

BRAUN CENTER AT OLD GALLINAS PHASE 2 MANUAL

PROJECT/CONTRACT NUMBER: 25-06

SAN RAFAEL CITY SCHOOLS

May 23, 2025

TABLE OF CONTENTS**Procurement and Contracting Requirements**

<u>Division 0</u>	<u>Section</u>	<u>Title</u>
	00 01 01	Project Title Page
	00 01 10	Table of Contents

Solicitation

<u>Division 0</u>	<u>Section</u>	<u>Title</u>
	00 11 16	Notice to Bidders

Instructions for Procurement

<u>Division 0</u>	<u>Section</u>	<u>Title</u>
	00 21 13	Instructions to Bidders
	00 21 13.1	Bidder Information and Forms

Procurement Forms and Supplements

<u>Division 0</u>	<u>Section</u>	<u>Title</u>
	00 41 13	Bid Form and Proposal
	00 43 13	Bid Bond
	00 43 36	Designated Subcontractors List
	00 45 01	Site Visit Certification
	00 45 19	Non-Collusion Declaration
	00 45 19.01	Iran Contracting Act Certification
	00 45 19.02	Off-Road Diesel-Fueled Fleet Certification
	00 45 26	Workers' Compensation Certification
	00 45 46.01	Prevailing Wage and Related Labor Requirements Certification
	00 45 46.02	Disabled Veteran Business Enterprise Participation Certification
	00 45 46.03	Drug-Free Workplace Certification
	00 45 46.04	Tobacco-Free Environment Certification
	00 45 46.05	Drug and Alcohol-Free Schools Certification
	00 45 46.06	Workplace Violence Prevention Plan Certification
	00 45 46.07	Hazardous Materials Certification
	00 45 46.08	Lead-Based Materials Certification
	00 45 46.09	Imported Materials Certification
	00 45 46.10	Criminal Background Investigation/Fingerprinting Certification
	00 45 46.11	Roofing Project Certification
	00 45 49	Registered Subcontractors List

Contracting Forms and Supplements

<u>Division 0</u>	<u>Section</u>	<u>Title</u>
	00 51 00	Notice of Award
	00 52 13	Agreement Form

SAN RAFAEL CITY SCHOOLS

**TABLE OF CONTENTS
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 01 10-1**

00 55 00 Notice to Proceed

Project Forms

<u>Division 0</u>	<u>Section</u>	<u>Title</u>
	00 61 13.13	Performance Bond
	00 61 13.16	Payment Bond
	00 63 40	Allowance Expenditure Directive Form
	00 63 57	Proposed Change Order Form
	00 63 63	Change Order Form
	00 65 19.26	Agreement and Release of Any and All Claims
	00 65 36	Guarantee Form

Conditions of the Contract

<u>Division 0</u>	<u>Section</u>	<u>Title</u>
	00 72 13	General Conditions
	00 73 13	Special Conditions
	00 73 56	Hazardous Materials Procedures and Requirements

Price and Payment Procedures

<u>Division 1</u>	<u>Section</u>	<u>Title</u>
	01 25 13	Product Options and Substitutions
	01 29 00	Application for Payment and Conditional and Unconditional Waiver and Release Forms

Administrative Requirements

<u>Division 1</u>	<u>Section</u>	<u>Title</u>
	01 33 00	Submittals

Quality Requirements

<u>Division 1</u>	<u>Section</u>	<u>Title</u>
	01 43 00	Materials and Equipment

Temporary Facilities and Controls

<u>Division 1</u>	<u>Section</u>	<u>Title</u>
	01 50 00	Temporary Facilities and Controls

Execution and Closeout Requirements

<u>Division 1</u>	<u>Section</u>	<u>Title</u>
	01 73 29	Cutting and Patching
	01 77 00	Contract Closeout and Final Cleaning
	01 78 23	Operation and Maintenance Data
	01 78 36	Warranties
	01 78 39	Record Documents

SAN RAFAEL CITY SCHOOLS

**NOTICE TO BIDDERS
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 11 16-2**

NOTICE TO BIDDERS

1. Notice is hereby given that the governing board ("Board") of the San Rafael City Schools ("District") will receive, by electronic submission, bids for the following project, Bid No. 25-06 ("Project" or "Contract"):

Braun Center at Old Gallinas Phase 2

2. The Project consists of:

HVAC replacement, panel and circuit breaker replacement, branch circuit wiring and device installation, and removal of existing inactive electrical systems at the Braun Center on the Old Gallinas Children's Center Campus. Construction is scheduled from July 30, 2025, through August 30, 2025.

Estimate: \$250,000.00

3. To bid on this Project, the Bidder is required to possess one or more of the following State of California contractors' license(s):

B

The Bidder's license(s) must remain active and in good standing throughout the term of the Contract.

4. To bid on this Project, the Bidder is required to be registered as a public works contractor with the Department of Industrial Relations pursuant to the Labor Code.
5. Contract Documents will be available on or after May 23, 2025, and may be downloaded from the District's website, <https://www.srcsbondprogram.org/domain/16>, using the [**"Doing Business With Us"**] link.
6. **San Rafael City Schools will only receive bids submitted electronically.** Bids will be received until **2:00:00 p.m., June 9, 2025**, only at the following email address: **bondprogram@srcs.org** after which time the bids will be opened and publicly read aloud via video conference. A link to the video conference will be provided by Addendum. Any bid that is submitted after this time shall be nonresponsive and returned to the bidder. **Each bidder is solely responsible for timely submission of its bid; the District is not responsible for any technological issues in a bidder's ability to timely submit its bid or portion thereof.** Any claim by a bidder of error in its bid must be made in compliance with section 5100 et seq. of the Public Contract Code. Prior to publicly reading aloud bids at the video conference, the District reserves the right to verify the genuineness of any bid security.
7. Pursuant to Public Contract Code section 20111.5, only prequalified bidders will be eligible to submit a bid for this Project. Any bid submitted by a bidder who is not prequalified shall be non-responsive and returned by email to the bidder.

8. All bids shall be on the form provided by the District. Each bid must conform and be

SAN RAFAEL CITY SCHOOLS

**NOTICE TO BIDDERS
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 11 16-3**

- responsive to all pertinent Contract Documents, including, but not limited to, the Instructions to Bidders.
9. A bid bond by an admitted surety insurer on the form provided by the District a cashier's check or a certified check, drawn to the order of the San Rafael City Schools, in the amount of ten percent (10%) of the total bid price, shall accompany the Bid Form and Proposal, as a guarantee that the Bidder will, within seven (7) calendar days after the date of the Notice of Award, enter into a contract with the District for the performance of the services as stipulated in the bid.
 10. A **NON-MANDATORY** pre-bid conference and site visit will be held on **June 2, 2025, at 2:00:00 p.m.** at Old Gallinas Children's Center, 251 N San Pedro Rd., STE D, San Rafael, CA 94903. All participants are required to sign in. The sign-in location map is attached. The site visit is expected to take approximately ½ hour. Failure to attend will render bid ineligible. DO NOT ENTER ANY SCHOOL BUILDINGS.
 11. The successful Bidder shall be required to furnish a 100% Performance Bond and a 100% Payment Bond if it is awarded the Contract for the Work.
 12. The successful Bidder and its subcontractors shall comply with sections 2449, 2449.1, 2449.2 of Title 13 of the California Code of Regulations, including by providing Certificate(s) of Reported Compliance for In-Use Off-Road Diesel-Fueled Fleets for the fleet selected for the contract and their listed subcontractors, if applicable, with its executed Contract.
 13. The successful Bidder may substitute securities for any monies withheld by the District to ensure performance under the Contract, in accordance with the provisions of section 22300 of the Public Contract Code.
 14. The successful Bidder will be required to certify that it either meets the Disabled Veteran Business Enterprise ("DVBE") goal of three percent (3%) participation or made a good faith effort to solicit DVBE participation in this Contract if it is awarded the Contract for the Work.
 15. The Contractor and all Subcontractors under the Contractor shall pay all workers on all Work performed pursuant to this Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the District, pursuant to section 1770 et seq. of the California Labor Code. Prevailing wage rates are also available from the District or on the Internet at: <<http://www.dir.ca.gov>>.
 16. This Project is subject to labor compliance monitoring and enforcement by the Department of Industrial Relations pursuant to Labor Code section 1771.4 and subject to the requirements of Title 8 of the California Code of Regulations. The successful Bidder shall comply with all requirements of Division 2, Part 7, Chapter 1, Articles 1-5 of the Labor Code.
 17. The District's Board has found and determined that the following item(s) shall be used on this Project based on the purpose(s) indicated. (Public Contract Code

SAN RAFAEL CITY SCHOOLS

**NOTICE TO BIDDERS
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 11 16-4**

section 3400(c).) A particular material, product, thing, or service is designated by specific brand or trade name for the following purpose(s):

- (1) In order to match other products in use on a particular public improvement either completed or in the course of completion:
 - (a) Primus Lock Cores
 - (b) Alerton Controls
 - (c) Verkada Security Cameras
 - (d) Open Path Secure Access Hardware
 - (e) Von Duprin Panic Hardware
18. The District shall award the Contract, if it awards it at all, to the lowest responsive responsible bidder based on:
 - A. The base bid amount only.
19. The Board reserves the right to reject any and all bids and/or waive any irregularity in any bid received. If the District awards the Contract, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

END OF DOCUMENT

INSTRUCTIONS TO BIDDERS

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

San Rafael City Schools ("District") will evaluate information submitted by the apparent low Bidder and, if incomplete or unsatisfactory to District, Bidder's bid may be rejected at the sole discretion of District.

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

Braun Center at Old Gallinas Phase 2

2. A Bidder and its subcontractors must possess the appropriate State of California contractors' license and must maintain the license throughout the duration of the project. Bidders must also be registered as a public works contractor with the Department of Industrial Relations pursuant to the Labor Code. Bids submitted by a contractor who is not properly licensed or registered shall be deemed nonresponsive and will not be considered.
3. The District has prequalified bidders pursuant to Public Contract Code section 20111.5. Only prequalified bidders will be eligible to submit a bid for this Project. Any bid submitted by a bidder who is not prequalified shall be deemed nonresponsive and will not be considered.
4. District will receive bids submitted electronically from bidders as stipulated in the Notice to Bidders. Email subject line must include the name of the Bidder, name of the Project, the Project Number and/or bid number, and time of bid opening. Bids must be electronically submitted to the following email address: bondprogram@srcs.org, by date and time shown in the Notice to Bidders. Each bidder is solely responsible for timely submission of its bid; the District is not responsible for any technological issues affecting a bidder's ability to timely submit its bid or portion thereof. Bid emails must attach all documents as required herein.
5. Bids will be opened and publicly read aloud via video conference. A link to the video conference will be provided by Addendum. Prior to publicly reading aloud bids at the video conference, the District reserves the right to verify the genuineness of any bid security.
6. Bidders must submit bids on the documents titled Bid Form and Proposal and must submit all other required District forms. Bids not submitted on the District's required forms shall be deemed nonresponsive and shall not be considered. Additional sheets required to fully respond to requested information are permissible.
7. Bidders shall not modify the Bid Form and Proposal or qualify their bids. Bidders shall not submit to the District a re-formatted, re-typed, altered, modified, or

otherwise recreated version of the Bid Form and Proposal or other District-provided document.

8. Bids shall be clearly written and without erasure or deletions. District reserves the right to reject any bid containing erasures, deletions, or illegible contents.
9. Bidders must supply all information required by each Bid Document. Bids must be full and complete. District reserves the right in its sole discretion to reject any bid as nonresponsive as a result of any error or omission in the bid. Bidders must complete and submit all of the following documents with the Bid Form and Proposal:
 - a. Photocopy of Bid Bond on the District's form, or other security.
 - b. Designated Subcontractors List.
 - c. Site Visit Certification, if a site visit was required.
 - d. Non-Collusion Declaration.
10. Bidders must submit with their bids a legible photocopy of (i) a cashier's check or (ii) a certified check payable to District, or (iii) a bid bond by an admitted surety insurer of not less than ten percent (10%) of amount of Base Bid, plus all additive alternates ("Bid Bond"). If Bidder chooses to provide a Bid Bond as security, Bidder must use the required form of corporate surety provided by District. The Surety on Bidder's Bid Bond must be an insurer admitted in the State of California and authorized to issue surety bonds in the State of California. Bidder must deposit the original of the bid bond, cashier's check, or certified check in the mail on the same day as the bid opening. Bids submitted without necessary bid security will be deemed nonresponsive and will not be considered.
11. If Bidder to whom the Contract is awarded fails or neglects to enter into the Contract and submit required bonds, insurance certificates, and all other required documents, within **SEVEN (7)** calendar days after the date of the Notice of Award, District may deposit Bid Bond, cashier's check, or certified check for collection, and proceeds thereof may be retained by District as liquidated damages for failure of Bidder to enter into Contract, in the sole discretion of District. It is agreed that calculation of damages District may suffer as a result of Bidder's failure to enter into the Contract would be extremely difficult and impractical to determine and that the amount of the Bidder's required bid security shall be the agreed and conclusively presumed amount of damages.
12. Bidders must submit with the bid the Designated Subcontractors List for those subcontractors who will perform any portion of Work, including labor, rendering of service, or specially fabricating and installing a portion of the Work or improvement according to detailed drawings contained in the plans and specifications, in excess of one half of one percent (0.5%) of total bid. Failure to submit this list when required by law shall result in bid being deemed nonresponsive and the bid will not be considered.

13. All of the listed subcontractors are required to be registered as a public works contractor with the Department of Industrial Relations pursuant to the Labor Code.
 - a. An inadvertent error in listing the California contractor license number on the Designated Subcontractors List shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the correct contractor's license number is submitted to the District within 24 hours after the bid opening and the corrected number corresponds with the submitted name and location for that subcontractor.
 - b. An inadvertent error listing an unregistered subcontractor shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive provided that any of the following apply:
 - (1) The subcontractor is registered prior to the bid opening.
 - (2) The subcontractor is registered and has paid the penalty registration fee within 24 hours after the bid opening.
 - (3) The subcontractor is replaced by another registered subcontractor pursuant to Public Contract Code section 4107.
14. If a NON-mandatory pre-bid conference and site visit ("Site Visit") is required as referenced in the Notice to Bidders, then Bidders must submit the Site Visit Certification with their Bid. District will transmit to all prospective Bidders of record such Addenda as District in its discretion considers necessary in response to questions arising at the Site Visit. Oral statements shall not be relied upon and will not be binding or legally effective. Addenda issued by the District as a result of the Site Visit, if any, shall constitute the sole and exclusive record and statement of the results of the Site Visit.
15. Bidders shall submit the Non-Collusion Declaration with their bids. Bids submitted without the Non-Collusion Declaration shall be deemed nonresponsive and will not be considered.
16. The Contractor and all Subcontractors under the Contractor shall pay all workers on all work performed pursuant to the Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the District, pursuant to sections 1770 et seq. of the California Labor Code. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the Department of Industrial Relations, are available upon request at the District's principal office. Prevailing wage rates are also available on the internet at <http://www.dir.ca.gov>.
17. Section 17076.11 of the Education Code requires school districts using funds allocated pursuant to the State of California School Facility Program for the construction and/or modernization of school building(s) to have a participation goal for disabled veteran business enterprises ("DVBE") of at least three percent (3%) per

year of the overall dollar amount expended on projects that receive state funding or demonstrate its good faith effort to solicit DVBE participation in this Contract. In order to meet this requirement by demonstrating a good faith effort, Bidder must advertise for DVBE-certified subcontractors and suppliers before submitting its Bid. For any project that is at least partially state-funded, the lowest responsive responsible Bidder awarded the Contract must submit certification of compliance with the procedures for implementation of DVBE contracting goals with its signed Agreement. DVBE Certification form is attached. Do not submit this form with your Bid.

18. Submission of bid signifies careful examination of Contract Documents and complete understanding of the nature, extent, and location of Work to be performed. Bidders must complete the tasks listed below as a condition to bidding, and submission of a bid shall constitute the Bidder's express representation to District that Bidder has fully completed the following:
 - a. Bidder has visited the Site, if required, and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Site, locality, actual conditions, as-built conditions, and all local conditions and federal, state and local laws, and regulations that in any manner may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto;
 - b. Bidder has conducted or obtained and has understood all examinations, investigations, explorations, tests, reports, and studies that pertain to the subsurface conditions, as-built conditions, underground facilities, and all other physical conditions at or contiguous to the Site or otherwise that may affect the cost, progress, performance, or furnishing of Work, as Bidder considers necessary for the performance or furnishing of Work at the Contract Sum, within the Contract Time, and in accordance with the other terms and conditions of Contract Documents, including specifically the provisions of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies, or similar information or data are or will be required by Bidder for such purposes;
 - c. Bidder has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports, and studies with the terms and conditions of the Contract Documents;
 - d. Bidder has given the District prompt written notice of all conflicts, errors, ambiguities, or discrepancies that it has discovered in or among the Contract Documents and the actual conditions, and the written resolution(s) thereof by the District is/are acceptable to Bidder;
 - e. Bidder has made a complete disclosure in writing to the District of all facts bearing upon any possible interest, direct or indirect, that Bidder believes any representative of the District or other officer or employee of the District presently has or will have in this Contract or in the performance thereof or in any portion of the profits thereof;

- f. Bidder must, prior to bidding, perform the work, investigations, research, and analysis required by this document and that Bidder represented in its Bid Form and Proposal and the Agreement that it performed prior to bidding. Contractor under this Contract is charged with all information and knowledge that a reasonable bidder would ascertain from having performed this required work, investigation, research, and analysis. Bid prices must include entire cost of all work "incidental" to completion of the Work.
- g. Conditions Shown on the Contract Documents: Information as to underground conditions, as-built conditions, or other conditions or obstructions, indicated in the Contract Documents, e.g., on Drawings or in Specifications, has been obtained with reasonable care, and has been recorded in good faith. However, District only warrants, and Bidder may only rely, on the accuracy of limited types of information.
 - (1) As to above-ground conditions or as-built conditions shown or indicated in the Contract Documents, there is no warranty, express or implied, or any representation express or implied, that such information is correctly shown or indicated. This information is verifiable by independent investigation and Bidder is required to make such verification as a condition to bidding. In submitting its Bid, Bidder shall rely on the results of its own independent investigation. In submitting its Bid, Bidder shall not rely on District-supplied information regarding above-ground conditions or as-built conditions.
 - (2) As to any subsurface condition shown or indicated in the Contract Documents, Bidder may rely only upon the general accuracy of actual reported depths, actual reported character of materials, actual reported soil types, actual reported water conditions, or actual obstructions shown or indicated. District is not responsible for the completeness of such information for bidding or construction; nor is District responsible in any way for any conclusions or opinions that the Bidder has drawn from such information; nor is the District responsible for subsurface conditions that are not specifically shown (for example, District is not responsible for soil conditions in areas contiguous to areas where a subsurface condition is shown).
- h. Conditions Shown in Reports and Drawings Supplied for Informational Purposes: Reference is made to the document entitled Geotechnical Data, and the document entitled Existing Conditions, for identification of:
 - (1) Subsurface Conditions: Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that have been utilized by Architect in preparing the Contract Documents; and
 - (2) Physical Conditions: Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that has been utilized by Architect in preparing the Contract Documents.

- (3) These reports and drawings are **not** Contract Documents and, except for any "technical" data regarding subsurface conditions specifically identified in Geotechnical Data and Existing Conditions, and underground facilities data, Bidder may not in any manner rely on the information in these reports and drawings. Subject to the foregoing, Bidder must make its own independent investigation of all conditions affecting the Work and must not rely on information provided by District.
19. Bids shall be based on products and systems specified in Contract Documents or listed by name in Addenda. Whenever in the Specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name, or by name of manufacturer, that Specification shall be deemed to be followed by the words "or equal." Bidder may, unless otherwise stated, offer any material, process, or article that shall be substantially equal or better in every respect to that so indicated or specified. The District is not responsible and/or liable in any way for a Contractor's damages and/or claims related, in any way, to that Contractor's basing its bid on any requested substitution that the District has not approved in advance and in writing. Contractors and materials suppliers who submit requests for substitutions prior to the award of the Contract must do so in writing and in compliance with Public Contract Code section 3400. All requests must comply with the following:
- a. District must receive any notice of request for substitution of a specified item a minimum of **TEN (10)** calendar days prior to bid opening. The Successful Bidder will not be allowed to substitute specified items unless properly noticed.
 - b. Within 35 days after the date of the Notice of Award, the Successful Bidder shall submit data substantiating the request(s) for all substitution(s) containing sufficient information to assess acceptability of product or system and impact on Project, including, without limitation, the requirements specified in the Special Conditions and the Specifications. Insufficient information shall be grounds for rejection of substitution.
 - c. Approved substitutions, if any, shall be listed in Addenda. District reserves the right not to act upon submittals of substitutions until after bid opening.
 - d. Substitutions may be requested after Contract has been awarded only if indicated in and in accordance with requirements specified in the Special Conditions and the Specifications.
20. Bidders may examine any available "as-built" drawings of previous work by giving District reasonable advance notice. District will not be responsible for accuracy of "as-built" drawings. The document entitled Existing Conditions applies to all supplied "as-built" drawings.
21. All questions about the meaning or intent of the Contract Documents are to be directed via email to the District to bondprogram@srcs.org. Interpretations or clarifications considered necessary by the District in response to such questions will be issued in writing by Addenda and emailed, faxed, mailed, or delivered to all parties recorded by the District as having received the Contract Documents or posted

on the District's website at <https://www.srcsbondprogram.org/domain/16> Questions received less than **SEVEN (7)** calendar days prior to the date for opening bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

22. Addenda may also be issued to modify other parts of the Contract Documents as deemed advisable by the District.
23. Each Bidder must acknowledge each Addendum in its Bid Form and Proposal by number or its Bid shall be considered non-responsive. Each Addendum shall be part of the Contract Documents. A complete listing of Addenda may be secured from the District.
24. This Contract may include alternates. Alternates are defined as alternate products, materials, equipment, systems, methods, or major elements of the construction that may, at the District's option and under terms established in the Contract and pursuant to section 20103.8 of the Public Contract Code, be selected for the Work.
25. The District shall award the Contract, if it awards it at all, to the lowest responsive responsible bidder based on the criteria as indicated in the Notice to Bidders. In the event two or more responsible bidders submit identical bids, the District shall select the Bidder to whom to award the Contract by lot.
26. Discrepancies between written words and figures, or words and numerals, will be resolved in favor of figures or numerals.
27. Any bid protest by any Bidder regarding any other bid must be submitted in writing to the District, before 5:00 p.m. of the **THIRD (3rd)** business day following bid opening.
 - a. Only a Bidder who has actually submitted a bid, and who could be awarded the Contract if the bid protest is upheld, is eligible to submit a bid protest. Subcontractors are not eligible to submit bid protests. A Bidder may not rely on the bid protest submitted by another Bidder.
 - b. A bid protest must contain a complete statement of any and all bases for the protest and all supporting documentation. Materials submitted after the bid protest deadline will not be considered.
 - c. The protest must refer to the specific portions of all documents that form the basis for the protest.
 - (1) Without limitation to any other basis for protest, an inadvertent error in listing the California contractor's license number on the Designated Subcontractors List shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the correct contractor's license number is submitted to the District within 24 hours after the bid opening and the corrected number corresponds with the submitted name and location for that subcontractor.
 - (2) Without limitation to any other basis for protest, an inadvertent error listing an unregistered subcontractor shall not be grounds for filing a

bid protest or grounds for considering the bid nonresponsive provided that any of the following apply:

- (i) The subcontractor is registered prior to the bid opening.
 - (ii) The subcontractor is registered and has paid the penalty registration fee within 24 hours after the bid opening.
 - (iii) The subcontractor is replaced by another registered subcontractor pursuant to Public Contract Code section 4107.
 - d. The protest must include the name, address and telephone number of the person representing the protesting party.
 - e. The party filing the protest must concurrently transmit a copy of the protest and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the protest. Such parties shall include all other bidders or proposers who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.
 - f. The procedure and time limits set forth in this paragraph are mandatory and are each bidder's sole and exclusive remedy in the event of bid protest. Failure to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest, including filing a Government Code Claim or legal proceedings.
28. The Bidder to whom Contract is awarded shall execute and submit the following documents by 5:00 p.m. of the **SEVENTH (7th)** calendar day following the date of the Notice of Award. Failure to properly and timely submit these documents entitles District to reject the bid as nonresponsive.
- a. Agreement: To be executed by successful Bidder. District may require Contractor to submit up to three (3) copies, each bearing an original signature. A facsimile or electronic signature shall be deemed to be the equivalent of the actual original signature.
 - b. Performance Bond (100%): On the form provided in the Contract Documents and fully executed as indicated on the form.
 - c. Payment Bond (Contractor's Labor and Material Bond) (100%): On the form provided in the Contract Documents and fully executed as indicated on the form.
 - d. Insurance Certificates and Endorsements as required.
 - e. Workers' Compensation Certification.
 - f. Prevailing Wage and Related Labor Requirements Certification.
 - g. Off-Road Diesel-Fueled Fleet Certification.
 - h. Disabled Veteran Business Enterprise Participation Certification.

- i. Drug-Free Workplace Certification.
 - j. Tobacco-Free Environment Certification.
 - k. Drug and Alcohol-Free Schools Certification.
 - l. Hazardous Materials Certification.
 - m. Lead-Based Materials Certification.
 - n. Imported Materials Certification.
 - o. Criminal Background Investigation/Fingerprinting Certification.
 - p. Roofing Project Certification: from Contractor, Material Manufacturer and/or Vendor.
 - q. Registered Subcontractors List: Must include Department of Industrial Relations (DIR) registration number of each subcontractor for all tiers.
29. Time for Completion: 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.
- a. In the event that the District desires to postpone issuing the Notice to Proceed beyond this 90-day period, it is expressly understood that with reasonable notice to the Contractor, the District may postpone issuing the Notice to Proceed.
 - b. 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 beyond a 90-day period. If the Contractor believes that a postponement of issuance of the Notice to Proceed will cause a hardship to the Contractor, the Contractor may terminate the Contract. Contractor's termination due to a postponement beyond this 90-day period shall be by written notice to District within **TEN (10)** calendar days after receipt by Contractor of District's notice of postponement.
 - c. It is further understood by the 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 and which the District had in writing authorized Contractor to perform prior to issuing a Notice to Proceed.
 - d. Should the 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.

30. District reserves the right to reject any or all bids, including without limitation the

SAN RAFAEL CITY SCHOOLS

**INSTRUCTIONS TO BIDDERS
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 21 13-9**

right to reject any or all nonconforming, nonresponsive, unbalanced, or conditional bids, to re-bid, and to reject the bid of any bidder if District believes that it would not be in the best interest of the District to make an award to that bidder, whether because the bid is not responsive or the bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by District. District also reserves the right to waive any inconsequential deviations or irregularities in any bid. For purposes of this paragraph, an "unbalanced bid" is one having nominal prices for some work items and/or enhanced prices for other work items.

31. It is the policy of the District that no qualified person shall be excluded from participating in, be denied the benefits of, or otherwise be subjected to discrimination in any consideration leading to the award of contract, based on race, religious creed, color, national origin, ancestry, physical disability, mental disability, reproductive health decision making, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or veteran or military status. The Successful Bidder and its subcontractors shall comply with applicable federal and state laws, including, but not limited to the California Fair Employment and Housing Act, beginning with Government Code section 12900, and Labor Code section 1735.
32. Prior to the award of Contract, District reserves the right to consider the responsibility of the Bidder. District may conduct investigations as District deems necessary to assist in the evaluation of any bid and to establish the responsibility, including, without limitation, qualifications and financial ability of Bidders, proposed subcontractors, suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to District's satisfaction within the prescribed time.

END OF DOCUMENT

DOCUMENT 00 21 13.1

BIDDER INFORMATION AND FORMS

SAN RAFAEL CITY SCHOOLS

**BIDDER INFORMATION
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 21 13.1-1**

BID FORM AND PROPOSAL

To: Governing Board of the San Rafael City Schools ("District" or "Owner")

From: _____
(Proper Name of Bidder)

The undersigned declares that Bidder has read and understands the Contract Documents, including, without limitation, the Notice to Bidders and the Instructions to Bidders, and agrees and proposes to furnish all necessary labor, materials, and equipment to perform and furnish all work in accordance with the terms and conditions of the Contract Documents, including, without limitation, the Drawings and Specifications of Bid No. 25-06, for the following project known as:

Braun Center at Old Gallinas Phase 2

("Project" or "Contract") and will accept in full payment for that Work the following total lump sum amount, all taxes included:

_____ dollars \$ _____

BASE BID

Bidder acknowledges and agrees that the Base Bid accounts for any and all Allowance(s).

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

Additional Detail Regarding Calculation of Base Bid

1. **Allowance.** The Bidder's Base Bid shall include the following Allowances for the Tasks/Work as noted here:

The Bidder's Base Bid shall include a ten percent (10%) allowance for Unforeseen Conditions.

The above allowance shall only be allocated for unforeseen items. Contractor shall not bill for or be due any portion of this allowance unless the District has identified specific work, Contractor has submitted a price for that work or the District has proposed a price for that work, the District has accepted the cost for that work, and the District has prepared an Allowance Expenditure Directive incorporating that work. Contractor hereby authorizes the District to execute a unilateral deductive change order at or near the end of the Project for all or any portion of the allowance not allocated. Any unused portion of the allowance will revert back to the District documented by a deductive change order.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

2. The undersigned has reviewed the Work outlined in the Contract Documents and fully understands the scope of Work required in this Proposal, understands the construction and project management function(s) is described in the Contract Documents, and that each Bidder who is awarded a contract shall be in fact a prime contractor, not a subcontractor, to the District, and agrees that its Proposal, if accepted by the District, will be the basis for the Bidder to enter into a contract with the District in accordance with the intent of the Contract Documents.
3. The undersigned has notified the District in writing of any discrepancies or omissions or of any doubt, questions, or ambiguities about the meaning of any of the Contract Documents and has contacted the Construction Manager before bid date to verify the issuance of any clarifying Addenda.
4. The undersigned agrees to commence work under this Contract on the date established in the Contract Documents and to complete all work within the time specified in the Contract Documents.
5. The liquidated damages clause of the General Conditions and Agreement is hereby acknowledged.
6. It is understood that the District reserves the right to reject this bid and that the bid shall remain open to acceptance and is irrevocable for a period of ninety (90) days.
7. The following documents are attached hereto:
 - Photocopy of Bid Bond on the District's form or other security
 - Designated Subcontractors List
 - Site Visit Certification
 - Non-Collusion Declaration
8. Receipt and acceptance of the following Addenda is hereby acknowledged:

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

9. Bidder acknowledges that the license required for performance of the Work is a B license.
10. Bidder hereby certifies that Bidder is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the Work.

11. Bidder specifically acknowledges and understands that if it is awarded the Contract, that it shall perform the Work of the Project while complying with all requirements of the Department of Industrial Relations.
12. Bidder hereby certifies that its bid includes sufficient funds to permit Bidder to comply with all local, state or federal labor laws or regulations during the Project, including payment of prevailing wage, and that Bidder will comply with the provisions of Labor Code section 2810(d) if awarded the Contract.
13. Bidder represents that it is competent, knowledgeable, and has special skills with respect to the nature, extent, and inherent conditions of the Work to be performed. Bidder further acknowledges that there are certain peculiar and inherent conditions existent in the construction of the Work that may create, during the Work, unusual or peculiar unsafe conditions hazardous to persons and property.
14. Bidder expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the Work with respect to such hazards.
15. Bidder expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, Gov. Code, § 12650 et seq.), the District will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the Contractor may be subject to criminal prosecution.
16. The undersigned Bidder certifies that it is, at the time of bidding, and shall be throughout the period of the Contract, licensed by the State of California to do the type of work required under the terms of the Contract Documents and registered as a public works contractor with the Department of Industrial Relations. Bidder further certifies that it is regularly engaged in the general class and type of work called for in the Contract Documents.

[SIGNATURE ON FOLLOWING PAGE]

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

Dated this _____ day of _____ 20 __

Name of Bidder: _____

Type of Organization: _____

Signature: _____

Print Name: _____

Title: _____

Address of Bidder: _____

Taxpayer Identification No. of Bidder: _____

Telephone Number: _____

Fax Number: _____

E-mail: _____ Web Page: _____

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

No.: _____ Class: _____ Expiration Date: _____

No.: _____ Class: _____ Expiration Date: _____

Public Works Contractor Registration No.: _____

END OF DOCUMENT

BID BOND

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

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned, _____, as Principal ("Principal"),
and _____, as
Surety ("Surety"), a corporation organized and existing under and by virtue of the laws of
the State of California and authorized to do business as a surety in the State of California,
are held and firmly bound unto the San Rafael City Schools ("District") of Marin County,
State of California, as Obligee, in an amount equal to **ten percent (10%) of the Base Bid**
plus alternates, for the payment of which sum well and truly to be made, we, and each of
us, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and
severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted a
bid to the District for all Work specifically described in the accompanying bid for the
following project: Braun Center at Old Gallinas Phase 2 ("Project" or "Contract").

NOW, THEREFORE, if the Principal is awarded the Contract and, within the time and manner
required under the Contract Documents, after the prescribed forms are presented to
Principal for signature, enters into a written contract, in the prescribed form in accordance
with the bid, and files two bonds, one guaranteeing faithful performance and the other
guaranteeing payment for labor and materials as required by law, and meets all other
conditions to the Contract between the Principal and the Obligee becoming effective, or if
the Principal shall fully reimburse and save harmless the Obligee from any damage
sustained by the Obligee through failure of the Principal to enter into the written contract
and to file the required performance and labor and material bonds, and to meet all other
conditions to the Contract between the Principal and the Obligee becoming effective, then
this obligation shall be null and void; otherwise, it shall be and remain in full force and
effect. The full payment of the sum stated above shall be due immediately if Principal fails
to execute the Contract within seven (7) days of the date of the District's Notice of Award to
Principal.

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

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

SAN RAFAEL CITY SCHOOLS

**BID BOND
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 43 13-1**

If the District awards the bid, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

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

Principal

By

Surety

By

Name of California Agent of Surety

Address of California Agent of Surety

Telephone Number of California Agent of Surety

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

END OF DOCUMENT

SAN RAFAEL CITY SCHOOLS

**BID BOND
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 43 13-2**

DESIGNATED SUBCONTRACTORS LIST
(Public Contact Code Sections 4100-4114)

PROJECT: Braun Center at Old Gallinas Phase 2

Bidder acknowledges and agrees that it must clearly set forth below the name, location and California contractor license number of each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the Work or who will specially fabricate and install a portion of the Work according to detailed drawings contained in the plans and specifications in an amount in excess of one-half of one percent (0.5%) of Bidder's total Base Bid and the kind of Work that each will perform. Vendors or suppliers of materials only do not need to be listed.

Bidder acknowledges and agrees that, if Bidder fails to list as to any portion of Work, or if Bidder lists more than one subcontractor to perform the same portion of Work, Bidder must perform that portion itself or be subjected to penalty under applicable law. In case more than one subcontractor is named for the same kind of Work, state the portion of the kind of Work that each subcontractor will perform.

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

If further space is required for the list of proposed subcontractors, attach additional copies of page 2 showing the required information, as indicated below.

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

DIR Registration #: _____

Portion of Work: _____

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

SITE VISIT CERTIFICATION

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID
IF SITE VISIT WAS MANDATORY

PROJECT: Braun Center at Old Gallinas Phase 2

Check option that applies:

_____ I certify that I visited the Site of the proposed Work, received the attached _____ pages of information, and became fully acquainted with the conditions relating to construction and labor. I fully understand the facilities, difficulties, and restrictions attending the execution of the Work under contract.

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

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

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

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

NON-COLLUSION DECLARATION
(Public Contract Code Section 7106)

The undersigned declares:

I am the _____ of _____, the party making the foregoing bid.
[Title] [Name of Firm]

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

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

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____,
[Date]

at _____, _____.
[City] [State]

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

AGREEMENT

THIS AGREEMENT IS MADE AND ENTERED INTO THIS 16th Day Of June 2025, by and between the San Rafael City Schools ("District") and _____ ("Contractor") ("Agreement").

WITNESSETH: That the parties hereto have mutually covenanted and agreed, and by these presents do covenant and agree with each other, as follows:

- 1. The Work:** Contractor agrees to furnish all tools, equipment, apparatus, facilities, labor, and material necessary to perform and complete in a good and workmanlike manner, the work of the following project:

Braun Center at Old Gallinas Phase 2

("Project" or "Contract" or "Work")

It is understood and agreed that the Work shall be performed and completed as required in the Contract Documents including, without limitation, the Drawings and Specifications and submission of all documents required to secure funding or by the Division of the State Architect for close-out of the Project, under the direction and supervision of, and subject to the approval of, the District or its authorized representative.

- 2. The Contract Documents:** The complete Contract consists of all Contract Documents as defined in the General Conditions and incorporated herein by this reference. Any and all obligations of the District and Contractor are fully set forth and described in the Contract Documents. All Contract Documents are intended to cooperate so that any Work called for in one and not mentioned in the other or vice versa is to be executed the same as if mentioned in all Contract Documents.
- 3. Interpretation of Contract Documents:** Should any question arise concerning the intent or meaning of Contract Documents, including the Drawings or Specifications, the question shall be submitted to the District for interpretation. If a conflict exists in the Contract Documents, valid, written modifications, beginning with the most recent, shall control over this Agreement (if any), which shall control over the Special Conditions, which shall control over any Supplemental Conditions, which shall control over the General Conditions, which shall control over the remaining Division 0 documents, which shall control over Division 1 Documents which shall control over Division 2 through Division 49 documents, which shall control over figured dimensions, which shall control over large-scale drawings, which shall control over small-scale drawings. In the case of a 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 no case shall a document calling for lower quality and/or quantity material or workmanship control. The decision of the District in the matter shall be final.

SAN RAFAEL CITY SCHOOLS

**AGREEMENT
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 52 13-1**

4. **Time for Completion:** It is hereby understood and agreed that the Work under this Contract shall be completed within **Sixty One (61)** consecutive calendar days ("Contract Time") from the date specified in the District's Notice to Proceed or, only in the event no Notice to Proceed is issued, from the date Contractor first furnishes work on the Project, unless terminated by the District earlier for cause or for convenience.
5. **Completion - Extension of Time:** Should the Contractor fail to complete this Contract, and the Work provided herein, within the time fixed for completion, due allowance being made for the contingencies provided for herein, the Contractor shall become liable to the District for all loss and damage that the District may suffer on account thereof. The Contractor shall coordinate its Work with the Work of all other contractors. The District shall not be liable for delays resulting from Contractor's failure to coordinate its Work with other contractors in a manner that will allow timely completion of Contractor's Work. Contractor shall be liable for delays to other contractors caused by Contractor's failure to coordinate its Work with the Work of other contractors.
6. **Liquidated Damages:** Time is of the essence for all work under this Agreement. It is hereby understood and agreed that it is and will be difficult and/or impossible to ascertain and determine the actual damage that the District will sustain in the event of and by reason of Contractor's delay; therefore, Contractor agrees that it shall pay to the District the sum of **One Thousand Five Hundred Dollars (\$1,500.00)** per day as liquidated damages for each and every day's delay beyond the time herein prescribed in completion of the Work.

