALLS USING STANDOFF BRACKETS.
- 21. CONDUITS, PLUMBING OR PIPING CANNOT BE INSTALLED ACROSS ANY AISLE WAY, TRAFFIC AREA OR DOOR OPENING.
- 22. MULTIPLE RUNS OR CLUSTERS OF CONDUIT OR PIPELINES SHALL BE FURRED IN OR ENCASED IN AN APPROVED
- SEALED ENCLOSURE. 23. ALL LIQUID WASTE SHALL BE DRAINED BY MEANS OF INDIRECT WASTE PIPES INTO A FLOOR SINK. FLOOR
- SINKS ARE TO BE INSTALLED FLUSH WITH THE FINISHED FLOOR SURFACE & HAVE APPROPRIATE EASILY REMOVABLE SAFETY COVER GRATES.
- 24. FLOOR SINK TO BE 50% EXPOSED WHEN NO ACCESS IS PROVIDED FOR CLEANING OR BE IN LINE WITH THE FRONT FACE OF ELEVATED FREESTANDING EQUIPMENT. 25. APPROVED BACKFLOW PREVENTER SHALL BE PROPERLY INSTALLED UPSTREAM OF ANY POTENTIAL HAZARD
- BETWEEN THE POTABLE WATER SUPPLY & A SOURCE OF CONTAMINATION. HOSES SHALL NOT BE ATTACHED TO A FAUCET OR HOSE BIB UNLESS AN APPROVED BACKFLOW PREVENTER IS PROVIDED. 26. WATER SUPPLY TO CARBONATORS SHALL BE PROTECTED BY AN APPROVED REDUCED PRESSURE PRINCIPLE
- BACKFLOW PREVENTER. THE RELIEF VALVE SHALL DRAIN INDIRECTLY TO SEWER WITH A LEGAL AIR GAP. 27. FOR CLEANING FLOOR MATS, THE JANITORIAL SINK TO BE A MINIMUM 24"x36" FLOOR MOUNTED TYPE. MOPS SHALL BE PLACED IN A POSITION THAT ALLOWS THEM TO AIR-DRY WITHOUT SOILING WALLS, EQUIPMENT, OR
- 28. THE JANITORIAL SINK FAUCET WILL HAVE A THREADED OUTER LIP FOR HOSE ATTACHMENT & AN APPROVED BACKFLOW PREVENTION DEVICE. NO CHEMICAL DISPENSING SYSTEMS OR SHUTOFF VALVES TO BE ATTACHED
- TO MOP SINK FAUCET OUTLET (UNLESS A "SIDEKICK" PLUMBING DEVICE IS INSTALLED). 29. NO CONDENSATE OR WASTEWATER INCLUDING HVAC WILL DRAIN INTO THE JANITORIAL SINK.
- 30. GREASE TRAP TO BE LOCATED OUTSIDE THE FOOD SERVICE ACTIVITY AREA, FLUSH WITH THE FINISHED FLOOR WHEN INDOORS. LOCAL WASTEWATER DISTRICT OR BUILDING DEPARTMENT TO BE CONTACTED FOR GREASE REMOVAL REQUIREMENTS. 11. FLOOR DRAINS SHALL BE INSTALLED IN FLOORS THAT ARE WATER-FLUSHED FOR CLEANING AND IN AREAS
- WHERE PRESSURE SPRAY METHODS FOR CLEANING EQUIPMENT ARE USED. IN RESTROOMS, JANITORIAL ROOMS, SCULLERIES, AND AT BARS WITH WAREWASHING. FLOOR SURFACES IN AREAS PURSUANT TO THIS SHALL BE SLOPED 1:50 TO THE FLOOR DRAINS.
- 32. ADEQUATE VENTILATION IS TO BE PROVIDED TO ALL TOILET ROOMS, JANITOR CLOSETS WITH MOP SINKS, INDOOR TRASH ROOMS, AND IN DRESSING / CHANGING ROOM(S). 33. THE FLOOR FINISH WILL HAVE A SMOOTH SURFACE UNDER ALL EQUIPMENT & WALKWAYS WILL HAVE A LIGHT
- TEXTURE ONLY. 34. THE PAINT USED ON WALLS & CEILINGS OF ALL KITCHEN, FOOD PREPARATION, WORK, AND STORAGE AREAS WILL BE A GLOSS OR SEMI-GLOSS ENAMEL. FINISH MATERIAL SHALL BE A LIGHT COLOR WITH A REFLECTANCE VALUE OF 70% OR GREATER, FOR EASY CLEANING.
- 5. PRIOR TO INSTALLATION, A SAMPLE OF CEILING TILE MAY BE REQUIRED TO BE SUBMITTED TO UCSD HEALTH

OF KITCHEN, FOOD PREP, WORK AREAS, WHICHEVER IS GREATER. SHELVING SHALL BE AT LEAST 18" DEEP &

- 36. COLD STORAGE ROOMS SHALL BE PROVIDED WITH A SECTION OF SHELVING INSTALLED TO HOLD SHALLOW COOL DOWN PANS - NOT TO EXCEED 4" IN HEIGHT. SPACE BETWEEN SHELVING TO BE AT LEAST 8" HIGH. 7. BACKUP DRY STORAGE SHELVING SHALL BE A MINIMUM OF 96 LINEAR FEET (MEASURED WITH TIERS) OR 25%
- START A MINIMUM 6" OFF THE FLOOR SURFACE. 38. SHELVING OVER WET AREAS (SINKS, MOP SINKS, ETC.) AND FOOD PREP SURFACES WILL BE METAL. 39. ALL SEAMS, GAPS & OPENINGS TO BE PROPERLY SEALED.

ORNESS DESIGN GROUP INC

A FOODSERVICE DESIGN AND EQUIPMENT COMPANY 5955 MIRA MESA BLVD., SUITE H SAN DIEGO, CALIFORNIA 92121 I TEL 858.457.5955 FAX 858.457.5950 I EMAIL INFO@ORNESSDESIGNGROUP.COM

LA MESA **SPRING VALLEY OPERATIONS CENTER**

3838 CONRAD DR

SPRING VALLEY, CA 92142 —— TENANT IMPROVMENT FOODSERVICE DRAWINGS ——

FINISH SCHEDULE (SEE ARCHITECTURAL PLANS FOR FINISH SPECIFICATION, WHERE APPLICABLE)

AREA	FLOOR	COVE BASE (%" MIN. CONTINUOUS RADIUS)	WALL	CEILING	REMARKS	
		COMMERCIAL CERAMIC TILE PREFABRICATED G.I. COVE BASE INTEGRAL EPOXY 38" COVE BASE) CERAMIC TILE SLIMFOOT	PAINTED GYP. BOARD FULL HEIGHT STAINLESS STEEL PANELS FULL HEIGHT F.R.P. PANELS (96" MINIMUM HEIGHT) AT WET WALLS PREFABRICATED G.I. PANELS F.R.P. OR TILE UP TO 48" MIN. WITH PAINTED GYP. BD. ABOVE	DENDED T-BAR CEILIN L-FACED ACOUSTIC P FABRICATED G.I. PANE ITED GYP. BOARD		
WALK-IN COOLER / FREEZER						

FINISH NOTES

SEALED CONCRETE FLOORS MUST BE SEALED WITH A PENETRATING SEALER WHICH IS NON-ABSORBANT, GREASE & ACID RESISTANT, AND DESIGNATED BY THE MANUFACTURER FOR USE IN FOOD SERVICE AREAS. SEALERS MUST BE REGISTERED WITHTHE USDA, NSF, OR APPROVED BY ANOTHER PUBLIC HEALTH AGENCY.

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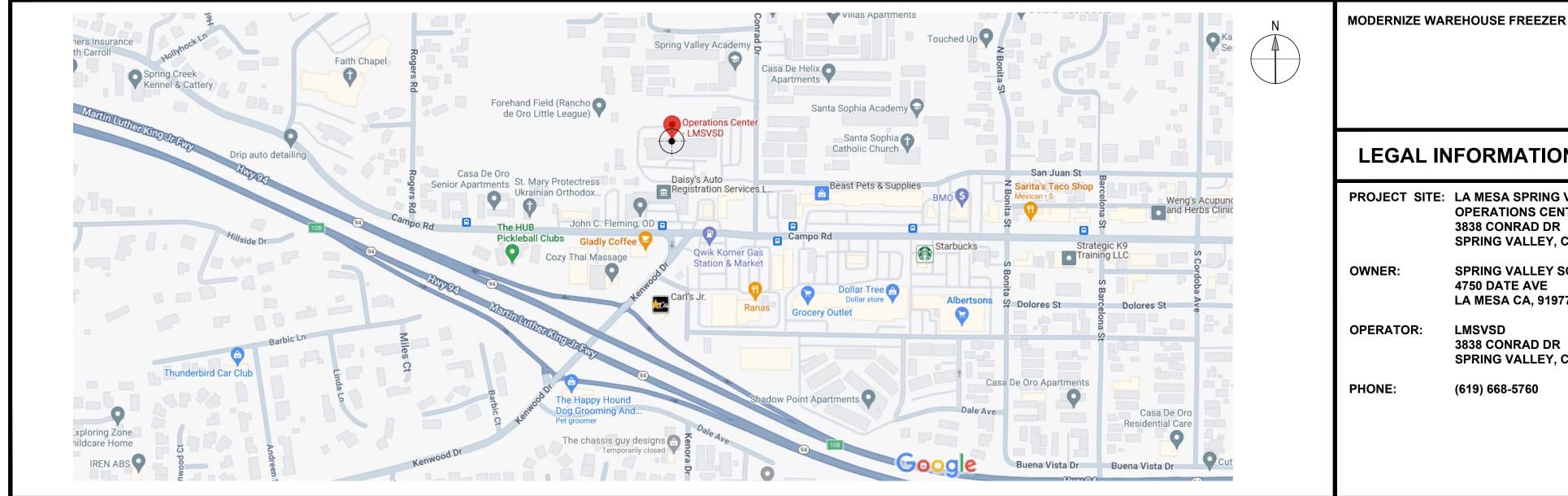
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SHEET TITLE

FOODSERVICE EQUIPMENT TITLE SHEET

23-029 LMSV WH Cooler and Freezer_Draft_23-09-12 aRCHICAD 26.pln

K001



LEGAL INFORMATION PROJECT SITE: LA MESA SPRING VALLEY **OPERATIONS CENTER** 3838 CONRAD DR **SPRING VALLEY, CA 91242** SPRING VALLEY SCHOOL DISTRICT **4750 DATE AVE LA MESA CA, 91977** OPERATOR: LMSVSD 3838 CONRAD DR **SPRING VALLEY, CA 91242** (619) 668-5760

SCOPE OF WORK

FOODSERVICE EQUIPMENT PLAN & SCHEDULE FOODSERVICE RACKING PLAN FOODSERVICE EQUIPMENT ELECTRICAL PLAN FOODSERVICE EQUIPMENT PLUMBING PLAN FOODSERVICE EQUIPMENT UNDERGROUND PLAN K331 FOODSERVICE EQUIPMENT ELEVATIONS FOODSERVICE EQUIPMENT ELEVATIONS K501 FOODSERVICE EQUIPMENT SECTIONS & DETAILS FOODSERVICE REFRIGERATION PLAN K602 FOODSERVICE REFRIGERATION PLAN

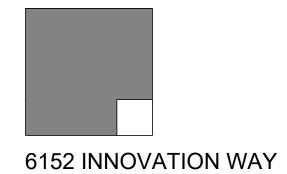
DRAWING INDEX

FOODSERVICE EQUIPMENT TITLE SHEET

FOODSERVICE EQUIPMENT OVERALL BUILDING PLAN

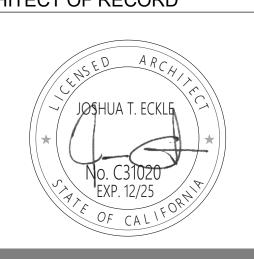
OVERALL SITE PLAN

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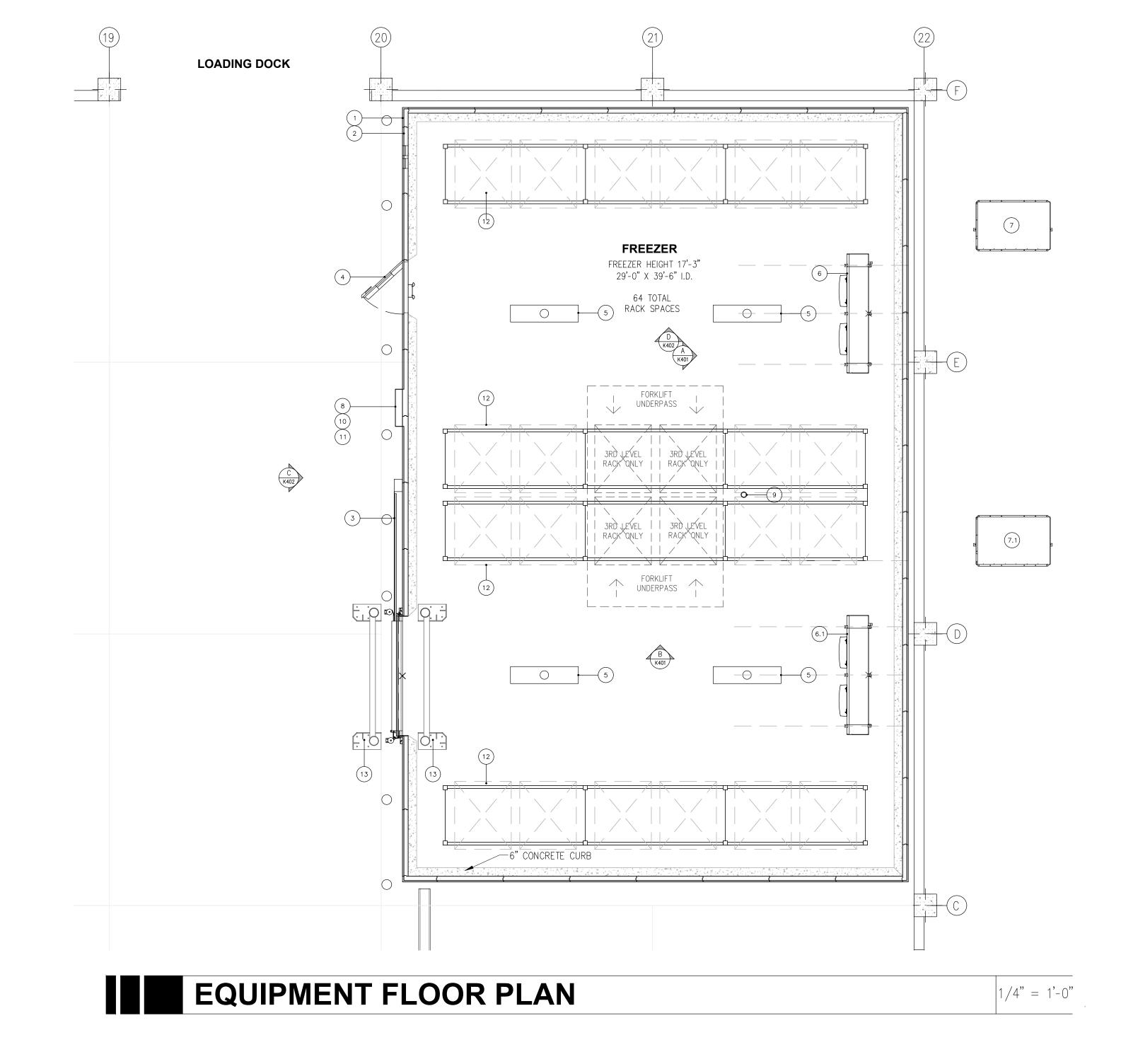
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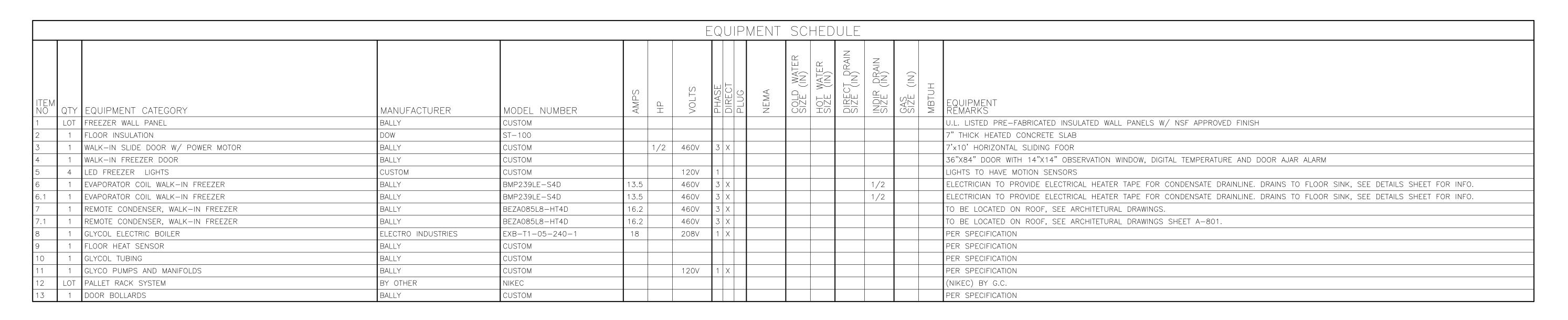
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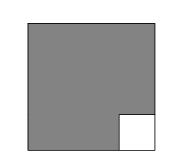
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SHEET TITLE