It is hereby understood and agreed that this amount is not a penalty.

In the event that any portion of the liquidated damages is not paid to the District, the District may deduct that amount from any money due or that may become due the Contractor under this Agreement, and such deduction does not constitute a withholding or penalty. The District's right to assess liquidated damages is as indicated herein and in the General Conditions.

The time during which the Contract is delayed for cause, as hereinafter specified, may extend the time of completion for a reasonable time as the District may grant, provided that Contractor has complied with the claims procedure of the Contract Documents. This provision does not exclude the recovery of damages by either party under other provisions in the Contract Documents.

7. **Loss Or Damage:** The District and its agents and authorized representatives shall not in any way or manner be answerable or suffer loss, damage, expense, or liability for any loss or damage that may happen to the Work, or any part thereof, or in or about the same during its construction and before acceptance, and the Contractor shall assume all liabilities of every kind or nature arising from the Work, either by accident, negligence, theft, vandalism, or any cause whatsoever; and shall hold the District and its agents and authorized representatives harmless from all liability of every kind and nature arising from accident, negligence, or any cause whatsoever.
8. **Limitation Of District Liability:** District's financial obligations under this Contract shall be limited to the payment of the compensation provided in this Contract.

Notwithstanding any other provision of this Contract, in no event shall District be liable, regardless of whether any claim is based on contract or tort, for any special, consequential, indirect or incidental damages, including, but not limited to, lost profits or revenue, lost bonding capacity, arising out of or in connection with this Contract for the services performed in connection with this Contract.

9. **Insurance and Bonds:** Prior to issuance of the Notice to Proceed by the District, or, only in the event no Notice to Proceed is issued, prior to the date Contractor first furnishes work on the Project, Contractor shall provide all required certificates of insurance, insurance endorsements, and payment and performance bonds as evidence thereof.
10. **Prosecution of Work:** If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of this Contract, the District, may, pursuant to the General Conditions and 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.
11. **Authority of Architect, Project Inspector, and DSA:** Contractor hereby acknowledges that the Architect(s), the Project Inspector(s), and the Division of the State Architect ("DSA") have authority to approve and/or suspend Work if the Contractor's Work does not comply with the requirements of the Contract Documents, Title 24 of the California Code of Regulations, and all applicable laws and regulations. The Contractor shall be liable for any delay caused by its non-compliant Work.
12. **Assignment of Contract:** Neither the Contract, nor any part thereof, nor any moneys due or to become due thereunder, may be assigned by the Contractor without the prior written approval of the District, nor without the written consent of the Surety on the Contractor's Performance Bond (the "Surety"), unless the Surety has waived in writing its right to notice of assignment.
13. **Classification of Contractor's License:** Contractor hereby acknowledges that it currently holds valid Type B Contractor's license(s) issued by the State of California, Contractors' State License Board, in accordance with division 3, chapter 9, of the Business and Professions Code and in the classification called for in the Contract Documents.
14. **Registration as Public Works Contractor:** The Contractor and all Subcontractors currently are registered as public works contractors with the Department of Industrial Relations, State of California, in accordance with Labor Code section 1771.1.
15. **Payment of Prevailing Wages:** The Contractor and all Subcontractors shall pay all workers on all Work performed pursuant to this Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the District, pursuant to sections 1770 et seq. of the California Labor Code.

16. Labor Compliance Monitoring and Enforcement: This Project is subject to labor compliance monitoring and enforcement by the Department of Industrial Relations pursuant to Labor Code section 1771.4 and Title 8 of the California Code of Regulations. 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, including, without limitation, the requirement that the Contractor and all of its Subcontractors shall timely submit complete and accurate electronic certified payroll records as required by the Contract Documents, or the District may not issue payment.

17. Contract Price: In consideration of the foregoing covenants, promises, and agreements on the part of the Contractor, and the strict and literal fulfillment of each and every covenant, promise, and agreement, and as compensation agreed upon for the Work and construction, erection, and completion as aforesaid, the District covenants, promises, and agrees that it will well and truly pay and cause to be paid to the Contractor in full, and as the full Contract Price and compensation for construction, erection, and completion of the Work hereinabove agreed to be performed by the Contractor, the following price:

_____ Dollars
(\$ _____),

in lawful money of the United States, which sum is to be paid according to the schedule provided by the Contractor and accepted by the District and subject to additions and deductions as provided in the Contract. This amount supersedes any previously stated and/or agreed to amount(s). Contract Price includes Allowance(s), if any.

18. No Representations: No representations have been made other than as set forth in writing in the Contract Documents, including this Agreement. Each of the Parties to this Agreement warrants that it has carefully read and understood the terms and conditions of this Agreement and all Contract Documents, and that it has not relied upon the representations or advice of any other Party or any attorney not its own.

19. Entire Agreement: The Contract Documents, including this Agreement, set forth the entire agreement between the parties hereto and fully supersede any and all prior agreements, understandings, written or oral, between the parties hereto pertaining to the subject matter thereof.

20. Severability: If any term, covenant, condition, or provision in any of the Contract Documents is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions in the Contract Documents shall remain in full force and effect and shall in no way be affected, impaired, or invalidated thereby.

21. Authority of Signatories: Each party has the full power and authority to enter into and perform this Contract, and the person signing this Contract on behalf of each party has been properly authorized and empowered to enter into this Contract. This Contract may be executed in one or more counterparts, each of which shall be deemed an original. For this Agreement, and for all Contract Documents requiring a

signature, a facsimile or electronic signature shall be deemed to be the equivalent of the actual original signature. All counterparts so executed shall constitute one Contract binding all the Parties hereto.

[SIGNATURES ON FOLLOWING PAGE]

SAN RAFAEL CITY SCHOOLS

**AGREEMENT
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 52 13-5**

IN WITNESS WHEREOF, accepted and agreed on the date indicated above:

[CONTRACTOR NAME]

SAN RAFAEL CITY SCHOOLS

By: _____

By: _____

Title: _____

Title: _____

NOTE: If the Contractor executing this Contract is a corporation, the Contractor shall furnish to District satisfactory evidence of the authority of the officer signing on behalf of the corporation.

END OF DOCUMENT

SAN RAFAEL CITY SCHOOLS

**AGREEMENT
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 52 13-6**

NOTICE OF AWARD

Dated: June 17, 2025

To: _____

From: Governing Board ("Board") of the San Rafael City Schools ("District")

Re: Braun Center at Old Gallinas Phase 2, Project No. 25-06 ("Project"). Contractor has been awarded the Contract for the above-referenced Project on June 16, 2025, by action of the District's Board.

The Contract Price is _____ Dollars (\$_____), and includes alternates _____.

You must comply with the following conditions precedent within **SEVEN (7)** calendar days of the date of this Notice of Award.

The Contractor shall execute and submit the following documents by 5:00 p.m. of the **SEVENTH (7th)** calendar day following the date of the Notice of Award.

- a. Agreement: To be executed by successful Bidder.
- b. Performance Bond (100%): On the form provided in the Contract Documents and fully executed as indicated on the form. District requires Contractor to submit one (1) copy, bearing an original signature.
- c. Payment Bond (Contractor's Labor & Material Bond) (100%): On the form provided in the Contract Documents and fully executed as indicated on the form. District requires Contractor to submit one (1) copy, bearing an original signature.
- d. Insurance Certificates and Endorsements as required.
- e. Workers' Compensation Certification.
- f. Prevailing Wage and Related Labor Requirements Certification.
- g. Off-Road Diesel-Fueled Fleet Certification.
- h. Disabled Veteran Business Enterprise Participation Certification.
- i. Drug-Free Workplace Certification.

SAN RAFAEL CITY SCHOOLS

**NOTICE OF AWARD
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 51 00-1**

- j. Tobacco-Free Environment Certification.
- k. Hazardous Materials Certification.
- l. Lead-Based Materials Certification.
- m. Imported Materials Certification.
- n. Criminal Background Investigation/Fingerprinting Certification.
- o. Roofing Project Certification: from Contractor, Material Manufacturer and/or Vendor. (If Applicable)

Failure to comply with these conditions within the time specified will entitle District to consider your bid abandoned, to annul this Notice of Award, and to declare your Bid Security forfeited, as well as any other rights the District may have against the Contractor.

After you comply with those conditions, District will return to you one fully signed counterpart of the Agreement.

SAN RAFAEL CITY SCHOOLS

BY: _____

NAME: Bob Marcucci

TITLE: Deputy Superintendent of
Business Services

END OF DOCUMENT

DOCUMENT 00 55 00

NOTICE TO PROCEED

Dated: _____, 2025

TO: _____

ADDRESS: _____

PROJECT: Braun Center at Old Gallinas Phase 2

PROJECT/CONTRACT NO.: 25-06 between the San Rafael City Schools and Contractor ("Contract").

You are notified that the Contract Time under the above Contract will commence to run on July 30, 2025. By that date, you are to start performing your obligations under the Contract Documents. In accordance with the Agreement executed by Contractor, the date of completion is August 30, 2025.

You must submit the following documents by 5:00 p.m. of the TENTH (10th) calendar day following the date of this Notice to Proceed:

- a. Contractor's preliminary schedule of construction.
- b. Contractor's preliminary schedule of values for all of the Work.
- c. Contractor's preliminary schedule of submittals, including Shop Drawings, Product Data, and Samples submittals.
- d. Contractor's Safety Plan specifically adapted for the Project.
- e. Registered Subcontractors List: A complete subcontractors list for all tiers, including the name, Department of Industrial Relations registration number, and portion of work.

Thank you. We look forward to a very successful Project.

SAN RAFAEL CITY SCHOOLS

BY: _____

NAME: Bob Marcucci

TITLE: Deputy Superintendent of
Business Services

END OF DOCUMENT

SAN RAFAEL CITY SCHOOLS

**NOTICE TO PROCEED
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 55 00-1**

OFF-ROAD DIESEL-FUELED FLEET CERTIFICATION

PROJECT/CONTRACT NO.: 25-06 between the San Rafael City Schools ("District") and _____ ("Contractor" or "Bidder") ("Contract" or "Project").

Title 13 CCR sections 2449, 2449.1, and 2449.2, in compliance with Government Code sections 11346.2, subdivision (a)(3), and 11346.8, subdivision (c), applies to construction contractors who own or operate within California any vehicles with a diesel-fueled or alternative diesel fueled off-road compression-ignition engine with maximum power (max hp) of 25 horsepower (hp) or greater provided that the vehicle cannot be registered and driven safely on-road or was not designed to be driven on-road, even if it has been modified so that it can be driven safely on-road.

Section 2449(i), in relevant part, provides:

- (1) For a project involving the use of vehicles subject to this regulation, the prime contractor must obtain copies of the valid Certificate of Reported Compliance with the Regulation for In-Use Off-Road Diesel-Fueled Fleets for the fleet selected for the contract and their listed subcontractors, if applicable, prior to entering into a new or renewed contract with that fleet.
- (2) No prime contractor or public works awarding body, as applicable, shall enter into a contract with a fleet for which it does not have a valid Certificate of Reported Compliance for the fleet and its listed subcontractors, if applicable, prior to entering into a new or renewed contract with that fleet.
- (3) The Certificates of Reported Compliance received by the prime contractor for a project must be retained for three (3) years after that project's completion. Upon request by California Air Resources Board ("CARB"), these records must be provided to CARB within five (5) business days of the request.
- (4) Situations in which prime contractors or public works awarding bodies, as applicable, are contracting for projects that are considered emergency operations, as defined in section 2449(c)(18), are exempt from the requirements in section 2449(i)(1)-(3), but must still retain records verifying vehicles subject to the regulation that are operating on the emergency operations project are actually being operated on the project for emergency operations only. These records must include a description of the emergency, the address or a description of the specific location of the emergency, the dates on which the emergency operations were performed, and an attestation by the fleet that the vehicles are operated on the project for emergency operations only.

Section 2449(j), in relevant part, also states:

- (1) Between March 1 and June 1 of each year, a prime contractor must collect new valid Certificates of Reported Compliance for the current compliance

SAN RAFAEL CITY SCHOOLS

**OFF-ROAD DIESEL-FUELED FLEET CERTIFICATION
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 45 19.02-1**

year, as defined in section 2449(n), from all fleets that have an ongoing contract with the prime contractor as of March 1 of that year. Prime contractors must not write contracts to evade this requirement.

- (2) Prime contractors shall only allow fleets with valid Certificates of Reported Compliance on the prime contractor's job sites.
- (3) If the prime contractor discovers that any fleet intending to operate vehicles subject to this regulation for the prime contractor does not have a valid Certificate of Reported Compliance, as defined in section 2449(n), or if the prime contractor observes any noncompliant vehicles subject to the regulation on the prime contractor's job site, then the prime contractor must report specified information regarding the fleet to CARB within five (5) business days of such discovery.
- (4) Upon request by CARB, the prime contractor must immediately disclose to CARB the name and contact information of each responsible party for all vehicles subject to this regulation operating at the job site or for the prime contractor.
- (5) The prime contractor shall prominently display signage for any project where vehicles subject to this regulation will operate for eight (8) calendar days or more. The signage must be posted by the eighth calendar day from which the first vehicle operates. The signage will be in lettering larger than size 14-point type and displayed in a conspicuous place where notices to employees are customarily posted at the job site or where there is employee foot traffic. If one of the above locations is also viewable by the public, it should be posted at that location. The signage must include specified information regarding idling regulations for In-Use Off-Road Diesel-Fueled Fleets with directions on how to report observed noncompliance of the provided regulations to CARB.

I am aware of the provisions of Title 13 CCR sections 2449, 2449.1, and 2449.2, which apply to every contractor who owns or operates off-road diesel fleet vehicles in California, and I will comply with such provisions, including providing Certificate(s) of Reported Compliance for In-Use Off-Road Diesel-Fueled Fleets for the fleet selected for the contract and their listed subcontractors, if applicable, with its bid.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

Bidder must attach valid Certificate(s) Reported Compliance with the Regulation for In-Use Off-Road Diesel-Fueled Fleets provided by CARB for the fleet selected for the contract and their listed subcontractors, if applicable, to this form.

SAN RAFAEL CITY SCHOOLS

**OFF-ROAD DIESEL-FUELED FLEET CERTIFICATION
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 45 19.02-2**

WORKERS' COMPENSATION CERTIFICATION

PROJECT/CONTRACT NO.: 25-06 between the San Rafael City Schools ("District") and _____ ("Contractor" or "Bidder") ("Contract" or "Project").

Labor Code section 3700, in relevant part, provides:

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

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

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

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

(In accordance with Labor Code sections 1860 and 1861, the above certificate must be signed and filed with the awarding body prior to performing any Work under this Contract.)

END OF DOCUMENT

**PREVAILING WAGE AND
RELATED LABOR REQUIREMENTS CERTIFICATION**

PROJECT/CONTRACT NO.: 25-06 between the San Rafael City Schools ("District") and

("Contractor" or "Bidder") ("Contract" or "Project").

I hereby certify that I will conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hours' notice, payroll records, and apprentice and trainee employment requirements, for all Work on the above Project including, without limitation, labor compliance monitoring and enforcement by the Department of Industrial Relations.

Date:

Proper Name of Contractor:

Signature:

Print Name:

Title:

END OF DOCUMENT

**DISABLED VETERAN BUSINESS
ENTERPRISE PARTICIPATION CERTIFICATION**

PROJECT/CONTRACT NO.: 25-06 between the San Rafael City Schools ("District") and _____
 _____ ("Contractor" or "Bidder")
 ("Contract" or "Project").

GENERAL INSTRUCTIONS

Section 17076.11 of the Education Code requires school districts using, or planning to use, funds allocated pursuant to the State of California School Facility Program ("Program") for the construction and/or modernization of school buildings to have a participation goal for disabled veteran business enterprises ("DVBE") of at least three percent (3%) per year of the overall dollar amount expended each year by the school district on projects that receive state funding. Therefore, the lowest responsive responsible Bidder awarded the Contract must submit this document to the District with its executed Agreement, identifying the steps contractor took to solicit DVBE participation in conjunction with this Contract. **Do not submit this form with your bids.**

PART I – Method of Compliance with DVBE Participation Goals. Check the appropriate box to indicate your method of committing the contract dollar amount.

YOUR BUSINESS ENTERPRISE IS:	AND YOU WILL	AND YOU WILL
A. <input type="checkbox"/> Disabled veteran owned and your forces will perform at least 3% of this Contract	Include a copy of your DVBE letter from Office of Small Business and Disabled Veterans Business Enterprise Services ("OSDS")*	Complete Part 1 of this form and the Certification
B. <input type="checkbox"/> Disabled veteran owned but is unable to perform 3% of this Contract with your forces	Use DVBE subcontractors /suppliers to bring the Contract participation to at least 3%	Include a copy of each DVBE's letter from OSDS (including yours, if applicable), and complete Part 1 of this form and the Certification
C. <input type="checkbox"/> NOT disabled veteran owned	Use DVBE subcontractors /suppliers for at least 3% of this Contract	
D. <input type="checkbox"/> Unable to meet the required participation goals after good faith efforts	Make good faith efforts, including contacts, advertisement and DVBE solicitation	Complete all of this form and the Certification

* A DVBE letter from OSDS is obtained from the participating DVBE.

SAN RAFAEL CITY SCHOOLS

**DISABLED VETERAN BUSINESS ENTERPRISE
PARTICIPATION CERTIFICATION
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 45 46.02-1**

You must complete the following table to show the dollar amount of DVBE participation:

	TOTAL CONTRACT PRICE
A. Prime Bidder, if DVBE (own participation)	\$
B. DVBE Subcontractor or Supplier	
1.	
2.	
3.	
4.	
C. Subtotal (A & B)	
D. Non-DVBE	
E. Total Bid	

PART II – Contacts. To identify DVBE subcontractors/suppliers for participation in your contract, you must contact each of the following categories. You should contact several DVBE organizations.

CATEGORY	TELEPHONE NUMBER	DATE CONTACTED	PERSON CONTACTED
1. The District, if any			*
2. OSDS, provides assistance locating DVBEs at https://caleprocure.ca.gov/pages/PublicSearch/supplier-search.aspx	(916) 375-4940		*
3. DVBE Organization (List)			*

*Write "recorded message" in this column, if applicable.

SAN RAFAEL CITY SCHOOLS

**DISABLED VETERAN BUSINESS ENTERPRISE
PARTICIPATION CERTIFICATION
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 45 46.02-2**

PART III – Advertisement. You must advertise for DVBE participation in both a trade and focus paper. List the advertisement you place to solicit DVBE participation. Advertisements should be published at least fourteen (14) days prior to bid/proposal opening; if you cannot advertise fourteen (14) days prior, advertisements should be published as soon as possible. Advertisements must include that your firm is seeking DVBE participation, the project name and location, and your firm’s name, your contact person, and telephone number. Attach copies of advertisements to this form.

FOCUS/TRADE PAPER NAME	CHECK ONE		DATE OF ADVERTISEMENT
	TRADE	FOCUS	

PART IV – DVBE Solicitations. List DVBE subcontractors/suppliers that were invited to bid. Use the following instructions to complete the remainder of this section (read the three columns as a sentence from left to right). If you need additional space to list DVBE solicitations, please use a separate page and attach to this form.

IF THE DVBE.....	THEN.....		AND.....	
was selected to participate	Check "YES" in the "SELECTED" column		include a copy of their DVBE letter(s) from OSDS	
was NOT selected to participate	Check "NO" in the "SELECTED" column		state why in the "REASON NOT SELECTED" column	
did not respond to your solicitation	Check the "NO RESPONSE" column.			
DVBE CONTACTED	SELECTED		REASON NOT SELECTED	NO RESPONSE
	YES	NO		

A copy of this form must be retained by you and may be subject to a future audit.

SAN RAFAEL CITY SCHOOLS

**DISABLED VETERAN BUSINESS ENTERPRISE
PARTICIPATION CERTIFICATION
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 45 46.02-3**

CERTIFICATION

I, _____, certify that I am the bidder's _____
and that I have made a diligent effort to ascertain the facts with regard to the
representations made herein. In making this certification, I am aware of section 12650 et
seq. of the Government Code providing for the imposition of treble damages for making
false claims.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

SAN RAFAEL CITY SCHOOLS

**DISABLED VETERAN BUSINESS ENTERPRISE
PARTICIPATION CERTIFICATION
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 45 46.02-4**

DRUG-FREE WORKPLACE CERTIFICATION

PROJECT/CONTRACT NO.: 25-06 between the San Rafael City Schools ("District") and
("Contractor" or "Bidder") ("Contract" or "Project").

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

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

Contractor must also comply with the provisions of Health & Safety Code section 11362.3 which prohibits the consumption or possession of cannabis or cannabis products in any public place, including school grounds, and specifically on school grounds while children are present.

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

- a. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the person's or organization's workplace and specifying actions which will be taken against employees for violations of the prohibition.
- b. Establishing a drug-free awareness program to inform employees about all of the following:
 - (1) The dangers of drug abuse in the workplace.
 - (2) The person's or organization's policy of maintaining a drug-free workplace.
 - (3) The availability of drug counseling, rehabilitation, and employee-assistance programs.
 - (4) The penalties that may be imposed upon employees for drug abuse violations.

SAN RAFAEL CITY SCHOOLS

**DRUG-FREE WORKPLACE CERTIFICATION
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 45 46.03-1**

- c. Requiring that each employee engaged in the performance of the contract or grant be given a copy of the statement required above, and that, as a condition of employment on the contract or grant, the employee agrees to abide by the terms of the statement.

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

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

I acknowledge that I am aware of the provisions of and hereby certify that I will adhere to the requirements of the Drug-Free Workplace Act of 1990 and Health and Safety Code section 11362.3.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

TOBACCO-FREE ENVIRONMENT CERTIFICATION

PROJECT/CONTRACT NO.: 25-06 between the San Rafael City Schools ("District") and

("Contractor" or "Bidder") ("Contract" or "Project").

This Tobacco-Free Environment Certification form is required from the successful Bidder.

Pursuant to, without limitation, 20 U.S.C. section 6083, Labor Code section 6400 et seq., Health & Safety Code section 104350 et seq., Business and Professions Code section 22950 et seq., and District Board policies, all District sites, including the Project site, are tobacco-free environments. Smoking and the use of tobacco products by all persons is prohibited on or in District property. District property includes school buildings, school grounds, school-owned vehicles and vehicles owned by others while on District property. The prohibition on smoking includes the use of any electronic smoking device that creates an aerosol or vapor, in any manner or in any form, and the use of any oral smoking device for the purpose of circumventing the prohibition of tobacco smoking. Further, Health & Safety Code section 11362.3 prohibits the smoking or use of cannabis or cannabis products in any place where smoking tobacco is prohibited.

I acknowledge that I am aware of the District's policy regarding tobacco-free environments at District sites, including the Project site and hereby certify that I will adhere to the requirements of that policy and not permit any of my firm's employees, agents, subcontractors, or my firm's subcontractors' employees or agents, to use tobacco and/or smoke on the Project site.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DRUG AND ALCOHOL-FREE SCHOOLS CERTIFICATION

PROJECT/CONTRACT NO.: 25-06 between the San Rafael City Schools ("District") and

("Contractor" or "Bidder") ("Contract" or "Project").

Pursuant to, without limitation, District Board policies, all District sites, including the Project site, are drug and alcohol-free schools. Possession, use, or sale of drugs and alcohol is prohibited at any time in district-owned or leased buildings, on district property, and in district vehicles unless otherwise permitted by law.

I acknowledge that I am aware of the District's policy regarding drug and alcohol-free schools, including the Project site and hereby certify that I will adhere to the requirements of that policy and not permit any of my firm's employees, agents, subcontractors, or my firm's subcontractors' employees or agents, to possess, use or sell:

1. Any substance which may not lawfully be possessed, used, or sold in California.
2. Cannabis or cannabis products (Health and Safety Code, § 11362.3; 21 USC §§ 812, 844).
3. Alcohol beverages, unless approved by the Superintendent or designee for limited purposes specified in Business and Professions Code section 25608.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

HAZARDOUS MATERIALS CERTIFICATION

PROJECT/CONTRACT NO.: 25-06 between San Rafael City Schools ("District") and _____
("Contractor" or "Bidder") ("Contract" or "Project").

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

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

SAN RAFAEL CITY SCHOOLS

**HAZARDOUS MATERIALS CERTIFICATION
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 45 46.07-6**

LEAD-BASED MATERIALS CERTIFICATION

PROJECT/CONTRACT NO.: 25-06 between the San Rafael City Schools ("District") and
("Contractor" or "Bidder") ("Contract" or "Project").

This certification provides notice to the Contractor that:

- (1) Contractor's work may disturb lead-containing building materials.
- (2) Contractor shall notify the District if any work may result in the disturbance of lead-containing building materials.
- (3) Contractor shall comply with the Renovation, Repair and Painting Rule, if lead-based paint is disturbed in a six-square-foot or greater area indoors or a 20-square-foot or greater area outdoors.

1. Lead as a Health Hazard

Lead poisoning is recognized as a serious environmental health hazard facing children today. Even at low levels of exposure, much lower than previously believed, lead can impair the development of a child's central nervous system, causing learning disabilities, and leading to serious behavioral problems. Lead enters the environment as tiny lead particles and lead dust disburses when paint chips, chalks, peels, wears away over time, or is otherwise disturbed. Ingestion of lead dust is the most common pathway of childhood poisoning; lead dust gets on a child's hands and toys and then into a child's mouth through common hand-to-mouth activity. Exposures may result from construction or remodeling activities that disturb lead paint, from ordinary wear and tear of windows and doors, or from friction on other surfaces.

Ordinary construction and renovation or repainting activities carried out without lead-safe work practices can disturb lead-based paint and create significant hazards. Improper removal practices, such as dry scraping, sanding, or water blasting painted surfaces, are likely to generate high volumes of lead dust.

Because the Contractor and its employees will be providing services for the District, and because the Contractor's work may disturb lead-containing building materials, CONTRACTOR IS HEREBY NOTIFIED of the potential presence of lead-containing materials located within certain buildings utilized by the District. All school buildings built prior to 1978 are presumed to contain some lead-based paint until sampling proves otherwise.

2. Overview of California Law

Education Code section 32240 et seq. is known as the Lead-Safe Schools Protection Act. Under this act, the Department of Health Services is to conduct a sample

survey of schools in the State of California for the purpose of developing risk factors to predict lead contamination in public schools. (Ed. Code, § 32241.)

Any school that undertakes any action to abate existing risk factors for lead is required to utilize trained and state-certified contractors, inspectors, and workers. (Ed. Code, § 32243, subd. (b).) Moreover, lead-based paint, lead plumbing, and solders, or other potential sources of lead contamination, shall not be utilized in the construction of any new school facility or the modernization or renovation of any existing school facility. (Ed. Code, § 32244.)

Both the Federal Occupational Safety and Health Administration ("Fed/OSHA") and the California Division of Occupational Safety and Health ("Cal/OSHA") have implemented safety orders applicable to all construction work where a contractor's employee may be occupationally exposed to lead.

The OSHA Regulations apply to all construction work where a contractor's employee may be occupationally exposed to lead. The OSHA Regulations contain specific and detailed requirements imposed on contractors subject to those regulations. The OSHA Regulations define construction work as work for construction, alteration, and/or repair, including painting and decorating. Regulated work includes, but is not limited to, the following:

- a. Demolition or salvage of structures where lead or materials containing lead are present;
- b. Removal or encapsulation of materials containing lead;
- c. New construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead;
- d. Installation of products containing lead;
- e. Lead contamination/emergency cleanup;
- f. Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed; and
- g. Maintenance operations associated with the construction activities described in the subsection.

Because it is assumed by the District that all painted surfaces (interior as well as exterior) within the District contain some level of lead, it is imperative that the Contractor, its workers and subcontractors fully and adequately comply with all applicable laws, rules and regulations governing lead-based materials (including title 8, California Code of Regulations, section 1532.1).

Contractor shall notify the District if any Work may result in the disturbance of lead-containing building materials. Any and all Work that may result in the disturbance of lead-containing building materials shall be coordinated through the District. A signed copy of this Certification shall be on file prior

to beginning Work on the Project, along with all current insurance certificates.

3. Renovation, Repair and Painting Rule, Section 402(c)(3) of the Toxic Substances Control Act

The EPA requires lead safe work practices to reduce exposure to lead hazards created by renovation, repair and painting activities that disturb lead-based paint. Pursuant to the Renovation, Repair and Painting Rule (RRP), renovations in homes, childcare facilities, and schools built prior to 1978 must be conducted by certified renovations firms, using renovators with training by a EPA-accredited training provider, and fully and adequately complying with all applicable laws, rules and regulations governing lead-based materials, including those rules and regulations appearing within title 40 of the Code of Federal Regulations as part 745 (40 CFR 745).

The RRP requirements apply to all contractors who disturb lead-based paint in a six-square-foot or greater area indoors or a 20-square-foot or greater area outdoors. If a DPH-certified inspector or risk assessor determines that a home constructed before 1978 is lead-free, the federal certification is not required for anyone working on that particular building.

4. Contractor's Liability

If the Contractor fails to comply with any applicable laws, rules, or regulations, and that failure results in a site or worker contamination, the Contractor will be held solely responsible for all costs involved in any required corrective actions, and shall defend, indemnify, and hold harmless the District, pursuant to the indemnification provisions of the Contract, for all damages and other claims arising therefrom.

If lead disturbance is anticipated in the Work, only persons with appropriate accreditation, registrations, licenses, and training shall conduct this Work.

It shall be the responsibility of the Contractor to properly dispose of any and all waste products, including, but not limited to, paint chips, any collected residue, or any other visual material that may occur from the prepping of any painted surface. It will be the responsibility of the Contractor to provide the proper disposal of any hazardous waste by a certified hazardous waste hauler. This company shall be registered with the Department of Transportation (DOT) and shall be able to issue a current manifest number upon transporting any hazardous material from any school site within the District.

The Contractor shall provide the District with any sample results prior to beginning Work, during the Work, and after the completion of the Work. The District may request to examine, prior to the commencement of the Work, the lead training records of each employee of the Contractor.

THE CONTRACTOR HEREBY ACKNOWLEDGES, UNDER PENALTY OF PERJURY, THAT IT:

1. HAS RECEIVED NOTIFICATION OF POTENTIAL LEAD-BASED MATERIALS ON THE OWNER'S PROPERTY;

SAN RAFAEL CITY SCHOOLS

**LEAD-BASED MATERIALS CERTIFICATION
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 45 46.08-3**

2. IS KNOWLEDGEABLE REGARDING AND WILL COMPLY WITH ALL APPLICABLE LAWS, RULES, AND REGULATIONS GOVERNING WORK WITH, AND DISPOSAL, OF LEAD.

THE UNDERSIGNED WARRANTS THAT HE/SHE HAS THE AUTHORITY TO SIGN ON BEHALF OF AND BIND THE CONTRACTOR. THE DISTRICT MAY REQUIRE PROOF OF SUCH AUTHORITY.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

IMPORTED MATERIALS CERTIFICATION

PROJECT/CONTRACT NO.: 25-06 between the San Rafael City Schools ("District") and

("Contractor" or "Bidder") ("Contract" or "Project").

This form shall be executed by all entities that, in any way, provide or deliver and/or supply any soils, aggregate, or related materials ("Fill") to the Project Site and shall be provided to the District at least ten (10) days before delivery. All Fill shall satisfy all requirements of any environmental review of the Project performed pursuant to the statutes and guidelines of the California Environmental Quality Act, section 21000 et seq. of the Public Resources Code ("CEQA"), and all requirements of section 17210 et seq. of the Education Code, including requirements for a Phase I environmental assessment acceptable to the State of California Department of Education and Department of Toxic Substances Control.

Certification of: ☐ Delivery Firm/Transporter ☐ Supplier ☐ Manufacturer
☐ Wholesaler ☐ Broker ☐ Retailer
☐ Distributor ☐ Other _____

Type of Entity ☐ Corporation ☐ General Partnership
☐ Limited Partnership ☐ Limited Liability Company
☐ Sole Proprietorship ☐ Other _____

Name of firm ("Firm"): _____

Mailing address: _____

Addresses of branch office used for this Project: _____

If subsidiary, name and address of parent company: _____

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

Date: _____

Proper Name of Firm: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

SAN RAFAEL CITY SCHOOLS

**IMPORTED MATERIALS CERTIFICATION
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 45 46.09-5**

**CRIMINAL BACKGROUND INVESTIGATION/
FINGERPRINTING CERTIFICATION**

PROJECT/CONTRACT NO.: 25-06 between the San Rafael City Schools ("District") and _____ ("Contractor" or "Bidder") ("Contract" or "Project").

The undersigned does hereby certify to the District that I am a representative of the Contractor currently under contract with the District; that I am familiar with the facts herein certified; and that I am authorized and qualified to execute this certificate on behalf of Contractor.

Contractor certifies that it has taken at least one of the following actions (check all that apply):

- ☐ Pursuant to Education Code section 45125.2(a), Contractor has installed or will install, prior to commencement of Work, a physical barrier at the Work Site, that will limit contact between Contractor's employees, Subcontractors or suppliers and District pupils at all times; and/or
- ☐ Pursuant to Education Code section 45125.2(a), Contractor certifies that all employees will be under the continual supervision of, and monitored by, an employee of the Contractor who the California Department of Justice ("DOJ") has ascertained, or as described below, will ascertain, has not been convicted of a violent or serious felony. The name and title of the employee who will be supervising Contractor's and its subcontractors' or suppliers' employees is:

Name: _____

Title: _____

NOTE: If Contractor is a sole proprietor, and elects the above option, Contractor must have the above-named employee's fingerprints prepared and submitted by District for submission to the DOJ, in accordance with Education Code section 45125.1(h). No work shall commence until such determination by DOJ has been made.

- ☐ Pursuant to Education Code section 45125.2(a), the District will take appropriate steps to protect the safety of any pupils that may come in contact with Contractor's employees, subcontractors or suppliers so that the fingerprinting and criminal background investigation requirements of Education Code section 45125.2 shall not apply to Contractor under the Contract.
- ☐ The Work on the Contract is either (i) at an unoccupied school site and no employee of Contractor and/or subcontractor or supplier of any tier of the Contract shall come in contact with the District pupils or (ii) if Contractor's employees or any subcontractor or supplier of any tier of the Contract interacts with pupils, such interaction shall only take place under the immediate supervision and control of the pupil's parent or guardian or a school employee, so that the fingerprinting and criminal background investigation requirements of Education Code section 45125.1 shall not apply to Contractor under the Contract.

SAN RAFAEL CITY SCHOOLS

**CRIMINAL BACKGROUND INVESTIGATION/
FINGERPRINTING CERTIFICATION
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 45 46.10-1**

- ☐ The Contractor, who is not a sole proprietor, has complied with the fingerprinting requirements of Education Code section 45125.1 with respect to all Contractor's employees and all of its Subcontractors' employees who may have contact with District pupils in the course of providing services pursuant to the Contract, and the DOJ has determined (A) that none of those employees has been convicted of a felony, as that term is defined in Education Code section 45122.1 and/or (B) that the prohibition does not apply to an employee as provided by Education Code section 45125.1(e)(2) or (3). When the Contractor performs the criminal background check, it shall immediately provide any subsequent arrest and conviction information it receives to the District pursuant to the subsequent arrest service. No work shall commence until the Department of Justice ascertains that Contractor's employees and any subcontractors' employees have not been convicted of a felony as defined in Education Code Section 45122.1.

A complete and accurate list of Contractor's employees and of all of its subcontractors' employees who may come in contact with District pupils during the course and scope of the Contract is attached hereto as ATTACHMENT "A;" and/or

- ☐ The Contractor is a sole proprietor and intends to comply with the fingerprinting requirements of Education Code section 45125.1(h) with respect to all Contractor's employees who may have contact with District pupils in the course of providing services pursuant to the Contract, and hereby agrees to the District's preparation and submission of fingerprints such that the DOJ may determine (A) that none of those employees has been convicted of a felony, as that term is defined in Education Code section 45122.1 and/or (B) that the prohibition does not apply to an employee as provided by Education Code section 45125.1(e)(2) or (3). No work shall commence until the Department of Justice ascertains that Contractor's employees and any subcontractors' employees have not been convicted of a felony as defined in Education Code Section 45122.1.

Contractor's responsibility for background clearance extends to all of its employees, Subcontractors or suppliers, and employees of Subcontractors or suppliers coming into contact with District pupils regardless of whether they are designated as employees or acting as independent contractors of the Contractor.

Date: _____
Proper Name of Contractor: _____
Signature: _____
Print Name: _____
Title: _____

[CONTINUED ON NEXT PAGE]

ATTACHMENT "A"

List of Employees/Subcontractors

Name/Company: _____

Name/Company: _____

Name/Company: _____

Name/Company: _____

Name/Company: _____

Name/Company: _____

Name/Company: _____

Name/Company: _____

Name/Company: _____

Name/Company: _____

Name/Company: _____

Name/Company: _____

Name/Company: _____

Name/Company: _____

Name/Company: _____

Name/Company: _____

Name/Company: _____

Name/Company: _____

If further space is required for the list of employees/subcontractors, attach additional copies of this page.

END OF DOCUMENT

By my signature below, I hereby certify that, to the best of my knowledge, the contents of this disclosure are true, or are believed to be true. I further certify on behalf of the Firm that I am aware of section 3000 et seq. of the California Public Contract Code, and the sections referenced therein regarding the penalties for providing false information or failing to disclose a financial relationship in this disclosure. I further certify that I am authorized to make this certification on behalf of the Firm.

Date: _____

Proper Name of Firm: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

REGISTERED SUBCONTRACTORS LIST
(Labor Code Section 1771.1)

PROJECT: Braun Center at Old Gallinas Phase 2

Date Submitted (for Updates): _____

Contractor acknowledges and agrees that it must clearly set forth below the name and Department of Industrial Relations (DIR) registration number of each subcontractor **for all tiers** who will perform work or labor or render service to Contractor or its subcontractors in or about the construction of the Work **at least two (2) weeks before the subcontractor is scheduled to perform work**. This document is to be updated as all tiers of subcontractors are identified.

Contractor acknowledges and agrees that, if Contractor fails to list as to any subcontractor of any tier who performs any portion of Work, the Contract is subject to cancellation and the Contractor will be subjected to penalty under applicable law.

If further space is required for the list of proposed subcontractors, attach additional copies of page 2 showing the required information, as indicated below.

Subcontractor Name: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

DIR Registration #: _____

Portion of Work: _____

Date: _____

Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

PERFORMANCE BOND
(100% of Contract Price)

(Note: Contractor must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the San Rafael City Schools, ("District") and _____ ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

Braun Center at Old Gallinas Phase 2

("Project" or "Contract") which Contract dated June 16, 2025, and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

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

NOW, THEREFORE, the Principal and _____ ("Surety") are held and firmly bound unto the Board of the District in the penal sum of

Dollars (\$ _____), lawful money of the United States, 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, to:

- Promptly perform all the work required to complete the Project; and
- Pay to the District all damages the District incurs as a result of the Principal's failure to perform all the Work required to complete the Project.

Or, at the District's sole discretion and election, the Surety shall obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by the District of the lowest responsible bidder, arrange for a contract between such bidder and the District and make available as Work progresses sufficient funds to pay the cost of completion less the "balance of the Contract Price," and to pay and perform all obligations of Principals under the Contract, including, without limitation, all obligations with respect to warranties, guarantees and the payment of liquidated damages. The term "balance of the Contract Price," as used in this paragraph, shall mean the total amount payable to Principal by the District under the Contract and any modifications thereto, less the amount previously paid by the District to the Principal, less any withholdings by the District allowed under the Contract. District shall not be required or obligated to accept a tender of a completion contractor from the Surety for any or no reason.

SAN RAFAEL CITY SCHOOLS

**PERFORMANCE BOND
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 61 13.13-1**

The condition of the obligation is such that, if the above bound Principal, 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 Contract and any alteration thereof made as therein provided, on its part to be kept and performed at the time and in the intent and meaning, including all contractual guarantees and warranties of materials and workmanship, and shall indemnify and save harmless the District, its trustees, 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.

Surety expressly agrees that the District may reject any contractor or subcontractor proposed by Surety to fulfill its obligations in the event of default by the Principal. Surety shall not utilize Principal in completing the Work nor shall Surety accept a Bid from Principal for completion of the Work if the District declares the Principal to be in default and notifies Surety of the District's objection to Principal's further participation in the completion of the Work.

As a condition precedent to the satisfactory completion of the Contract, the above obligation shall hold good for a period equal to the warranty and/or guarantee period of the Contract, during which time Surety's obligation shall continue if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the District from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the District's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

The 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 any way affect its obligation on this bond. The Surety also stipulates and agrees that it shall not be exonerated or released from the obligation of this bond by any overpayment or underpayment by the District that is based upon estimates approved by the Architect. The Surety 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 WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the _____ day of _____, 20__.

Principal	Surety
By	By
	Name of California Agent of Surety
	Address of California Agent of Surety
	Telephone No. of California Agent of Surety

SAN RAFAEL CITY SCHOOLS

**PERFORMANCE BOND
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 61 13.13-2**

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

END OF DOCUMENT

SAN RAFAEL CITY SCHOOLS

**PERFORMANCE BOND
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 61 13.13-3**

PAYMENT BOND
Contractor's Labor & Material Bond
(100% Of Contract Price)

(Note: Contractor must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the San Rafael City Schools, ("District") and _____, ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

Braun Center at Old Gallinas Phase 2

("Project" or "Contract") which Contract dated June 16, 2025, and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

WHEREAS, pursuant to law and the Contract, the Principal is required, before entering upon the performance of the work, to file a good and sufficient bond with the body by which the Contract is awarded in an amount equal to one hundred percent (100%) of the Contract price, to secure the claims to which reference is made in sections 9000 through 9510 and 9550 through 9566 of the Civil Code, and division 2, part 7, of the Labor Code.

NOW, THEREFORE, the Principal and _____ ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the sum of _____ Dollars (\$ _____), lawful money of the United States, being a sum not less than the total amount payable by the terms of Contract, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

The condition of this obligation is that if the Principal or any of its subcontractors, or their heirs, executors, administrators, successors, or assigns of any, all, or either of them shall fail to pay for any labor, materials, provisions, or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal or any of his or its subcontractors of any tier under Section 13020 of the Unemployment Insurance Code with respect to such work or labor, that the Surety will pay the same in an amount not exceeding the amount herein above set forth, and also in case suit is brought upon this bond, will pay a reasonable attorney's fee to be awarded and fixed by the court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under section 9100 of

SAN RAFAEL CITY SCHOOLS

PAYMENT BOND
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 61 13.16-1

the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void; otherwise it shall be and remain in full force and affect.

And the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of Contract or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the _____ day of _____, 20____.

Principal	Surety
By	By
	Name of California Agent of Surety
	Address of California Agent of Surety
	Telephone No. of California Agent of Surety

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

END OF DOCUMENT

SAN RAFAEL CITY SCHOOLS

**PAYMENT BOND
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 61 13.16-2**

AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS

THIS AGREEMENT AND RELEASE OF CLAIMS ("Agreement and Release") IS MADE AND ENTERED INTO THIS _____ DAY OF _____, 20____ by and between the SAN RAFAEL CITY SCHOOLS ("District") and _____ ("Contractor"), whose place of business is _____.

RECITALS

WHEREAS, District and Contractor entered into PROJECT/CONTRACT NO.: 25-06 ("Contract" or "Project") in the County of Marin, California; and

WHEREAS, the Work under the Contract was completed on _____, and a Notice of Completion was recorded with the County Recorder on ____.

NOW, THEREFORE, it is mutually agreed between District and Contractor as follows:

AGREEMENT AND RELEASE

1. Contractor will only be assessed liquidated damages as detailed below:

Original Contract Sum \$ _____

Modified Contract Sum \$ _____

Payment to Date \$ _____

Liquidated Damages \$ _____

Payment Due Contractor \$ _____

2. Subject to the provisions hereof, District shall forthwith pay to Contractor the undisputed sum of _____ Dollars (\$_____) under the Contract, less any amounts represented by any notice to withhold funds on file with District as of the date of such payment.
3. Contractor acknowledges and hereby agrees that there are no unresolved or outstanding claims in dispute against District arising from the performance of work under the Contract, except for the claims described in Paragraph 4 and continuing obligations described in Paragraph 6. It is the intention of the parties in executing this Agreement and Release that this Agreement and Release shall be effective as a full, final and general release of all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities of Contractor against District and all of its respective agents, employees, trustees, inspectors, assignees, consultants and transferees, except for any Disputed Claim that may be set forth in Paragraph 4 and the continuing obligations described in Paragraph 6 hereof.

SAN RAFAEL CITY SCHOOLS

**AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 65 19.26-1**

4. The following claims are disputed (hereinafter, the "Disputed Claims") and are specifically excluded from the operation of this Agreement and Release:

<u>Claim No.</u>	<u>Description of Claim</u>	<u>Amount of Claim</u>	<u>Date Claim Submitted</u>
_____	_____	\$ _____	_____
_____	_____	\$ _____	_____
_____	_____	\$ _____	_____
_____	_____	\$ _____	_____
_____	_____	\$ _____	_____
_____	_____	\$ _____	_____

[If further space is required, attach additional sheets showing the required information.]

5. Consistent with California Public Contract Code section 7100, Contractor hereby agrees that, in consideration of the payment set forth in Paragraph 2 hereof, Contractor hereby releases and forever discharges District, all its agents, employees, inspectors, assignees, and transferees from any and all liability, claims, demands, actions, or causes of action of whatever kind or nature arising out of or in any way concerned with the Work under the Contract.
6. Guarantees and warranties for the Work, and any other continuing obligation of Contractor, including without limitation, the duty to defend, indemnify and hold harmless the District, shall remain in full force and effect as specified in the Contract Documents.
7. Contractor hereby waives the provisions of California Civil Code section 1542 which provides as follows:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS THAT THE CREDITOR OR RELEASING PARTY DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE AND THAT, IF KNOWN BY HIM OR HER, WOULD HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR OR RELEASED PARTY.

8. The provisions of this Agreement and Release are contractual in nature and not mere recitals and shall be considered independent and severable. If any such provision or any part thereof shall be at any time held invalid in whole or in part under any federal, state, county, municipal, or other law, ruling, or regulations, then such provision, or part thereof, shall remain in force and effect to the extent permitted by law, and the remaining provisions of this Agreement and Release shall also remain in full force and effect, and shall be enforceable.

9. All rights of District shall survive completion of the Work or termination of Contract, and execution of this Release.

* * * CAUTION: THIS IS A RELEASE - READ BEFORE EXECUTING * * *

SAN RAFAEL CITY SCHOOLS

Signature: _____

Print Name: _____

Title: _____

CONTRACTOR: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

GUARANTEE FORM

_____ ("Contractor") hereby agrees that the _____
_____ ("Work" of Contractor) which Contractor has installed for the San Rafael City
Schools ("District") for the following project:

PROJECT: Braun Center at Old Gallinas Phase 2

("Project" or "Contract") has been performed in accordance with the requirements of the
Contract Documents and that the Work as installed will fulfill the requirements of the
Contract Documents.

The undersigned agrees to repair or replace any or all of such Work that may prove to be
defective in workmanship or material together with any other adjacent Work that may be
displaced in connection with such replacement within a period of Two (2) year(s) from the
date of completion as defined in Public Contract Code section 7107, subdivision (c), ordinary
wear and tear and unusual abuse or neglect excepted. The date of completion is
_____, 20____.

In the event of the undersigned's failure to comply with the above-mentioned conditions
within a reasonable period of time, as determined by the District, but not later than seven
(7) days after being notified in writing by the District, the undersigned authorizes the
District to proceed to have said defects repaired and made good at the expense of the
undersigned. The undersigned shall pay the costs and charges therefor upon demand.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

Representatives to be contacted for service subject to terms of Contract:

Name: _____

Address: _____

Phone No.: _____

Email: _____

END OF DOCUMENT

TABLE OF CONTENTS

	<u>Page</u>
1. CONTRACT TERMS AND DEFINITIONS	1
1.1 Definitions	1
1.2 Laws Concerning the Contract; Venue	7
1.3 No Oral Agreements.....	7
1.4 No Assignment.....	7
1.5 Notice and Service Thereof	7
1.6 No Waiver	8
1.7 Substitutions for Specified Items	8
1.8 Materials and Work.....	8
2. [RESERVED]	10
3. ARCHITECT.....	10
4. CONSTRUCTION MANAGER.....	10
5. INSPECTOR, INSPECTIONS, AND TESTS	11
5.1 Project Inspector	11
5.2 Tests and Inspections	12
5.3 Costs for After Hours and/or Off Site Inspections	12
6. CONTRACTOR	12
6.1 Status of Contractor.....	13
6.2 Project Inspection Card(s)	14
6.3 Contractor's Supervision.....	14
6.4 Duty to Provide Fit Workers	14
6.5 Field Office	15
6.6 Purchase of Materials and Equipment	15

6.7	Documents on Work.....	15
6.8	Preservation of Records.....	16
6.9	Integration of Work	16
6.10	Notifications.....	17
6.11	Obtaining of Permits, Licenses and Registrations.....	17
6.12	Royalties and Patents.....	18
6.13	Work to Comply With Applicable Laws and Regulations	19
6.14	Safety/Protection of Persons and Property	20
6.15	Working Evenings and Weekends.....	22
6.16	Cleaning Up	23
6.17	No Relief from Obligations Based on Review by Other Persons.....	23
7.	SUBCONTRACTORS.....	23
8.	OTHER CONTRACTS/CONTRACTORS.....	25
9.	DRAWINGS AND SPECIFICATIONS	26
10.	CONTRACTOR'S SUBMITTALS AND SCHEDULES.....	27
10.1	Schedule of Work, Schedule of Submittals, and Schedule of Values	27
10.2	Monthly Progress Schedule(s)	30
10.3	Material Safety Data Sheets (MSDS)	30
10.4	Submittals	31
11.	SITE ACCESS, CONDITIONS, AND REQUIREMENTS	31
11.1	Site Investigation	31
11.2	Soils Investigation Report.....	31
11.3	Access to Work.....	32
11.4	Layout and Field Engineering	32
11.5	Utilities	32
11.6	Sanitary Facilities	32

11.7	Surveys.....	32
11.8	Regional Notification Center	33
11.9	Existing Utility Lines.....	33
11.10	Notification	34
11.11	Hazardous Materials.....	34
11.12	No Signs	34
12.	TRENCHES.....	34
12.1	Trenches Greater Than Five Feet	34
12.2	Excavation Safety	34
12.3	No Tort Liability of District	34
12.4	No Excavation without Permits	35
12.5	Discovery of Hazardous Waste and/or Unusual Conditions.....	35
13.	INSURANCE AND BONDS	35
13.1	Insurance	35
13.2	Contract Security - Bonds.....	41
14.	WARRANTY/GUARANTEE/INDEMNITY.....	41
14.1	Warranty/Guarantee	41
14.2	Indemnity and Defense	42
15.	TIME.....	44
15.1	Notice to Proceed	44
15.2	Computation of Time / Adverse Weather.....	44
15.3	Hours of Work.....	45
15.4	Progress and Completion	45
15.5	Schedule	46
15.6	Expeditious Completion	46
16.	EXTENSIONS OF TIME – LIQUIDATED DAMAGES	46

16.1	Liquidated Damages	46
16.2	Excusable Delay	46
16.3	No Additional Compensation for Delays Within Contractor's Control.....	48
16.4	Force Majeure	49
16.5	Float or Slack in the Schedule	49
17.	CHANGES IN THE WORK.....	50
17.1	No Changes Without Authorization	50
17.2	Architect Authority.....	51
17.3	Price Request.....	51
17.4	Change Orders	51
17.5	Proposed Change Order	51
17.7	Change Order Certification	57
17.8	Determination of Change Order Cost.....	58
17.9	Deductive Change Orders	58
17.10	Addition or Deletion of Alternate Bid Item(s)	58
17.11	Discounts, Rebates, and Refunds.....	58
17.12	Construction Change Directives	59
17.13	Force Account Directives.....	59
17.14	Accounting Records	60
17.15	Notice Required.....	60
17.16	Applicability to Subcontractors	61
17.17	Alteration to Change Order Language.....	61
17.18	Failure of Contractor to Execute Change Order	61
18.	REQUEST FOR INFORMATION.....	61
19.	PAYMENTS.....	61
19.1	Contract Price	61

19.2	Applications for Progress Payments.....	61
19.3	Progress Payments	64
19.4	Decisions to Withhold Payment.....	66
19.5	Subcontractor Payments.....	68
20.	COMPLETION OF THE WORK	69
20.1	Completion	69
20.2	Close-Out/Certification Procedures.....	69
20.3	Final Inspection	71
20.4	Costs of Multiple Inspections	73
20.5	Partial Occupancy or Use Prior to Completion	73
21.	FINAL PAYMENT AND RETENTION	73
21.1	Final Payment	73
21.2	Prerequisites for Final Payment	74
21.3	Retention	74
21.4	Substitution of Securities.....	75
22.	UNCOVERING OF WORK	75
23.	NONCONFORMING WORK AND CORRECTION OF WORK.....	75
23.1	Nonconforming Work	75
23.2	Correction of Work.....	76
23.3	District's Right to Perform Work.....	76
24.	TERMINATION AND SUSPENSION	77
24.1	District's Request for Assurances	77
24.2	District's Right to Terminate Contractor for Cause.....	77
24.3	Termination of Contractor for Convenience	79
24.4	Effect of Termination.....	80
24.5	Emergency Termination of Public Contracts Act of 1949.....	80

24.6	Suspension of Work	81
25.	CLAIMS PROCESS.....	81
25.1	Obligation to File Claims for Disputes	81
25.2	Duty to Perform during Claim Process	82
25.3	Definition of Claim	82
25.4	Claims Presentation	82
25.5	Claim Resolution pursuant to Public Contract Code section 9204.....	83
25.6	Subcontractor Pass-Through Claims	85
25.7	Government Code Claim Act Claim.....	86
25.8	Claim Resolution pursuant to Public Contract Code section 20104 et seq.	86
25.9	Claim Procedure Compliance	88
25.10	Claim Resolution Non-Applicability	88
25.11	Attorney’s Fees	88
26.	STATE LABOR, WAGE & HOUR, APPRENTICE, AND RELATED PROVISIONS.....	89
26.1	Labor Compliance and Enforcement	89
26.2	Wage Rates, Travel, and Subsistence	89
26.3	Hours of Work.....	90
26.4	Payroll Records	91
26.5	[RESERVED]	92
26.6	Apprentices	92
26.7	Non-Discrimination	93
26.8	Labor First Aid.....	94
27.	[RESERVED]	94
28.	MISCELLANEOUS	94
28.1	Assignment of Antitrust Actions.....	94
28.2	Excise Taxes	95

28.3	Taxes.....	95
28.4	Shipments.....	95
28.5	Compliance with Government Reporting Requirements	95

GENERAL CONDITIONS

1. CONTRACT TERMS AND DEFINITIONS

1.1 Definitions

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(s): The Allowance Item(s) identified in the Bid Form and Proposal and included in the Contract Price. Any unused portion of the Allowance will revert to the District documented by a deductive Change Order. Contractor hereby authorizes the District to execute a unilateral deductive Change Order at or near the end of the Project for all or any portion of the Allowance not allocated.

1.1.3 Allowance Expenditure Directive: Written authorization for expenditure of an Allowance, if any. Contractor shall not bill for or be due any portion of an Allowance unless the District has identified specific work, Contractor has submitted a price for that work or the District has proposed a price for that work, the District has accepted the cost for that work, and the District has executed an Allowance Expenditure Directive incorporating that work.

1.1.4 Approval, Approved, and/or Accepted: Written authorization, unless stated otherwise.

1.1.5 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.

1.1.6 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**.

1.1.7 Bidder: A contractor who intends to provide a proposal to the District to perform the Work of this Contract.

1.1.8 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.

1.1.9 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.

1.1.10 Claim: A Contractor Claim within the meaning of Public Contract Code sections 9204 and/or 20104 et seq.

1.1.11 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.

1.1.12 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.

1.1.13 Construction Schedule: The progress schedule of construction of the Project as provided by Contractor and approved by District.

1.1.14 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:

- 1.1.14.1** Notice to Bidders
- 1.1.14.2** Instructions to Bidders
- 1.1.14.3** Bid Form and Proposal
- 1.1.14.4** Bid Bond
- 1.1.14.5** Designated Subcontractors List
- 1.1.14.6** Site Visit Certification (if a site visit was required)
- 1.1.14.7** Non-Collusion Declaration
- 1.1.14.8** Off-Road Diesel-Fueled Fleet Certification (if applicable)
- 1.1.14.9** Notice of Award
- 1.1.14.10** Notice to Proceed
- 1.1.14.11** Agreement
- 1.1.14.12** Escrow of Bid Documentation
- 1.1.14.13** Escrow Agreement for Security Deposits in Lieu of Retention (if applicable)
- 1.1.14.14** Performance Bond
- 1.1.14.15** Payment Bond (Contractor's Labor & Material Bond)
- 1.1.14.16** General Conditions
- 1.1.14.17** Special Conditions (if applicable)
- 1.1.14.18** Project Labor Agreement (if applicable)
- 1.1.14.19** Hazardous Materials Procedures and Requirements

- 1.1.14.20** Workers' Compensation Certification
- 1.1.14.21** Prevailing Wage Certification
- 1.1.14.22** Disabled Veteran Business Enterprise Participation Certification (if applicable)
- 1.1.14.23** Drug-Free Workplace Certification (if applicable)
- 1.1.14.24** Tobacco-Free Environment Certification (if applicable)
- 1.1.14.25** Workplace Violence Prevention Plan Certification
- 1.1.14.26** Drug and Alcohol-Free Schools Certification (if applicable)
- 1.1.14.27** Hazardous Materials Certification (if applicable)
- 1.1.14.28** Lead-Based Materials Certification (if applicable)
- 1.1.14.29** Imported Materials Certification (if applicable)
- 1.1.14.30** Criminal Background Investigation/Fingerprinting Certification
- 1.1.14.31** Roofing Project Certification (if applicable)
- 1.1.14.32** Registered Subcontractors List
- 1.1.14.33** Iran Contracting Act Certification (if applicable)
- 1.1.14.34** Federal Debarment Certification (if applicable)
- 1.1.14.35** Federal Byrd Anti-Lobbying Certification (if applicable)
- 1.1.14.36** Post Bid Interview (if used)
- 1.1.14.37** All Plans, Technical Specifications, and Drawings
- 1.1.14.38** Any and all addenda to any of the above documents
- 1.1.14.39** Any and all change orders or written modifications to the above documents if approved in writing by the District

1.1.15 Contract Price: The total monies payable to the Contractor under the terms and conditions of the Contract Documents.

1.1.16 Contract Time: The time period stated in the Agreement for the completion of the Work.

1.1.17 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.

1.1.18 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.

1.1.19 Day(s): Unless otherwise designated, day(s) means calendar day(s).

1.1.20 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.

1.1.21 Design Professional in General Responsible Charge: See definition of **Architect** above.

1.1.22 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.

1.1.23 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,

1.1.23.1 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

1.1.23.2 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.

1.1.24 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.

1.1.25 DSA: Division of the State Architect.

1.1.26 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.

1.1.27 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.

1.1.28 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.

1.1.29 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.

1.1.30 Plans: See **Drawings**.

1.1.31 Premises: The real property owned by the District on which the Site is located.

1.1.32 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.

1.1.33 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.

1.1.34 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 Program Manager herein shall be read to refer to District.

1.1.35 Project: The planned undertaking as provided for in the Contract Documents.

1.1.36 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.

1.1.37 Project Labor Agreement (or "PLA"): 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.

1.1.38 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.

1.1.39 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.

1.1.40 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.

1.1.41 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**.

1.1.42 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.

1.1.43 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.

1.1.44 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").

1.1.45 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.

1.1.46 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.

1.1.47 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.

1.1.48 Site: The Project site as shown on the Drawings.

1.1.49 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.

1.1.50 State: The State of California.

1.1.51 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.

1.1.52 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.

1.1.53 Submittal Schedule: The schedule of submittals as provided by Contractor and approved by District.

1.1.54 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.

1.1.55 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; Venue

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.

To the fullest extent permitted by California law, any action or proceeding that may be brought, or arise out of, in connection with or by reason of this Contract shall exclusively be litigated in the State of California and the county in which the District administration office is located shall be the venue for such litigation.

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 Substitutions for Specified Items

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.

1.8.10 [RESERVED]

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 Project Inspector

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 Tests and Inspections

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 Status of Contractor

6.1.1 Contractor represents and warrants that Contractor is an independent contractor or business entity that is: (i) free from the control and direction of the District in connection with the performance of the Services, (ii) performing Services that are outside the usual course of the District's business, and (iii) customarily engaged in an independently established trade, occupation, or business of the same nature as that involved in the Services performed, District being interested only in the results obtained. Contractor understands and agrees that it and all of its employees and its Subcontractors shall not be considered officers, employees, agents, partner, or joint venture of the District, and are not entitled to benefits of any kind or nature normally provided employees of the District and/or to which District's employees are normally entitled, including, but not limited to, State Unemployment Compensation or Worker's Compensation. Contractor shall assume full responsibility for payment of all federal, state, and local taxes or contributions, including unemployment insurance, social security, and income taxes with respect to Consultant's employees. Contractor is and shall at all times be wholly responsible for the manner in which it, its agents, 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. 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=displayPWCRRegistrationForm> or current URL.

6.1.4 Contractor represents that Contractor and all Subcontractors shall not be presently debarred, suspended, proposed for disbarment, declared ineligible or excluded pursuant to either Labor Code section 1777.1 or Labor Code section 1777.7.

6.1.5 [RESERVED]

6.1.6 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.

6.1.7 [RESERVED]

6.1.8 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.

6.2 Project Inspection Card(s)

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 Duty to Provide Fit Workers

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 Fingerprinting. Contractor shall comply with the provisions of Education Code section 45125.2 regarding the submission of employee fingerprints to the California Department of Justice and the completion of criminal background investigations of its employees, its subcontractor(s), and its subcontractors' employees. Contractor shall not permit any employee to have any contact with District pupils until such time as Contractor has verified in writing to the governing board of the District, (A) that such employee has not been convicted of a violent or serious felony, as defined in Education Code section 45122.1 and/or (B) that the prohibition does not apply to an employee as provided by Education Code section 45125.1(e)(2) or (3). Contractor shall fully complete and perform all tasks required pursuant to the Criminal Background Investigation/ Fingerprinting Certification.

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 Documents on Work

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

6.11.1 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.

6.11.2 General Permit For Storm Water Discharges Associated With Construction and Land Disturbance Activities.

6.11.2.1 Contractor acknowledges that all California school districts are obligated to develop and implement the following requirements for the discharge of storm water to surface waters from its construction and land disturbance activities pursuant to the Clean Water Act and Porter Cologne Water Quality Act. District has determined that the construction of this Project requires enrollment in the Construction Storm Water Permit. District has filed certain submittals referred to as Permit Registration Documents ("PRDS") with the Regional Water Control Board ("Storm Water Pollution Prevention Plan" or "SWPPP").

6.11.2.2 Contractor shall comply with any District SWPPP that is approved by the District and applicable to the Project, at no additional cost to the District. Contractor shall pay any fees and any penalties that may imposed by a regulatory agency for its non-compliance with the SWPPP during the course of Work.

6.11.2.3 Contractor shall provide a Qualified Storm Water Practitioner ("QSP") at no additional cost to the District, who shall perform on-site inspections and implement and monitor any and all SWPPP requirements applicable to the Project, including required visual observations, sampling, analysis, reporting and record keeping, including of Total Maximum Daily Loads ("TMDL") of pollutants and construction dewatering and discharge, and Best Management Practices ("BMPs").

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

6.13.1.14 U. 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.

6.13.5 [RESERVED]

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, including, without limitation, internet, phone and data connections, 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 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 and/or logos, or behavior will be permitted. District may require Contractor to temporarily or 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. SUBCONTRACTORS

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.

10.1.1.1.1 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:

- 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;
- 10.1.1.2.1.6** Submittals;
- 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;
- 10.1.1.2.1.10** Installation;
- 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 2.5%.
- 10.1.1.2.3.4** Closeout documentation shall have a value in the preliminary schedule of not less than 3%.

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 Safety Plan. 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 Update Registered Subcontractors List. 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 Monthly Progress Schedule(s)

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 Material Safety Data Sheets (MSDS)

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 Submittals

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 Site Investigation

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 Soils Investigation Report

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 Utilities

Utilities shall be provided as indicated in the Specifications.

11.6 Sanitary Facilities

Sanitary facilities shall be provided as indicated in the Specifications.

11.7 Surveys

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 Existing Utility Lines

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 discovered 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 Hazardous Materials

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 Trenches Greater Than Five Feet

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 Excavation Safety

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 No Tort Liability of District

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

12.4 No Excavation without Permits

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 Insurance

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 in a form at least as broad as Insurance Services (ISO) Form CG 00 01 that shall protect Contractor, its agents, representative, employees, or subcontractors, District, State, Construction Manager(s), Project Inspector(s), and Architect(s) from all claims for products and completed operations, property damage, bodily injury and personal injury, death, advertising injury, and medical payments arising from, or in connection with, the performance of the Work of the Project within the Contract Documents at the required limits, or Contractor shall procure and maintain these coverages separately. Contractor shall procure and maintain Automobile Liability Insurance in a form at least as broad as ISO Form CA 0001 covering Code 1 (any auto) 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 five thousand dollars (\$5,000) for deductible or twenty-five thousand dollars (\$25,000) for self-insured retention, respectively, 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 including, but not limited to, primary and non-contributory, additional insured, Self-Insured Retentions (SIRs), indemnity, and defense requirements. The Excess Liability Insurance Policy shall be provided on a true "following form" or broader coverage basis, with coverage at least as broad as provided on the underlying Commercial General Liability insurance. No insurance policies maintained by the Additional Insureds, whether primary or excess, and which also apply to a loss covered hereunder, shall be called upon to contribute to a loss until Contractor's primary and excess liability policies are exhausted.

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, its trustees, employees, and agents, the State, Construction Manager(s), Program 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.

13.1.3 Subcontractor(s): 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 minimum limits at least equal to the amount required of Contractor except where smaller minimum limits are permitted as set forth below. For Commercial General Liability coverage, subcontractors shall provide coverage with a form at least as broad as CG 20 38 04 13.

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.

13.1.4.3 The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of District for all work performed by Contractor, its employees, agents and subcontractors.

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) insurance utilizing an "All Risk" (Special Perils) coverage form, with limits equal to the completed value of the Project and no coinsurance penalty provisions. The cost value basis 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 in a form at least as broad as ISO Form CG 2415 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, or Contractor shall procure and maintain these coverages separately. 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.

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 the services involve lead-based paint or asbestos identification/remediation, Contractor's Pollution Liability policy shall not contain lead-based paint or asbestos exclusions. If the services involve mold identification/remediation, Contractor's Pollution Liability policy shall not contain a mold exclusion, and the definition of Pollution shall include microbial matter, including mold.

13.1.6.4 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 Proof of Insurance and Other Requirements: Endorsements and Certificates

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), Program Manager(s), Inspector(s) and Architect(s) are named additional insureds under all policies except Workers' Compensation Insurance and Employers' Liability Insurance. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance (at least as broad as ISO Form CG 20 10, CG 11 85 or **both** CG 20 10, CG 20 26, CG 20 33, or CG 20 38; **and** CG 20 37 forms if later revisions used).

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 coverage at least as broad as ISO CG 20 01 04 13 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), Program Manager(s), Inspector(s), and/or Architect(s). This requirement shall also apply to any Excess liability policies.

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. If coverage is cancelled or non-renewed, and not replaced with another claims-made policy from with a retroactive date prior to the effective date of this Agreement, or the start of Work date, the Contractor must purchase extended reporting period coverage for a minimum of five (5)

years after completion of contract work. A copy of the claims reporting requirements must be submitted to the District for review.

13.1.7.5 Contractor's and Subcontractors' insurance policy(s) shall be primary and non-contributory to any insurance or self-insurance maintained by District, its Board Members, employees and/or agents, the State of California, Construction Manager(s), Program Manager(s), Inspector(s), and/or Architect(s).

13.1.7.6 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 **A: VII**.

13.1.7.7 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.

13.1.7.8 Failure of Contractor and/or its Subcontractor(s) to comply with the insurance requirements herein shall be deemed a material breach of the Contract.

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13.1.8 Insurance Policy Limits

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 per accident for bodily injury or disease
Builder's Risk (Course of Construction)		Full replacement value for scope of Work
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 Contract Security - Bonds

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 Warranty/Guarantee

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 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 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

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 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 a conflict-of-interest bars joint representation of Contractor and Indemnitees, District shall have the right to select its own counsel, subject to Contractor's reasonable right of rejection. 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. Even if the Contractor assumes the defense of the District with acceptable counsel, the District, at its sole option, may participate in the defense, at its own expense, with counsel of its own choice without relieving the Contractor of any of its obligations hereunder. 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. TIME

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 Computation of Time / Adverse Weather

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 Performance During Working Hours

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 Schedule

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 Liquidated Damages

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 the Work which are not the fault of Contractor or its Subcontractors, including adverse weather delays, strikes, acts of God as defined in Public Contract Code section 7105, acts of enemy, epidemics, and quarantine restrictions. Contractor shall, within five (5) calendar days of beginning of any delay, including a Force Majeure event, notify District in writing of causes of delay including documentation and facts explaining the delay and the direct correlation between the cause and effect ("Notice of Delay"). 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's Notice of Delay and request for a time extension pursuant to subparagraph 16.2 is a condition precedent to Contractor's submittal of and/or entitlement to a claim pursuant to Article 25 of these Construction Provisions. Contractor shall notify the District pursuant to the Claims Process 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 and main sequence of schedule activities to enable District to evaluate the impact of changed Work to the scheduled critical path. (This information must be provided for any portion of any delay of seven (7) days or more.) The Contractor shall be responsible for all costs associated with the preparation of Time Impact Analyses.

16.2.4 A recovery schedule must be submitted within twenty (20) calendar days of written notification to the District of causes of delay to recover the lost time within seven (7) calendar days. As part of this submittal, the Contractor shall provide a written narrative for each revision made to recapture the lost time. If the revisions include sequence changes, the Contractor shall provide a schedule diagram comparing the original sequence to the revised sequence of work. The revisions shall not be incorporated into any schedule update until the revisions have been reviewed by District. At District's discretion, the Contractor can be required to provide Subcontractor certifications for revisions affecting said Subcontractors.

16.2.5 Contractor must comply with requirements in subsection 16.2 for a Notice of Delay and supporting justification notwithstanding if Contractor contends the specific delay period is unknown and continuing. When submitting a Notice of Delay and supporting justification, Contractor must provide an estimated delay duration to critical path activities at the time the Notice of Delay and supporting justification is

required to be submitted. Failure of the Contractor to perform in accordance with the current schedule update shall not be excused by submittal of a Notice of Delay. If Contractor contends the delaying event(s) are continuing, Contractor must update monthly the estimated delay period with supporting justification.

16.2.6 Contractor's failure to timely submit a written Notice of Delay and/or provide the justification required in subparagraph 16.2 shall constitute Contractor's waiver of any right to later submit a Proposed Change Order or pursue a Claim on the circumstances giving rise to the request, or to later pursue any additional money or time extensions in any manner related to that issue, regardless of the merits because the Contractor will not have satisfied a condition precedent or exhausted administrative remedies required to show entitlement to a Contract Time adjustment. Contractor acknowledges that these written notices and justification requirements are critically important to District's Work, Project management, and evaluating potential options and alternatives to implement mitigation efforts to reduce or eliminate additional Project costs and delays.

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 an event for which District is responsible impacts the projected Completion Date, the Contractor shall provide a written mitigation plan, including a schedule diagram, which explains how (e.g., increase crew size, overtime, etc.) the impact can be mitigated. The Contractor shall also include a detailed cost breakdown of the labor, equipment, and material the Contractor would expend to mitigate District-caused time impact. The Contractor shall submit its mitigation plan to District

within fourteen (14) calendar days from the date of discovery of the impact. The Contractor is responsible for the cost to prepare the mitigation plan.

16.3.4 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:

16.3.4.1 Actually incurred performing the Work;

16.3.4.2 Not compensated by the Markup allowed; and

16.3.4.3 Directly result from the extended Contract Time.

16.3.5 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). No time will be granted under this Contract for cumulative effect of changes.

16.4 Force Majeure

“Force Majeure” means any event or circumstance unknown at the time of contracting that is beyond the parties’ control and makes performance of the contract impractical or impossible. The Party seeking to have its performance obligation(s) excused must demonstrate that there was such an insuperable interference occurring without the party’s intervention as could not have been prevented by the exercise of prudence, diligence, and care, by providing prompt notice to the other Party, including full particulars of such event, of its inability to perform its obligations due to such event, following commencement of the claiming Party’s inability to so perform its obligations. To the extent satisfying these conditions, Force Majeure events include the following: acts of God, war, civil unrest, epidemic, fire, smoke, volcanic eruption, earthquake, strike, unusually severe weather, flood, or shortage of transportation facilities, lock out, or commandeering of materials, product, plant, or facilities by the government. Force Majeure shall not be based on a Party’s financial inability to perform under this Agreement unless there exists extreme and unreasonable difficulty, expense, injury, or loss involved. Costs imposed by the government on sales or importation of goods or materials including, without limitation, tariffs or taxes, are not Force Majeure. A Force Majeure event does not include an act of negligence or intentional wrongdoing by a Party. Any Party claiming a Force Majeure event shall use reasonable diligence to remove the condition that prevents performance and shall not be entitled to suspend performance of its obligations in any greater scope or for any longer duration than is required by the Force Majeure event. Each Party shall use its best efforts to mitigate the effects of such Force Majeure event, remedy its inability to perform, and resume full performance of its obligations hereunder. No obligation that arose before the Force Majeure event that could and should have been fully performed before such Force Majeure event is excused as a result of such Force Majeure event.

16.5 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 Payments and Claims Process 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 Price Request

17.3.1 Definition of Price Request

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.

17.3.2 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.

17.4 Change Orders

17.4.1 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:

17.4.1.1 A description of a change in the Work;

17.4.1.2 The amount of the adjustment in the Contract Price, if any; and

17.4.1.3 The extent of the adjustment in the Contract Time, if any.

17.5 Proposed Change Order

17.5.1 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.

17.5.2 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.

17.5.3 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.

17.5.4 Allowances

If there is an Allowance, then Contractor shall not bill for or be due any portion of an Allowance unless the District has identified specific work, Contractor has submitted a price for that work or the District has proposed a price for that work, the District has accepted the cost for that work, and the District has executed an Allowance Expenditure Directive incorporating that work. If Allowance was included in Contract Price before mark-up ("above the line"), 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 the Allowance. No overhead and profit shall be added to the Allowance Expenditure Directive unless Allowance was included in the Contract Price after mark-up ("below the line"). Allowance will only be treated as "below the line" if shown in the Bid Documents and the Bid Documents are escrowed.

Any unused portion of the Allowance, and related mark-up if Allowance was included above the line, will revert to the District documented by a deductive Change Order. Contractor authorizes the District to execute a unilateral deductive Change Order at or near the end of the Project for all or any portion of the Allowance not allocated.

17.5.5 Unknown and/or Unforeseen Conditions

Separate from what is provided in the Allowance, if Contractor requests 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.

17.5.6 Time to Submit Proposed Change Order

Contractor shall submit its PCO, using Document 00 63 57 (Proposed Change Order Form), 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.

17.5.7 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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17.6 Format for Proposed Change Order

17.6.1 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.

	<u>WORK PERFORMED OTHER THAN BY CONTRACTOR</u>	<u>ADD</u>	<u>DEDUCT</u>
(a)	<u>Material</u> (attach suppliers' invoice or itemized quantity and unit cost plus sales tax)		
(b)	<u>Add Labor</u> (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)	<u>Add Equipment</u> (attach suppliers' invoice)		
(d)	<u>Subtotal</u>		
(e)	<u>Add Overhead and Profit for any and all Tiers of Subcontractor</u> , the total not to exceed ten percent (10%) of Item (d)		
(f)	<u>Subtotal</u>		
(g)	<u>Add General Conditions Cost</u> (if Time is Compensable) (attach supporting documentation)		
(h)	<u>Subtotal</u>		
(i)	<u>Add Overhead and Profit for Contractor</u> , not to exceed five percent (5%) of Item (h)		
(j)	<u>Subtotal</u>		
(k)	<u>Add Bond and Insurance</u> , not to exceed two and one-half percent (2.5%) of Item (j)		
(l)	<u>TOTAL</u>		
(m)	<u>Time</u> (zero unless indicated; "TBD" not permitted)	_____ Calendar Days	

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	<u>WORK PERFORMED BY CONTRACTOR</u>	<u>ADD</u>	<u>DEDUCT</u>
(a)	<u>Material</u> (attach itemized quantity and unit cost plus sales tax)		
(b)	<u>Add Labor</u> (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)	<u>Add Equipment</u> (attach suppliers' invoice)		
(d)	<u>Add General Conditions Cost</u> (if Time is Compensable) (attach supporting documentation)		
(e)	<u>Subtotal</u>		
(f)	<u>Add Overhead and Profit for Contractor</u> , not to exceed fifteen percent (15%) of Item (e)		
(g)	<u>Subtotal</u>		
(h)	<u>Add Bond and Insurance</u> , not to exceed two and one-half percent (2.5%) of Item (g)		
(i)	<u>TOTAL</u>		
(j)	<u>Time</u> (zero unless indicated; "TBD" not permitted)	_____ Calendar Days	

17.6.2 Mandatory Use of Forms. Contractor shall only submit PCOs by completing Document 00 63 57 (Proposed Change Order Form). Contractor acknowledges and agrees that use of this specific and consistent format is essential to District's evaluation of PCOs. Accordingly, Contractor waives, releases, and discharges any right to assert or claim any entitlement to an adjustment of the Contract Price and/or Time for any purported PCO that does not comply with Document 00 63 57 (Proposed Change Order Form).