FOODSERVICE OVERALL BUILDING PLAN

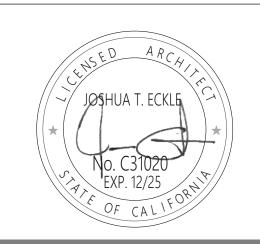






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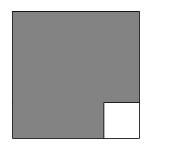
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& SCHEDULE

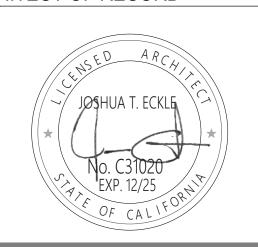
EQUIPMENT PLAN



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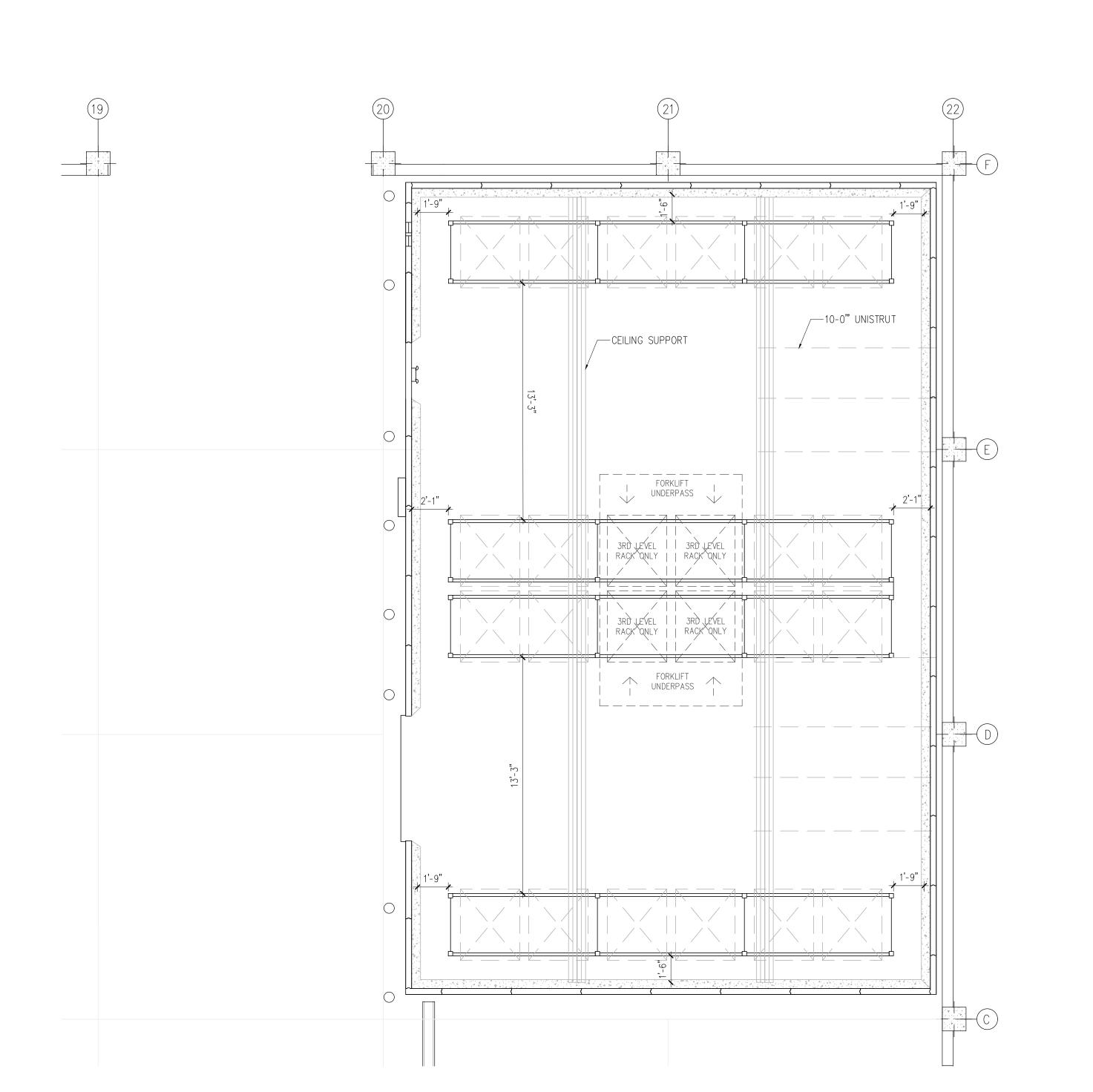
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SHEET TITLE

1/4" = 1'-0"

FOODSERVICE **EQUIPMENT** RACKING PLAN

K201

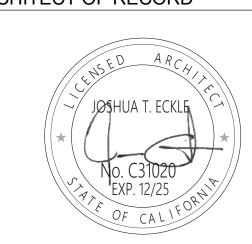


RACKING AND CEILING PLAN

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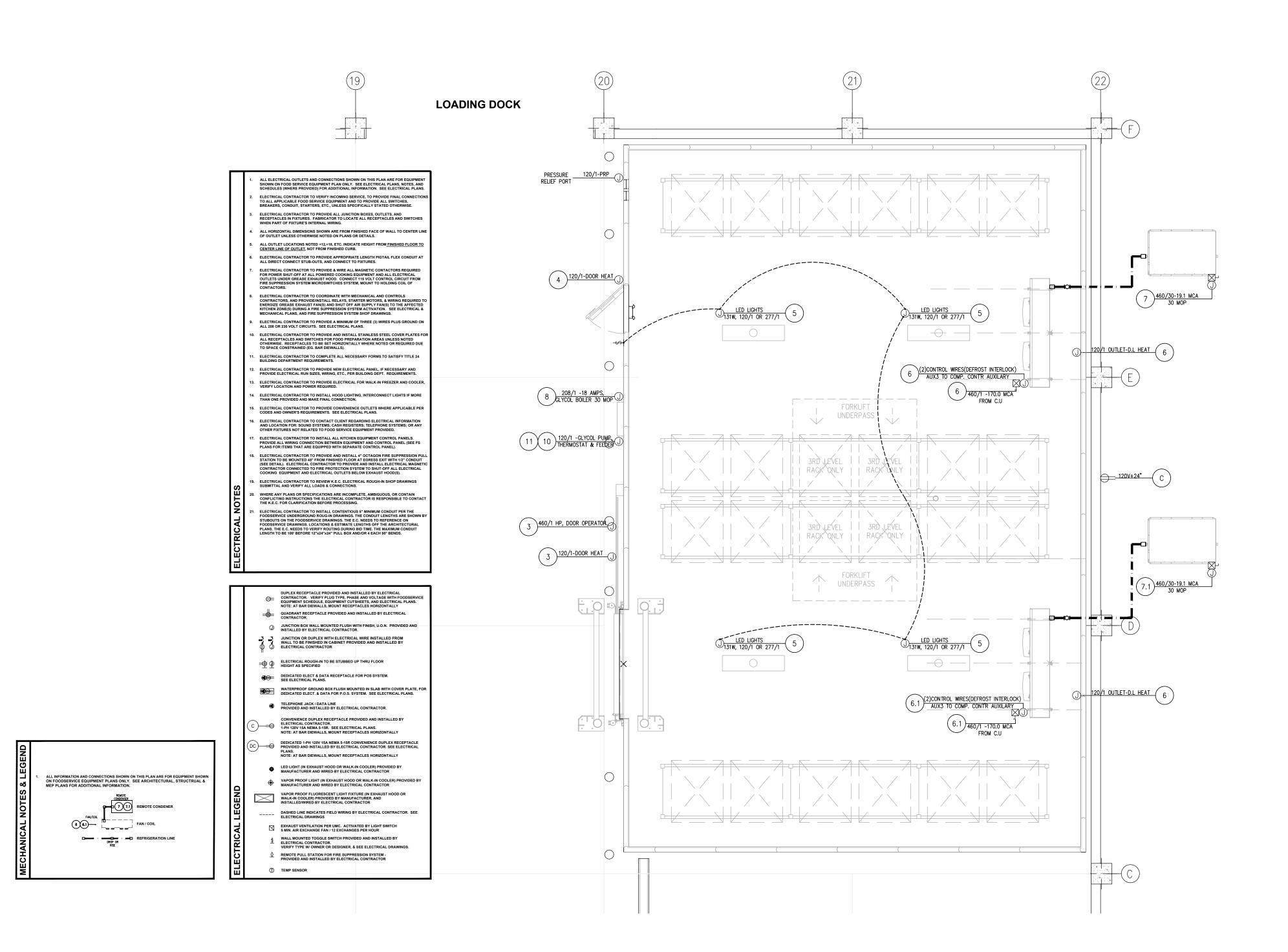
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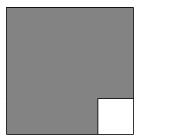
PLOT DATE: 2/28/24

SHEET TITLE

1/4" = 1'-0"

FOODSERVICE EQUIPMENT ELECTRICAL PLAN

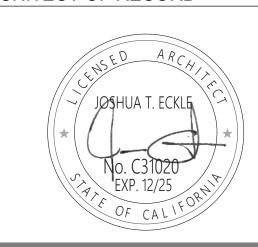




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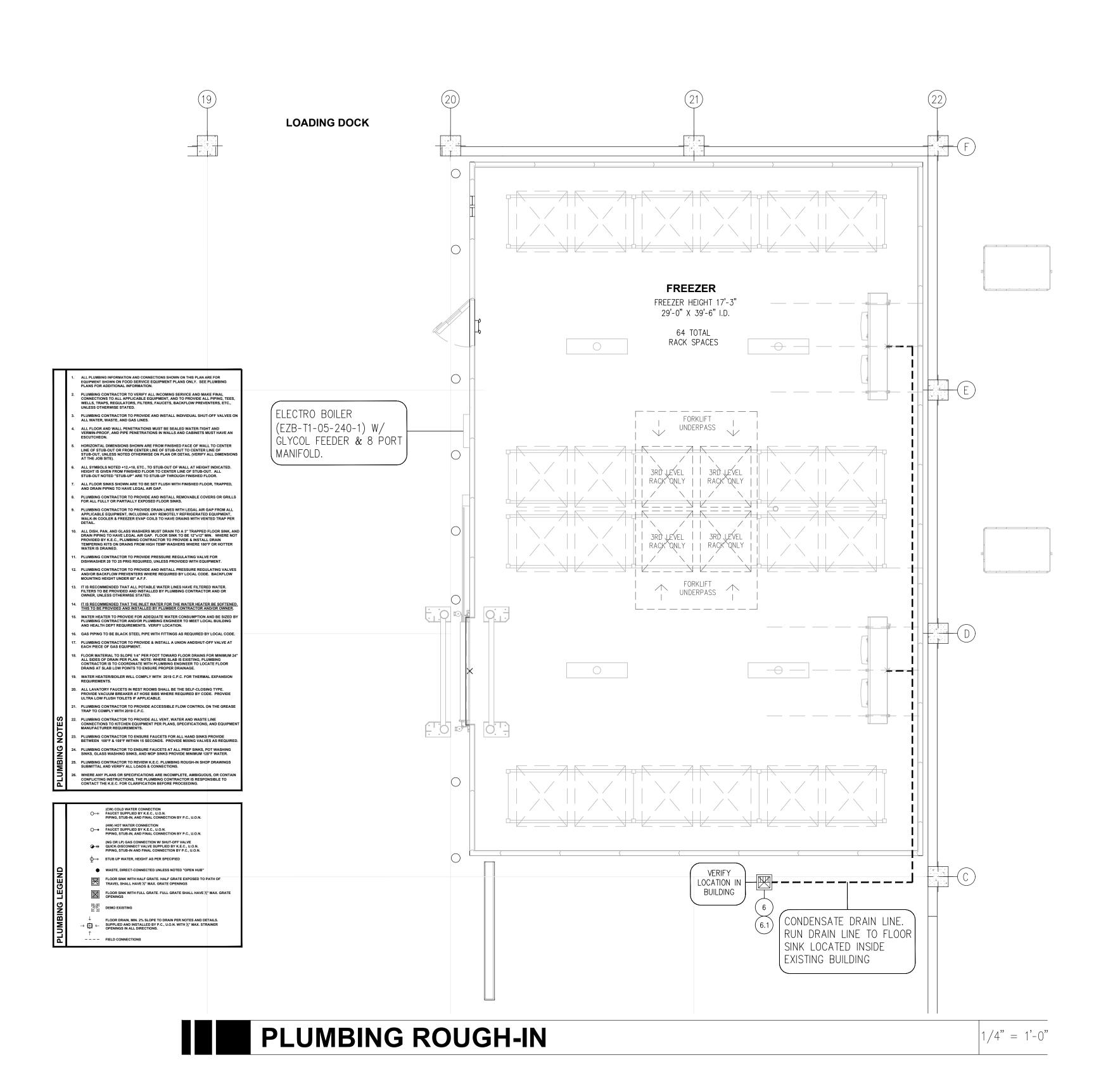
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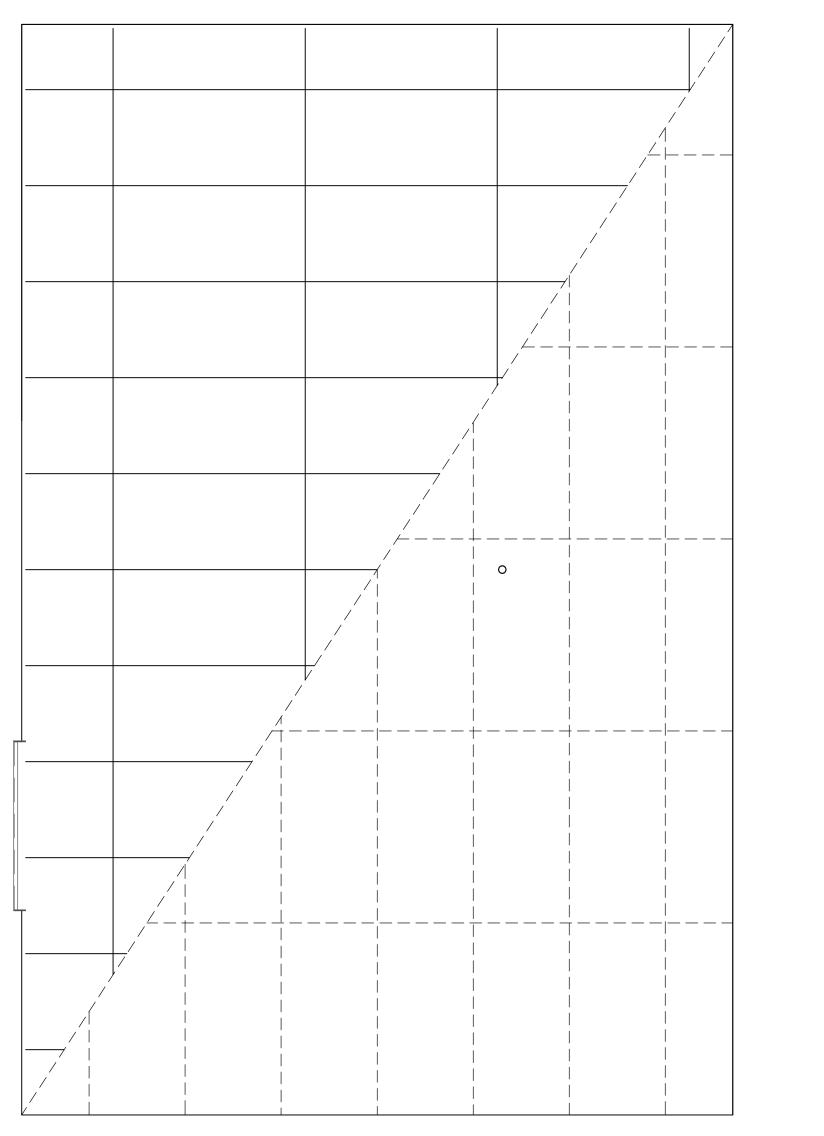
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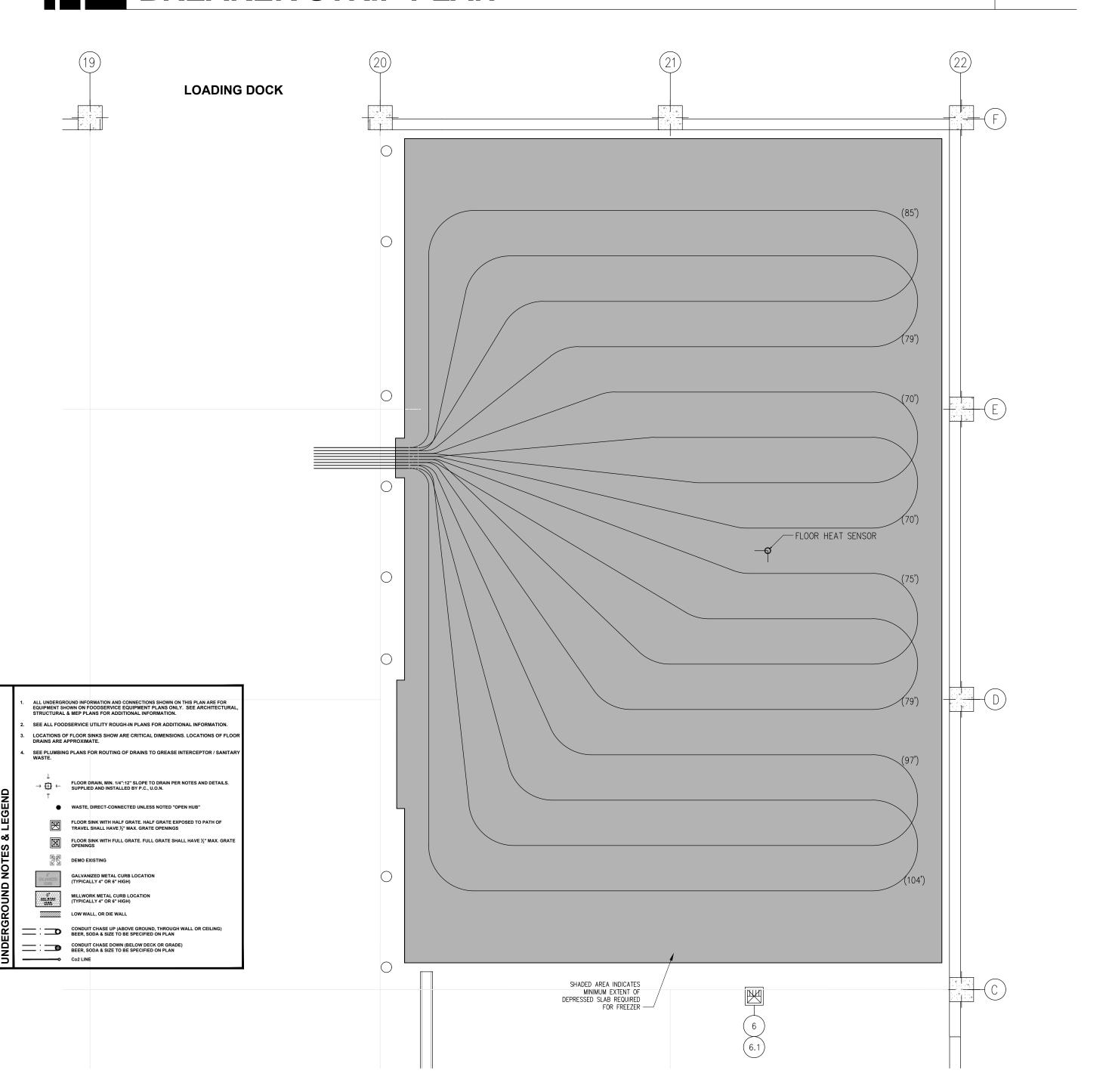
SHEET TITLE