17.6.3 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 established by the bid advertisement date or when the Contract was awarded, whichever is applicable, 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/plan-book/per-diem-rates/per-diem-rates-lookup>.

SAN RAFAEL CITY SCHOOLS

**GENERAL CONDITIONS
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 72 13 -55**

17.6.4 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.

17.6.5 Equipment. As a precondition to the District's duty to pay for Equipment 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.

17.6.6 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.

17.6.7 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.

17.7 Change Order Certification

17.7.1 All Change Orders and PCOs include the following certification by the Contractor, either in the form specifically or incorporated by this reference:

17.7.1.1 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.

17.7.1.2 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.

17.7.2 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.

17.7.3 Mandatory Use of Forms. Contractor shall only submit Change Orders by completing Document 00 63 63 (Change Order Form). Contractor acknowledges and agrees that use of this specific and consistent format is essential to District's processing of Change Orders. Accordingly, Contractor waives, releases, and discharges any right to assert or claim any entitlement to an adjustment of the

Contract Price and/or Time for any change that does not comply with Document 00 63 63 (Change Order Form).

17.8 Determination of Change Order Cost

17.8.1 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:

17.8.1.1 District acceptance of a PCO;

17.8.1.2 By unit prices contained in Contractor's original bid;

17.8.1.3 By agreement between District and Contractor.

17.8.2 Mark-up for overhead and profit and bonds and insurance shall be based on the net increase or decrease to the Contract Price; Contractor shall not split Change Orders to artificially increase markup and/or decrease credit.

17.9 Deductive Change Orders

District reserves the right to unilaterally reduce the scope of Work or perform work with other forces or its own forces. 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 ten percent (10%) profit and overhead to be deducted with the amount of its deducted work. Any deviation from this provision shall not be allowed.

17.10 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.

17.11 Discounts, Rebates, and Refunds

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.

17.12 Construction Change Directives

17.12.1 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 Payments and Claims Process provisions herein.

17.12.2 The District may issue a Construction Change Directive in the absence of agreement on the terms of a Change Order.

17.13 Force Account Directives

17.13.1 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.

17.13.2 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.

17.13.3 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.

17.13.4 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.

17.13.5 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.

17.13.6 The Contractor shall diligently proceed with the work, and on a daily basis, submit a daily force account report using Document 00 63 47, "Daily Force Account Report," 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.

17.13.7 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.

17.14 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, without limitation, Article 25 Claims Process provisions. 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 Alteration to Change Order Language

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 Applications for Progress Payments

19.2.1 Procedure for Applications for Progress Payments

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 by District, 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;

19.2.1.1.1.3 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;

19.2.1.1.1.5 Itemized breakdown of work done for the purpose of requesting partial payment;

19.2.1.1.1.6 An updated and acceptable construction schedule in conformance with the provisions herein;

19.2.1.1.1.7 The additions to and subtractions from the Contract Price and Contract Time;

19.2.1.1.1.8 A total of the retentions held;

19.2.1.1.1.9 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;

19.2.1.1.1.11 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;

19.2.1.1.1.13 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

19.2.1.1.1.14 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:

19.2.1.1.1.16.1 Contractor and/or its Subcontractor(s) provide electronic CPRs directly to the DIR on no less than every 30 days while Work is being performed and within 30 days after the final day of Work performed on the Project for any journeyman, apprentice, worker or other employee was employed in connection with the Work, or within ten (10) days of any request by the District or the DIR to the requesting entity, and

19.2.1.1.1.16.2 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 Second Payment Request: 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 Progress Payments

19.3.1 District's Approval of Application for Payment

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 Decisions to Withhold Payment

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 **FORTY-EIGHT (48)** 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 Written notice to withhold payment from Contractor by payment and/or performance bond surety(ies).

19.4.1.4 Liquidated damages assessed against the Contractor.

19.4.1.5 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.

- 19.4.1.6** Damage to the District or other contractor(s).
- 19.4.1.7** Unsatisfactory prosecution of the Work by the Contractor.
- 19.4.1.8** Failure to store and properly secure materials.
- 19.4.1.9** 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.
- 19.4.1.10** Failure of the Contractor to maintain As-Built Drawings.
- 19.4.1.11** Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Application for Payment.
- 19.4.1.12** Unauthorized deviations from the Contract Documents.
- 19.4.1.13** 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.
- 19.4.1.14** 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.
- 19.4.1.15** 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.
- 19.4.1.16** Allowing an unregistered subcontractor, as described in Labor Code section 1725.5, to engage in the performance of any work under this Contract.
- 19.4.1.17** 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.
- 19.4.1.18** Failure to properly maintain or clean up the Site.
- 19.4.1.19** Failure to timely indemnify, defend, or hold harmless the District.

19.4.1.20 Any payments due to the District, including but not limited to payments for failed tests, utilities changes, or permits.

19.4.1.21 Failure to pay Subcontractor(s) or supplier(s) as required by law and by the Contract Documents.

19.4.1.22 Failure to pay any royalty, license or similar fees.

19.4.1.23 Contractor is otherwise in breach, default, or in substantial violation of any provision of this Contract.

19.4.1.24 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 Subcontractor Payments

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, or rights in 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 Close-Out/Certification Requirements

20.2.2.1 Utility Connections

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

20.2.2.2.1 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.

20.2.2.2.2 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 sepia's. When completed, Contractor shall deliver to the District corrected sepia's and data storage device acceptable to District with AutoCAD file.

20.2.2.2.3 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 Construction Storm Water Permit, if applicable

Contractor shall submit to District all electronic or hard copy records required by the Construction Storm Water Permit, if applicable, within seven (7) days of Completion of the Project.

20.2.2.4 Spare Parts and Maintenance Manuals:

20.2.2.4.1 Contractor shall provide products, spare parts, maintenance, and extra materials in quantities specified in the Specifications and in Manufacturer's recommendations.

20.2.2.4.2 Contractor shall prepare all operation and maintenance manuals and data as indicated in the Specifications.

20.2.2.5 Instruction of District Personnel:

20.2.2.5.1 Before final inspection, at agreed upon times, Contractor shall instruct District's designated personnel in operation, adjustment, and maintenance of products, equipment, and systems.

20.2.2.5.2 For equipment requiring seasonal operation, Contractor shall perform instructions for other seasons within six months or by the change of season.

20.2.2.5.3 Contractor shall use operation and maintenance manuals as basis for instruction. Contractor shall review contents of manual with personnel in detail to explain all aspects of operation and maintenance.

20.2.2.5.4 Contractor shall prepare and insert additional data in Operation and Maintenance Manual when the need for such data becomes apparent during instruction.

20.2.2.5.5 Contractor shall review contents of manual with personnel in detail to explain all aspects of operation and maintenance.

20.2.2.6 Source Programming: Contractor shall provide all source programming for all items in the Project.

20.2.2.7 Verified Reports: 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:

SAN RAFAEL CITY SCHOOLS

**GENERAL CONDITIONS
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 72 13 -71**

- 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 including, without limitation, security system, data, and fire alarm, 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** Replace filters of operating equipment.
- 20.3.3.1.6** Painting and special finishes complete.
- 20.3.3.1.7** Doors complete with hardware, cleaned of protective film, relieved of sticking or binding, and in working order.
- 20.3.3.1.8** Tops and bottoms of doors sealed.
- 20.3.3.1.9** Floors waxed and polished as specified.
- 20.3.3.1.10** Carpeted and soft surfaces vacuumed.
- 20.3.3.1.11** Broken glass replaced and interior and exterior glass and all surfaces exposed to view cleaned.
- 20.3.3.1.12** Equipment and fixtures cleaned to a sanitary condition.
- 20.3.3.1.13** Grounds cleared of Contractor's equipment, raked clean of debris, and remove waste and surplus materials, rubbish, and construction facilities from the Site and surrounding areas.
- 20.3.3.1.14** Site cleaned, paved areas swept, and clean landscaped surfaces raked.
- 20.3.3.1.15** Roofs, gutters, down spouts, and drainage systems cleaned of debris.
- 20.3.3.1.16** Work cleaned, free of stains, scratches, and other foreign matter, and damaged and broken material replaced.
- 20.3.3.1.17** Temporary labels, tape, stains, and foreign substances removed, transparent and glossy surfaces polished,
- 20.3.3.1.18** Finished and decorative work shall have marks, dirt, and superfluous labels removed.
- 20.3.3.1.19** Final cleanup, as provided herein.

20.4 Costs of Multiple Inspections

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 District's Rights to Occupancy

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 Process 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 Inspection Prior to Occupancy or Use

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 No Waiver

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 Nonconforming Work

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 Correction of Work

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 District's Request for Assurances

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 District's Right to Terminate Contractor for Cause

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:

24.2.2.2.1 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

24.2.2.2.2 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.

24.2.2.5 In the alternative, 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 and/or the Contractor's right to perform the work 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.

24.2.3 In the event of a termination for cause, 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.

24.2.4 In the event a termination for cause is later determined to have been made wrongfully or without cause, then the termination shall be treated as a termination for convenience, effective as of the same date as the purported termination for cause, and the Contractor shall have no greater rights than it would have had following a termination for convenience. Any Contractor claim arising out of a termination for cause shall be made in accord with Article 12 herein. No other loss, cost, damage, expense or liability may be claimed, requested or recovered by the Contractor.

24.3 Termination of Contractor for Convenience

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 If Contractor objects to the termination for convenience, including disagreement on the actual cost due Contractor, the District retains the right to all the options available to the District under a termination for cause.

24.4 Effect of Termination

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 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.

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

24.5 Emergency Termination of Public Contracts Act of 1949

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 Suspension of Work

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 Disputes

25.1.1 Should Contractor otherwise seek extra time or compensation for any reason whatsoever, then Contractor shall first follow procedures set forth in the Contract Documents including, without limitation, Articles 15, 16 and 17, all of which are conditions precedent to submitting a Claim pursuant to Article 25. A Notice of Delay 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 a Dispute 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 Claims Presentation

25.4.1 Form and Contents of Claim

25.4.1.1 If Contractor intends to submit a Claim for an increase in the Contract Price and/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 ("Notice of Potential Claim") in writing specifically identifying Contractor is invoking this Article 25 Claims Presentation. The Notice of Potential Claim shall provide Contractor's preliminary request for an adjustment to the Contract Price and/or Contract Time, with a description of the grounds therefore.

25.4.1.2 Within thirty (30) days after serving the written Notice of Potential Claim, Contractor shall provide a Claim including 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 Claim(s) for compensation or an extension of time shall be deemed waived, released, and discharged as to any entitlement for adjustment to Contract Price and/or Contract Time.

25.5 Claim Resolution pursuant to Public Contract Code section 9204

The Parties may mutually agree in writing to waive the claims procedure under Public Contract Code section 9204 and proceed directly to the commencement of a civil action or binding arbitration. Absent prior mutual waiver, 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 forty-five (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 forty-five (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 sixty (60) days after the District issues its written statement. Amounts not paid in a timely manner as required by this section 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 thirty (30) days for settlement of the dispute. Within ten (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 sixty (60) days after the District issues its written statement. Amounts not paid in a timely manner as

required by this section 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 ten (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 forty-five (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 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 Claim Resolution pursuant to Public Contract Code section 20104 et seq.

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 Article and will hold the District harmless against disputes by Subcontractors.

25.9 Claim Procedure Compliance

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;

25.10.1.3 Stop 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 Labor Compliance and Enforcement

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 Wage Rates, Travel, and Subsistence

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 or available online at <http://www.dir.ca.gov/>. 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 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 no less than every thirty (30) days while Work is being performed and within thirty (30) days after the final day of Work performed on the Project 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/they is employed, and shall be employed only at the work of the craft or trade to which he/she/they 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/they 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 Assignment of Antitrust Actions

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 (commencing 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 Taxes

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 Compliance with Government Reporting Requirements

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, Contractor shall comply with those reporting requirements at the request of the District at no additional cost.

END OF DOCUMENT

DOCUMENT 00 73 13

SPECIAL CONDITIONS

SAN RAFAEL CITY SCHOOLS

**SPECIAL CONDITIONS
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 00 73 13 -1**

SPECIAL CONDITIONS

1. Mitigation Measures

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.*)

2. Modernization Projects

2.1 Access. Access to the school buildings and entry to buildings, classrooms, restrooms, mechanical rooms, electrical rooms, or other rooms, for construction purposes, must be coordinated with District and onsite District personnel before Work is to start. Unless agreed to otherwise in writing, only a school custodian will be allowed to unlock and lock doors in existing building(s). The custodian will be available only while school is in session. If a custodian is required to arrive before 7:00 a.m. or leave after 3:30 p.m. to accommodate Contractor's Work, the overtime wages for the custodian will be paid by the Contractor, unless at the discretion of the District, other arrangements are made in advance.

2.2 Keys. Upon request, the District may, at its own discretion, provide keys to the school site for the convenience of the Contractor. The Contractor agrees to pay all expenses to re-key the entire school site and all other affected District buildings if the keys are lost or stolen, or if any unauthorized party obtains a copy of the key or access to the school.

2.3 Maintaining Services. The Contractor is advised that Work is to be performed in spaces regularly scheduled for instruction. Interruption and/or periods of shutdown of public access, electrical service, water service, lighting, or other utilities shall be only as arranged in advance with the District. Contractor shall provide temporary services to all facilities interrupted by Contractor's Work.

2.4 Maintaining Utilities. The Contractor shall maintain in operation during duration of Contract, drainage lines, storm drains, sewers, water, gas, electrical, steam, and other utility service lines within working area.

2.5 Confidentiality. Contractor shall maintain the confidentiality of all information, documents, programs, procedures and all other items that Contractor encounters while performing the Work. This requirement shall be ongoing and shall survive the expiration or termination of this Contract and specifically includes, without limitation, all student, parent, and employee disciplinary information and health information.

2.6 Work during Instructional Time. By submitting its bid, Contractor affirms that Work may be performed during ongoing instruction in existing facilities. If so, Contractor agrees to cooperate to the best of its ability to minimize any disruption to school operations and any use of school facilities by the public up to, and including, rescheduling specific work activities, at no additional cost to District.

2.7 No Work during Student 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.

3. Badge Policy for Contractors

All Contractors doing work for the District will provide their workers with identification badges. These badges will be worn by all members of the Contractor's staff who are working in a District facility.

3.1 Badges must be filled out in full and contain the following information:

3.1.1 Name of Contractor

3.1.2 Name of Employee

3.1.3 Contractor's address and phone number

3.2 Badges are to be worn when the Contractor or his/her employees are on site and must be visible at all times. Contractors must inform their employees that they are required to allow District employees, the Architect, the Construction Manager, the Program Manager, or the Project Inspector to review the information on the badges upon request.

3.3 Continued failure to display identification badges as required by this policy may result in the individual being removed from the Project or assessment of fines against the Contractor.

4. Weather Days

15.2.1.5 The number of days of Adverse Weather exceeds the following parameters:

January	10	July	2
February	10	August	2
March	10	September	5
April	10	October	10
May	5	November	10
June	2	December	10

[THE REMAINDER OF THIS PAGE LEFT BLANK INTENTIONALLY]

5. Permits, Certificates, Licenses, Fees, Approvals

5.1 Payment for Permits, Certificates, Licenses, Fees, and Approvals. As required in the General Conditions, the Contractor shall secure and pay for all permits, licenses, approvals, and certificates necessary for the prosecution of the Work with the exception of the following:

None.

6. As-Builts and Record Drawings

6.1 When called for by Division 1, Contractor shall submit As-Built Drawings pursuant to the Contract Documents consisting of one set of computer-aided design and drafting ("CADD") & Building Information Modeling ("BIM") files in the following format: .DWG for CADD & .RVT for BIM. , plus one set of As-Built Drawings on high quality paper.

6.2 Contractor shall submit Record Drawings pursuant to the Contract Documents consisting of one set of computer-aided design and drafting ("CADD") & one set of Building Information Modeling ("BIM") files in the following format: .DWG & .RVT, plus one set of Record Drawings on high quality paper.

7. Construction Manager

The District will use a Construction Manager on the Project that is the subject of this Contract. Greystone West is the Construction is the Construction Manager for this Project.

8. Program Manager

Greystone West is the Construction is the Program Manager designated for the Project that is the subject of this Contract.

15. Preliminary Schedule of Values

The preliminary schedule of values shall include, at a minimum, the following information and the following structure:

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 **[2]**%;

10.1.1.2.3.2 Submittals, samples and shop drawings combined to equal not more than **[4]**%;

10.1.1.2.3.3 Bonds and insurance combined to equal not more than **[2.5]**%.

10.1.1.2.3.4 Closeout documentation shall have a value in the preliminary schedule of not less than **[5]**%.

END OF DOCUMENT

HAZARDOUS MATERIALS
PROCEDURES & REQUIREMENTS

1. Summary

This document includes information applicable to hazardous materials and hazardous waste abatement.

2. Notice of Hazardous Waste or Materials

- a. Contractor shall give notice in writing to the District, the Construction Manager, and the Architect promptly, before any of the following materials are disturbed, and in no event later than twenty-four (24) hours after first observance, of any:
 - (1) Material that Contractor believes may be a material that is hazardous waste or hazardous material, as defined in section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law;
 - (2) Other material that may present a substantial danger to persons or property exposed thereto in connection with Work at the site.
- b. Contractor's written notice shall indicate whether the hazardous waste or material was shown or indicated in the Contract Documents to be within the scope of Work, and whether the materials were brought to the site by Contractor, its Subcontractors, suppliers, or anyone else for whom Contractor is responsible. As used in this section the term "hazardous materials" shall include, without limitation, asbestos, lead, Polychlorinated biphenyl (PCB), petroleum and related hydrocarbons, and radioactive material.
- c. In response to Contractor's written notice, the District shall investigate the identified conditions.
- d. If the District determines that conditions do not involve hazardous materials or that no change in terms of Contract is justified, the District shall so notify Contractor in writing, stating reasons. If the District and Contractor cannot agree on whether conditions justify an adjustment in Contract Price or Contract Time, or on the extent of any adjustment, Contractor shall proceed with the Work as directed by the District.
- e. If after receipt of notice from the District, Contractor does not agree to resume Work based on a reasonable belief it is unsafe, or does not agree to resume Work under special conditions, then District may order such portion of Work that is in connection with such hazardous condition or such affected area to be deleted from the Work, or performed by others, or District may invoke its rights to terminate the Contract in whole or in part. District will determine entitlement to or the amount or extent of an adjustment, if any, in

Contract Price or Contract Time as a result of deleting such portion of Work, or performing the Work by others.

- f. If Contractor stops Work in connection with any hazardous condition and in any area affected thereby, Contractor shall immediately redeploy its workers, equipment, and materials, as necessary, to other portions of the Work to minimize delay and disruption.

3. Additional Warranties and Representations

- a. Contractor represents and warrants that it, its employees, and its subcontractors and their employees, shall at all times have the required levels of familiarity with the Site and the Work, training, and ability to comply fully with all applicable laws and contractual requirements for safe and expeditious performance of the Work, including whatever training is or may be required regarding the activities to be performed (including, but not limited to, all training required to address adequately the actual or potential dangers of Contract performance).
- b. Contractor represents and warrants that it, its employees, and its subcontractors and their employees, shall at all times have and maintain in good standing any and all certifications and licenses required by applicable federal, state, and other governmental and quasi-governmental requirements applicable to the Work.
- c. Contractor represents and warrants that it has studied carefully all requirements of the Specifications regarding procedures for demolition, hazardous waste abatement, or safety practices, specified in the Contract, and prior to submitting its bid, has either (a) verified to its satisfaction that the specified procedures are adequate and sufficient to achieve the results intended by the Contract Documents, or (b) by way of approved "or equal" request or request for clarification and written Addenda, secured changes to the specified procedures sufficient to achieve the results intended by the Contract Documents. Contractor accepts the risk that any specified procedure will result in a completed Project in full compliance with the Contract Documents.

4. Monitoring and Testing

- a. District reserves the right, in its sole discretion, to conduct air monitoring, earth monitoring, Work monitoring, and any other tests (in addition to testing required under the agreement or applicable law), to monitor Contract requirements of safe and statutorily compliant work methods and (where applicable) safe re-entry level air standards under state and federal law upon completion of the job, and compliance of the work with periodic and final inspection by public and quasi-public entities having jurisdiction.
- b. Contractor acknowledges that District has the right to perform, or cause to be performed, various activities and tests including, but not limited to, pre-abatement, during abatement, and post-abatement air monitoring, that District shall have no obligation to perform said activities and tests, and that

a portion of said activities and tests may take place prior to the completion of the Work by Contractor. In the event District elects to perform these activities and tests, Contractor shall afford District ample access to the Site and all areas of the Work as may be necessary for the performance of these activities and tests. Contractor will include the potential impact of these activities or tests by District in the Contract Price and the Scheduled Completion Date.

- c. Notwithstanding District's rights granted by this paragraph, Contractor may retain its own industrial hygiene consultant at Contractor's own expense and may collect samples and may perform tests including, but not limited to, pre-abatement, during abatement, and post-abatement personal air monitoring, and District reserves the right to request documentation of all such activities and tests performed by Contractor relating to the Work and Contractor shall immediately provide that documentation upon request.

5. Compliance with Laws

- a. Contractor shall perform safe, expeditious, and orderly work in accordance with the best practices and the highest standards in the hazardous waste abatement, removal, and disposal industry, the applicable law, and the Contract Documents, including, but not limited to, all responsibilities relating to the preparation and return of waste shipment records, all requirements of the law, delivering of all requisite notices, and obtaining all necessary governmental and quasi-governmental approvals.
- b. Contractor represents that it is familiar with and shall comply with all laws applicable to the Work or completed Work including, but not limited to, all federal, state, and local laws, statutes, standards, rules, regulations, and ordinances applicable to the Work relating to:
 - (1) The protection of the public health, welfare and environment;
 - (2) Storage, handling, or use of asbestos, PCB, lead, petroleum based products, radioactive material, or other hazardous materials;
 - (3) The generation, processing, treatment, storage, transport, disposal, destruction, or other management of asbestos, PCB, lead, petroleum, radioactive material, or hazardous waste materials or other waste materials of any kind; and
 - (4) The protection of environmentally sensitive areas such as wetlands and coastal areas.

6. Disposal

- a. Contractor has the sole responsibility for determining current waste storage, handling, transportation, and disposal regulations for the job Site and for each waste disposal facility. Contractor must comply fully at its sole cost and expense with these regulations and any applicable law. District may, but is

not obligated to, require submittals with this information for it to review consistent with the Contract Documents.

- b. Contractor shall develop and implement a system acceptable to District to track hazardous waste from the Site to disposal, including appropriate "Hazardous Waste Manifests" on the EPA form, so that District may track the volume of waste it put in each landfill and receive from each landfill a certificate of receipt.
- c. Contractor shall provide District with the name and address of each waste disposal facility prior to any disposal, and District shall have the express right to reject any proposed disposal facility. Contractor shall not use any disposal facility to which District has objected. Contractor shall document actual disposal or destruction of waste at a designated facility by completing a disposal certificate or certificate of destruction forwarding the original to the District.

7. Permits

- a. Before performing any of the Work, and at such other times as may be required by applicable law, Contractor shall deliver all requisite notices and obtain the approval of all governmental and quasi-governmental authorities having jurisdiction over the Work. Contractor shall submit evidence satisfactory to District that it and any disposal facility:
 - (1) have obtained all required permits, approvals, and the like in a timely manner both prior to commencement of the Work and thereafter as and when required by applicable law; and
 - (2) are in compliance with all such permits, approvals and the regulations.

For example, before commencing any work in connection with the Work involving asbestos-containing materials, or PCBs, or other hazardous materials subject to regulation, Contractor agrees to provide the required notice of intent to renovate or demolish to the appropriate state or federal agency having jurisdiction, by certified mail, return receipt requested, or by some other method of transmittal for which a return receipt is obtained, and to send a copy of that notice to District. Contractor shall not conduct any Work involving asbestos-containing materials or PCBs unless Contractor has first confirmed that the appropriate agency having jurisdiction is in receipt of the required notification. All permits, licenses, and bonds that are required by governmental or quasi-governmental authorities, and all fees, deposits, tap fees, offsite easements, and asbestos and PCB disposal facilities expenses necessary for the prosecution of the Work, shall be procured and paid for by Contractor. Contractor shall give all notices and comply with the all applicable laws bearing on the conduct of the Work as drawn and specified. If Contractor observes or reasonably should have observed that Plans and Specifications and other Contract Documents are at variance therewith, it shall be responsible for promptly notifying District in writing of such fact. If

Contractor performs any Work contrary to applicable laws, it shall bear all costs arising therefrom.

- b. In the case of any permits or notices held in District's name or of necessity to be made in District's name, District shall cooperate with Contractor in securing the permit or giving the notice, but the Contractor shall prepare for District review and execution upon approval, all necessary applications, notices, and other materials.

8. Indemnification

To the fullest extent permitted by law, the indemnities and limitations of liability expressed throughout the Contract Documents apply with equal force and effect to any claims or liabilities imposed or existing by virtue of the removal, abatement, and disposal of hazardous waste. This includes, but is not limited to, liabilities connected to the selection and use of a waste disposal facility, a waste transporter, personal injury, property damage, loss of use of property, damage to the environment or natural resources, or "disposal" and "release" of materials associated with the Work (as defined in 42 U.S.C. § 9601 *et seq.*).

9. Termination

District shall have an absolute right to terminate for default immediately without notice and without an opportunity to cure should Contractor knowingly or recklessly commit a material breach of the terms of the Contract Documents, or any applicable law, on any matter involving the exposure of persons or property to hazardous waste. However, if the breach of contract exposing persons or property to hazardous waste is due solely to an ordinary, unintentional, and non-reckless failure to exercise reasonable care, then the procedures for termination for cause shall apply without modification.

END OF DOCUMENT

PRODUCT OPTIONS AND SUBSTITUTIONS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. Instructions to Bidders;
- B. General Conditions, including, without limitation, Substitutions For Specified Items; and
- C. Special Conditions.

1.02 SUBSTITUTIONS OF MATERIALS AND EQUIPMENT

- A. Catalog numbers and specific brands or trade names followed by the designation "or equal" are used in conjunction with material and equipment required by the Specifications to establish the standards of quality, utility, and appearance required. Substitutions which are equal in quality, utility, and appearance to those specified may be reviewed subject to the provisions of the General Conditions.
- B. Wherever more than one manufacturer's product is specified, the first-named product is the basis for the design used in the work and the use of alternative-named manufacturers' products or substitutes may require modifications in that design. If such alternatives are proposed by Contractor and are approved by the District and/or the Architect, Contractor shall assume all costs required to make necessary revisions and modifications of the design resulting from the substitutions requested by the Contractor.
- C. When materials and equipment are specified by first manufacturer's name and product number, second manufacturer's name and "or approved equal," supporting data for the second product, if proposed by Contractor, shall be submitted in accordance with the requirements for substitutions. The District's Board has found and determined that certain item(s) shall be used on this Project based on the purpose(s) indicated pursuant to Public Contract Code section 3400(c). These findings, as well as the products and brand or trade names, have been identified in the Notice to Bidders.
- D. The Contractor will not be allowed to substitute specified items unless the request for substitution is submitted as follows:
 - (1) District must receive any notice of request for substitution of a specified item a minimum of ten (10) calendar days prior to bid opening.

- (2) Within 35 days after the date of the Notice of Award, the Contractor shall submit data substantiating the request(s) for all substitution(s) containing sufficient information to assess acceptability of product or system and impact on Project, including, without limitation, the requirements specified in the Special Conditions and the technical Specifications. Insufficient information shall be grounds for rejection of substitution.
- E. If the District and/or Architect, in reviewing proposed substitute materials and equipment, require revisions or corrections to be made to previously accepted Shop Drawings and supplemental supporting data to be resubmitted, Contractor shall promptly do so. If any proposed substitution is judged by the District and/or Architect to be unacceptable, the specified material or equipment shall be provided.
- F. Samples may be required. Tests required by the District and/or Architect for the determination of quality and utility shall be made at the expense of Contractor, with acceptance of the test procedure first given by the District.
- G. In reviewing the supporting data submitted for substitutions, the District and/or Architect will use for purposes of comparison all the characteristics of the specified material or equipment as they appear in the manufacturer's published data even though all the characteristics may not have been particularly mentioned in the Contract Documents. If more than two (2) submissions of supporting data are required, the cost of reviewing the additional supporting data shall be borne by Contractor, and the District will deduct the costs from the Contract Price. The Contractor shall be responsible for any re-design costs occasioned by District's acceptance and/or approval of any substitute.
- H. The Contractor shall, in the event that a substitute is less costly than that specified, credit the District with one hundred percent (100%) of the net difference between the substitute and the originally specified material. In this event, the Contractor agrees to execute a deductive Change Order to reflect that credit. In the event Contractor furnishes a material, process, or article more expensive than that specified, the difference in the cost of that material, process, or article so furnished shall be borne by Contractor.
- I. In no event shall the District be liable for any increase in Contract Price or Contract Time due to any claimed delay in the evaluation of any proposed substitute or in the acceptance or rejection of any proposed substitute.

PART 2 – PRODUCTS Not Used.

PART 3 – EXECUTION Not Used.

END OF DOCUMENT

DOCUMENT 01 29 00

**APPLICATION FOR PAYMENT AND
CONDITIONAL AND UNCONDITIONAL WAIVER AND RELEASE FORMS**

**CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS IN THE GENERAL
CONDITIONS RELATED TO APPLICATIONS FOR PAYMENT AND/OR PAYMENTS.**

SAN RAFAEL CITY SCHOOLS

**APPLICATION FOR PAYMENT AND CONDITIONAL
AND UNCONDITIONAL WAIVER AND RELEASE FORMS
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 01 29 00-1**

**CONDITIONAL WAIVER AND RELEASE
ON PROGRESS PAYMENT
(CIVIL CODE SECTION 8132)**

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Name of Claimant: _____

Name of Customer: _____

Job Location: _____

Owner: _____

Through Date: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: _____

Amount of Check: \$_____

Check Payable to: _____

Exceptions

This document does not affect any of the following:

- (1) Retentions.
- (2) Extras for which the claimant has not received payment.
- (3) The following progress payments for which the claimant has previously given a conditional waiver and release but has not received payment:

Date(s) of waiver and release: _____

SAN RAFAEL CITY SCHOOLS

**APPLICATION FOR PAYMENT AND CONDITIONAL
AND UNCONDITIONAL WAIVER AND RELEASE FORMS
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 01 29 00-2**

Amount(s) of unpaid progress payment(s): \$_____

- (4) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

SAN RAFAEL CITY SCHOOLS

**APPLICATION FOR PAYMENT AND CONDITIONAL
AND UNCONDITIONAL WAIVER AND RELEASE FORMS
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 01 29 00-3**

**UNCONDITIONAL WAIVER AND RELEASE
ON PROGRESS PAYMENT
(CIVIL CODE SECTION 8134)**

NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Name of Claimant: _____

Name of Customer: _____

Job Location: _____

Owner: _____

Through Date: _____

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has received the following progress payment: \$_____

Exceptions

This document does not affect any of the following:

- (1) Retentions.
- (2) Extras for which the claimant has not received payment.
- (3) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

SAN RAFAEL CITY SCHOOLS

**APPLICATION FOR PAYMENT AND CONDITIONAL
AND UNCONDITIONAL WAIVER AND RELEASE FORMS
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 01 29 00-4**

**CONDITIONAL WAIVER AND RELEASE
ON FINAL PAYMENT**
(CIVIL CODE SECTION 8136)

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Name of Claimant: _____

Name of Customer: _____

Job Location: _____

Owner: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: _____

Amount of Check: \$_____

Check Payable to: _____

Exceptions

This document does not affect any of the following: _____

Disputed claims for extras in the amount of: \$_____

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

SAN RAFAEL CITY SCHOOLS

**APPLICATION FOR PAYMENT AND CONDITIONAL
AND UNCONDITIONAL WAIVER AND RELEASE FORMS
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 01 29 00-5**

**UNCONDITIONAL WAIVER AND RELEASE
ON FINAL PAYMENT
(CIVIL CODE SECTION 8138)**

NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Name of Claimant: _____

Name of Customer: _____

Job Location: _____

Owner: _____

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for all labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has been paid in full.

Exceptions

This document does not affect any of the following: _____

Disputed claims for extras in the amount of: \$_____

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

SAN RAFAEL CITY SCHOOLS

**APPLICATION FOR PAYMENT AND CONDITIONAL
AND UNCONDITIONAL WAIVER AND RELEASE FORMS
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 01 29 00-6**

SUBMITTALS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Contractor's Submittals and Schedules, Drawings and Specifications;
- B. Special Conditions.

1.02 SECTION INCLUDES:

- A. Definitions:
 - (1) Shop Drawings and Product Data are as indicated in the General Conditions and include, but are not limited to, fabrication, erection, layout and setting drawings, formwork and falsework drawings, manufacturers' standard drawings, descriptive literature, catalogues, brochures, performance and test data, wiring and control diagrams. In addition, there are other drawings and descriptive data pertaining to materials, equipment, piping, duct and conduit systems, and methods of construction as may be required to show that the materials, equipment or systems and all positions conform to the requirement of the Contract Documents, including, without limitation, the Drawings.
 - (2) "Manufactured" applies to standard units usually mass-produced; "fabricated" means specifically assembled or made out of selected materials to meet design requirements. Shop Drawings shall establish the actual detail of manufactured or fabricated items, indicated proper relation to adjoining work and amplify design details of mechanical and electrical equipment in proper relation to physical spaces in the structure.
 - (3) Manufacturer's Instructions: Where any item of Work is required by the Contract Documents to be furnished, installed, or performed, at a minimum, in accordance with a specified product manufacturer's instructions, the Contractor shall procure and distribute copies of these to the District, the Architect, and all other concerned parties and shall furnish, install, or perform the work, at a minimum, in accordance with those instructions.

- B. Samples, Shop Drawings, Product Data, and other items as specified, in accordance with the following requirements:
- (1) Contractor shall submit all Shop Drawings, Product Data, and Samples to the District, the Architect, the Project Inspector, and the Construction Manager.
 - (2) Contractor shall comply with all time frames herein and in the General Conditions and, in any case, shall submit required information in sufficient time to permit proper consideration and action before ordering any materials or items represented by such Shop Drawings, Product Data, and/or Samples.
 - (3) Contractor shall allow sufficient time so that no delay occurs due to required lead time in ordering or delivery of any item to the Site. Contractor shall be responsible for any delay in progress of Work due to its failure to observe these requirements.
 - (4) Time for completion of Work shall not be extended on account of Contractor's failure to promptly submit Shop Drawings, Product Data, and/or Samples.
 - (5) Reference numbers on Shop Drawings shall have Architectural and/or Engineering Contract Drawings reference numbers for details, sections, and "cuts" shown on Shop Drawings. These reference numbers shall be in addition to any numbering system that Contractor chooses to use or has adopted as standard.
 - (6) When the magnitude or complexity of submittal material prevents a complete review within the stated time frame, Contractor shall make this submittal in increments to avoid extended delays.
 - (7) Contractor shall certify on submittals for review that submittals conform to Contract requirements. Also certify that Contractor-furnished equipment can be installed in allocated space. In event of any variance, Contractor shall specifically state in transmittal and on Shop Drawings, portions vary and require approval of a substitute. Submittals shall not be used as a means of requesting a substitution.
 - (8) Unless specified otherwise, sampling, preparation of samples, and tests shall be in accordance with the latest standard of the American Society for Testing and Materials.
 - (9) Upon demand by Architect or District, Contractor shall submit samples of materials and/or articles for tests or examinations and consideration before Contractor incorporates same in Work. Contractor shall be solely responsible for delays due to sample(s) not being submitted in time to allow for tests. Acceptance or rejection will be expressed in writing. Work shall be equal to approved samples in every respect. Samples that are of value after testing will remain the property of Contractor.

- C. Submittal Schedule:
- (1) Contractor shall prepare its proposed submittal schedule that is coordinated with the proposed construction schedule and submit both to the District within ten (10) days after the date of the Notice to Proceed. Contractor's proposed schedules shall become the Project Construction Schedule and the Project Submittal Schedule after each is approved by the District.
 - (2) Contractor is responsible for all lost time should the initial submittal be rejected, marked "revise and resubmit", etc.
 - (3) 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.
 - (4) Contractor may be assessed \$100 a day for each day it is late in submitting a shop drawing or sample. No extensions of time will be granted to Trade Contractor or any Subcontractor because of its failure to have shop drawings and samples submitted in accordance with the Schedule.

1.03 SHOP DRAWINGS:

- A. Contractor shall submit one reproducible transparency and six (6) opaque reproductions. The District will review and return the reproducible copy and one (1) opaque reproduction to Contractor.
- B. Before commencing installation of any Work, the Contractor shall submit and receive approval of all drawings, descriptive data, and material list(s) as required to accomplish Work.
- C. Review of Shop Drawings is regarded as a service to assist Contractor and in all cases original Contract Documents shall take precedence as outlined under General Conditions.
- D. No claim for extra time or payment shall be based on work shown on Shop Drawings unless the claim is (1) noted on Contractor's transmittal letter accompanying Shop Drawings and (2) Contractor has complied with all applicable provisions of the General Conditions, including, without limitation, provisions regarding changes and payment, and all required written approvals.
- E. District shall not review Shop Drawings for quantities of materials or number of items supplied.
- F. District's and/or Architect's review of Shop Drawing will be general. District and/or Architect review does not relieve Contractor of responsibility for dimensions, accuracy, proper fitting, construction of Work, furnishing of materials, or Work required by Contract Documents and not indicated on

Shop Drawings. The District's and/or Architect's review of Shop Drawings is not to be construed as approving departures from Contract Documents.

- G. Review of Shop Drawings and Schedules does not relieve Contractor from responsibility for any aspect of those Drawings or Schedules that is a violation of local, County, State, or Federal laws, rules, ordinances, or rules and regulations of commissions, boards, or other authorities or utilities having jurisdiction.
- H. Before submitting Shop Drawings for review, Contractor shall check Shop Drawings of its subcontractors for accuracy, and confirm that all Work contiguous with and having bearing on other work shown on Shop Drawings is accurately drawn and in conformance with Contract Documents.
- I. Submitted drawings and details must bear stamp of approval of Contractor:
 - (1) Stamp and signature shall clearly certify that Contractor has checked Shop Drawings for compliance with Drawings.
 - (2) If Contractor submits a Shop Drawing without an executed stamp of approval, or whenever it is evident (despite stamp) that Drawings have not been checked, the District and/or Architect will not consider them and will return them to the Contractor for revision and resubmission. In that event, it will be deemed that Contractor has not complied with this provision and Contractor shall bear risk of all delays to same extent as if it had not submitted any Shop Drawings or details.
- J. Submission of Shop Drawings (in either original submission or when resubmitted with correction) constitutes evidence that Contractor has checked all information thereon and that it accepts and is willing to perform Work as shown.
- K. Contractor shall pay for cost of any changes in construction due to improper checking and coordination. Contractor shall be responsible for all additional costs, including coordination. Contractor shall be responsible for costs incurred by itself, the District, the Architect, the Project Inspector, the Construction Manager, any other Subcontractor or contractor, etc., due to improperly checked and/or coordination of submittals.
- L. Shop Drawings must clearly delineate the following information:
 - (1) Project name and address.
 - (2) Specification number and description.
 - (3) Architect's name and project number.
 - (4) Shop Drawing title, number, date, and scale.
 - (5) Names of Contractor, Subcontractor(s) and fabricator.
 - (6) Working and erection dimensions.