FOODSERVICE **EQUIPMENT** PLUMBING PLAN

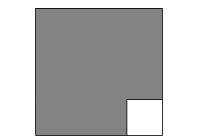




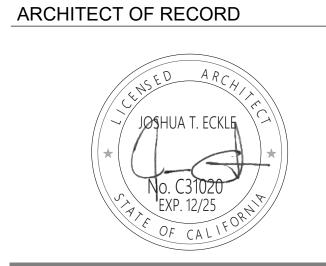
BREAKER STRIP PLAN







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1/4" = 1'-0"

1/4" = 1'-0"

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SHEET TITLE

FOODSERVICE **EQUIPMENT** UNDERGROUND PLAN

K331

FLOOR HEAT PIPING PLAN

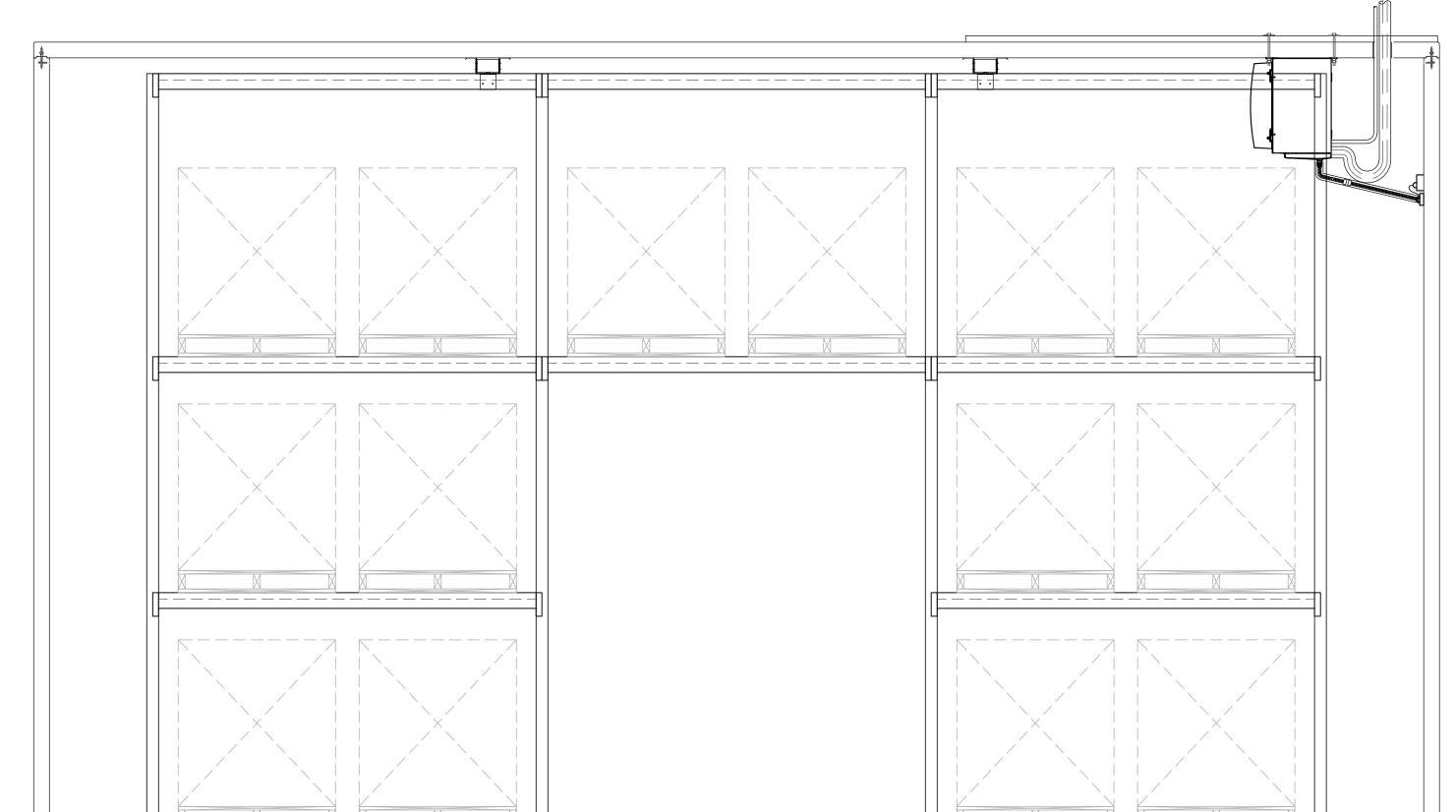
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A

interior elevation



FOODSERVICE **EQUIPMENT** ELEVATIONS



interior elevation 1/2" = 1'-0"



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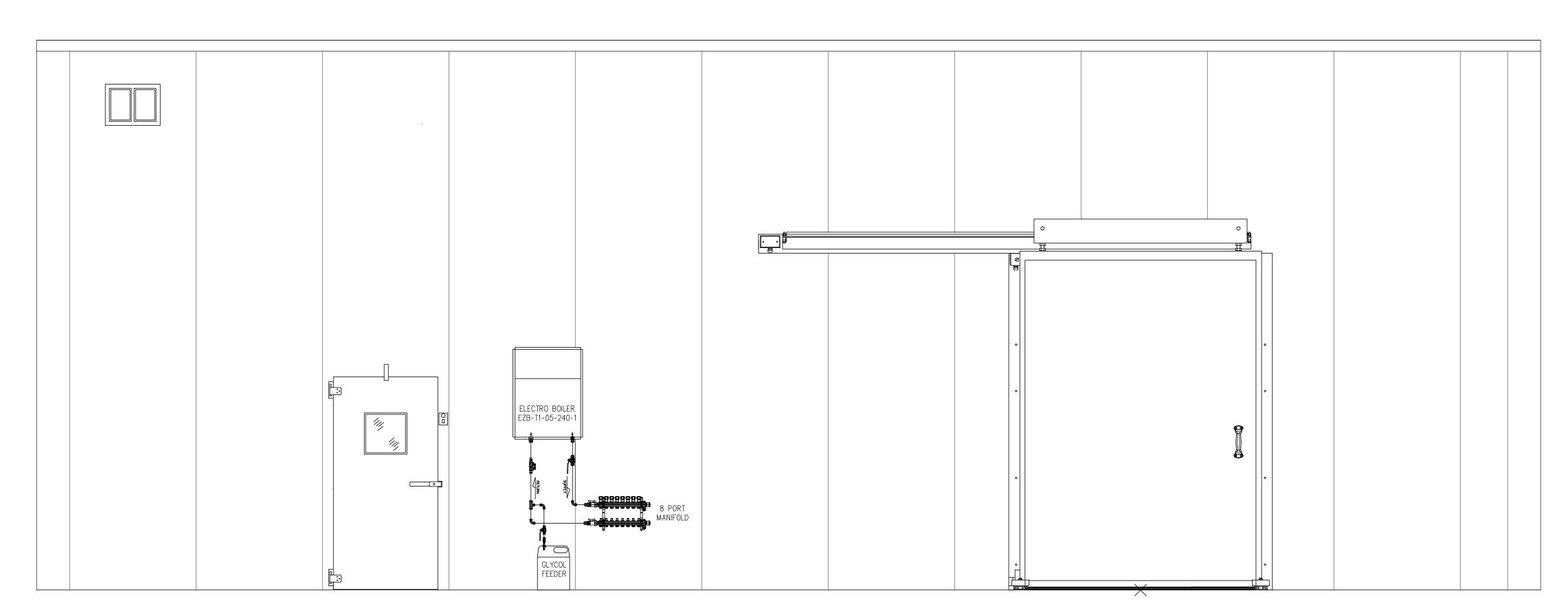
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PLOT DATE: 2/28/24

SHEET TITLE

D

racking elevation 1/2" = 1'-0"



C

exterior elevation 1/2" = 1'-0"

FOODSERVICE **EQUIPMENT** ELEVATIONS

03/25/2024 BID SET

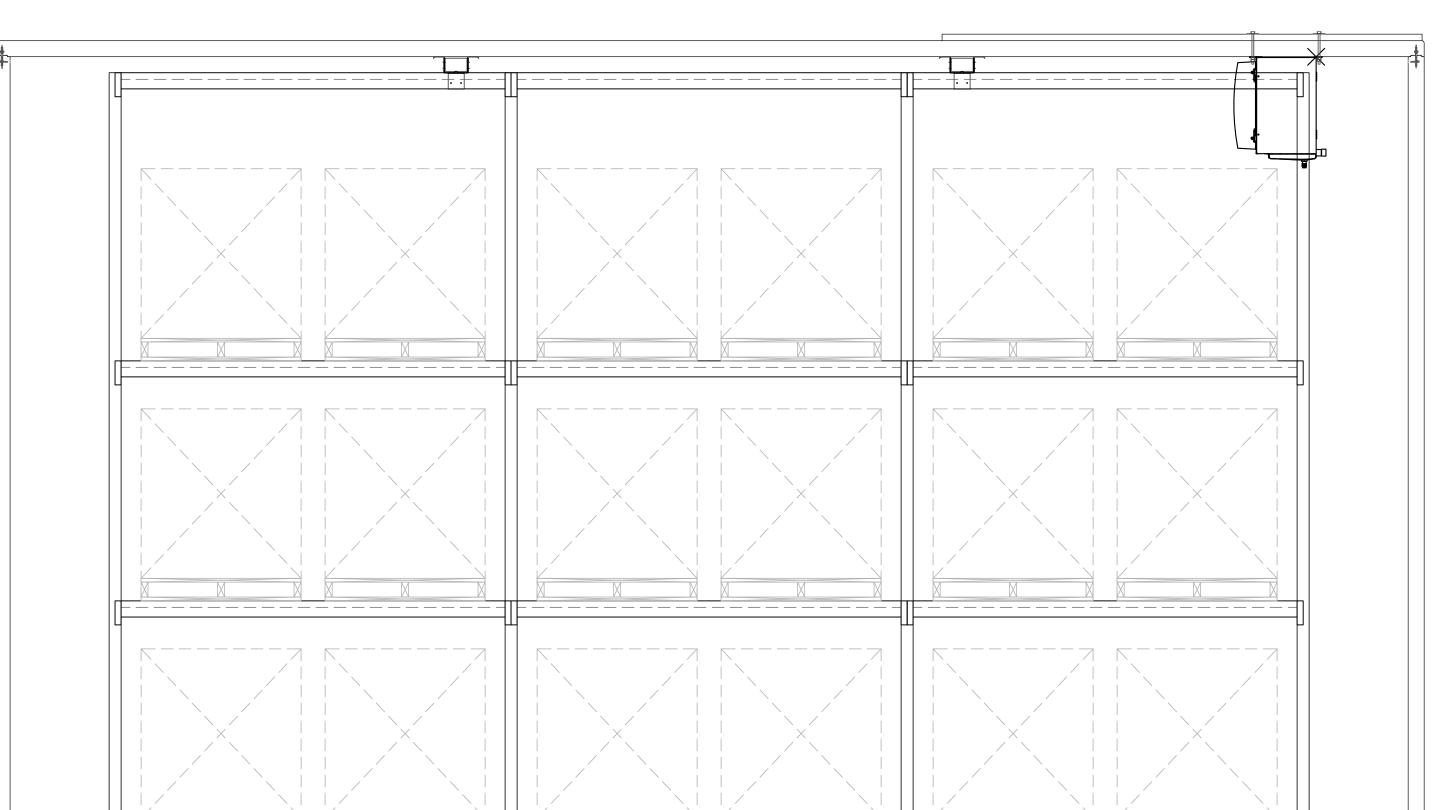
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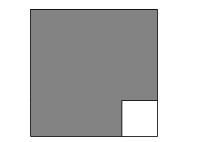
SHEET TITLE

K402

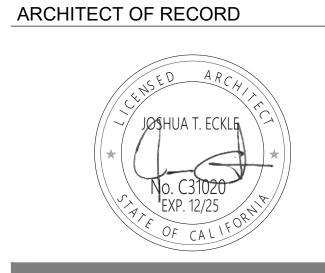
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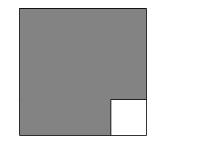
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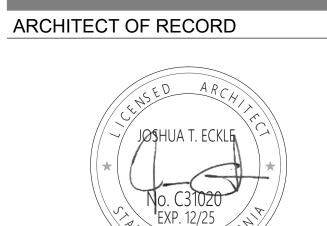
SCALE: NONE

SCALE: NONE

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REVIS	IONS	
MARK	DATE	DESCRIPTION
	03/25/2024	BID SET