- (7) Arrangements and sectional views.
 - (8) Necessary details, including complete information for making connections with other Work.
 - (9) Kinds of materials and finishes.
 - (10) Descriptive names of materials and equipment, classified item numbers, and locations at which materials or equipment are to be installed in the Work. Contractor shall use same reference identification(s) as shown on Contract Drawings.
- M. Contractor shall prepare composite drawings and installation layouts when required to solve tight field conditions.
- (1) Shop Drawings shall consist of dimensioned plans and elevations and must give complete information, particularly as to size and location of sleeves, inserts, attachments, openings, conduits, ducts, boxes, structural interferences, etc.
 - (2) Contractor shall coordinate these composite Shop Drawings and installation layouts in the field between itself and its Subcontractor(s) for proper relationship to the Work, the work of other trades, and the field conditions. The Contractor shall check and approve all submittal(s) before submitting them for final review.

1.04 PRODUCT DATA OR NON REPRODUCIBLE SUBMITTALS:

- A. Contractor shall submit manufacturer's printed literature in original form. Any fading type of reproduction will not be accepted. Contract must submit a minimum of six (6) each, to the District. District shall return one (1) to the Contractor, who shall reproduce whatever additional copies it requires for distribution.
- B. Contractor shall submit six (6) copies of a complete list of all major items of mechanical, plumbing, and electrical equipment and materials in accordance with the approved Submittal Schedule, except as required earlier to comply with the approved Construction Schedule. Other items specified are to be submitted prior to commencing Work. Contractor shall submit items of like kind at one time in a neat and orderly manner. Partial lists will not be acceptable.
- C. Submittals shall include manufacturer's specifications, physical dimensions, and ratings of all equipment. Contractor shall furnish performance curves for all pumps and fans. Where printed literature describes items in addition to that item being submitted, submitted item shall be clearly marked on sheet and superfluous information shall be crossed out. If highlighting is used, Contractor shall mark all copies.
- D. Equipment submittals shall be complete and include space requirements, weight, electrical and mechanical requirements, performance data, and supplemental information that may be requested.

- E. Imported Materials Certification must be submitted at least ten (10) days before material is delivered.

1.05 SAMPLES:

- A. Contractor shall submit for approval Samples as required and within the time frame in the Contract Documents. Materials such as concrete, mortar, etc., which require on-site testing will be obtained from Project Site.
- B. Contractor shall submit four (4) samples except where greater or lesser number is specifically required by Contract Documents including, without limitation, the Specifications.
 - (1) Samples must be of sufficient size and quality to clearly illustrate functional characteristics, with integrally related parts and attachment devices.
 - (2) Samples must show full range of texture, color, and pattern.
- C. Contractor shall make all Submittals, unless it has authorized Subcontractor(s) to submit and Contractor has notified the District in writing to this effect.
- D. Samples to be shipped prepaid or hand-delivered to the District.
- E. Contractor shall mark samples to show name of Project, name of Contractor submitting, Contract number and segment of Work where representative Sample will be used, all applicable Specifications Sections and documents, Contract Drawing Number and detail, and ASTM or FS reference, if applicable.
- F. Contractor shall not deliver any material to Site prior to receipt of District's and/or Architect's completed written review and approval. Contractor shall furnish materials equal in every respect to approved Samples and execute Work in conformance therewith.
- G. District's and/or Architect's review, acceptance, and/or approval of Sample(s) will not preclude rejections of any material upon discovery of defects in same prior to final acceptance of completed Work.
- H. After a material has been approved, no change in brand or make will be permitted.
- I. Contractor shall prepare its Submittal Schedule and submit Samples of materials requiring laboratory tests to specified laboratory for testing not less than ninety (90) days before such materials are required to be used in Work.
- J. Samples which are rejected must be resubmitted promptly after notification of rejection and be marked "Resubmitted Sample" in addition to other information required.
- K. Field Samples and Mock-Ups are to be removed by Contractor at District's direction:

- (1) Size: As Specified.
- (2) Furnish catalog numbers and similar data, as requested.

1.06 REVIEW AND RESUBMISSION REQUIREMENTS:

- A. The District will arrange for review of Sample(s), Shop Drawing(s), Product Data, and other submittal(s) by appropriate reviewer and return to Contractor as provided below within twenty-one (21) days after receipt or within twenty-one (21) days after receipt of all related information necessary for such review, whichever is later.
- B. One (1) copy of product or materials data will be returned to Contractor with the review status.
- C. Samples to be incorporated into the Work will be returned to Contractor, together with a written notice designating the Sample with the appropriate review status and indicating errors discovered on review, if any. Other Samples will not be returned, but the same notice will be given with respect thereto, and that notice shall be considered a return of the Sample.
- D. Contractor shall revise and resubmit any Sample(s), Shop Drawing(s), Product Data, and other submittal(s) as required by the reviewer. Such resubmittals will be reviewed and returned in the same manner as original Sample(s), Shop Drawing(s), Product Data, and other submittal(s), within fourteen (14) days after receipt thereof or within fourteen (14) days after receipt of all related information necessary for such review. Such resubmittal shall not delay the Work.
- E. Contractor may proceed with any of the Work covered by Sample(s), Shop Drawing(s), Product Data, and other submittal(s) upon its return if designated as no exception taken, or revise as noted, provided the Contractor proceeds in accordance with the District and/or the Architect's notes and comments.
- F. Contractor shall not begin any of the work covered by a Sample(s), Shop Drawing(s), Product Data, and other submittal(s), designated as revise and resubmit or rejected, until a revision or correction thereof has been reviewed and returned to Contractor.
- G. Sample(s), Shop Drawing(s), Product Data, and other submittal(s) designated as revise and resubmit or rejected and requiring resubmittal, shall be revised or corrected and resubmitted to the District no later than fourteen (14) days or a shorter period as required to comply with the approved Construction Schedule, after its return to Contractor.
- H. Neither the review nor the lack of review of any Sample(s), Shop Drawing(s), Product Data, and other submittal(s) shall waive any of the requirements of the Contract Documents, or relieve Contractor of any obligation thereunder.
- I. District's and/or Architect's review of Shop Drawings does not relieve the Contractor of responsibility for any errors that may exist. Contractor is responsible for the dimensions and design of adequate connections and details and for satisfactory construction of all the Work.

PART 2 – PRODUCTS Not Used.

PART 3 - EXECUTION Not Used.

END OF DOCUMENT

MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Purchase of Materials and Equipment;
- B. Special Conditions;
- C. Imported Materials Certification.

1.02 MATERIAL AND EQUIPMENT

- A. Only items approved by the District and/or Design Professional shall be used.
- B. Contractor shall submit lists of products and other product information in accordance with the Contract Documents, including, without limitation, the provisions regarding the submittals.

1.03 MATERIAL AND EQUIPMENT COLORS

- A. The District and/or Architect will provide a schedule of colors.
- B. No individual color selections will be made until after approval of all pertinent materials and equipment and after receipt of appropriate samples in accordance with the Contract Documents, including, without limitation, the provisions regarding the submittals.
- C. Contractor shall request priority in writing for any item requiring advance ordering to maintain the approved Construction Schedule.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Contractor shall deliver manufactured materials in original packages, containers, or bundles (with seals unbroken), bearing name or identification mark of manufacturer.
- B. Contractor shall deliver fabrications in as large assemblies as practicable; where specified as shop-primed or shop-finished, package or crate as required to preserve such priming or finish intact and free from abrasion.
- C. Contractor shall store materials in such a manner as necessary to properly protect them from damage. Materials or equipment damaged by handling, weather, dirt, or from any other cause will not be accepted.

SAN RAFAEL CITY SCHOOLS

**MATERIALS AND EQUIPMENT
BRAUN CENTER AT OLD GALLINAS
PHASE 2
PROJECT NO. 25-06
DOCUMENT 01 43 00-1**

- D. Materials are not acceptable that have been warehoused for long periods of time, stored or transported in improper environment, improperly packaged, inadequately labeled, poorly protected, excessively shipped, deviated from normal distribution pattern, or reassembled.
- E. Contractor shall store material so as to cause no obstructions of sidewalks, roadways, access to the Site or buildings, and underground services. Contractor shall protect material and equipment furnished under Contract.
- F. Contractor may store materials on Site with prior written approval by the District, all material shall remain under Contractor's control and Contractor shall remain liable for any damage to the materials. Should the Project Site not have storage area available, the Contractor shall provide for off-site storage at a bonded warehouse and with appropriate insurance coverage at no cost to District.
- G. When any room in Project is used as a shop or storeroom, the Contractor shall be responsible for any repairs, patching, or cleaning necessary due to that use. Location of storage space shall be subject to prior written approval by District.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturers listed in various sections of Contract Documents are names of those manufacturers that are believed to be capable of supplying one or more of items specified therein.
- B. The listing of a manufacturer does not imply that every product of that manufacturer is acceptable as meeting the requirements of the Contract Documents.

2.02 FACILITIES AND EQUIPMENT

Contractor shall provide, install, maintain, and operate a complete and adequate facility for handling, the execution, disposal, and distribution of material and equipment as required for proper and timely performance of Work connected with Contract.

2.03 MATERIAL REFERENCE STANDARDS

Where material is specified solely by reference to "standard specifications" and if requested by District, Contractor shall submit for review data on actual material proposed to be incorporated into Work of Contract listing name and address of vendor, manufacturer, or producer, and trade or brand names of those materials, and data substantiating compliance with standard specifications.

PART 3 - EXECUTION

3.01 WORKMANSHIP

- A. Where not more specifically described in any other Contract Documents, workmanship shall conform to methods and operations of best standards and accepted practices of trade or trades involved and shall include items of fabrication, construction, or installation regularly furnished or required for completion (including finish and for successful operation, as intended).
- B. Work shall be executed by tradespersons skilled in their respective lines of Work. When completed, parts shall have been durably and substantially built and present a neat appearance.

3.02 COORDINATION

- A. Contractor shall coordinate installation of Work so as to not interfere with installation of others. Adjustment or rework because of Contractor's failure to coordinate will be at no additional cost to District.
- B. Contractor shall examine in-place work for readiness, completeness, fitness to be concealed or to receive other work, and in compliance with Contract Documents. Concealing or covering Work constitutes acceptance of additional cost which will result should in-place Work be found unsuitable for receiving other Work or otherwise deviating from the requirements of the Contract Documents.

3.03 COMPLETENESS

Contractor shall provide all portions of the Work, unless clearly stated otherwise, installed complete and operational with all elements, accessories, anchorages, utility connections, etc., in manner to assure well-balanced performance, in accordance with manufacturer's recommendations and by Contract Documents. For example, electric water coolers require water, electricity, and drain services; roof drains require drain system; sinks fit within countertop, etc. Terms such as "installed complete," "operable condition," "for use intended," "connected to all utilities," "terminate with proper cap," "adequately anchored," "patch and refinish," "to match similar," should be assumed to apply in all cases, except where completeness of functional or operable condition is specifically stated as not required.

3.04 APPROVED INSTALLER OR APPLICATOR

Installation by a manufacturer's approved installer or applicator is an understood part of Specifications and only approved installer or applicator is to provide on-site Work where specified manufacturer has on-going program of approving (i.e. certifying, bonding, re-warranting) installers or applicators. Newly established relationships between a manufacturer and an installer or applicator who does not have other approved applicator work in progress or completed is not approved for this Project.

3.05 MANUFACTURER'S RECOMMENDATIONS

All installations shall be in accordance with manufacturer's published recommendations and specific written directions of manufacturer's representative. Should Contract Documents differ from recommendations of manufacturer or directions of his representative, Contractor shall analyze differences, make recommendations to the District and the Architect in writing, and shall not proceed until interpretation or clarification has been issued by the District and/or the Architect.

END OF DOCUMENT

TEMPORARY FACILITIES AND CONTROLS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions;
- B. Special Conditions;
- C. Site Standards; and
- D. Construction Waste Management and Disposal.

1.02 TEMPORARY UTILITIES:

- A. Electric Power and Lighting:
 - (1) Contractor will pay for power during the course of the Work. To the extent power is available in the building(s) or on the Site, Contractor may use the District's existing utilities by making prearranged payments to the District for the utilities used by Contractor and all Subcontractors. Contractor shall be responsible for providing temporary facilities required to deliver that power service from its existing location in the building(s) or on the Site to point of intended use.
 - (2) Contractor shall verify characteristics of power available in building(s) or on the Site. Contractor shall take all actions required to make modifications where power of higher voltage or different phases of current are required. Contractor shall be fully responsible for providing that service and shall pay all costs required therefor.
 - (3) Contractor shall furnish, wire for, install, and maintain temporary electrical lights wherever it is necessary to provide illumination for the proper performance and/or observation of the Work: a minimum of 20 foot-candles for rough work and 50 foot-candles for finish work.
 - (4) Contractor shall be responsible for maintaining existing lighting levels in the project vicinity should temporary outages or service interruptions occur.
- B. Heat and Ventilation:

- (1) Contractor shall provide temporary heat to maintain environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for the installation and curing of materials, and to protect materials and finishes from damage due to improper temperature and humidity conditions. Portable heaters shall be standard units complete with controls.
- (2) Contractor shall provide forced ventilation and dehumidification, as required, of enclosed areas for proper installation and curing of materials, to disperse humidity, and to prevent hazardous accumulations of dust, fumes, vapors, and gases.
- (3) Contractor shall pay the costs of installation, maintenance, operation, and removal of temporary heat and ventilation, including costs for fuel consumed, required for the performance of the Work.

C. Water:

- (1) Contractor shall pay for water used during the course of the Work. Contractor shall coordinate and pay for installation or use of water meter in compliance with local water agency requirements. To the extent water is then available in the building(s) or on the Site, Contractor may use the District's existing utilities by making prearranged payments to the District for the utilities used by Contractor and all Subcontractors. Contractor shall be responsible for providing temporary facilities required to deliver such utility service from its existing location in the building(s), on the Site, or other location approved by the local water agency, to point of intended use.
- (2) Contractor shall use backflow preventers on water lines at point of connection to District's water supply. Backflow preventers shall comply with requirements of Uniform Plumbing Code.
- (3) Contractor shall make potable water available for human consumption.

D. Sanitary Facilities:

- (1) Contractor shall provide sanitary temporary facilities in no fewer numbers than required by law and such additional facilities as may be directed by the Inspector for the use of all workers. The facilities shall be maintained in a sanitary condition at all times and shall be left at the Site until removal is directed by the Inspector or Contractor completes all other work at the Site.
- (2) Use of toilet facilities in the Work under construction shall not be permitted except by consent of the Inspector and the District.

E. Telephone Service:

- (1) Contractor shall arrange with local telephone service company for telephone service as required for the performance of the Work.

Contractor shall, at a minimum, provide in its field office one line for telephone and one line for fax machine.

- (2) Contractor shall pay the costs for telephone and fax lines installation, maintenance, service, and removal.

F. Fire Protection:

- (1) Contractor shall provide and maintain fire extinguishers and other equipment for fire protection. Such equipment shall be designated for use for fire protection only and shall comply with all requirements of the California Fire, State Fire Marshall and/or its designee.
- (2) Where on-site welding and burning of steel is unavoidable, Contractor shall provide protection for adjacent surfaces.

G. Trash Removal:

- (1) Contractor shall provide trash removal on a timely basis. Under no circumstance shall Contractor use District trash service.

H. Field Office:

- (1) If Contractor chooses to provide a field office, it shall be an acceptable construction trailer that is well-lit and ventilated. The construction trailer shall be equipped with shelves, desks, filing cabinet, chairs, and such other items of equipment needed. Trailer and equipment are the property of the Contractor and must be removed from the Site upon completion of the Work. Contractor may use the corridor adjacent to the construction area for an office area, if approved in writing by District.
- (2) Contractor shall provide any additional electric lighting and power required for the trailer. Contractor shall make adequate provisions for heating and cooling as required.

I. Temporary Facilities:

- (1)

1.03 CONSTRUCTION AIDS:

A. Plant and Equipment:

- (1) Contractor shall furnish, operate, and maintain a complete plant for fabricating, handling, conveying, installing, and erecting materials and equipment; and for conveyances for transporting workers. Include elevators, hoists, debris chutes, and other equipment, tools, and appliances necessary for performance of the Work.

- (2) Contractor shall maintain plant and equipment in safe and efficient operating condition. Damages due to defective plant and equipment, and uses made thereof, shall be repaired by Contractor at no expense to the District.
- B. None of the District's tools and equipment shall be used by Contractor for the performance of the Work.

1.04 BARRIERS AND ENCLOSURES:

- A. Contractor shall obtain the District's written permission for locations and types of temporary barriers and enclosures, including fire-rated materials proposed for use, prior to their installation.
- B. Contractor shall provide and maintain temporary enclosures to prevent public entry and to protect persons using other buildings and portions of the Site and/or Premises, the public, and workers. Contractor shall also protect the Work and existing facilities from the elements, and adjacent construction and improvements, persons, and trees and plants from damage and injury from demolition and construction operations.
- C. Contractor shall provide site access to existing facilities for persons using other buildings and portions of the Site, the public, and for deliveries and other services and activities.
- D. Tree and Plant Protection:
 - (1) Contractor shall preserve and protect existing trees and plants on the Premises that are not designated or required to be removed, and those adjacent to the Premises.
 - (2) Contractor shall provide barriers to a minimum height of 4'-0" around drip line of each tree and plant, around each group of trees and plants, as applicable, in the proximity of demolition and construction operations, or as denoted on the Plans.
 - (3) Contractor shall not park trucks, store materials, perform Work or cross over landscaped areas. Contractor shall not dispose of paint thinners, water from cleaning, plastering or concrete operations, or other deleterious materials in landscaped areas, storm drain systems, or sewers. Plant materials damaged as a result of the performance of the Work shall, at the option of the District and at Contractor's expense, either be replaced with new plant materials equal in size to those damaged or by payment of an amount representing the value of the damaged materials as determined by the District.
 - (4) Contractor shall remove soil that has been contaminated during the performance of the Work by oil, solvents, and other materials which could be harmful to trees and plants, and replace with good soil, at Contractor's expense.

- (5) Excavation around Trees:
- (a) Excavation within drip lines of trees shall be done only where absolutely necessary and with written permission from the District.
 - (b) Where trenching for utilities is required within drip lines, tunneling under and around roots shall be by hand digging and shall be approved by the District. Main lateral roots and taproots shall not be cut. All roots 2 inches in diameter and larger shall be tunneled under and heavily wrapped with wet burlap so as to prevent scarring or excessive drying. Smaller roots that interfere with installation of new work may be cut with prior approval by the District. Roots must first be cut with a Vermeer, or equivalent, root cutter prior to any trenching.
 - (c) Where excavation for new construction is required within drip line of trees, hand excavation shall be employed to minimize damage to root system. Roots shall be relocated in backfill areas wherever possible. If encountered immediately adjacent to location of new construction, roots shall be cut approximately 6 inches back from new construction.
 - (d) Approved excavations shall be carefully backfilled with the excavated materials approved for backfilling. Backfill shall conform to adjacent grades without dips, sunken areas, humps, or other surface irregularities. Do not use mechanical equipment to compact backfill. Tamp carefully using hand tools, refilling and tamping until Final Acceptance as necessary to offset settlement.
 - (e) Exposed roots shall not be allowed to dry out before permanent backfill is placed. Temporary earth cover shall be provided, or roots shall be wrapped with four layers of wet, untreated burlap and temporarily supported and protected from damage until permanently relocated and covered with backfill.
 - (f) Accidentally broken roots should be sawed cleanly 3 inches behind ragged end.

1.05 SECURITY:

The Contractor shall be responsible for project security for materials, tools, equipment, supplies, and completed and partially completed Work.

1.06 TEMPORARY CONTROLS:

A. Noise Control:

- (1) Contractor acknowledges that adjacent facilities may remain in operation during all or a portion of the Work period, and it shall take

all reasonable precautions to minimize noise as required by applicable laws and the Contract Documents.

- (2) Notice of proposed noisy operations, including without limitation, operation of pneumatic demolition tools, concrete saws, and other equipment, shall be submitted to the District a minimum of forty-eight (48) hours in advance of their performance.

B. Noise and Vibration:

- (1) Equipment and impact tools shall have intake and exhaust mufflers.
- (2) Contractor shall cooperate with District to minimize and/or cease the use of noisy and vibratory equipment if that equipment becomes objectionable by its longevity.

C. Dust and Dirt:

- (1) Contractor shall conduct demolition and construction operations to minimize the generation of dust and dirt, and prevent dust and dirt from interfering with the progress of the Work and from accumulating in the Work and adjacent areas including, without limitation, occupied facilities.
- (2) Contractor shall periodically water exterior demolition and construction areas to minimize the generation of dust and dirt.
- (3) Contractor shall ensure that all hauling equipment and trucks carrying loads of soil and debris shall have their loads sprayed with water or covered with tarpaulins, and as otherwise required by local and state ordinance.
- (4) Contractor shall prevent dust and dirt from accumulating on walks, roadways, parking areas, and planting, and from washing into sewer and storm drain lines.

D. Water:

- (1) Contractor shall not permit surface and subsurface water, and other liquids, to accumulate in or about the vicinity of the Premises. Should accumulation develop, Contractor shall control the water or other liquid, and suitably dispose of it by means of temporary pumps, piping, drainage lines, troughs, ditches, dams, or other methods.

E. Pollution:

- (1) No burning of refuse, debris, or other materials shall be permitted on or in the vicinity of the Premises.

- (2) Contractor shall comply with applicable regulatory requirements and anti-pollution ordinances during the conduct of the Work including, without limitation, demolition, construction, and disposal operations.

F. Lighting:

- (1) If portable lights are used after dark, all light must be located so as not to direct light into neighboring property.

1.07 JOB SIGN(S):

A. General:

- (1) Contractor shall provide and maintain a Project identification sign with the design, text, and colors designated by the District and/or the Design Professional; locate sign as approved by the District.
- (2) Signs other than the specified Project sign and or signs required by law, for safety, or for egress, shall not be permitted, unless otherwise approved in advance by the District.

B. Materials:

- (1) Structure and Framing: Structurally sound, new or used wood or metal; wood shall be nominal 3/4-inch exterior grade plywood.
- (2) Sign Surface: Minimum 3/4-inch exterior grade plywood.
- (3) Rough Hardware: Galvanized.
- (4) Paint: Exterior quality, of type and colors selected by the District and/or the Design Professional.

C. Fabrication:

- (1) Contractor shall fabricate to provide smooth, even surface for painting.
- (2) Size: 4'-0" x 8'-0", unless otherwise indicated.
- (3) Contractor shall paint exposed surfaces of supports, framing, and surface material with exterior grade paint: one coat of primer and one coat of finish paint.
- (4) Text and Graphics: As indicated.

1.08 PUBLICITY RELEASES:

- A. Contractor shall not release any information, story, photograph, plan, or drawing relating information about the Project to anyone, including press and other public communications medium, including, without limitation, on website(s) without the written permission of the District.

PART 2 – PRODUCTS Not used.

PART 3 – EXECUTION Not used.

END OF DOCUMENT

CUTTING AND PATCHING

PART 1 – GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Inspector, Inspections, and Tests, Integration of Work, Nonconforming Work, and Correction of Work, and Uncovering Work;
- B. Special Conditions;
- C. Hazardous Materials Procedures and Requirements;
- D. Hazardous Materials Certification;
- E. Lead-Based Paint Certification;
- F. Imported Materials Certification.

1.02 CUTTING AND PATCHING:

- A. Contractor shall be responsible for all cutting, fitting, and patching, including associated excavation and backfill, required to complete the Work or to:
 - (1) Make several parts fit together properly.
 - (2) Uncover portions of Work to provide for installation of ill-timed Work.
 - (3) Remove and replace defective Work.
 - (4) Remove and replace Work not conforming to requirements of Contract Documents.
 - (5) Remove Samples of installed Work as specified for testing.
 - (6) Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.
 - (7) Attaching new materials to existing remodeling areas – including painting (or other finishes) to match existing conditions.
- B. In addition to Contract requirements, upon written instructions from the District, Contractor shall uncover Work to provide for observations of covered Work in accordance with the Contract Documents; remove samples of

installed materials for testing as directed by District; and remove Work to provide for alteration of existing Work.

- C. Contractor shall not cut or alter Work, or any part of it, in such a way that endangers or compromises the integrity of the Work, the Project, or work of others.

1.03 SUBMITTALS:

- A. Prior to any cutting or alterations that may affect the structural safety of Project, or work of others, and well in advance of executing such cutting or alterations, Contractor shall submit written notice to District pursuant to the applicable notice provisions of the Contract Documents, requesting consent to proceed with the cutting or alteration, including the following:
 - (1) The work of the District or other trades.
 - (2) Structural value or integrity of any element of Project.
 - (3) Integrity or effectiveness of weather-exposed or weather-resistant elements or systems.
 - (4) Efficiency, operational life, maintenance or safety of operational elements.
 - (5) Visual qualities of sight-exposed elements.
- B. Contractor's Request shall also include:
 - (1) Identification of Project.
 - (2) Description of affected Work.
 - (3) Necessity for cutting, alteration, or excavations.
 - (4) Effects of Work on District, other trades, or structural or weatherproof integrity of Project.
 - (5) Description of proposed Work:
 - (a) Scope of cutting, patching, alteration, or excavation.
 - (b) Trades that will execute Work.
 - (c) Products proposed to be used.
 - (d) Extent of refinishing to be done.
 - (6) Alternates to cutting and patching.
 - (7) Cost proposal, when applicable.

- (8) The scheduled date the Contractor intends to perform the Work and the duration of time to complete the Work.
- (9) Written permission of District or other District contractor(s) whose work will be affected.

1.04 QUALITY ASSURANCE:

- A. Contractor shall ensure that cutting, fitting, and patching shall achieve security, strength, weather protection, appearance for aesthetic match, efficiency, operational life, maintenance, safety of operational elements, and the continuity of existing fire ratings.
- B. Contractor shall ensure that cutting, fitting, and patching shall successfully duplicate undisturbed adjacent profiles, materials, textures, finishes, colors, and that materials shall match existing construction. Where there is dispute as to whether duplication is successful or has been achieved to a reasonable degree, the District's decision shall be final.

1.05 PAYMENT FOR COSTS:

- A. Cost caused by ill-timed or defective Work or Work not conforming to Contract Documents, including costs for additional services of the District, its consultants, including but not limited to the Construction Manager, the Architect, the Project Inspector(s), Engineers, and Agents, will be paid by Contractor and/or deducted from the Contract by the District.
- B. District shall only pay for cost of Work if it is part of the original Contract Price or if a change has been made to the contract in compliance with the provisions of the General Conditions. Cost of Work performed upon instructions from the District, other than defective or nonconforming Work, will be paid by District on approval of written Change Order. Contractor shall provide written cost proposals prior to proceeding with cutting and patching.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. Contractor shall provide for replacement and restoration of Work removed. Contractor shall comply with the Contract Documents and with the Industry Standard(s), for the type of Work, and the Specification requirements for each specific product involved. If not specified, Contractor shall first recommend a product of a manufacturer or appropriate trade association for approval by the District.
- B. Materials to be cut and patched include those damaged by the performance of the Work.

PART 3 – EXECUTION

3.01 INSPECTION:

- A. Contractor shall inspect existing conditions of the Site and the Work, including elements subject to movement or damage during cutting and patching, excavating and backfilling. After uncovering Work, Contractor shall inspect conditions affecting installation of new products.
- B. Contractor shall report unsatisfactory or questionable conditions in writing to District as indicated in the General Conditions and shall proceed with Work as indicated in the General Conditions by District.

3.02 PREPARATION:

- A. Contractor shall provide shoring, bracing and supports as required to maintain structural integrity for all portions of the Project, including all requirements of the Project.
- B. Contractor shall provide devices and methods to protect other portions of Project from damage.
- C. Contractor shall, provide all necessary protection from weather and extremes of temperature and humidity for the Project, including without limitation, any work that may be exposed by cutting and patching Work. Contractor shall keep excavations free from water.

3.03 ERECTION, INSTALLATION AND APPLICATION:

- A. With respect to performance, Contractor shall:
 - (1) Execute fitting and adjustment of products to provide finished installation to comply with and match specified tolerances and finishes.
 - (2) Execute cutting and demolition by methods that will prevent damage to other Work, and provide proper surfaces to receive installation of repairs and new Work.
 - (3) Execute cutting, demolition excavating, and backfilling by methods that will prevent damage to other Work and damage from settlement.
- B. Contractor shall employ original installer or fabricator to perform cutting and patching for:
 - (1) Weather-exposed surfaces and moisture-resistant elements such as roofing, sheet metal, sealants, waterproofing, and other trades.
 - (2) Sight-exposed finished surfaces.
- C. Contractor shall execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances,

and finishes as shown or specified in the Contract Documents including, without limitation, the Drawings and Specifications.

- D. Contractor shall fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces. Contractor shall conform to all Code requirements for penetrations or the Drawings and Specifications, whichever calls for a higher quality or more thorough requirement. Contractor shall maintain integrity of both rated and non-rated fire walls, ceilings, floors, etc.
- E. Contractor shall restore Work which has been cut or removed. Contractor shall install new products to provide completed Work in accordance with requirements of the Contract Documents and as required to match surrounding areas and surfaces.
- F. Contractor shall refinish all continuous surfaces to nearest intersection as necessary to match the existing finish to any new finish.

END OF DOCUMENT

CONTRACT CLOSEOUT AND FINAL CLEANING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Completion of Work;
- B. Special Conditions;
- C. Temporary Facilities and Controls.

1.02 CLOSEOUT PROCEDURES

Contractor shall comply with all closeout provisions as indicated in the General Conditions.

1.03 FINAL CLEANING

- A. Contractor shall execute final cleaning prior to final inspection.
- B. Contractor shall clean interior and exterior glass and all surfaces exposed to view; remove temporary labels, tape, stains, and foreign substances, polish transparent and glossy surfaces, wax and polish new vinyl floor surfaces, vacuum carpeted and soft surfaces.
- C. Contractor shall clean equipment and fixtures to a sanitary condition.
- D. Contractor shall replace filters of operating equipment.
- E. Contractor shall clean debris from roofs, gutters, down spouts, and drainage systems.
- F. Contractor shall clean Site, sweep paved areas, and rake clean landscaped surfaces.
- G. Contractor shall remove waste and surplus materials, rubbish, and construction facilities from the Site and surrounding areas.

1.04 ADJUSTING

Contractor shall adjust operating products and equipment to ensure smooth and unhindered operation.

1.05 RECORD DOCUMENTS AND SHOP DRAWINGS

- A. Contractor shall legibly mark each item to record actual construction, including:
 - (1) Measured depths of foundation in relation to finish floor datum.
 - (2) Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permit 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
 - (6) Changes made by modification(s).
 - (7) References to related Shop Drawings and modifications.
- B. Contractor will provide one set of Record Drawings to District.
- C. Contractor shall submit all required documents to District and/or Architect prior to or with its final Application for Payment.

1.06 INSTRUCTION OF DISTRICT PERSONNEL

- A. Before final inspection, at agreed upon times, Contractor shall instruct District's designated personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. For equipment requiring seasonal operation, Contractor shall perform instructions for other seasons within six months or by the change of season.
- C. Contractor shall use operation and maintenance manuals as basis for instruction. Contractor shall review contents of manual with personnel in detail to explain all aspects of operation and maintenance.
- D. Contractor shall prepare and insert additional data in Operation and Maintenance Manual when the need for such data becomes apparent during instruction.
- E. Contractor shall review contents of manual with personnel in detail to explain all aspects of operation and maintenance.

1.07 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Contractor shall provide products, spare parts, maintenance, and extra materials in quantities specified in the Specifications and in Manufacturer's recommendations.

- B. Contractor shall provide District with all required Operation and Maintenance Data at one time. Partial or piecemeal submissions of Operation and Maintenance Data will not be accepted.

PART 2 – PRODUCTS Not Used.

PART 3 – EXECUTION Not Used.

END OF DOCUMENT

OPERATION AND MAINTENANCE DATA

PART 1 – GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Completion of the Work;
- B. Special Conditions.

1.02 QUALITY ASSURANCE:

Contractor shall prepare instructions and data by personnel experienced in maintenance and operation of described products.

1.03 FORMAT:

- A. Contractor shall prepare data in the form of an instructional manual entitled "OPERATIONS AND MAINTENANCE MANUAL & INSTRUCTIONS" ("Manual").
- B. Binders: Contractor shall use commercial quality, 8-1/2 by 11 inch, three-side rings, with durable plastic covers; two inch maximum ring size. When multiple binders are used, Contractor shall correlate data into related consistent groupings.
- C. Cover: Contractor shall identify each binder with typed or printed title "OPERATION AND MAINTENANCE MANUAL & INSTRUCTIONS"; and shall list title of Project and identify subject matter of contents.
- D. Contractor shall arrange content by systems process flow under section numbers and sequence of Table of Contents of the Contract Documents.
- E. Contractor shall provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- F. Text: The content shall include Manufacturer's printed data, or typewritten data on 24 pound paper.
- G. Drawings: Contractor shall provide with reinforced punched binder tab and shall bind in with text; folding larger drawings to size of text pages.

1.04 CONTENTS, EACH VOLUME:

- A. Table of Contents: Contractor shall provide title of Project; names, addresses, and telephone numbers of the Architect, any engineers, subconsultants,

Subcontractor(s), and Contractor with name of responsible parties; and schedule of products and systems, indexed to content of the volume.

- B. For Each Product or System: Contractor shall list names, addresses, and telephone numbers of Subcontractor(s) and suppliers, including local source of supplies and replacement parts.
- C. Product Data: Contractor shall mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- D. Drawings: Contractor shall supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Contractor shall not use Project Record Documents as maintenance drawings.
- E. Text: Contractor shall include any and all information as required to supplement product data. Contractor shall provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.
- F. Warranties and Bonds: Contractor shall bind in one copy of each.

1.05 MANUAL FOR MATERIALS AND FINISHES:

- A. Building Products, Applied Materials, and Finishes: Contractor shall include product data, with catalog number, size, composition, and color and texture designations. Contractor shall provide information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Contractor shall include Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture Protection and Weather Exposed Products: Contractor shall include product data listing applicable reference standards, chemical composition, and details of installation. Contractor shall provide recommendations for inspections, maintenance, and repair.
- D. Additional Requirements: Contractor shall include all additional requirements as specified in the Specifications.
- E. Contractor shall provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

1.06 MANUAL FOR EQUIPMENT AND SYSTEMS:

- A. Each Item of Equipment and Each System: Contractor shall include description of unit or system, and component parts and identify function, normal operating characteristics, and limiting conditions. Contractor shall

include performance curves, with engineering data and tests, and complete nomenclature, and commercial number of replaceable parts.

- B. Panelboard Circuit Directories: Contractor shall provide electrical service characteristics, controls, and communications.
- C. Contractor shall include color coded wiring diagrams as installed.
- D. Operating Procedures: Contractor shall include start-up, break-in, and routine normal operating instructions and sequences. Contractor shall include regulation, control, stopping, shut-down, and emergency instructions. Contractor shall include summer, winter, and any special operating instructions.
- E. Maintenance Requirements: Contractor shall include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- F. Contractor shall provide servicing and lubrication schedule, and list of lubricants required.
- G. Contractor shall include manufacturer's printed operation and maintenance instructions.
- H. Contractor shall include sequence of operation by controls manufacturer.
- I. Contractor shall provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- J. Contractor shall provide control diagrams by controls manufacturer as installed.
- K. Contractor shall provide Contractor's coordination drawings, with color coded piping diagrams as installed.
- L. Contractor shall provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- M. Contractor shall provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- N. Additional Requirements: Contractor shall include all additional requirements as specified in Specification(s).
- O. Contractor shall provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

1.07 SUBMITTAL:

- A. Contractor shall submit to the District for review two (2) copies of preliminary draft or proposed formats and outlines of the contents of the Manual within thirty (30) days of Contractor's start of Work.
- B. For equipment, or component parts of equipment put into service during construction and to be operated by District, Contractor shall submit draft content for that portion of the Manual within ten (10) days after acceptance of that equipment or component.
- C. Contractor shall submit two (2) copies of a complete Manual in final form prior to final Application for Payment. Copy will be returned with Architect/Engineer comments. Contractor must revise the content of the Manual as required by District prior to District's approval of Contractor's final Application for Payment.
- D. Contractor must submit two (2) copies of revised Manual in final form within ten (10) days after final inspection.

PART 2 – PRODUCTS Not Used.

PART 3 – EXECUTION Not Used.

END OF DOCUMENT

WARRANTIES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Warranty/Guarantee Information;
- B. Special Conditions.

1.02 FORMAT

- A. Binders: Contractor shall use commercial quality, 8-1/2 by 11 inch, three-side rings, with durable plastic covers; two inch maximum ring size.
- B. Cover: Contractor shall identify each binder with typed or printed title "WARRANTIES" and shall list title of Project.
- C. Table of Contents: Contractor shall provide title of Project; name, address, and telephone number of Contractor and equipment supplier; and name of responsible principal. Contractor shall identify each item with the number and title of the specific Specification, document, provision, or section in which the name of the product or work item is specified.
- D. Contractor shall separate each warranty with index tab sheets keyed to the Table of Contents listing, providing full information and using separate typed sheets as necessary. Contractor shall list each applicable and/or responsible Subcontractor(s), supplier(s), and/or manufacturer(s), with name, address, and telephone number of each responsible principal(s).

1.03 PREPARATION:

- A. Contractor shall obtain warranties, executed in duplicate by each applicable and/or responsible subcontractor(s), supplier(s), and manufacturer(s), within ten (10) days after completion of the applicable item or work. Except for items put into use with District's permission, Contractor shall leave date of beginning of time of warranty blank until the date of completion is determined.
- B. Contractor shall verify that documents are in proper form, contain full information, and are notarized, when required.
- C. Contractor shall co-execute submittals when required.

- D. Contractor shall retain warranties until time specified for submittal.

1.04 TIME OF SUBMITTALS:

- A. For equipment or component parts of equipment put into service during construction with District's permission, Contractor shall submit a draft warranty for that equipment or component within ten (10) days after acceptance of that equipment or component.
- B. Contractor shall submit for District approval all warranties and related documents within ten (10) days after date of completion. Contractor must revise the warranties as required by the District prior to District's approval of Contractor's final Application for Payment.
- C. For items of work delayed beyond date of completion, Contractor shall provide an updated submittal within ten (10) days after acceptance, listing the date of acceptance as start of warranty period.