PROJECT NO: 23-029

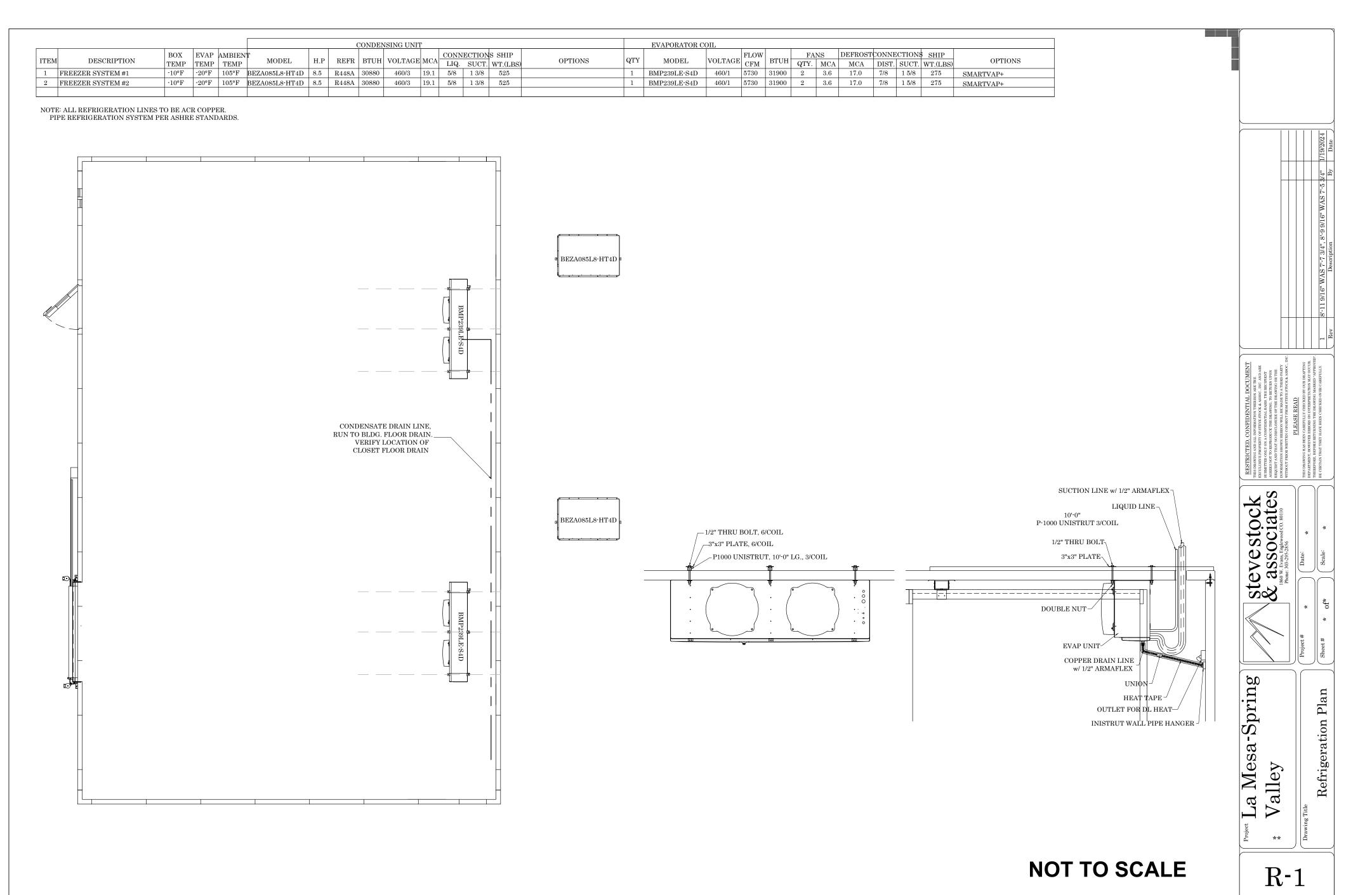
MODEL FILE: 23-029 LMSV WH Cooler and Freezer_Draft_23-09-12 aRCHICAD 26.pln PLOT DATE:

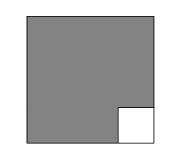
2/28/24

SCALE: NONE

SHEET TITLE

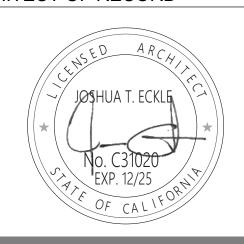
FOODSERVICE **EQUIPMENT** SECTIONS & DETAILS





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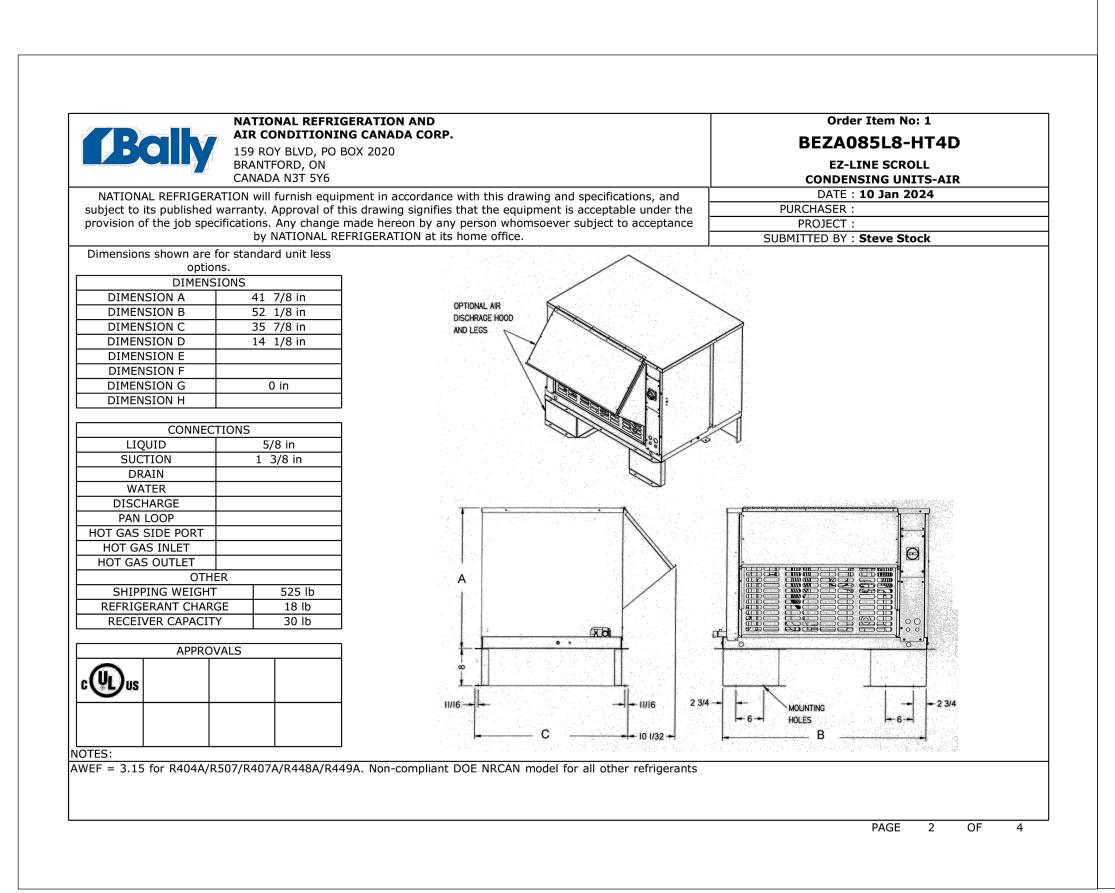
REVISIONS MARK DATE DESCRIPTION 03/25/2024 BID SET PROJECT NO: 23-029 MODEL FILE:
23-029 LMSV WH Cooler and Freezer_Draft_23-09-12 aRCHICAD 26.pln