PART 2 - PRODUCTS Not Used.

PART 3 – EXECUTION Not Used.

END OF DOCUMENT

RECORD DOCUMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Documents on Work;
- B. Special Conditions.

PART 2 - RECORD DRAWINGS

2.01 GENERAL:

- A. As indicated in the Contract Documents, the District will provide Contractor with one set of reproducible, full size original Contract Drawings (mylars).
- B. Contractor shall maintain at each Project Site one set of marked-up plans and shall transfer all changes and information to those marked-up plans, as often as required in the Contract Documents, but in no case less than once each month. Contractor shall submit to the Project Inspector one set of reproducible vellums of the Project Record Drawings ("As-Builts") showing all changes incorporated into the Work since the preceding monthly submittal. The As-Builts shall be available at the Project Site. The Contractor shall submit reproducible vellums at the conclusion of the Project following review of the blueline prints.
- C. Label and date each Record Drawing "RECORD DOCUMENT" in legibly printed letters.
- D. All deviations in construction, including but not limited to pipe and conduit locations and deviations caused by without limitation Change Orders, Construction Claim Directives, RFI's, and Addenda, shall be accurately and legibly recorded by Contractor.
- E. Locations and changes shall be done by Contractor in a neat and legible manner and, where applicable, indicated by drawing a "cloud" around the changed or additional information.

2.02 RECORD DRAWING INFORMATION:

- A. Contractor shall record the following information:

- (1) Locations of Work buried under or outside each building, including, without limitation, all utilities, plumbing and electrical lines, and conduits.
- (2) Actual numbering of each electrical circuit to match panel schedule.
- (3) Locations of significant Work concealed inside each building whose general locations are changed from those shown on the Contract Drawings.
- (4) Locations of all items, not necessarily concealed, which vary from the Contract Documents.
- (5) Installed location of all cathodic protection anodes.
- (6) Deviations from the sizes, locations, and other features of installations shown in the Contract Documents.
- (7) Locations of underground work, points of connection with existing utilities, changes in direction, valves, manholes, catch basins, capped stubouts, invert elevations, etc.
- (8) Sufficient information to locate Work concealed in each building with reasonable ease and accuracy.

In some instances, this information may be recorded by dimension. In other instances, it may be recorded in relation to the spaces in the building near which it was installed.

- B. Contractor shall provide additional drawings as necessary for clarification.
- C. Contractor shall provide reproducible record drawings, made from final Shop Drawings marked "No Exceptions Taken" or "Approved as Noted."
- D. After review and approval of the marked-up specifications by the Project Inspector, Contractor shall provide electronic copies of the drawings (in PDF format) with one file with all of the sheets and one set of individual sheet files at the conclusion of the Project.

PART 3 - RECORD SPECIFICATIONS

3.01 GENERAL:

- A. Contractor shall mark each section legibly to record manufacturer, trade name, catalog number, and supplier of each Product and item of equipment actually installed.
- B. After review and approval of the marked-up specifications by the Project Inspector, Contractor shall provide one electronic copy of the specifications (in PDF format) at the conclusion of the Project.

PART 4 - MAINTENANCE OF RECORD DOCUMENTS

4.01 GENERAL

- A. Contractor shall store Record Documents apart from documents used for construction as follows:
 - (1) Provide files and racks for storage of Record Documents.
 - (2) Maintain Record Documents in a clean, dry, legible condition and in good order.
- B. Contractor shall not use Record Documents for construction purposes.

PART 5 – PRODUCTS Not Used.

END OF DOCUMENT

Mandatory Pre-Bid Conference Sign-In Location Map

Old Gallinas Children's Center, 251 N San Pedro Rd., STE D, San Rafael, CA 94903



SECTION 23 00 00
HEATING, VENTILATING, AIR CONDITIONING

PART 1. GENERAL**1.1 DESCRIPTION**

- A. This Specification establishes the required standards for all labor, materials, equipment, and workmanship in connection with the furnishing, fabrication, and installation of complete "Heating, Ventilating, Air Conditioning" systems. Heating, ventilating, air conditioning work includes, but is not necessarily limited to, the following:
1. VRV heat recovery split system air conditioning with branch selectors
 2. Refrigerant piping and appurtenances
 3. Condensate piping
 4. Thermal and sound insulation for all piping and ductwork supplied under this Section.
 5. Ductwork, inclusive of all air turns, dampers, grilles, diffusers, fire dampers, sound traps, supports, bracing and fresh air/combustion air ducts.
 6. Flashings, curbs, and caps in connection with all equipment, piping and ductwork supplied under this Section.
 7. Temperature control wiring and control devices.
 8. Start up, adjusting, and balancing.
- B. The Contractor shall furnish all materials and labor under the scope of the Contract, unless otherwise noted. Anything accepted as standard trade practice reasonably incidental to the completion of the system shall be furnished without additional cost to the Owner. The Contractor shall understand that the work herein described shall be complete in every detail, notwithstanding every item necessarily involved is not particularly mentioned, and the Contractor shall be held to provide all labor and material necessary for the entire completion of the work.
- C. Comply with applicable requirements in ASHRAE 62.1 and ASHRAE 90.1 Standards.

1.2 RELATED WORK

- A. Section 23 0500 - General Mechanical
- B. Sheet Metal Flashing and Trim - Division 07
- C. Section 26 0500 - Basic Electrical Requirements
- D. Section 26 2700 - Basic Electrical Materials and Methods
- E. Finish painting: Division 09.
- F. Section 23 0593 - Testing, Adjusting and Balancing for HVAC

1.3 DEMONSTRATION & TRAINING

- A. Prepare formal training program for operating staff prior to the scheduled start-up date. The program shall consist of the design, start-up, and operation and servicing of the HVAC systems,

subsystems, and equipment. The training program shall be coordinated with production of the operation and maintenance manuals. Operations and Maintenance data is to be available for training sessions.

PART 2. PRODUCTS

2.1 REFRIGERANT PIPING AND APPURTENANCES

- A. Refrigerant piping shall be Type ACR, ASTM B 280, drawn temper, seamless copper tube.
- B. Pipe fittings and unions shall be wrought copper with brazed joints. ASME B16.22. Mechanical joints on refrigerant piping are prohibited. All refrigerant piping joints shall be brazed with lead-free silver brazing alloy, minimum 15% silver content. Harris "Stay-Silv® 15" or equal.
- C. Flexible connectors shall be bronze, double braided, with inlet and outlet connections as required. Metraflex RAF or equal.
- D. Sight glasses shall be color change moisture indication type, replaceable element, filter screen and pad, sweat solder ends. Sporlan "See-All", Henry, or equal.
- E. Charging and purge valves shall be forged brass, diaphragm packless, globe type, angle or straight through, one end solder, one end flare. Henry 623 and 643 series, Sporlan, or equal.
- F. Solenoid valves shall be of forged brass, extended solder end connections, molded coil; Sporlan "E" series or equal. AHRI 760 & UL 429
- G. Isolation/shut off valves shall be Mueller Streamline "Cyclemaster" series ball valves or equal. 700 psig maximum working pressure. Valves shall be compatible with all CFC, HCFC and HFC refrigerants and oils, be full port construction to match line size ID, and shall have internally equalized ball design, rupture proof encapsulated stem, and shall be UL Listed and CE Certified. -40°F/300°F working temperature range.
- H. Filter driers shall be replaceable media, angle type, AHRI 730 compliant; Henry "Dri-Cor" or equal.
- I. Electronic thermostatic expansion valves shall have stainless steel body and connections, ceramic slide and port, linear flow capacity, continuous modulation, and direct coupling of motor and valve; Emerson "EX" series or equal.
- J. Expansion loops shall be Metraflex "VRF Metraloop" or equal. Loop shall be constructed of two parallel sections of corrugated Type 321 stainless-steel metal hose, Type 304 stainless-steel braid, 180° return bend with factory supplied hanger support lug at bottom, and inlet and outlet connections. Fittings shall be Schedule 40 S Type 304 stainless-steel. The loop shall be equipped with stainless-steel to copper conversion fitting with XHP copper stub ends for copper pipe systems. Provide as required to accommodate any thermal expansion or contraction or as indicated on the Drawings. Return fitting shall be supported to allow movement.
- K. Pipe hangers: All refrigerant piping shall be supported 8 feet on center and within 2 feet of a change in direction of the piping. Piping shall be supported at points not more than 15 feet apart.
- L. Split system fan-coil units and heat pump units shall have brazed sweat-fitting connections on the refrigerant piping between the units with a flexible piping section at the outdoor unit.
- M. Comply with ASHRAE 15, "Safety Code for Refrigeration Systems."
- N. Store piping in a clean and protected area with end caps in place to ensure that piping interior and exterior are clean when installed.

- O. Escutcheon plates shall be provided around horizontal and vertical piping at visible penetrations through walls, partitions, floors, or ceilings, including penetrations through closets, through below ceiling corridor walls, and through equipment room walls and floors.

2.2 CONDENSATE DRAINAGE PIPING

- A. 1 ¼ inches and larger: Type DWV, hard temper seamless copper tube, ASTM B 306
- B. 1 inch and smaller: Type M, hard temper, seamless copper tube, ASTM B88
- C. Approved manufacturers: Independent Pipe or equal
 - 1. Drainage fittings shall be cast brass, ASME B16.23, or wrought copper, ASME 16.29, solder-joint drainage fittings – DWV.
 - 2. Acidic condensate drainage pipe: CPVC piping, schedule 40, solvent weld ASTM F441

2.3 UNIONS

- A. Unions or flanges shall be furnished and installed at each threaded connection to all equipment or valves. The unions shall be located so that the piping can be easily disconnected for removal of the equipment, tank, or valve, and shall be of the type specified in the following:
 - 1. Steel pipe: Class 150, malleable iron, ground joint: Anvil Figure 463, Stockham, or equal. ASME B16.39.
 - 2. Copper pipe: cast copper alloy, soldered joint: Nibco series 633 or 733, Mueller Streamline, or equal. MSS SP-123
 - 3. Dielectric: lead free, Watts, Jomar, or equal. ASSE 1079

2.4 DUCTWORK

- A. Sheet Metal Ductwork:
 - 1. Ducts and plenums shall be fabricated and installed in conformance with the 2015 edition of NFPA 90A, 2022 California Building Code, 2022 California Mechanical Code, and SMACNA HVAC Duct Construction Standards (Metal & Flexible) third edition. All factory-fabricated duct systems and closure systems shall comply with UL 181. In addition, tapes, sealants, mastics, and other closure systems shall meet the applicable requirements of UL 181, UL 181A, or UL 181B.
 - 2. Ducts and plenums shall be constructed of G-60 coated galvanized steel of lockforming grade conforming to ASTM A653 and A924 Standards. Seals shall be airtight Class "A" seals at all transverse joints and longitudinal seams. Tables and figures hereinafter referenced are from the 3rd edition of the SMACNA HVAC Duct Construction Standards (Metal and Flexible).
 - 3. Rectangular duct construction shall conform to Table 2-3. All transverse joints shall be flanged per Table 2-32, with corner closures or "Duct Mate" flanged connections with corner closures per Figure 2-16 or 2-17. Elbows shall be standard radius (Type RE 1) or square throat with vanes (Type RE 2) per Figure 4-2, with double thickness turning vanes per Figures 4-3 and 4-4. Offsets and transitions shall be per Figure 4-7. Supply, return, and exhaust branch connections shall be per Figure 4-5 or 4-6. Splitters SHALL NOT be used.
 - 4. Round ducts shall be spiral, McGill Airflow or equal. All transverse joints and longitudinal seams shall have Class "A" seals. All branches in round duct systems shall be made with factory fabricated reducing wye branches. Duct turns shall be made with standard factory-

fabricated three-piece elbows.

5. Lined ducts shall be fabricated such that the net inside dimensions equal the duct sizes shown on the Drawings.
6. Flexible ducts shall be acoustical type, Flexmaster "6M", Casco "Silent Flex II" model SF-181M, or approved equal. Flexible ducts shall be used only where shown on the Drawings, and maximum length of any given flexible duct shall not exceed 5 feet. Galvanized sheet metal elbows shall be used for turns greater than 45 degrees on flexible ducts 10 inches and larger. Connections to rectangular ducts shall be made with "spin-in" fittings with air scoops. The installation of flexible ducts shall conform to Figure 3-10, with the exceptions noted herein.
7. Supports for horizontal ducts and plenums shall be fabricated per Figures 5-5 and 5-6 and Tables 5-1, 5-2, and 5-3. The maximum distance between hangers shall be 8 feet for rectangular ducts and 12 feet for round ducts. Attachments to the structure shall be made with adequately sized lag bolts for strap hangers and adequately sized machine bolts and side beam brackets for rod hangers. Supports for vertical ducts shall be band iron strap or angle bracket type per Figures 5-8 and 5-9.
8. All roof-mounted ductwork shall be water-tight and sloped to shed water. All transverse joints shall be T-25 flanged Ductmate "25" or approved equal.
9. Outside air intakes shall be type 316 stainless steel.

B. Fiberglass Ductwork:

1. Fiberglass ductwork is unacceptable and may not be used on this project.

C. Specialties:

1. Duct Mounted Access Doors

- a. Including those for removing filters, duct access doors shall be fabricated as detailed in Figure 7-2, with sash locks, piano hinges, and gaskets. Round duct shall be fabricated as detailed in Figure 7-3.
- b. Access doors shall be double wall, rectangular, insulated or uninsulated same as duct. Insulation fill and thickness shall be as indicated for pressure class.
- c. Access doors shall have a vision panel and shall have an unobstructed full swing. Fabricate doors airtight and suitable for duct pressure class.

2. Dampers:

- a. Provide butterfly or multiple blade dampers, where indicated on the Drawings or as required for balancing air quantities, to values shown, without generating excessive noise. Provide Duro-Dyne "KS-385" or approved equal, locking quadrants on each manual damper. Locate dampers in furred ceilings near access panels, where possible.
- b. Butterfly dampers shall be constructed per Figure 7-4, Figures A, B, and C.
- c. Multi-blade dampers shall conform to Figure 7-5.
- d. Backdraft dampers: Ruskin CBD6 or approved equal, heavy-duty dampers with 12-gauge galvanized steel structural brace at each corner. Blades shall be of extruded aluminum with extruded vinyl blade edge seals mechanically locked into blade edge. Corrosion resistant bearings, long life synthetic type. Linkage shall be tiebar connected to stainless steel pivot pins.

3. Remote Actuators: Young Regulator Company, Round Cable Controlled Dampers, model 5020-CC or 830A-CC (rectangular) and Remote Cable Control System Kit, model 270-301EZ. All dampers in inaccessible ceilings shall have remote actuators.
4. Air Extractors: Duct mounted volume extractors made of galvanized steel with 1-inch blade spacing, Titus model AG-45, or equal.
5. Flexible Duct Connections: Duro-Dyne "Metal-Fab" constructed of Durolon, or Ventfabrics "ventglas", or approved equal. Install at each point where a blower unit is connected to a duct. A minimum clearance of 3 inches between the duct and the source of vibration shall be maintained. Install per Figure 7-8.
6. Screens: Install removable bird screens at all outside air intakes and exhaust air discharges. Screens shall be fabricated from ½ inch x 14-gauge mesh secured in full frames. Screens and frames shall be constructed of the same material as the duct, hood, or equipment to which attached.
7. Access Panels: Milcor, Style M, prime coated steel, or approved equal. The minimum size shall be 10" x 10". Provide larger sizes where required. Locks shall be flush, screwdriver operated. Provide as required for concealed ducts at all fire dampers, electric duct heaters, and automatic dampers, except at suspended acoustical ceilings.
8. Duct Sealing: All ductwork, regardless of system pressure classification, shall be sealed in accordance with Seal Class A. Tapes, sealants, mastics, and other closure systems shall meet the applicable requirements of UL 181, UL 181A, UL 181B, or UL723, and shall be non-toxic and water resistant. Duct systems shall not use cloth-back, rubber adhesive duct tape regardless of UL designation unless it is installed in combination with mastic and clamps. Surface-burning characteristics for sealants and gaskets shall be a maximum flame-spread index of 25 and a maximum smoke-developed index of 50 when tested according to UL 723. Sealants for interior applications shall pass ASTM C 731 and D 2202.
 - a. Duct sealant: Carlisle "Hardcast Duct-Seal 321", Hardcast CCWI-181, Ductmate "FIBERseal", or equal.
 - b. Cloth backed duct tape to seal flex duct to fittings: Berry Plastics, Tapes and Coatings "Polyken 558CA" or "Nashua 558CA" or Shurtape Industries "Shurtape PC 858CA". No exceptions.

2.5 INSULATION

A. General

1. All duct insulation materials including jackets, tapes, adhesives, and coatings shall meet ASTM E84/UL 723 "25/50 Flame Spread/Smoke Development" requirements and NFPA 90A and 90B.

B. Exterior of Ductwork: (Flexible Duct Wrap)

1. Unless specified to be lined, all ductwork shall be externally insulated by wrapping with formaldehyde-free, flexible glass fiber blanket or inorganic glass mineral wool wrap, with factory applied FSK vapor barrier jacket. The thickness shall be 2 inches unless noted or required otherwise.
2. Duct wrap shall meet the requirements of ASTM C1290, ASTM C553, and ASTM C1136. Corrosiveness shall meet ASTM C665. Mold growth/fungi resistance shall meet ASTM C1338.
 - a. Johns Manville "Microlite FSK", Knauf "Atmosphere Duct Wrap", or Certainteed "SoftTouch" or "Wide Wrap".

C. Interior of Ductwork: (Duct Liner)

1. All ducts exposed to the weather shall be internally insulated. All other ductwork within 10 feet of a fan (supply and return) shall be internally insulated. Duct liner shall be installed in supply and return ducts and plenums where noted on the Drawings. Exhaust ductwork need not be insulated.
2. Duct liner shall meet the requirements of ASTM C1071. Operating temperature shall meet ASTM C411. Microbial growth shall meet ASTM C1338, and ASTM G21 and G22.
 - a. Type I - Flexible Duct Liner: Johns Manville "Linacoustic RC", Knauf "Atmosphere Duct Liner", or Owens Corning "QuietR Rotary Duct Liner". Thickness shall be 1 ½ inches, unless otherwise noted.
 - b. Type II - Plenum Liner Board: Johns Manville "Linacoustic R-300", Owens Corning "QuiteR Duct Liner Board", or Knauf Insulation "Atmosphere Rigid Plenum Liner". Thickness shall be 1 ½ inches, unless otherwise noted.

D. Refrigerant Piping:

1. Insulate all refrigerant liquid, vapor, and suction lines, fittings, and valves with flexible elastomeric thermal insulation, Armacell "AP ArmaFlex" black and white tube insulation, or equal. Formaldehyde free, microbial protection, conforms to Title 24 standards, and GREENGAURD®. Install according to manufacturer's suggested installation procedures.
2. Liquid, suction, and hot gas (where applicable) lines shall be insulated individually.
3. Oil equalization lines between multiple condensing units shall be insulated.
4. All piping exposed to the weather shall be finished with aluminum jacketing with a laminated moisture retarder. ITW Insulation Systems, RPR Products "Insul-Mate" or equal. Aluminum jacketing shall be overlapped 2 to 3 inches and held in place with stainless steel bands to form a weather tight system. Elbows and tees shall be fitted with matching aluminum fitting covers. Other fittings in metal-jacketed systems shall be finished with conventional weather-resistant insulating materials with painted aluminum finish.
5. Piping insulation thickness shall be as follows:

FLUID TEMPERATURE RANGE (°F)	CONDUCTIVITY RANGE (in Btu-inch per hour per square foot per °F)	INSULATION MEAN RATING TEMPERATURE (°F)	NOMINAL PIPE DIAMETER (in inches)			
			< 1	1 to <1.5	1.5 to < 4	4 to < 8
			INSULATION THICKNESS REQUIRED (in inches)			
Space Cooling Systems (chilled water, refrigerant, and brine)						
40-60	0.21-0.27	75	0.5	0.5	1.0	1.0
Below 40	0.20-0.26	50	1.0	1.5	1.5	1.5

- E. All tanks, expansion tank, pumps, volutes, valves, and strainers shall be completely insulated with ½" AP Armaflex glued and sealed vapor tight in place with Armstrong #520 adhesive.

2.6 VRV HEAT RECOVERY OUTDOOR UNIT

- A. Daikin "Emerion" series, model REYQ240AATJ* as scheduled on the Drawings or approved equal.

B. System Description

1. The system shall consist of multiple evaporators, branch selector boxes, REFNET™ joints and headers, a three-pipe refrigeration distribution system using PID control and Daikin VRV® condenser unit.
2. The condenser shall be a direct expansion (DX), air-cooled heat recovery, multi-zone air-conditioning system with variable speed inverter driven compressors using R-410A refrigerant. A dedicated hot gas pipe shall be required.
3. The indoor units shall be connected to the condensing unit utilizing Daikin's REFNET™ specified piping joints and headers to ensure correct refrigerant flow and balancing. T style joints are not acceptable for a variable refrigerant system.
4. Operation of the system shall permit all of the indoor units associated with each branch of the cool/heat selector box.
5. Branch selector boxes:
 - a. The branch selector boxes shall have the capacity to control up to 290 MBH (cooling) downstream of the branch selector box.
 - b. Each branch of the branch selector box shall consist of three electronic expansion valves, refrigerant control piping and electronics to facilitate communications between the box and main processor and between the box and indoor units.
 - c. The branch selector box shall control the operational mode of the subordinate indoor units. The use of three EEV's ensures continuous heating during defrost (multiple condenser systems), no heating impact during changeover and reduced sound levels.
 - d. The use of solenoid valves for changeover and pressure equalization shall not be acceptable due to refrigerant noise.
6. The maximum number of connectable indoor units to the REYQ240 unit is 41.

C. Wiring:

1. The control voltage between the indoor and condensing unit shall be 16VDC non-shielded, stranded 2 conductor cable.
2. The control wiring shall be a two-wire multiplex transmission system, making it possible to connect multiple indoor units to one condensing unit with one 2-cable wire, thus simplifying the wiring installation.
3. The control wiring maximum lengths shall be as shown below:

	CONDENSER TO INDOOR UNIT	CONDENSER TO CENTRAL CONTROLLER	INDOOR UNIT TO REMOTE CONTROL
CONTROL WIRING LENGTH	6,560ft (2,000m)	3,280ft (1,000m)	1640 ft. (500m)
WIRE TYPE	16/18 AWG, 2 wire, non-polarity, non-shielded, stranded		

D. Refrigerant Piping:

1. The system shall be capable of refrigerant piping up to 540ft (165m) actual or 623ft (190m) equivalent from the condensing unit to the furthest indoor unit, a total combined liquid line length of 3,280ft (1,000m) of piping between the condensing and indoor units, without any oil traps or additional components.

2. REFNET™ piping joints and headers shall be used to ensure proper refrigerant balance and flow for optimum system capacity and performance.
 - a. T style joints shall not be acceptable as this will negatively impact proper refrigerant balance and flow for optimum system capacity and performance.

E. General:

1. The condensing unit is designed specifically for use with VRV series components.
2. The refrigeration circuit of the condensing unit shall consist of Daikin inverter scroll compressors, motors, fans, condenser coil, electronic expansion valves, solenoid valves, 4-way valve, distribution headers, capillaries, filters, shut off valves, oil separators, service ports, liquid receiver and suction accumulator.
3. High/Low pressure gas line, liquid and suction lines must be individually insulated between the condensing and indoor units.
4. The condensing unit can be wired and piped with access from the left, right, rear or bottom.
5. The connection ratio of indoor units to condensing unit shall be permitted up to 200% of nominal capacity.
6. The system will automatically restart operation after a power failure and will not cause any settings to be lost, thus eliminating the need for reprogramming.
7. The condensing unit shall be modular in design and should allow for side-by-side installation.
8. The following safety devices shall be included on the condensing unit; high pressure sensor and switch, low pressure sensor, control circuit fuses, crankcase heaters, fusible plug, overload relay, inverter overload protector, thermal protectors for compressor and fan motors, over current protection for the inverter and anti-recycling timers.
9. To ensure the liquid refrigerant does not flash when supplying to the various indoor units, the circuit shall be provided with a sub-cooling feature.
10. Oil recovery cycle shall be automatic occurring 2 hours after start of operation and then every 8 hours of operation.
11. The condensing unit shall be capable of heating operation at -13°F (-25°C) wet bulb ambient temperature without additional low ambient controls or an auxiliary heat source.

F. Unit Cabinet:

1. The condensing unit shall be completely weatherproof and corrosion resistant. The unit shall be constructed from rust-proofed galvanized steel panels coated with a baked enamel finish.
2. Each condensing unit shall have a three-segment panel design which allows for direct access to outdoor fans, critical mechanical and electrical components separately for ease of installation and service.
3. Each outdoor unit shall have separate knock-outs for both refrigerant piping and wiring on the bottom panel.

G. Fan:

1. The condensing unit shall consist of two propeller type, direct-drive fan motors that have

multiple speed operation via a DC (digitally commutating) inverter.

2. The condensing unit fan motor shall have multiple speed operation of the DC (digitally commutating) inverter type, and be of high external static pressure and shall be factory set as standard at 0.12 in. WG.
3. The condensing unit shall have configurable settings for intermittent fan operation to help minimize snow accumulation on fan blades when the system is off.
4. Each outdoor unit fan shall be a vertical discharge configuration and the nominal airflow rate for each module will range from 6,200CFM to 14,505 CFM dependent on model specified.
5. The fan motor shall have inherent protection and permanently lubricated bearings and be mounted.
6. The fan motor shall be provided with a fan guard to prevent contact with moving parts.

H. Sound:

1. Nominal sound pressure levels shall be 69dBA
2. Night setback control of the fan motor for low noise operation by way of automatically limiting the maximum speed shall be a standard feature. Operation sound level shall be selectable from 3 steps.

OPERATION SOUND dB(A)	NIGHT MODE SOUND PRESSURE LEVEL dB(A) APPROX.
Level 1	55
Level 2	50
Level 3	45

I. Condenser Coil:

1. The condenser coil shall be manufactured from copper tubes expanded into aluminum fins to form a mechanical bond.
2. The heat exchanger coil shall be of a waffle louver fin and rifled bore tube design to ensure high efficiency performance.
3. The heat exchanger on the condensing units shall be manufactured from Hi-X seamless copper tube with N-shape internal grooves mechanically bonded on to aluminum fins to an e-Pass Design.
4. The fins shall be coated with an anti-corrosion hydrophilic blue coating as standard from factory with a salt spray test rating of 1000hr per ASTM B117 test standards.
5. The outdoor coil shall have three-circuit heat exchanger design eliminating the need for a drain pan heater. The lower part of the coil shall be used for inverter cooling and be on or off during operation enhancing the defrost operation.
 - a. An alternate manufacturer must provide a drain pan heater to enable adequate defrosting of the unit in defrost operation.
6. The condensing unit shall be factory equipped with condenser coil guards on all sides.

J. Compressor:

1. The Daikin inverter scroll compressors shall be variable speed (PVM inverter) controlled which is capable of changing the speed to follow the variations in total cooling and heating load as determined by the suction gas pressure as measured in the condensing unit.
 - a. In addition, samplings of evaporator and condenser temperatures shall be made so that the high/low pressures detected are read every 20 seconds and calculated. With each reading, the compressor capacity (INV frequency) shall be controlled to eliminate deviation from target value.
 - 1) Non –inverter-driven compressors, which may cause starting motor current to exceed the nominal motor current (RLA) and require larger wire sizing, shall not be allowed.
2. The inverter driven compressors in the condensing unit shall be of highly efficient reluctance DC (digitally commutating), hermetically sealed scroll “P-type”.
3. Neodymium magnets shall be adopted in the rotor construction to yield a higher torque and efficiency in the compressor instead of the normal ferrite magnet type.
 - a. At complete stop of the compressor, the neodymium magnets will position the rotor into the optimum position for a low torque start.
4. The capacity control range shall be as low as 1% to 100%.
5. The compressor’s motor shall have a cooling system using discharge gas, to avoid sudden changes in temperature resulting in significant stresses on winding and bearings.
6. Each compressor shall be equipped with a crankcase heater, high pressure safety switch, and internal thermal overload protector.
7. Oil separators shall be standard with the equipment together with an intelligent oil management system.
8. The compressor shall be mounted on vibration dampening rubber grommets to minimize the transmission of vibration, eliminating the standard need for external spring isolation.
9. In the event of compressor failure, the remaining compressors, if applicable, shall continue to operate and provide heating or cooling as required at a proportionally reduced capacity. The microprocessor and associated controls shall be manually activated to specifically address this condition for single module and manifold systems.
10. In the case of multiple condenser modules, combined operation hours of the compressors shall be balanced by means of the Duty Cycling Function, ensuring sequential starting of each module at each start/stop cycle, completion of oil return, completion of defrost or every 8 hours. When connected to a central control system sequential start is activated for all systems on each DIII network.

11. Compressor configurations:

MODEL NUMBER	COMPRESSOR MOTOR OUTPUT (W)	QUANTITY	COMPRESSOR TYPES
REYQ240AATJ*	7580 + 7580	2	All inverter controlled

2.7 BRANCH SELECTOR UNITS

1. Multi-Port Flex Branch Selector box series
 - a. The branch selector boxes shall provide individual control and changeover for multiple groups of indoor units.
 - b. These branch selector boxes shall allow for Field selectable LEFT/RIGHT/PASS

THROUGH piping configuration.

- c. The branch selector boxes shall allow multiple branch selector boxes to be connected downstream of the first Branch selector box in series in series.
- d. The branch selector boxes when connected in series shall be able to support a total indoor load of up to 230MBH.
- e. The EEV heads and motors used in the branch selector box shall be accessible via a quick access panel without disassembly of the electrical box.
- f. The electrical box of the 4-port branch selector box shall be field re-locatable to left, right, and back side of the main cabinet.
- g. The branch selector boxes shall allow connected indoor units to operate in cooling mode down to -4F without any additional field installed accessories
- h. Labels shall be displayed close to the incoming 3 pipes to facilitate clear identification and eliminate cross piping.
- i. The branch selector boxes shall employ EEV with the ability to control up to 6000 pulses
- j. The selector boxes shall be factory assembled, wired, and piped.
- k. The selector boxes must be mounted indoors.
- l. When simultaneously heating and cooling, the units in heating mode shall energize their subcooling electronic expansion valve.
- m. The number of connectable indoor units shall be

BRANCH SELECTOR TYPE	MODEL NUMBER	MAXIMUM CONNECTABLE COOLING CAPACITY	MAXIMUM NUMBER OF CONNECTABLE INDOOR UNITS PER BRANCH
MULTI-PORT FLEX	BSF6Q54TVJ	216,000 Btu/h*	5

B. Unit Cabinet

1. These units shall have a galvanized steel plate casing.
2. Each cabinet shall house 3 electronic expansion valves for refrigerant control per branch.
3. The cabinet shall contain one subcooling heat exchanger per branch.
4. The unit shall have sound absorption thermal insulation material made of flame and heat resistant foamed polyethylene.
5. Nominal sound pressure levels shall be measured and published on the submittals by the manufacturer. The sound levels must not exceed the values below.
 - a. If an alternative manufacturer is selected, the mechanical contractor shall provide, at their own cost and expense, any additional material and labor to meet the below published sound levels

BRANCH SELECTOR TYPE	MODEL NUMBER	SOUND LEVEL dB(A) OPERATION	SOUND LEVEL dB(A) MAX
MULTI-PORT FLEX	BSF6Q54TVJ	40.5	50

C. Refrigerant Valves

1. Electronic expansion valves per branch to control the direction of refrigerant flow. The use of solenoid valves for changeover and pressure equalization shall not be acceptable due to refrigerant noise.
2. The refrigerant connections must be of the braze type.
3. In multi-port units, each port shall have its own electronic expansion valves. If common expansion/solenoid valves are used, redundancy must be provided.
4. Multiple indoor units may be connected to a branch selector box with the use of a REFNET™ joint provided they are within the capacity range of the branch selector.
5. These branch selector boxes shall support up to 54,000 Btu/h capacity per port.

D. Condensate Removal

1. The unit shall be hermetically sealed to prevent condensation build up inside the unit and not require use of a secondary condensate collection pan. A safety device or secondary drain pan shall be installed by the mechanical contractor to comply with the applicable mechanical code, if an alternate manufacturer is selected.

E. Electrical:

1. The unit electrical power shall be 208/230 volts, 1 phase, 60 hertz.
2. The unit shall be capable of operation within the limits of 187 volts to 255 volts.
3. The minimum circuit amps (MCA) shall be 0.1 and the maximum overcurrent protection amps (MOP) shall be 15.
4. The control voltage between the indoor and condensing unit shall be 16VDC non-shielded 2 conductor cable.

2.8 VRV INDOOR UNITS / MULTI-POSITION AIR HANDLERS

- A. Daikin model FXTQ heat recovery indoor units as scheduled on the Drawings or approved equal. Daikin indoor unit FXTQ_TB shall be a floor mounted air handling unit, operable with refrigerant, equipped with an electronic expansion valve and direct-drive ECM type fan with constant CFM programming, for installation within a conditioned space.
- B. The Daikin indoor unit FXTQ_TB components shall be completely factory assembled and tested. Included in the unit is factory wiring, piping, electronic proportional expansion valve, control circuit board, fan motor thermal protector, brazed connections, self-diagnostics, auto-restart function, 3-minute fused time delay, and test run switch.
- C. General
 1. Indoor unit and refrigerant pipes will be charged with dehydrated air prior to shipment from the factory.
 2. Both refrigerant lines shall be insulated from the outdoor unit.
 3. Return air shall be through an optional or field supplied filter.
 4. Condensate draining shall be made via gravity or external condensate pump.
 5. The indoor unit will be separately powered with 208~230V/1-phase/60Hz.

6. The voltage range will be 253 volts maximum and 187 volts minimum.

D. Unit Cabinet:

1. The cabinet shall be constructed with sound absorbing, foil-faced insulation to control air leakage.
2. Select an installation location with adequate structural support, space for service access and clearance for air return and supply duct connections.
3. A field supplied secondary drain pan shall be installed where required by national, state, or local code.

E. Fan:

1. The fan shall be a direct-drive Sirocco type fan, statically and dynamically balanced impeller with high and low fan speeds available.
2. The fan motor shall operate on 208/230 volts, 1 phase, 60 hertz with a motor output range 0.2 to 1.0. HP.
3. The airflow rate shall be available in high setting.
4. The fan motor shall be thermally protected.

F. Filter:

1. The return air shall be filtered by means of an optional or field supplied filter.

G. Coil:

1. Coils shall be of the direct expansion type constructed from aluminum tubes expanded into aluminum fins to form a mechanical bond.
2. The coil shall be of a waffle louver fin and high heat exchange, rifled bore tube design to ensure highly efficient performance.
3. The coils shall be a 2- to 4-row cross fin copper evaporator coil with 14 to 16 fpi design completely factory tested.
4. The refrigerant connections shall be brazed connections and the condensate will be 3/4 inch outside diameter PVC.
5. A thermistor will be located on the liquid and gas line.

H. Electrical:

1. A separate power supply will be required of 208/230 volts, 1 phase, 60 hertz. The acceptable voltage range shall be 187 to 253 volts.
2. Transmission (control) wiring between the indoor and outdoor unit shall be a maximum of 3,280 feet (total 6,560 feet).
3. Transmission (control) wiring between the indoor unit and remote controller shall be a maximum distance of 1,640 feet.

I. Control:

1. The unit shall have controls provided by Daikin to perform input functions necessary to

operate the system.

J. Options/Accessories

1. MERV 13 filters
2. MilcroMetl filter rack model CUBE
3. CO2 sensor
4. Condensate overflow sensor

2.9 CONTROLLER

A. Daikin wall mounted "Navigation (NAV) Remote Controller", model BRC1E73, to control all VRV indoor units.

B. Mounting: The NAV Remote Controller shall be mounted into a standard 2" x 4" junction box.

C. Display Features:

1. The NAV Remote Controller shall be approximately 4.75" x 4.75" in size with a 2.75" x 1.75" LCD display.
2. Backlit LCD display with contrast adjustment and auto off after 30 seconds.
3. Display language shall be selectable from English, French or Spanish.
4. Selectable display – Detailed, Standard and Simple
 - a. Detailed display
 - 1) Shall display Operation Mode, Cool, Heat and Setback setpoints, Fan Speed, Louver position, Room Temperature, Time and Day of the Week
 - b. Standard display
 - 1) Shall display Operation Mode, Cool, Heat and Setback setpoints and Fan Speed
 - c. Simple display
 - 1) Shall display Operation Mode, Cool, Heat and Setback setpoints, Fan Speed and Room Temperature
 - 2) The room temperature shall be displayed with a large 11/16" font
5. All displayed items configurable
 - a. Configure "Off" to be displayed when unit is turned off (field setting required)
 - 1) Prevents mode adjustment
 - b. Setpoint can be removed from display when unit is turned Off (field setting required)
 - 1) Prevents setpoint adjustment
 - c. Fan speed display removable (field setting required)
 - 1) Prevents fan speed adjustment

D. System Status icons.

1. The controller shall display temperature setpoint in one degree increments with a range of 60-90°F (16-32°C)
2. Detailed and Simple display will reflect room temperature (0-176°F/-18-80°C range in one degree increments).