PLOT DATE: 2/28/24

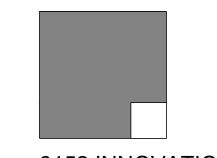
SHEET TITLE

FOODSERVICE REFRIGERATION PLAN

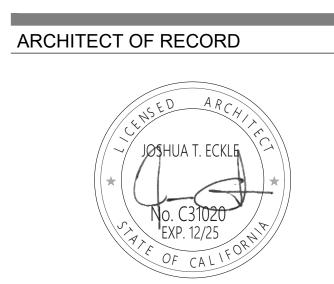
		NATIONAL AIR CONDI						ı	3MP2	39L	E-S4D)		
		159 ROY BLVD, PO BRANTFORD, ON		OMITADA C	• iti i				MEDIU	JM PR	OFILE			
	. (2)	CANADA N3T 5Y6							EVA	PORA	TOR			
		IASER:				SUB			Steve S					
		DJECT :	10 20250	004000 4					10 Jan 2	2024				_
		DER # : 069 4 DTE # : Q02			00			<u>M # :</u> D # :	3					_
PU	RCHASER'S		AWSSA-A				TAGG							-
					MODE	L FEATURES								-
refrigera Adjusta Factory harness Heavy cabinet c scratches NSF ap	nt operating able Fan Del installed so gauge textuconstruction s/corrosion	ay Thermost blenoid valve ired aluminui resists sh to ceiling i	at wire m	allows for of Unit is shandling a Totally Endal Bearin Schrader Hinged a electrical a	easy as in pedual network of the connection of t	upright for co k installation , Internally P	nvenier rotected on head ious nents ped Loc	i, Ier	polyethy • Ultra e Commut • ECM w • High e and alur • 6 FPI	lene f fficier ated l ith Sn fficien niniun	and durable an guard of Electron Motor (EC nartSpeed cy enhand fin coil of Electron Suction	s nically CM) d Technoced cop design	ology per t	,
Spo KE2 *KE *KE *KE 115\ Aux CABI Sta SENS Coi Ret DEM CON' KE2 *KE	orlan TXV, L 2 Evap Effici 7 Control C Sideport Co INET FINIS Inted White inless Steel FORS FOR I Temp Sens I Temp Sens I Temp DEFRO TROLLER THOLLER THOLLER THOLLER	ency w/Spor ency w/Spor ciency w/Spo ciency w/Spo ency w/KE2 ircuit onnector SH	lan TXV lan EEV rlan TXV rlan EEV EEV	Displate EXPAN Sport Sport Sport KE2 TI EEV f EVAPO Tamp Export COIL C E-Coa FIN MA Gold Copp Insula KE2 TI *CAT w/cor Temp Contr Ether	ay ISION Y an TXV an EEV Therm E for Sma DRATOF for Proo COATIN at ATERIA Coat File er Fins ted Dra HERM 5e Shie nnectors coller nnet Ada	EEV rtVap+ R PRISON P of Screws ng NG AL ns ain Pan	ACKAG 50ft		Me *M Wire ROO Me *M Wire REM CRN USE SUB Cir	orlan I Volted Ogen M TH chanic echanic hinson Fan OTE I 30V C REGI EVap D WIT COOL	ical in A19ABC in A421ABC A421ABC Guards DEFROST ontrol ontrol (STRATI orators IH MECH ER or sub-coc	and Seconds CC-02C C-02 CPANE ON	BOV Fealed	=i
VO	LTAGE	S	YSTEM REI	FRIGERANT		AIR F	LOW	E'	/AP. TEM	P	BOX TI	EMP_	CAP	
460	/1/60		R44	18A		5730	CFM		-20 °F		-10		3923	7
OT.	FANS		N.	TVDE		ATERS			4.5.5	<u>. </u>	CIRCUIT			<u>-</u>
QTY 2	POWER 420W	FLA/FA 1.6	IN	TYPE		QTY AMP	> -		3.2		WATTS	MCA ⁻ 3.6	' 	I
	-12UVV	1.0	DE	FROST HTR	${s}$	13.	-		3.4	+	6190	17	-+	-
DISTRIB	UTOR	7/8 in	SOUND		<u>-</u>		PACITY	<u>' </u>	- 1				APPR	Ų
SUCTI		5/8 in	WEIGH		73 lb		HARGE		9 lb					_
NOTES	:					current Prote			9 10			-	շ ՄՍ ս։	
APPROV		drawing sign	ifies that th	ne equinme	nt is acc	ceptable und	or the n	rovisi	on of the		ATE:	ons Any	char	-
	made hered													_



RATIONAL REFRIGE AIR CONDITIONING 159 ROY BLVD, PO BOX 2020					BE		L8-HT4	ŀD			
159 ROY BLVD, PO BOX 2020 BRANTFORD, ON CANADA N3T 5Y6			EZ-LINE SO CONDENSING U								
PURCHASER :			SUBMIT	ΓED		teve Stoc					
PROJECT :						0 Jan 202					
ORDER # : 06940.3925	9.00430P-A00		I	TEM	#:1						
QUOTE # : Q02AWSSA-				ID	#:						
PURCHASER'S PO # :			TA	GGIN	NG :						
	МО	DEL FI	EATURES								
3/8" Tubing coil construction (reduces	 Fan motors are 	e inhere	ently protected	l with	n •	Welded he	ermetic Scr	oll comp	ressor		
efrigerant operating charge)	internal overload	_					e low pressu				
Anti-short cycle time delay	Pre-formed pip Desciver with 6		ماريم مصطائميناط	استماما			fixed high p				
Adjustable pressure fan cycling control	 Receiver with f off valve 	iusibie į	piug and liquid	Silu			ency enhan		per tu	be	
on 2 fan models only • Copper tubing secured with cushion	Suction Service	e valve					um fin coil le with Low		ofrigor	onto	
clamps	 Adjustable floo 			ontro			veatherproo				
Crankcase heater	(unless otherwis					abinet	vederier proc	, pre pr	amiceu		
Discharge line temperature sensor	 Units are shipp charge 	oed with	n Helium holdii	ng		AWEF = 3	.15				
Fan Guard	Weatherproof 6	electric	al control box	with							
	compressor cont										
	MODEL OPTIO	NS (*	s = Shinned	Loos	se 1						
OPTION PACKAGES	DEFROST KIT	-		_00	<i></i>	LIQUID LII	NE FILTER + SI	GHT GLAS	SS Contir	nued	
Small B (Good@Warm/Moderate)	(USE W/KE2 E 35A to 50A pe		F) Continued			1 Replacea					
Small N (Better@Warm/Moderate) Small P (Best@Warm/Moderate)	Over 50A per	Evap					e Lock-Out Re INE SOLENOII				
Small D (Good@Moderate/Cold)	Discharge Air Discharge Line		Valve		Г		rd 230V Coil	VALVE			
Small J (Better@Moderate/Cold) Small Q (Best@Moderate/Cold)	Discharge Line	e Tempe	rature Sensor			*Standa	rd 115V Coil				
Small K	DISCONNECT	SWITCH	I		Г		Filter and Soler	noid			
Small H 115V Control Circuit	Fused Non-Fused					_	Pump Down				
ADJUSTABLE PRESSURE CONTROLS			EED CONTROLLE	R	L	Oversized PHASE / \	l Receiver /OLTAGE MON	ITOR			
Johnson Dual with flex hose	1 All Motors Val					3-Lead 6-Lead (MotorSaver455) Pump Down Toggle Switch					
Separate High/Low Separate High/Low: MAN Reset on HP	Low Pressure		CONTROL		-						
BALL VALVE	High Pressure					QuickVac Valves					
*Liquid Line Liquid Line	EXTENDED 4-YEAR COMPRESSOR WARRANTY						Inlet Ball Valv				
*Suction Line	1 Copeland				Г	RECEIVER LEVEL INDICATOR Dual Sightglass Single Point Electrical Sub Cooling Circuit SUCTION ACCUMULATOR					
Suction Line CAPACITY CONTROL - HOT GAS BYPASS	Extended Leg COIL COATING										
To Inlet of Evaporator	E-Coat				L						
To Suction Line Compressor Circuit Breaker	FIN MATERIAL Gold Coat Fin						at Exchanger				
CONDENSING UNIT PRISON PACKAGE	Copper Fins				L	Without SUCTION	Heat Exchange	r			
Tamper Proof Screws	Hail Guard for Heated and In					Sealed T	уре				
Crankcase Pressure Regulator CONTACTORS	HOUSING MAT	ΓERIAL	Receives		L	1 Replacea TIME CLO	able Core				
30A Contactor	Stainless Stee		_		Г		8145 Style				
40A Contactor 60A Contactor	Insulated Suct		: :SS CTRL SYSTEI	м			aragon 8145 St				
DEFROST KIT	1 460V Conden	_			\vdash	Wind Gua	aragon 8145 St rd	tyle			
(USE W/KE2 EVAP EFF) Up to 30A per Evap	LIQUID LINE I Sealed	FILTER -	+ SIGHT GLASS				ding Valve(s)				
VOLTAGE SYSTEM R	REFRIGERANT	Т	RATING	Ī	SHCT	ION TEMP	AMBIENT	TEMP	CAPA	CITY	
	448A		8.5Hp			20.5 °F	95 º			BTUH	
FANS		MPRES				<u> </u>	CIRCUIT	-			
QTY POWER FLA/FAN	TYPE	QTY	_		LRA	AMPS	WATTS	MCA		10P‡	
	ZF28K4E-TFD	1	14.4	_	21.4	16.2	T	19.8		30	
LIQUID 5/8 in SOU		1	REC CAPAC			30 lb			APPRO		
SUCTION 1 3/8 in WEIG		b	REF CHAR			18 lb					
NOTES:		7					•		c(UL)us		
† MCA Minimum Circuit Ampacity, ‡ M											
The state of the s	t ONLY. Single poir	nt conr	nections WILL	sho							
MCA & MOP are for the condensing unit	448A/R449A. Non-	-compl	iant DOE NRO	CAN	model	for all oth	er	ļ			
MCA & MOP are for the condensing unit AWEF = 3.15 for R404A/R507/R407A/R4											
MCA & MOP are for the condensing unit											
MCA & MOP are for the condensing unit AWEF = 3.15 for R404A/R507/R407A/R4							DATE :				
MCA & MOP are for the condensing unit AWEF = 3.15 for R404A/R507/R407A/R4 refrigerants APPROVED BY:	the equipment is	accent	able under th	e pro	ovision			ons. Anv	v chan	ge	
MCA & MOP are for the condensing unit AWEF = 3.15 for R404A/R507/R407A/R4 refrigerants						l n of the job	specification			ge	



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