- a. Display of temperature information shall be configurable for Fahrenheit or Celsius
- 3. On/Off status shall be displayed with an LED.
- 4. Error codes will be displayed with a two digit code in the event of system abnormality/error.
 - a. A blinking LED will also signal system abnormality/error
- 5. The following system temperatures can be displayed to assist service personnel in troubleshooting:
 - a. Return Air Temperature
 - b. Liquid Line Temperature
 - c. Gas Line Temperature
 - d. Discharge Air Temperature (depending on unit),
 - e. Remote Controller Sensor Temperature
 - f. Temperature used for Indoor Unit Control

E. Basic Operation:

- 1. Capable of controlling a group of up to 16 indoor units.
- 2. Controller shall control the following group operations:
 - a. On/Off, Operation Mode (Cool, Heat, Fan, Dry and Auto* (*with VRV Heat Recovery & Heat Pump Systems))
 - 1) Configure only the essential modes to be selectable – remove unnecessary mode selection(s) from display
 - b. Independent Cooling and Heating setpoints in the occupied mode
 - 1) Dual setpoints (individual Cool and Heat setpoints with minimum setpoint differential 0 – 7oF (0 – 4oC) default 2oF (1oC)) or Single setpoint
- 3. Independent Cooling Setup and Heating Setback setpoints in the unoccupied mode
 - a. Fan Speed
 - 1) Up to 5 speeds (dependent on indoor unit type)
 - b. Vane direction and oscillation (dependent on indoor unit type)
 - 1) Airflow direction
 - a) Up to 5 louver positions and auto swing
 - 2) Individual airflow
 - a) Provides individual control of up to four (4) louvers on an indoor unit
 - 3) Dual airflow
 - a) Provides control of both internal and external louver positions
 - 4) Automatic draft protection
 - a) Automatically prevents air flow from blowing directly on occupants
- 4. The controller shall be able to limit the user adjustable setpoint ranges individually for cooling and heating in the occupied period
- 5. Function button lockout (On/Off, Mode, Fan Speed, Up/Down, Left, Right Arrows)
- 6. Indoor Unit group assignment
- 7. Filter indicator
 - a. Filter service indicator shall be displayed after 100, 1250 or 2500 (default) hours of run

time configurable via field setting

8. Clock (12/24 hour) and Day display
9. Automatic adjustment for Daylight Savings Time (DST)
 - a. Set changeover period (second Sunday in March / first Sunday in November)

F. Programmability:

1. Controller shall support schedule settings with selectable weekly pattern options.
 - a. 7-day
 - b. Weekday + Weekend
 - c. Weekday + Saturday + Sunday
 - d. Everyday
 - e. The schedule shall support unit On/Off
 - f. Independent settings for Cooling and/or Heating setpoints when unit is on (occupied)
 - g. Independent Setup (Cooling) and Setback (Heating) setpoints when unit is off (unoccupied)
 - h. A maximum of 5 operations can be schedulable per day
 - i. Time setting in 1-minute increments
2. The Controller shall support Auto-changeover mode for both Heat Pump and Heat Recovery systems, therefore, allowing the optimal room temperature to be maintained by automatically switching the indoor unit's mode between Cool and Heat according to the room temperature and temperature setpoint.
 - a. Changeover to cooling mode shall occur at cooling setpoint + 1°F (0.5°C) as the primary changeover deadband and takes the guard timer into consideration
 - 1) Configurable from 1 – 4°F (0.5 – 2°C)
 - b. Changeover to cooling mode shall occur at the primary changeover deadband to cooling + 1°F (0.5°C) as the secondary changeover deadband.
 - 1) Configurable from 1 – 4°F (0.5 – 2°C)
 - c. Changeover to heating mode shall occur at heating setpoint - 1°F (0.5°C) as the primary changeover deadband and takes the guard timer into consideration
 - 1) Configurable from 1 – 4°F (0.5 – 2°C)
 - d. Changeover to heating mode shall occur at the primary changeover deadband to heating - 1°F (0.5°C) as the secondary changeover deadband.
 - 1) Configurable from 1 – 4°F (0.5 – 2°C)
 - e. 1 hour guard timer
 - 1) Upon changeover, guard timer will prevent another changeover during this period.
 - 2) Guard timer is ignored by a change of setpoint manually from either the Multi-zone Controller, Remote Controller, or by schedule.
 - 3) The Guard timer is also ignored if the space temperature reaches the secondary changeover deadband (configurable from 1 - 4°F (0.5 – 2°C)) from the primary changeover deadband, and the guard timer has been activated
 - 4) 60 minutes as default, configurable to 15, 30, or 90 minutes
3. The controller shall support the Auto-setback by sensor function (dependent on indoor unit type)

- a. The cooling and heating setpoints shall gradually relax (configurable) internally when the room is determined to be unoccupied
 - 1) The internal setpoint shall return to the original setpoint when room occupancy is detected
4. The controller shall support the Auto-off by sensor function (dependent on indoor unit type)
 - a. The indoor unit shall turn off when it is determined that the room is unoccupied after a specified time has elapsed
 - 1) The indoor unit shall be turned on manually when occupancy is detected
5. The controller shall support the Filter Auto Clean function to be performed once a day (dependent on indoor unit type)
 - a. Eight (8) time periods (00:00-03:00, 03:00-06:00, 06:00-09:00, 09:00-12:00, 12:00-15:00, 15:00-18:00, 18:00-21:00, 21:00-00:00) shall be available to select from to enable the automatic filter cleaning function
 - 1) Default time period (00:00 to 3:00) shall be used if the period for filter auto cleaning is not specified
 - 2) The indoor unit shall be stopped during auto filter cleaning function operation
6. The Controller shall support an Auto Off Timer for temporarily enabling indoor unit operation during the unoccupied period.
 - a. When the Off Timer is enabled and when the unit is manually turned on at the remote controller
 - b. The controller shall shut off the unit after a set time period
 - c. The time period shall be configurable in the controller menu with a range of 30-180 minutes in 10 minute increments
7. The room temperature shall be capable of being sensed at either the NAV Remote Controller, the Indoor Unit return air temperature sensor (default), or Remote Temperature Sensor (KRCS01-1B) configured through the field settings

PART 3. EXECUTION

3.1 PROJECT CONDITIONS

- A. Prior to commencing the work of this Section, the Contractor shall inspect the installed work of other trades and verify that their work is sufficiently complete to permit the start of work under this Section, and that the completed work will be in complete accordance with the original design. In the event of discrepancy, immediately notify the Architect and proceed as directed.

3.2 GENERAL DEMOLITION

- A. The contractor shall retain specific equipment as directed by owner and deliver to owner specified location.
- B. All equipment, mechanical equipment, piping, valving, controls, etc. rendered useless by this work shall be demolished and removed from the site.
- C. Location of existing mechanical equipment, ductwork air outlets, piping, controls, valves, etc. has been based on the best available information obtainable at the site and through record drawings. Contractor shall verify exact locations, sizes, and extent of existing systems prior to start of demolition work.
- D. All unused piping above grade shall be removed. All unused piping below grade shall be

capped and abandoned. Cap dead branches as close as possible to live mains.

E. Patch all walls, ceilings, roof and other surfaces to match existing conditions.

3.3 HEATING AND AIR CONDITIONING EQUIPMENT INSTALLATION

A. Contractor's Qualifications

1. The mechanical contractor shall show having successfully installed a minimum of 2 Daikin split system VRV with heat recovery projects within the past 5 years. Provide for approval prior to construction, a written statement indicating the project names, dates completed, owners name and contact information.

B. Installer Qualifications

1. Installers for the Daikin systems shall have at least one person that is factory trained and certified for installation and service of the systems by Daikin. This person shall supervise the installation of all other installers and assure that all work is done in accordance with Daikin requirements. All other installers shall be trained and certified in HVAC installation (included but not limited to refrigerant piping and controls) by a national or regionally recognized organization. Provide for approval, prior to construction, copies of installers certificates or other proof of qualifications.

C. All units shall be set with curbs plumb, level, and securely attached through framed opening with bolts and/or lag screws as noted on the Drawings. Connections to ductwork shall be secured, filter racks shall be aligned, enclosures and ductwork connections shall be fully waterproofed, and all utility and control connections shall be complete.

D. General:

1. Rig and install in full accordance with manufacturer's requirements, project drawings, and contract documents. Refer to the manufacturer's installation manual for full requirements.

E. Location:

1. Locate indoor and outdoor units as indicated on drawings. Provide service clearance per manufacturer's installation manual. Adjust and level outdoor units on support structure.

F. Components / Piping:

1. Contractor shall provide and install all accessories and piping for a fully operational system. Refer to manufacturer's installation manual for full instructions.
2. Traps, filter driers, and sight glasses are NOT to be installed on the refrigerant piping or condensate lines.
3. Standard ACR fittings rated for use with the applicable refrigerant are to be used for all connections. Proprietary manufacturer-specific appurtenances are not allowed.
4. Refrigerant pipe for Daikin shall be made of phosphorus deoxidized copper, and has two types.
 - a. ACR Type-L "Annealed Temper": Soft copper pipe, can be easily bent with human's hand.
 - b. ACR Type L "Drawn Temper": Hard copper pipe (Straight pipe), being stronger than Type-O pipe of the same radical thickness.

5. The maximum operation pressure of R410A air conditioner is 4.30 MPa [623psi] . The

refrigerant piping should ensure the safety under the maximum operation pressure. Refer to recommend piping specifications in Daikin's engineering manual. Pipes of radical thickness 0.7mm or less shall not be used.

6. Flare connection should follow dimensions provided in manufacturer's installation manuals.

G. Insulation:

1. Refrigerant lines, as well as any valves, shall be insulated end to end with ½" closed-cell pipe insulation. If state or local codes require insulation other than that specified above, the greater insulation shall be used.

H. Electrical:

1. Contractor shall coordinate electrical requirements and connections for all power feeds with electrical contractor. Refer to Division 26 for additional information

3.4 INSULATION INSTALLATION

A. Insulation shall be applied on clean, dry surfaces and only after tests and approvals required by the specifications have been completed.

B. Insulation on all cold surfaces must be applied with a continuous, unbroken vapor seal. Hangers, supports, anchors, etc., that are secured directly to cold surfaces shall be adequately insulated and vapor sealed to prevent condensation.

C. Adhesives, mastics, and coatings shall be applied at the manufacturer's recommended minimum coverage per gallon.

D. Edges of vapor barrier insulation at valve stems, instrument wells, unions, and other raw edges shall be sealed adequately to prevent moisture from penetrating the insulation.

E. Insulation Jacketing

1. Provide aluminum jacketing for all piping located aboveground, outdoors. Jacketing shall be secured to prevent removal without the use of tools.

F. Ductwork

1. In general, the duct system shall be insulated with fiberglass blanket. Insulation on all cold surfaces shall be provided with a vapor barrier jacket.

G. Exterior Ductwork:

1. Duct wrap shall be cut in a manner to meet the manufacturers' stretch-out guideline to provide a 2" staple lap and have minimum compression at the corners. All joints shall be lapped 2" and stapled with outward clinching staples 2" on center. The insulation shall be mechanically fastened to the underside of all ducts 24" wide or more using cup-head pins, weld pins, or stick pins with speed clips 18" on center. Insulation shall not be compressed to comply with the required installed R-value. All joints and penetrations of the vapor barrier jacket shall be sealed with a minimum of 3" wide matching pressure sensitive tape. Pressure-sensitive tape shall be firmly rubbed in place immediately after application using a "squeegee" type tool.
2. When a vapor seal is required, two coats of vapor retarder mastic reinforced with one layer of 4" wide, open weave glass fabric may be used in lieu of pressure-sensitive tape. Mastic shall be brushed onto joint and glass fabric imbedded in it. A second coat of mastic shall be brushed over the glass fabric until the fabric is filled. Mastics shall be applied in accordance

with application instructions on the container.

H. Interior Duct Liner

1. Apply to the inside face of ducts, with the mat-faced side facing the air stream. Fasten using fire retardant adhesive and secure with mechanical liner fasteners at spacing recommended by the manufacturer. Pin length should be such as to limit compression of liner to no greater than 1/8 ".
2. Exposed edges must be factory or field coated with adhesive. For systems operating at 4000 fpm or higher, a metal nosing must be installed in all liner leading edges. Insulation with torn or broken coatings shall be removed and replaced. Loose corners, edges, and butt joints will not be accepted.

I. All pipe insulation ends shall be tapered and sealed, regardless of service.

J. Piping Insulation

1. Insulation shall be applied in complete accordance with the manufacturer's published installation instructions on clean, dry surfaces. All insulation shall be continuous through wall and ceiling openings and sleeves. All joints shall be firmly butted together and longitudinal jacket laps and butt strips shall be smoothly secured. Specified adhesives, mastics and coatings shall be applied at the manufacturer's recommended minimum coverage per gallon.
2. Provide insulated dual temperature pipes or cold pipes conveying fluids below ambient temperature with vapor retardant jackets with self-sealing laps. Seal all pipe terminations with vapor barrier mastic.
3. Inserts shall be installed at outside hangers between support shield and piping on piping 1 1/2" diameter or larger. Inserts between the pipe and pipe hangers shall consist of rigid pipe insulation of thickness equal to the adjoining insulation. Inserts shall not be less than 10" long for pipe sizes through 2 1/2" and not less than 12" long for pipes 3" to 6".
4. Metal shields shall be applied between hangers or supports and the pipe insulation. Shields shall be formed to fit the insulation and shall extend up to the center line of the pipe and the length specified for hanger inserts.
5. All pipe insulation ends shall be tapered and sealed, regardless of service.

K. Refrigerant Piping:

1. The insulation shall be installed in accordance with the manufacturer's instructions. All joints and seams shall be sealed with waterproof vapor retarder adhesive. All piping exposed to the weather shall be finished with aluminum jacketing with a laminated moisture retarder. Aluminum jacketing shall be overlapped 2 to 3 inches and held in place with stainless steel bands to form a weather tight system. Elbows and tees shall be fitted with matching aluminum fitting covers. Other fittings in metal-jacketed systems shall be finished with conventional weather-resistant insulating materials with painted aluminum finish.

L. All pipe insulation ends shall be tapered and sealed, regardless of service.

3.5 DUCTWORK INSTALLATION

- A. Install ducts according to SMACNA's HVAC Duct Construction Standard, Metal and Flexible, unless otherwise indicated.
- B. All ductwork shall be installed within spaces provided where possible. Ducts shall be installed

true to line and grade, fully secured to structural framing with specified hangers and supports, insulated, and vibration isolated.

- C. Install duct systems as indicated unless deviations to layout are approved on shop drawings.
- D. Install ducts close to walls, overhead construction, columns, and other structural and permanent enclosure elements of the building.
- E. Install ducts with the fewest possible joints.
- F. Each section of supply air ductwork shall be cleaned at the shop, dust and oil free, using a degreasing agent and detergent and sealed airtight at both ends with visqueen and tape. Supply ducts shall be additionally cleaned with a disinfecting solution. Ends of all supply and internally insulated exhaust ducts shall be kept sealed until the time they are joined. When duct sections are joined, wipe down all interior surfaces with a clean tack cloth. If tack cloth shows any dust, then re-clean duct as described above. The intent is that no foreign matter be allowed to enter the ductwork at any time after factory cleaning and during construction.
 - 1. Unlined exhaust ducts shall be vacuum cleaned when installed but shall otherwise be exempt from shop cleaning and sealing.

3.6 REFRIGERANT PIPING INSTALLATION

- A. Piping installation shall comply with all federal, state, and local regulations and industry guidelines. In addition, the following practices shall be followed.
 - 1. All piping shall be stored with ends sealed to prevent entry of moisture and debris.
 - 2. A pipe cutter specific to the piping material applied shall be used.
 - 3. All factory and field cut tube ends shall be de-burred and cleaned.
 - 4. Flared fittings shall be formed using tools recommended by the equipment manufacturer.
 - 5. Flare nuts shall be tightened with torque wrench furnished by the equipment manufacturer.
 - 6. Piping shall be continuously purged with dry nitrogen while brazing. Care shall be taken when brazing near valves or other equipment that may be damaged by extreme heat.
 - 7. When brazing or soldering, remove solenoid-valve coils and sight glasses; also remove valve stems, seats, and packing, and accessible internal parts of refrigerant specialties. Do not apply heat near expansion-valve bulb.
- B. Install refrigerant piping according to ASHRAE Standard 15, 2024.
- C. Install piping as indicated unless deviations to layout are approved on Shop Drawings.
- D. Install piping in concealed locations unless otherwise indicated and except in equipment rooms and service areas.
- E. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.
- F. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal.
- G. Install piping adjacent to machines to allow service and maintenance.

- H. Install piping free of sags and bends. Install fittings for changes in direction and branch connections. Install piping as short and direct as possible, with a minimum number of joints, elbows, and fittings.
- I. Arrange piping to allow inspection and service of refrigeration equipment. Install valves and specialties in accessible locations to allow for service and inspection.
- J. Install piping with adequate clearance between pipe and adjacent walls and hangers or between pipes for insulation installation.
- K. Install refrigerant piping in protective conduit where installed belowground. Install refrigerant piping in rigid or flexible conduit in locations where exposed to mechanical injury.
- L. Slope refrigerant piping as follows:
 - 1. Install horizontal hot-gas discharge piping with a uniform slope downward away from compressor.
 - 2. Install horizontal suction lines with a uniform slope downward to compressor.
 - 3. Use double-suction riser for maximum compressor efficiencies if load variation is expected.
 - 4. Install traps and double risers to entrain oil in vertical runs.
 - 5. Liquid lines may be installed level.
- M. All refrigerant piping and valves shall be identified.

3.7 BALANCING (AIR ONLY):

- A. Balancing of the entire air distribution system/s shall be performed by a Balancing Contractor, per standards of the Associated Air Balance Council (AABC), by an approved member of AABC. All work shall be done under the supervision of a registered Test and Balance Engineer. This firm shall make all adjustments of proportional vanes, directional devices, balancing cocks, etc., as required to obtain uniform air distribution.
- B. This firm shall keep a continuous record of their readings and shall submit to the Architect three (3) copies of the air balancing report upon completion of their work.
- C. The report shall contain, as a minimum: all design and actual velocity, and CFM readings for supply fans, exhaust fans, mains, branches, and individual outlets; all fan speeds. The balancer shall determine the total static pressure of the system, and the motor horsepower input of all air handlers. All duct readings shall be made with a pitot tube. All air terminal readings shall be made with a flow hood. Instruments used shall be specifically calibrated for this job.
- D. Air balance shall be made with the least possible friction. Systems shall be balanced with the damper at the end of the run with the greatest resistance in the open position.
- E. Allowances shall be made for "half dirty" air filter resistance at the time of tests. The room air supply shall be +10%, -0% from the design quantities specified. Return and exhaust shall conform to the above degree of accuracy, however, room supply to return/exhaust air quantity ratio shall remain as shown on the Drawings. Air exhausted from toilet rooms and similar spaces must exceed the air supplied.
- F. Where several spaces are served by a single thermostat, balance air for uniform temperature.
- G. This Contractor shall, at NO cost to the Owner, replace and/or install any additional balancing devices, and adjust fan sheaves as required, to obtain the results described above.

- H. After all air distribution systems have been balanced, all adjustable sheaves on air conditioning unit fans shall be removed and replaced with fixed sheaves. Fixed sheaves shall be selected to provide the exact fan speed (RPM) obtained during the balancing procedure.
- I. The Owner reserves the right to verify the test results of up to 10% of the total of all air terminals for accuracy of submittal data. Should more than 50% of the air terminals tested prove to be substantially different from the submitted data, the entire air distribution system shall be rebalanced until acceptable results are obtained, at no cost to the Owner.

3.8 TESTS, INSPECTIONS

- A. Contractor shall not allow or cause any work of this Section to be covered or enclosed until it has been inspected, tested, and approved by the Architect and the authorities having jurisdiction over the Work. Should any of this work be enclosed or covered up before such inspection, testing, and approval, this Contractor shall uncover the work, have the necessary inspections, tests, and approvals made and, at NO expense to the Owner, make all repairs necessary to restore both his work and that of other contractors which may have been damaged to be in conformity with the Contract Documents.
- B. Furnish all necessary labor, materials, and equipment for conducting tests, and pay all expenses in connection therewith. Should leaks develop while testing, repairs shall be made, and tests shall be repeated until a satisfactory test is obtained.
- C. Acceptance Testing
 - 1. The California Energy Code Section 10-103 requires Acceptance Testing on all newly installed mechanical systems envelopes 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 Code. The systems must pass the required acceptance criteria. Any deficiencies must be corrected by the installing Contractor until the specified systems conform and pass the required acceptance criteria. As of October 2021, all mechanical system acceptance tests must be performed by a certified mechanical acceptance test technician (CMATT). 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>.
 - 2. 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 acceptance criteria. Project inspectors will collect the forms to confirm that the required Acceptance Tests have been completed.
- D. Refrigerant Piping Testing
 - 1. Pressure and leak tests on refrigeration piping and equipment shall be done in accordance with manufacturer's instructions, local code requirements, and ASHRAE Standard 15-2024. When system components have been strength tested under pressure by the component manufacturer according to the standard, no further testing on the premises, other than leak testing, is required unless component has been modified or repaired.
 - 2. Be sure that all controls, relief valves or rupture discs that could be damaged by test pressure are removed before beginning pressure test. Examine pipe before pressure is applied to ensure that it is tightly connected. All items not subject to the pressure test shall be disconnected or isolated by valves, blanks, plugs, or other suitable means.
 - 3. The medium used for pressure testing the refrigeration system shall be oxygen free nitrogen or a premixed nonflammable oxygen free nitrogen with a tracer gas of hydrogen or

helium. Do not use oxygen, air, combustible gases, and mixtures containing combustible gases as the pressure test medium.

4. The means used to pressurize the refrigeration system piping shall have either a pressure limiting device or a pressure reducing device and a test pressure measuring device on the outlet side. The test pressure measuring device shall have an accuracy of $\pm 3\%$ or less of the test pressure and shall have a resolution of 3% or less of the test pressure
5. Pressure test all refrigerant copper piping from the service valves at the condensing unit up to the isolation valves of the evaporator unit, if the system is so equipped. The high and low side of each completed refrigeration piping system must be pressure tested. Pressurize with test gas for a minimum of ten (10) minutes to not less than the lower of (a) the lowest design pressure for any refrigeration system component or (b) the lowest value of set pressure for any pressure relief devices in the refrigeration system. The design pressures for determination of test pressure shall be the pressure identified on the label nameplate. The pressure shall hold for a period of 24 hours.
6. After successful completion of the required strength test and before being placed into operation, system components and field installed connections shall be leak tested for tightness in accordance with ASHRAE 15, 2024.
7. A vacuum of 0.00967 psi (66.7 Pa) absolute or lower shall be achieved (0.0197 in. of mercury [32°F]). After achieving a vacuum, the refrigeration system shall be isolated from the vacuum pump. The refrigeration system pressure shall not rise above 0.029 psi (200 Pa) absolute (0.059 in. of mercury [32°F]) for a period of 24 hours.
8. The installing Contractor shall issue a certificate of test, verifying strength test and leakage test in accordance with ASHRAE 15 to the AHJJ for all refrigeration systems containing 55 lb (25 kg) or more of refrigerant. The certificate shall give the test date, photograph of the pressure gage at the test pressure, refrigerant designation, test medium, and the field test pressure applied to the high side and the low side of the refrigeration system. The certification of test shall be signed by the installing contractor and shall be made part of the public record

3.9 CLEANUP

- A. Upon completion of the work of this Section, remove all material, debris, and equipment associated with or used in the performance of this Work.

END OF SECTION

**SECTION 23 05 00
GENERAL MECHANICAL**

PART 1. GENERAL

1.1 SUMMARY

- A. Drawings and general provisions of the Contract, including General and Special Conditions and all Division 01 Specification Sections, apply to this Section.
- B. This Section includes the following:
 - 1. General requirements specifically applicable to all Division 23 Sections
 - 2. Some piping material and installation instructions common to most piping systems
 - 3. Mechanical demolition (when indicated on the Drawings)
 - 4. Concrete bases
 - 5. Supports and anchorage
 - 6. Pipe and equipment identification
 - 7. Basic electrical requirements
 - 8. Electric motors
- C. This Section applies to all work of Division 23.

1.2 REGULATORY REQUIREMENTS

- A. Regulatory compliance: All work performed under Division 23 shall comply with the latest currently adopted editions of all applicable federal, state, and local codes, ordinances, regulations, and all requirements of the Authorities Having Jurisdiction.
- B. Electrical devices and wiring shall conform to the latest standards of NEC; all devices shall be UL listed and labeled.
- C. All work shall be performed in accordance with the rules and regulations of the following:
 - 1. Title 24, California Code of Regulations, Parts 1 -12.
 - 2. Local jurisdiction codes and amendments
 - 3. Health Department
 - 4. California Occupational Safety & Health Administration (CAL-OSHA) Safety Orders and requirements
 - 5. California State Fire Marshal (CSFM)
 - 6. City Fire Marshal requirements
 - 7. Division of State Architect (DSA)
 - 8. Environmental Protection Agency (EPA)
 - 9. National Fire Protection Association (NFPA)

- D. Where material or equipment is specified to conform to referenced standards, the most recent edition of the standard in effect at the time of bid shall be used. If compliance with two or more standard establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement.
1. Associated Air Balance Council (AABC)
 2. American Gas Association (AGA)
 3. Air Movement and Control Association International, Inc. (AMCA)
 4. American National Standards Institute (ANSI)
 5. American Society of Mechanical Engineers (ASME)
 6. American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE)
 7. American Society for Testing and Materials (ASTM)
 8. Air-Conditioning and Refrigeration Institute (ARI)
 9. Canadian Standards Association International (CSA)
 10. National Electrical Manufacturers Association (NEMA)
 11. National Fire Protection Association (NFPA)
 12. Department of Health Care Access and Information (HCAi)
 13. Sheet Metal and Air Conditioning Contractors National Association (SMACNA) Standards
 14. Underwriters Laboratories (UL)
 15. Comply with all ADA requirements for disabled access.
- E. Minimum requirements: The requirements of these are the minimum that will be allowed unless such requirements are exceeded by applicable codes or regulations, in which the regulatory codes or regulation requirements shall govern.
- F. When the Contract Documents call for materials or construction of a higher standard than is required by the above, the Contract Document requirements shall take precedence over the requirements of the said laws, rules, and/or regulations, accepting that nothing in the Contract Documents shall be interpreted as permitting work in violation of said laws, rules, and/or regulations. The Contractor for this work shall furnish any additional materials and/or labor as may be required for compliance with these laws, rules, and/or regulations though such materials and/or labor are not specifically set forth in the Contract Documents, with no additional charges to Owner.
- G. Seismic construction and restraints shall be in accordance with the requirements of Title 24 of the California Code of Regulations. All equipment mounts, isolators, and hanging systems must meet local authority requirements.

1.3 CONTRACT DRAWINGS

- A. The Contract Drawings indicate diagrammatically the general layout of the mechanical systems and other related work. The data given herein and on the Drawings are as exact as could be reasonably secured, but absolute accuracy is not guaranteed. Field verification of scaled

dimensions taken from the Drawings is required. Exact locations, distances, elevations, etc. will be governed by shop drawings, the building itself, and actual field conditions.

- B. The Contractor shall review and compare the Architectural, Structural, Plumbing, Mechanical, and Electrical Drawings and all Owner supplied equipment Drawings and adjust their work to be in conformity with the conditions indicated thereon. Discrepancies between different Drawings, between Drawings and actual field conditions, or between Drawings and Specifications, shall be brought to the attention of the Architect promptly for a determination of the modifications to be affected.
- C. Provide offsets, fittings, and accessories required to meet project conditions, even when not shown.
- D. Minor changes in locations of equipment, piping, ducts, etc., from locations shown shall be made when directed by the Architect at no additional cost to the Owner, providing such change is ordered before such items of work, or work directly connected to same are installed and providing no additional material is required.

1.4 WARRANTIES

- A. Warranty all materials, equipment, and apparatus to be free from defects and faulty workmanship. Warranties shall be in accordance with the provisions of the General Conditions and Special Conditions. Should any defects occur during this period, the Contractor shall repair or replace defective items as directed by the Architect, without cost to the Owner.
 - 1. Equipment warranties shall be provided for all equipment, with all necessary information filled in, except purchase date, in favor of the Owner.
- B. Provide new materials, equipment, apparatus, and labor to repair or replace that determined to be defective or faulty.

1.5 SUBMITTALS

- A. General:
 - 1. All submittals shall be in accordance with the requirements of the General Conditions and Division 01 Sections for Submittal Procedures and Product Requirements.
 - 2. Before any fixtures, materials, or equipment are purchased, the Contractor shall submit to the Architect for approval, a complete list of materials, fixtures, and equipment, giving the manufacturers' names, catalog number, capacity, size, power requirements, and other pertinent data. Submittal lists and drawings shall be specifically applicable to this project, shall include identifying marks assigned by Specifications and Drawings, and shall not contain extraneous material or optional choices.
 - 3. Product names referenced in the specifications are used as standards of quality. Other materials shall not be used unless approved in writing. Review is required even though the term "or equal" is used. Review of submittals will be only for general conformance with design concept. Review will not include quantities, dimensions, construction methods, or coordination with the work of other trades.
 - 4. The Contractor shall submit for the approval of the Architect, shop drawings of proposed material and equipment that differ from the specified materials and equipment, and of any specified materials and equipment with special conditions and/or arrangements. These drawings shall show necessary modifications of Owner, plumbing, electrical and mechanical work required by the proposed materials and equipment.

5. Submittal of substitutions shall be limited to one proposal for each type or kind of item. If the first proposed product submittal is rejected, the Contractor shall then submit the first named or scheduled product. Installation of reviewed substitution is Contractors' responsibility. Any mechanical, electrical, structural, or other changes required for installation of substituted equipment or material must be made by the Contractor without additional cost to Owner. Review by the Architect of substituted equipment or material will not waive these requirements.
6. Contractor shall make all necessary field measurements and investigations to assure that the equipment and assemblies will meet contract requirements. Review of drawings and other material submitted shall not be construed as a complete check or constitute a waiver of the requirements of the Drawings and Specifications but will indicate that the material submitted is acceptable in quality and utility. This review shall not relieve the Contractor of the responsibility to fit the proposed materials to the spaces provided and to affect necessary rearrangement or construction of other work.

B. Product Data

1. For all HVAC equipment and each type of product indicated, include manufacturer's specifications and data sheets, and certified drawings on major equipment. Include physical and performance data, such as weights, sizes, capacities, required clearances, performance curves, acoustical characteristics, finishes, color selection, and accessories.
2. Include certified drawings on major equipment.

C. Coordinated Layout/Shop Drawings

1. Prepare complete consolidated and coordinated layout drawings for all new systems, and for existing systems that are in the same areas. Shop drawings shall be prepared using AutoCAD 2016 or newer and shall be drawn at a minimum $\frac{1}{4}" = 1' - 0"$ scale.
2. All drawings shall be fully coordinated with HVAC, Plumbing, Fire Protection, Electrical, Structural, and Architectural work. Drawings shall be coordinated and dimensioned indicating equipment, pipe, duct, fire protection, and electrical in relation to architectural and structural features. Indicate exact locations of valves, piping specialties, access doors, etc.
3. Clearly identify and dimension the proposed locations of the principal items of equipment and adequate clearance for all equipment, piping, pumps, valves and other items. Provide detailed layout of all piping systems showing the proposed routes.
4. Show the access means for all items requiring access for operations and maintenance.
5. Submit shop drawings to Architect for approval, prior to fabrication or installation of any work. Do not install equipment or piping until drawings have been approved. Any work installed without prior shop drawing approval shall be removed at the Contractor's expense.
6. Use of contract documents for shop drawings is not acceptable.
7. Any work installed without prior shop drawing approval shall be removed at the Contractor's expense.

D. Submit shop-wiring diagrams of temperature controls and air conditioning unit controls for approval. Furnish approved wiring diagrams and assistance to Electrical Contractor.

E. Seismic Shop Drawing Submittal (if applicable)

1. Equipment manufacturer shall design, construct, and certify that his equipment satisfies the special minimum seismic resistance requirements for this project and shall submit calculations or test results supporting his certification.
 2. Provide submittal for seismic supports, anchorages, and restraints indicated to comply with performance requirements and design criteria.
 - a. Calculations performed for use in the selection of seismic supports, anchorages, and restraints shall utilize criteria indicated in Structural Contract Documents.
 - b. Supports, anchorage, and restraints for piping, ductwork, and equipment shall be a pre-approved system such as Mason OPM #0043-13. Pipes, ducts, and equipment shall be seismically restrained according to the requirements of the current edition of the California Building Code. The system shall have a current OPM number and shall meet additional requirements of the Authority Having Jurisdiction. Provide supporting documentation required by the reviewing authority and the Architect and Engineer. Provide layout drawings showing piping, ductwork, and restraint locations.
 - c. Bracing of Piping, Ductwork, and Equipment: Specifically state how bracing attachment to the structure is accomplished. Provide shop drawings indicating seismic restraints, including details of anchorage to the building. In-line equipment must be braced independently of piping and ductwork, and in conformance with applicable building codes. Provide calculations to show that pre-approval numbers have been correctly applied in accordance with general information notes of pre-approval documentation.
- F. Field quality-control test reports.
- G. Operation and Maintenance Data
1. The Contractor shall provide all operating and maintenance instructions provided by the manufacturer, describing proper operation and maintenance of any equipment and devices installed. Operating and maintenance instructions shall cover maintenance, adjustment, and operation of all equipment.
 2. Operation and maintenance data shall include a table of contents identifying items therein and index tabs for each system. Neatly obscure or cross out inapplicable data from manufacturer's literature.
 3. The Contractor shall also provide a parts list of all equipment and component parts for all equipment under this Section. The equipment list shall include the manufacturer's name, model number, and local representative, service facilities and normal channel of supply for each item.
 4. Also include the following:
 - a. Manufacturer's certified shop drawings, and lubrication charts and data. Mark each sheet with equipment identification number and actual installed condition or system and location of installation. Specifically identify which options are provided.
 - b. Recommended preventative maintenance schedule and procedures.
 - c. Provide copy of valve schedules for each piping system.
 - d. Provide a copy of the equipment label schedule.
 - e. Description of start-up and operating procedures for each system, including controls diagrams and description of operating sequences.

5. Copies of manufacturer's guarantees/warranties for each system shall be included in the O&M data.
6. Submit data to the Architect for approval. Final acceptance of the work will not be made until a satisfactory submission of this material is received and approved by the Architect.

H. As-Built Drawings

1. Upon completion of the project, a final set of construction drawings and specifications, with as-constructed information added, are to be submitted as record drawings at completion of project. Plans are to incorporate all addenda items and change orders.
2. The as-built set shall reflect a final record of installed conditions, including all changes made over the course of the project. All equipment, including piping, etc. shall clearly identify both top and bottom elevations as well as distances from equipment to established building lines. Coordinate with other trades and field conditions and show dimensions and details including building construction and access for servicing.
3. In addition to changes made during course of work, show the following:
 - a. Exact location, type and function of concealed valves and controllers.
 - b. Exact size, elevations and location of underground and under floor piping.
4. Submit to Architect for approval.

I. Warranty

1. Equipment warranties shall be provided for all equipment, with all necessary information filled in, except purchase date, in favor of the Owner.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall be responsible for the delivery, storage, protection, and placing of all equipment and materials to be incorporated into the work. Any items damaged shall be repaired or replaced, at no additional cost to the Owner.
- B. The Contractor shall protect the work and materials from damage during construction. Equipment stored at the job site shall be protected from dust, water, or other damage, and be covered if the equipment is exposed to weather. Protect interiors of new equipment and piping systems against entry of foreign matter. Remove debris arising from cutting, threading, and welding of piping. Piping systems shall be flushed, blown, or pigged as necessary to deliver clean systems. Clean both inside and outside of equipment before painting or placing in operation.
- C. The Contractor shall be fully responsible for all costs, damage, and delay arising from failure to provide clean systems.

1.7 COOPERATION WITH OTHER TRADES

- A. Coordinate all HVAC work with other trades doing work on the project as may be necessary for the proper completion of the project. Refer to the Structural, Plumbing, and Electrical Drawings for details of the building structure and equipment installation that will tend to overlap, conflict with, or require coordination with the work of Division 23, and schedule this work accordingly.
- B. Priority of right of way in space shall be as follows, in decreasing order of authority:
 1. Electrical lights, electrical panels, and drain piping.

2. Ductwork.
 3. Fire protection piping, domestic hot water, domestic cold water, and condenser water piping.
- C. Any work done without regard for other trades shall be moved, replaced, or reconstructed as required, without extra charges to the Owner.

1.8 FEES AND PERMITS

- A. Obtain permits and services required for the installation of the work. Arrange for required inspections and secure approvals from Authorities Having Jurisdiction.

1.9 UTILITY CONNECTIONS

- A. Arrange for all utility connections, determine their exact requirements, and pay all costs incurred. Send proper notices, make necessary arrangements, and perform other services required for care and maintenance of all utilities, and assume all responsibility concerning same. Observe all rules and regulations of the respective utilities in executing the work.

1.10 ELECTRICAL REQUIREMENTS

- A. Electrical work in this Section shall conform to the requirements of Division 26. Equipment shall conform to the standards of the National Electric Manufacturer's Association. Electrical equipment shall bear the label of Underwriters' Laboratories, Inc. where examination and listing service are available for such materials. Motors and motor control equipment shall be as specified herein.
- B. Refer to Division 26 for conduit fittings and devices, service voltage and power feed wiring, and control and interlock wiring for equipment specified under this Section. The Contractor shall have a responsibility to verify that the electrical services provided are adequate and compatible with equipment requirements.
- C. Electrical work shall include the furnishing of:
1. Duct mounted smoke detectors
 2. Motor starters, 3-phase
 3. Disconnects/circuit breakers, unless specifically called for in equipment schedules or specifications to be factory installed with equipment
 4. Smoke control interlocks to HVAC fans
 5. Electrical systems
 6. Power wiring, including raceway, fittings, wire, boxes and related items, all voltages, that is not part of Controls Contractor work
 7. Control & interlock wiring that is not part of Controls Contractor work.
- D. Electrical work shall include the installing of:
1. All smoke detectors, except duct-mounted
 2. Smoke control interlocks to HVAC fans
 3. Variable speed drives, field mounted

4. Motor starters, 3-phase
 5. Disconnects/circuit breakers, unless specifically called for in equipment schedules or specifications to be factory installed with equipment
 6. Electrical systems
 7. Low voltage wiring, line voltage "interlock" wiring, control wiring for safety devices, alarms, and refrigeration.
- E. Controls Contractor shall furnish and install:
1. Refrigerant leak detectors, including control & interlock wiring
 2. Control system network backbone
 3. Window switches
 4. Control panels
 5. Control devices
 6. Control damper actuators
 7. Terminal box control transformer panels
 8. Digital controller and damper actuator
 9. Air-flow measurement transducer and piping
 10. Wall sensor modules.
- F. Controls Contractor shall furnish, and Mechanical Contractor shall install:
1. Automatic isolation and control valves
 2. Sensor wells, meters, and other pipe-mounted control devices
 3. Wiring includes all connections to devices, and all wiring shall be installed in conduit.
 4. Conduit fittings and devices shall be as specified in the basic electrical materials section of Division 26.
 5. Line voltage work (in equipment assemblies) shall be as specified in Division 26.
- G. Devices shall be installed in NEMA enclosures of the type required for the location.
- H. Electrical Controls:
1. Refer to Electrical, Fire Protection, Plumbing, and Mechanical documents for work and devices required.
- I. The following work will be furnished and installed under Division 26.
1. Disconnect switches, remote switches, motor starters, relays, and test switches that are not mounted as an integral part of equipment assemblies or in temperature control panels.

2. All line voltage controls and interlocks, all other controls, circuits from electric panel board to disconnect switches, starters, motors, switches and/or other motor controls, to temperature controls and safety devices.

1.11 DAMAGE BY LEAKS

- A. The Contractor shall be responsible for any damage to the work of other Contractors that is caused by leaks in any temporary or permanent piping systems due to pipe rupture, disconnected pipes or fittings, or by overflow of equipment.
- B. Patching and replacing of damaged work shall be done by the Contractor who installed the work, as directed by the Architect, but the cost of same shall be paid by the Contractor who is responsible for the damage.

1.12 LICENSING REQUIREMENTS

- A. All work of Division 23 shall be performed by an appropriately licensed contractor. The licenses shall be current, valid through the term of the contract, and in the name of the Contractor.
 1. HVAC work that includes refrigerated spaces, temperature insulation, air conditioning units, ducts, blowers, registers, humidity and thermostatic controls for the control of air, liquid, and/or gas temperatures below 50 degrees Fahrenheit shall be performed by a C-38 Refrigeration Contractor.
 2. All air and water balancing shall be performed by a D-62 air and water balancing contractor. An air and water balancing contractor installs any device and performs any work related to providing a specified flow of air in all types of existing heating and cooling systems.

1.13 DEMONSTRATION & TRAINING

- A. Comply with the requirements of the General Conditions, Division 01 Sections, and the following.
 1. Prepare a formal training program for the operating staff before the scheduled start-up date. The program shall consist of the design, start-up, and operation of the HVAC systems. The training program shall be coordinated with the production of the operation and maintenance manuals. Operations and maintenance data is to be available for training sessions.
 2. Provide on-site training. All instruction shall be provided at no cost to the Owner.

PART 2. PRODUCTS

2.1 PRODUCTS CRITERIA

- A. All materials, appliances, and equipment shall be new and the best of their respective kinds, free from defects, and of the make, brand or quality specified or as accepted by the Architect.
- B. Multiple Units: When two or more units of materials or equipment of the same type or class are required, these units shall be products of one manufacturer.
- C. Apply and install all items according to the manufacturer's written instructions. Refer conflicts between the manufacturer's instructions and the contract drawings and specifications to the Architect for resolution.
- D. All fixtures, materials, and equipment equal in quality and utility to these herein mentioned will be accepted. When specific names are used in describing fixtures, materials, and equipment

they are mentioned as standards only, but this implies no right on the part of the Contractor to use other fixtures, materials, and equipment, or methods unless approved as equal in quality and utility by the Architect. The decision of the Architect shall govern as to what fixtures, materials, and equipment are equal to those mentioned, but the burden of proof as to the quality of any proposed fixtures, materials, or equipment shall be upon the Contractor. If any tests are necessary to determine the quality of proposed fixtures, materials, or equipment, an unbiased laboratory satisfactory to the Architect shall make such tests at the expense of the Contractor.

2.2 HANGERS, SUPPORTS

A. Piping - General

1. Select size of hangers and supports to exactly fit pipe size for bare piping, and to exactly fit around piping insulation with saddle or shield for insulated piping. Provide copper-plated hangers and supports for un-insulated copper piping systems.
2. Hangers and supports shall be designed and manufactured in conformance with ANSI/MSS SP-58. Selection and application shall be according to ANSI/MSS SP-69.
3. All piping shall be supported with Superstrut, B-Line, Anvil, Mifab, or approved equal pipe hangers and supports. Select size of hangers and supports to exactly fit pipe size for bare piping, and to exactly fit around piping insulation with shield for insulated piping.
4. All hangers shall be electro-chromate or corrosion-resistant finished. Hanger rods shall have electro-galvanized finish.

B. Rooftop pipe supports

1. MiFab "C-Port" series or B-Line "Dura-Block" or approved equal.
 - a. Model C rubber support series with 14-gauge galvanized channel.
 - b. Seismic: Model CZ rubber base with 14-gauge galvanized channel

C. Copper tubing:

1. B-Line 3690, Superstrut C-711 or Anvil Figure 67 "J" pipe hangers or approved equal, complete with isolator.
2. Isolators: B-Line "Vibra Cushion" B1999, Type L & K for copper tubing, Superstrut C-716 isolator for copper, Anvil Figure CT-769 or approved equal

D. Insulated pipe:

1. Hangers: B-Line 3690 "J" pipe hanger, Superstrut C -711, or Anvil Figure 67 fitted to outside of insulation or approved equal
2. Pipe Shields: B-Line 3151 insulation protection shield, Superstrut C-790, or Anvil Figure 167 or approved equal

E. Point of support connectors:

1. Wood construction:
 - a. Stationary pipes: B-Line B3060, Superstrut 540 or Anvil Figure 206 side beam hanger clip or approved equal
 - b. Pipes subject to movement: B-Line B-756 or Superstrut S-541 beam clamp swing connector or approved equal

2. New concrete construction: B-Line B2501 light duty spot inserts or Superstrut 452-TB spot inserts or approved equal.
 3. Existing concrete construction: Red Head "Trubolt, Hilti "Kwik Bolt", Simpson "Stong Bolt" or Hilti "Quik-Bolt", drilled-in, concrete anchors.
 4. Steel beams: Series 500 beam brackets.
 5. Plywood decks: machine bolts, nuts, and washers.
- F. Vertical pipe risers:
1. Riser clamps: Superstrut C-720 extension riser clamps anchored to construction
 2. Bare cold-water pipe: Superstrut C-720P, PVC coated to prevent corrosion
- G. Insulated pipe supports: K.B. Enterprises "Snapp Itz".
- H. Pipes through studs or joists shall be isolated from the structure with properly sized Hubbard "Hold-Rite" suspension clamps or LSP "Acousto-Plumb" system.
- I. Ductwork
1. Hanger Rods for Noncorrosive Environments: Cadmium-plated steel rods and nuts.
 2. Hanger Rods for Corrosive Environments: Electrogalvanized, all-thread rods or galvanized rods with threads painted with zinc-chromate primer after installation.
 3. Strap and Rod Sizes: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Table 5-1, "Rectangular Duct Hangers Minimum Size," and Table 5-2, "Minimum Hanger Sizes for Round Duct."
 4. Steel Cable End Connections: Steel assemblies with brackets, swivel, and bolts designed for duct hanger service; with an automatic-locking and clamping device.
 5. Duct Attachments: Sheet metal screws, blind rivets, or self-tapping metal screws; compatible with duct materials.
 6. Trapeze and Riser Supports:
 - a. Supports for Galvanized-Steel Ducts: Galvanized-steel shapes and plates.
 - b. Supports for Stainless-Steel Ducts: Stainless-steel shapes and plates.
 - c. Supports for Aluminum Ducts: Aluminum or galvanized steel coated with zinc chromate.
- J. Cable Bracing (Ductwork & Piping)
1. Cables shall be pre-stretched galvanized 7x19 strand core aircraft cable, with no limit to their installed length. Cables meet the following specifications: MIL-DTL-83420M with Amendment 2, Type 1 non-jacketed cable.
 2. Cables shall be installed slightly slack, so as not to support gravity loads.
 3. Cables shall connect the braced item to a building structural element. Cables shall have a bracket at each end to make the connections. The cable assembly with connection brackets shall be Mason Industries "SCB" or "SCBH". The cable is held to end brackets with one or two bolts. Cable bolts shall be tightened to the torque values stated in the details or, in the case where break-off nuts are provided, tighten until the nut breaks off.

4. The Mason Industries "SCBH" component can be used for connection directly to the threaded vertical hanger rod used for supporting system gravity loads as detailed in Section D of OPM-0043-13.
5. The "SCB" bracket and cable (Ref. X1.0), "SCBH" bracket and cable (Ref. X1.1), and "UCC" rod stiffener clamp (Ref. X3.0) manufactured by Mason Industries, are included (with accompanying hardware) in the kit options provided in Section D of OPM-0043-13.

K. Seismic Bracing

1. Seismic cable restraints shall consist of galvanized steel aircraft cables sized to resist seismic loads with a minimum safety factor of two and arranged to provide all directional restraint. Cables must be pre-stretched to achieve a certified minimum modulus of elasticity. Cable and connections shall be steel assemblies that swivel to final installation angle and utilize two clamping bolts to provide proper cable engagement. Cables must not be allowed to bend across sharp edges. Cable assemblies shall have an OPM approval from OSHPD in the state of California verifying the maximum certified load ratings. Cable assemblies shall be type SCB at the ceiling and at the clevis bolt, SCBH between the hanger rod nut and the clevis or equipment, or SCBV if clamped to a beam, all as manufactured by Mason Industries, Inc.

2.3 PIPE LABELS

- A. Brady, Seton, Kolbi, Graphic Products, or approved equal pipe labels. Preprinted, color-coded, with lettering indicating service, and showing flow direction.
- B. Self-Adhesive Pipe Labels: Printed plastic with contact-type, permanent adhesive backing.
- C. Pipe Label Contents: Include identification of piping service using same designations or abbreviations as used on Drawings, pipe size, and an arrow indicating flow direction.
- D. Flow-Direction Arrows: Integral with piping system service lettering to accommodate both directions, or as a separate unit on each pipe label to indicate flow direction.
- E. Label Sizes (per ANSI A13.1 / ASME A13.1-2020 Standards):
 1. For pipes or covering with outside diameter 0.7 to 1.3 inches, minimum length of the color field: 8 inches, minimum height of letters: 0.5 inch.
 2. For pipes or covering with outside diameter 1.4 to 2.4 inches, minimum length of the color field: 8 inches, minimum height of letters: 0.7 inch.
 3. For pipes or covering with outside diameter 2.5 to 6.7 inches, minimum length of the color field: 12 inches, minimum height of letters: 1.3 inches.
- F. Pipe Label Color Schedule: (per ANSI A13.1 / ASME A13.1-2020)
 1. Potable, Cooling, Boiler Feed, and other Water Piping:
 - a. Background Color: Green.
 - b. Letter Color: White.
 2. Fire Quenching Fluids:
 - a. Background Color: Red.
 - b. Letter Color: White.
 3. Toxic and Corrosive Fluids

- a. Background Color: Orange.
 - b. Letter Color: Black
- 4. Flammable Liquids:
 - a. Background Color: Yellow.
 - b. Letter Color: Black.
- 5. Combustible Fluids:
 - a. Background Color: Brown.
 - b. Letter Color: White
- 6. Compressed Air:
 - a. Background Color: Blue.
 - b. Letter Color: White.
- 7. Abandoned Pipes:
 - a. Background: White
 - b. Letter Color: Black
- G. Duct Markers:
 - 1. Self-adhesive duct markers with an arrow indicating the flow direction.

PART 3. EXECUTION

3.1 INSTALLATION, GENERAL

- A. Provide all necessary sleeving, core drilling, carpentry, cutting, and patching required for proper installation of material and equipment specified.
- B. No structural members shall be drilled, bored, or notched in a manner that will impair their structural capacity. No structural cutting or drilling shall be done without the approval of the Architect and DSA.
- C. All penetrations of concrete or masonry shall be made with core drills.

3.2 VERIFICATION OF EXISTING CONDITIONS

- A. Before commencing the work of this Section, the Contractor shall inspect the installed work of other trades and verify that their work is sufficiently complete to permit the start of work of Division 23 and that the completed work will be in complete accordance with the original design. In the event of a discrepancy, immediately notify the Architect and proceed as directed.
- B. Before installation of any new work, verify the location, size, and other conditions at all points of connection to services or other existing piping, and at all locations where new work will cross or pass near existing piping, electrical, or other facilities.
- C. Information shown relative to existing services is based upon available records and data during the preparation of the Drawings but shall be verified. Make reasonable deviations found necessary to conform with actual locations and conditions, without extra charge.

3.3 GENERAL DEMOLITION

- A. The Contractor shall retain specific equipment as directed by owner and deliver to owner specified location.
- B. All equipment, mechanical equipment, piping, valving, controls, etc. rendered useless by this work shall be demolished and removed from the site.
- C. Location of existing mechanical equipment, ductwork air outlets, piping, controls, valves, etc. has been based on the best available information obtainable at the site and through record drawings. Contractor shall verify exact locations, sizes, and extent of existing systems prior to start of demolition work.
- D. Location of existing hydronic piping has been based on the best available information obtainable at the site and through record drawings. Verify exact location, depth and size of existing piping prior to start of demolition work.
- E. All unused piping above grade shall be removed. All unused piping below grade shall be capped and abandoned. Cap dead branches as close as possible to live mains.
- F. Patch all walls, ceilings, roof and other surfaces to match existing conditions

3.4 POLLUTANT CONTROL

- A. At the time of rough installation or during storage on the construction site and until the initial startup of the heating and cooling equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal, or other methods acceptable to the enforcing agency to reduce the amount of dust or debris which may collect in system.
- B. During construction, protect all filters upstream of air handling units with blankets of 2" fiberglass filter media or 2" disposable panel filters. UL Class 2 listed.
- C. Systems shall not be operated without properly installed filters. Filters used during construction shall be removed and replaced with new filters after construction is completed and the systems are ready for final acceptance by the owner.

3.5 EQUIPMENT

- A. Equipment shall operate quietly and without objectionable vibration. Such problems, other than from equipment operating at optimum conditions, shall be the Contractor's responsibility and shall be eliminated at the direction of the Architect.
- B. Install equipment to provide a good appearance, easy access, and adequate space to allow replacement and maintenance. Provide bases, supports, anchor bolts, and other items required to achieve this. Installation shall be level, above moisture level, and adequately braced.
- C. Move equipment into the building through available openings. Dismantle equipment where it is necessary to accomplish this. After reassembly, test equipment to verify its satisfactory operating condition.
- D. Thoroughly lubricate equipment before operating. Repair of damage resulting from failure to comply with this requirement shall be the Contractor's responsibility. Extend 1/4-inch schedule 40 black steel lubrication pipes from hard-to-reach locations to front of equipment or to access doors. Terminate with proper lubrication fittings.
- E. Piping connections shall be secured and properly aligned, and all utility and control connections shall be properly isolated from the building structure using vibration isolators and flexible

connections. Any equipment not meeting this requirement will be modified and properly reinstalled at no expense to the Owner.

F. Electrical:

1. Contractor shall coordinate electrical requirements and connections for all power feeds with electrical contractor. Refer to Division 26 for additional information

3.6 ACCESS

- A. All items that require access, such as for operating, cleaning, servicing, maintenance, and calibration shall be easily and safely accessible by persons standing at floor level, or standing on permanent platforms, without the use of portable ladders. Examples of these items include but are not limited to all types of valves, filters, strainers, transmitters, and control devices. Prior to commencing installation work, refer conflicts between this requirement and the Contract Drawings to the Architect for resolution.

3.7 MECHANICAL SERVICES

- A. Terminals and services weighing no more than 20 pounds, may be supported directly on the runners of a heavy-duty grid system but in addition, they must have a minimum of two #12-gauge slack safety wires attached at diagonally opposite corners and anchored to the structure above.

3.8 CONCRETE EQUIPMENT BASES

- A. Concrete work that is part of the mechanical installations, as such is shown and/or detailed on the Drawings, shall conform to the requirements of the Concrete Section of these Specifications.
- B. Concrete bases: Anchor equipment to a concrete base according to equipment details on mechanical and structural Drawings. Construct concrete bases of dimensions indicated, but not less than 4 inches larger in both directions than the supported unit. Bases shall be neatly finished, have rounded corners, and have a smooth trowel finish.

3.9 PAINTING

- A. Properly prepare work to be painted per the requirements of Division 09, except preservative and special painting as described herein. Priming shall conform to Division 09 requirements and be of a material compatible with paint for finish painting.
- B. All equipment and materials shall be cleaned of grease, wax, oil, rust, or dirt in preparation for finish painting. Any prime coated surfaces showing signs of rust before being finish painted shall be thoroughly cleaned and a new prime coat applied.
- C. Equipment in equipment rooms and like spaces shall be furnished with a factory-applied baked-on prime coat or at the Contractor's option, a standard factory baked enamel finish in approved colors. Machinery such as fans or motors shall be furnished with a factory-applied baked-on prime coat, or at the Contractor's option, a standard paint finish (air-dried or baked enamel) in approved colors. Mechanical equipment in other locations shall be furnished with a factory-applied baked-on prime coat unless noted otherwise.
- D. Paint interior of ductwork at air outlets with one coat of flat black paint.
- E. Prime paint both sides of flashings before installation.
- F. Furnish can of touch-up paint with each factory-finished piece of equipment.

- G. Paint all piping in mechanical rooms. Color as selected by the Architect.
- H. Black steel piping exposed to the environment shall be painted with rust-inhibiting paint. Color as selected by Architect.

3.10 IDENTIFICATION OF SYSTEMS

A. Nameplates

- 1. Nameplate bearing manufacturer's name or identifiable trademark shall be securely affixed in a conspicuous place on equipment, or name or trademark cast integrally with equipment, stamped or otherwise permanently marked on each item of equipment.

B. Equipment

- 1. All equipment shall be labeled with 1" high stencils showing the identifying mark noted on drawings and usage.
- 2. Warning signs shall be placed on machines driven by electrical motors that are controlled by fully automatic starters, per California Code of Regulations, Title 8, Subchapter 7 - General Industry Safety Orders, Article 7, Section 3320

C. Piping

- 1. All piping shall be identified. Attach arrows at one or both ends of the marker to indicate flow direction.
- 2. If the pipe being labeled contains multiple hazards, determine which has the greatest hazardous risk and label accordingly.
- 3. Locate pipe labels where piping is exposed or above accessible ceilings in finished spaces, machine rooms, accessible maintenance spaces such as shafts, tunnels, and plenums, and exterior exposed locations as follows:
 - a. Adjacent to all valves and flanges
 - b. Near each branch connection, excluding short takeoffs for fixtures and terminal units. Where flow pattern is not obvious, mark each pipe at the branch.
 - c. At both sides of wall or floor penetrations.
 - d. Before and after all wall, floor, and ceiling penetrations and inaccessible enclosures.
 - e. Adjacent to changes in direction.
 - f. At access doors, manholes, and similar access points that permit view of concealed piping.
 - g. Near major equipment items and other points of origination and termination.
 - h. Spaced at maximum intervals of 25 feet along each run. Reduce intervals to 20 feet in mechanical rooms and other areas of congested piping and equipment, in spaces.
 - i. On piping above removable acoustical ceilings. Omit intermediately spaced labels.

D. Ductwork

- 1. Locate labels near points where ducts enter concealed spaces and at maximum intervals of 25 **feet** in each space where ducts are exposed or concealed by a removable ceiling system.

- a. Exposed ductwork shall be identified every 20 feet in mechanical rooms. with removable ceilings, and at each access door in spaces with hard ceilings.

E. Valves

1. For identification and the Owner's maintenance records, all valves shall be numbered and identified with clearly stamped 1¼" diameter brass tags, in accordance with drawings and service performed.
2. Control valves shall be also marked whether normally open (N.O.) or normally closed (N.S.).

- F. A typewritten schedule of all nameplates and valve tags used, with identification, shall be framed and posted in mechanical rooms, at locations as directed.

3.11 SEISMIC RESTRAINT

A. Equipment:

1. Each piece of equipment installed under these sections shall be constructed and anchored to structural supports as indicated on the Drawings.

B. Vibration

1. All rotating mechanical equipment and associated piping and ductwork shall be mounted by vibration isolators as required to minimize transmission of vibrations and noise to building structures or spaces.
2. All rotating equipment shall be balanced both statically and dynamically.
3. To minimize alignment problems, all motors over 5 hp must be designed to be solidly attached to a common base with the driven unit.
4. To minimize vibration, solid sheaves, and band belts shall be designed to be used in multiple V-belt driven equipment over 15 hp.

C. Isolation of Equipment

1. Isolation shall be designed to be stable during starting and stopping of equipment without any transverse and eccentric movement of equipment that would damage or adversely affect the operation of the equipment or appurtenances.
2. Isolation shall be designed for the operating speed of the equipment.
3. Isolators, including springs, exposed to the weather shall be hot-dipped galvanized after fabrication. Hot dipped zinc coating shall comply with ASTM Method A-123 and shall not be less than 2 oz per square foot.
4. Isolators shall be selected and located to produce uniform loading and deflection even when equipment weight is not evenly distributed.
5. Isolation equipment includes neoprene pads, hanger spring and neoprene, travel limited floor spring and neoprene, inertia base, flexible duct connections, flexible pipe connections, thrust limits, grommets, and snubbers.

D. Seismic Control and Restraint

1. Brace or anchor mechanical equipment to resist horizontal forces acting in any direction using the latest editions of the CBC and ASCE.
2. Seismic-restraint devices shall meet CBC seismic restraint requirements, shall have horizontal and vertical load testing and analysis, and shall bear anchorage preapproval OPM number from OSHPD, preapproval by ICC-ES, or preapproval by another agency acceptable to authorities having jurisdiction, showing maximum seismic-restraint ratings. Ratings based on independent testing are preferred to ratings based on calculations. If preapproved ratings are not available, submittals based on independent testing are preferred. Calculations (including combining shear and tensile loads) to support seismic-restraint designs must be signed and sealed by a qualified professional engineer.

E. Ductwork:

1. All ductwork shall be supported in accordance with the recommendations and requirements of the SMACNA Duct Construction Standards, latest edition, except strap hangers and trapeze hangers, which shall have bracing capable of resisting a seismic force equal to 100% of the weight of the duct system in any direction. (Seismic force shall be in addition to static loading.)

F. Piping:

1. The flexibility of piping systems must be maintained by using flexible devices at critical points at junctions of separate building structures. Braces or anchors shall be designed to damp oscillations or check excessive movement. Flexible devices for piping of gas shall be loops or offsets. Flexible devices for other piping may be loops, Victaulic grooved, or roustabout couplings.
2. Piping at tops and bottoms of risers are critical points where flexibility is required, as well as at changes in direction on long runs of piping 4" and larger. Tops of risers shall be restrained from motion in a horizontal direction, and midpoints shall be anchored in all directions.

3.12 INSTALLATION - HANGERS AND SUPPORTS

- A. Pipe supports shall be spaced according to CMC 2022, Table 313.3, and sufficiently close to support pipes properly without the formation of pockets. Hangers shall be installed at the ends of mains and branches.
- B. Install hangers and supports complete with necessary attachments, inserts, bolts, rods, nuts, washers, and other accessories.
- C. No valve or piece of equipment shall be used to support piping.
- D. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate the action of expansion joints, expansion loops, expansion bends, and similar units.
- E. Install lateral bracing with pipe hangers and supports to prevent swaying.
- F. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, 2-½ inches and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- G. Metal Pipe-Hanger Installation

1. Install hangers, supports, clamps, and attachments as required to properly support piping from the building structure.
 - H. Metal Trapeze Pipe-Hanger Installation
 1. Support together and space trapezes for smallest pipe size or install intermediate supports for smaller diameter pipes as specified for individual pipe hangers.
 - I. Thermal-Hanger Shield Installation
 1. Install in pipe hanger or shield for insulated piping.
 - J. Load Distribution
 1. Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
 - K. Insulated Piping:
 1. Attach clamps and spacers to piping.
 - a. Piping Operating above Ambient Air Temperature: Clamp may project through insulation.
 - b. Piping Operating below Ambient Air Temperature: Use thermal-hanger shield insert with clamp sized to match OD of the insert.
 - L. Do not exceed pipe stress limits allowed by ASME B31.9 for building services piping.
 - M. Ductwork
 1. Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Chapter 5, "Hangers and Supports."
 2. Support vertical ducts with steel angles or the channel secured to the sides of the duct with welds, bolts, sheet metal screws, or blind rivets. Support at each floor at maximum intervals of 16 feet.
 3. Install upper attachments to structures. Select and size upper attachments with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.
- 3.13 PIPE WELDING
- A. All hot and chilled water, steam and steam condensate, compressed air, and vacuum piping shall be installed, examined, inspected, and tested in accordance with the requirements of ASME B31.9, Building Services Piping, current edition.
 - B. Before any welding is performed, the contractor shall submit to the Architect, copies of any welding procedure specifications and their supporting procedure qualification records for review and acceptance. Copies of welder qualification records shall be made available for review to the owner or his representative at the construction site.
 - C. Weld all pipes 2.5 inches and larger. Use the following procedure. All welders must be AWS certified. AWS B2.1 SMAW 6G Pipe Welding Procedure Specifications
 - Welding process: SMAW
 - Grove Angle: 60 degrees
 - Position: 6G Fixed position
 - Material/Spec: A 106

Weld Progression: Up	Thickness (pipe/tube): Groove (in) .280
Backing: No	Notes: Sch. 40 Pipe
Current/Polarity: DCEP	Filler Metal Class: E6010Rt/E7018F1
Root Opening: 1/16 to 1/8	Other Filler Metal Class: Rt. 1/8, 3/32
Filler	

- D. Welded joints shall be beveled and butt-welded. Reductions of pipe shall be made with forged steel welding fittings. Branch reductions of 2 or more pipe sizes smaller than the main shall be Bonney "weldolet" fittings, or equal. Job fabricated reductions and branches shall not be used. All pipe burrs shall be reamed out. Welding rods shall be as follows, or approved equal:

<u>Pipe Size</u>	<u>Arc Welding</u>	<u>Gas Welding</u>
2" and larger	Fleetweld #5	Oxweld #1
1½" and smaller	None	Oxweld #1

3.14 INSTALLATION, PIPING

- A. Installation of piping shall be such that damage cannot result through thermal expansion or contraction, to piping, building, or pipe hangers and supports. Anchors shall be installed at midpoints of all runs in the main piping for localizing pipe expansion or prevention of creepage.
- B. Rough-in shall proceed as rapidly as general construction will permit. All rough-in shall be complete, at locations verified by Architect and Owner, and tested and inspected before installation of concrete, lath, plaster, gypsum wallboard, or other finishes.
- C. All piping shall be concealed in finished rooms, installed in furred walls and partitions. Where furred or suspended ceilings occur, the piping shall be installed in the concealed space at points adjacent to beams and/or other structural members and coordinated with ductwork and equipment. Where exposed piping occurs, it shall be installed parallel to or at right angles to building walls, unless specifically shown otherwise on the Drawings.
- D. All pipelines shall be installed free from traps and air pockets, true to line and grade, with suitable supports properly spaced. All piping shall be installed without undue stresses and with provision for expansion and contraction.
- E. All piping shall be new and free from foreign substances. American standard pipe threads shall be used for IPS threaded work. Joints in threaded piping shall be made up with Teflon tape applied to the male threads only. No screwed pipe joints shall be caulked or packed with rope or other packing materials. Pipe shall be free from tool marks, threads cut accurately with not more than two threads showing beyond fitting. Friction wrenches shall not be used with plated, polished, or soft metal piping. All changes in pipe size shall be made with reducing fitting. Bushings will not be permitted.
- F. Protect unattended openings in piping during construction.
- G. Install piping in concealed locations, unless otherwise indicated and except in equipment rooms and service areas.
- H. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.
- I. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal.
- J. Install piping to permit valve servicing.

- K. Install piping free of sags and bends.
- L. Install piping to allow application of insulation.
- M. Install fittings for changes in direction and branch connections.
- N. Install escutcheons for penetrations of walls, ceilings, and floors according to the following. Use one-piece escutcheons wherever possible in new construction. Split-casting units are acceptable for installation on existing piping systems. Provide chrome plated escutcheon plates at all points where exposed piping penetrates finished wall, ceilings, or floors.
- O. No valve or piece of equipment shall be used to support piping.
- P. Fire-Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with firestop materials. Refer to Division 7 Section "Through-Penetration Firestop Systems" for materials.
- Q. All copper tubing shall be formed in a workmanlike manner according to the Pipe and Tube Bending Handbook of the Copper and Brass Research Association. A tube bender giving support to the periphery of the tube shall be used. The tubing shall be protected against flattening or other injuries.
- R. All copper connections and joints shall be made according to the Copper Tube Handbook, Copper and Brass Research Association. No swaged connections will be permitted. All valves, pumps, and similar equipment shall be connected to copper piping through union or flange adapter fittings.
- S. Valves, cocks, etc., shall be installed to allow convenient accessibility and operation.
- T. Unions and flanges shall be installed to allow convenient replacement of all equipment and cleaning tubes.
- U. A union connection shall be installed downstream from all valves, at equipment connections, and at other locations as required or directed.
- V. Shut-off valves shall be provided in all main services and where required to permit proper servicing of equipment. Valves of one type shall be of one manufacturer.
- W. All valves shall be of the same size as the pipelines in which they are installed unless specifically sized on the Drawings. All hand-controlled line valves shall be ball valves, except where throttling control or frequent operation is required, in which case globe or angle valves shall be used. Globe valves in horizontal lines shall be installed with the stem horizontal to permit line draining. All globe and angle valves shall be installed to close against pressure. Disc valves shall have discs suitable for the services for which they are to be used.
- X. All valves shall be accessible and shall not be installed with the stems below the horizontal plane. Provide access panels at walls, ceilings, or floors.
- Y. Cutting or boring of joists or other structural members shall be done only when alternative routing is impossible and only upon written approval of the Architect or Owner.

3.15 CLEANING OF PIPING

- A. All new piping shall be thoroughly cleaned of rust, scale, etc., before enclosing and placing in operation. Water shall be forced through pipes until the systems are free from foreign substances.

3.16 CLEANUP

- A. Upon completion of the work, remove all material, debris, and equipment associated with or used in the performance of this work.

END OF SECTION

SECTION 26 0500
BASIC ELECTRICAL REQUIREMENTS

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Work included in this Section: All materials, labor, equipment, services, and incidentals necessary to provide and install the Electrical Work as shown on the drawings and as specified hereinafter, including, but not limited to the following:
 - 1. Electrical system modifications for building HVAC system modernization.
 - 2. Panel replacement, safety switches, circuit breakers, and feeders.
 - 3. Branch circuit wiring, wiring devices and connections to all equipment requiring electrical service.
 - 4. All required incidental work, such as electrical testing and temporary power.
 - 5. Any other electrical work as might reasonably be implied as required, even though not specifically mentioned herein or shown on the the drawings.
 - 6. It is the intent of the drawings and specifications that systems be complete and, except as otherwise noted, be ready for operation.

1.02 RELATED WORK

- A. Division 1 - General Requirements
- B. Division 23 - Mechanical

1.03 INCORPORATED DOCUMENTS

- A. Requirements of the General Conditions, Supplementary Conditions, and Division 1 Sections apply to all work in this Section, unless modified herein.
- B. Published specifications, standard tests or recommended methods of trade, industry or government organizations apply to work of this Section where cited by abbreviations noted below, unless modified herein.
 - 1. 2022 California Code of Regulations.
 - 2. 2022 California Building Standards Administrative Code, Part 1, Title 24, C.C.R.
 - 3. 2022 California Building Code (CBC), Part 2, Title 24, C.C.R.
 - 4. 2022 California Electrical Code (CEC), Part 3, Title 24, C.C.R.
 - 5. California Energy Code, Part 6, Title 24, C.C.R.
 - 6. 2022 California Fire Code (CFC), Part 9, Title 24, C.C.R. (Based on 2018 International Fire Code with 2019 California Amendments).
 - 7. 2022 California Green Building Standards (CALGreen) Code, Part 11.
 - 8. American Society of Civil Engineers 7-10 (ASCE/SEI), Minimum Design Loads for Buildings and Other Structures.
 - 9. Underwriters' Laboratories, Inc. (UL).
- C. All State and Municipal Codes and Ordinances.

1.04 CONDITIONS AT SITE:

- A. Visit to site is required of all bidders prior to submission of bid. All will be held to have familiarized themselves with all discernible conditions and no extra payment will be allowed for work required because of these conditions, whether specifically mentioned or not.
- B. Lines of other services that are damaged as a result of this work shall promptly be repaired at no expense to the Owner to the complete satisfaction of the Owner.

1.05 QUALITY ASSURANCE

- A. Conformance:
 - 1. All work shall conform to the applicable requirements of Article 1.03 above.

2. The Contractor shall notify the Architect, prior to submission of bid, about any part of the design, which fails to comply with abovementioned requirements.
 3. If after contract is awarded, minor changes and additions are required by aforementioned authorities, even though such work is not shown on the drawings or covered in the specifications, they shall be included at Contractor's expense.
- B. Coordination:
1. The Contractor shall become familiar with the conditions at the job site, and with the drawings and specifications and plan the installation of the electrical work to conform with the existing conditions and that shown and specified so as to provide the best possible assembly of the combined work of all trades.
 2. The Contractor shall work out in advance all "tight" conditions, involving all trades and if found necessary, supplementary drawings shall be prepared by this Contractor, for the Architect's approval, before work proceeds in these areas. No additional costs will be considered for work, which must be relocated due to conflicts with the work of other trades.
 3. The Contractor shall coordinate in advance, and verify all mechanical unit locations, to ensure accurate rough-in conditions are provided.
 4. The Contractor shall coordinate in advance, all procured mechanical unit electrical ratings, and notify the Architect of any discrepancies between design ratings and procured equipment ratings.

1.06 SUBMITTALS

- A. Product Data:
1. Comply with the provisions of Section 01 33 00 - Submittals.
 2. Within 15 days after award of the Contract, submit:
 - a. Complete electrical systems material list of all items proposed to be furnished and installed under this Division. Provide manufacturers data sheets for all devices, raceways, fixtures, equipment, and related products to be used for the Division 26 work.
 - b. Manufacturers' specifications and other data required demonstrating compliance with the specified requirements.
 - c. Manufacturers' recommended installation procedures which, when approved by the Architect, shall become the basis for inspecting and accepting or rejecting actual installation procedures used on the work.
 3. Shop Drawings: Furnish shop drawings and/or equipment cuts for the following:
 - a. Panel boards, Panel board submittals shall include diagrams of the circuit breaker arrangements in the panels. Arrange circuit breakers in panels exactly as shown on the panel schedules in the construction documents.
 - b. Disconnect switches
 4. Record Documents: "As-builts": As specified under Paragraph 3.2 of this Section.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Protection: Use all means necessary to protect the materials of this Section before, during, and after installation and to protect the work and materials of all trades.
- B. Delivery and Storage: Deliver all materials to the job site in their original containers with all labels intact and legible at time of use. Store in strict accordance with approved manufacturers' recommendations.
- C. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

- D. This Contractor shall personally, or through an authorized representative, check all materials upon receipt at jobsite for conformance with approved shop drawings and/or plans and specifications.

1.08 SCHEDULING/SEQUENCING

- A. Place orders for all equipment in time to prevent any delay in construction schedule or completion of project. If any materials or equipment are not ordered in time, additional charges made by equipment manufacturers to complete their equipment in time to meet the construction schedule, together with any special handling charges, shall be borne by this Contractor.
- B. The Contractor shall coordinate production and delivery schedule for all Owner-supplied equipment with the equipment suppliers to ensure that all Owner-supplied equipment is delivered to site in coordination with the construction schedule and in such a manner as to cause no delays in completion of the Contract as scheduled.

1.09 REQUIREMENTS

- A. The contract drawings indicate the extent and general arrangements of the conduit wiring systems, etc. If any departures from the contract drawings are deemed necessary by the Contractor, details of such departures and the reasons therefore shall be submitted as soon as practicable, and within thirty-five (35) days after award of the electrical contract.
- B. Unless material list and data is received as a complete and all-inclusive submittal within the stipulated time all items shall be provided as specified, with no deviations permitted.
- C. Any and all additional costs incurred by the substitution of electrical material or equipment, or installation thereof, whether architectural, structural, plumbing, mechanical or electrical, shall be borne by the Contractor under this Section.
- D. Burden of proof of equality of any substitution for a specified product is the responsibility of this Contractor.
- E. Where required by Architect to ascertain equality of substitute product, Contractor may be requested to provide the specified item and the submitted substitution for comparison, at no additional cost to the Owner.

1.10 DESCRIPTION OF DEMOLITION AND REPLACEMENT WORK

- A. This project includes the demolition, replacement, modification, and enhancement of existing facilities. As such, the project scope for this contractor shall include all associated electrical, system upgrades and demolition/removal work at the existing building. The intent is that all systems will be complete and functional at the completion of this contract and that all old systems, equipment, feeders, circuits, wiring, and related devices (no longer used) be completely and neatly removed. Where discrepancies between the drawings and existing conditions are noted, the Architect or Owner shall be notified immediately for resolution.
- B. As with every renovation project, the electrical work will include (and require) exploration and other field work on a daily basis to complete the new designed equipment and connections within the constraints of the existing building and existing site conditions.
- C. The contractor shall include as part of the base bid, sufficient labor hours to provide such exploration and field work throughout the duration of the project. Change orders for miscellaneous coordination of existing conditions will not be approved unless specific and latent conditions are uncovered that warrant such additional compensation or require additional work not shown on the drawings or included in the specifications, or implied by the designed conditions.
- D. New raceways and wiring to new and renovated equipment are to be installed unless otherwise noted. Where raceways are installed in accessible concealed locations (i.e. unfinished spaces or

electrical / mechanical / attic spaces), EMT with wire shall be used. Where new wiring is required to be routed through existing walls and ceilings that cannot readily be accessible for new conduit, MC cable or flex conduit and wiring may be installed, fished through and secured in each space as required by Code. Non-metallic sheathed cable shall not be utilized on this project.

- E. All new raceways shall be installed concealed and all new equipment installed flush, unless otherwise noted on the drawings or in these specifications.

1.11 GUARANTEE

- A. This Contractor shall guarantee that all work executed under this Section will be free from defects of materials and workmanship for a period of one (1) year or as per the General Conditions of this project, whichever is longer. Dates shall be from the date of final acceptance of the building. The contractor shall further guarantee that he will, at his own expense, repair and replace all such defective work, and all other work damaged thereby, which becomes defective during the term of the guarantee. Such repair or replacement shall be guaranteed for one (1) year from the date of repair or replacement.

1.12 IDENTIFICATION

- A. Switchgear, switchboards, distribution panels, and feeder circuit breakers therein, panels, disconnect switches, motor starters, transformers, motor disconnect switches, cabinets, and other apparatus used for the operation of, or control of circuits, appliances or equipment, shall be properly identified by means of engraved laminated plastic descriptive nameplates mounted on apparatus using stainless steel screws. Nameplates shall have white letters with black background and be submitted to the Architect for approval. Cardholders in any form are not acceptable.
- B. Provide p-touch style labeling of circuit designations for all receptacles on the project.
- C. Each branch circuit of panel boards to have a permanently fixed number with load directory, mounted under celluloid on inside of cabinet door, showing circuit numbers and typewritten description of equipment supplied by breakers. Where changes are made to existing panelboards, newly typewritten circuit directories shall be prepared to replace existing directories.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Refer to applicable Division 26 Sections for complete products specifications.

2.02 MATERIALS

- A. Materials of the same type or classification, used for the same purpose, shall be the product of the same manufacturer.

2.03 ACCEPTABLE MANUFACTURERS

- A. Materials shall be of make mentioned elsewhere in this specification. All materials shall be the best of their several kinds, perfectly new and approved by the Underwriters' Laboratories.
- B. Where material, equipment, apparatus or other products are specified by manufacturer, brand name, type or catalog number, such designation is to establish standards of desired quality, style and utility and shall be the basis of the bid. Materials so specified shall be furnished under the contract unless changed by written approval of the Architect. Where two or more designations are listed, choice shall be optional with this Contractor, but this Contractor must submit his choice for final approval.

2.04 POSTED OPERATING INSTRUCTIONS

- A. Furnish approved operating instructions for systems and equipment where indicated in the technical sections for use by operation and maintenance personnel. The operating instructions

shall include wiring diagrams, control diagrams, and control sequence for each principal system and equipment. Print or engrave operating instructions and frame under glass or in approved laminated plastic. Post instructions as directed. Attach or post operating instructions adjacent to each principal system and equipment including startup, proper adjustment, operating, lubrication, shutdown, safety precautions, procedure in the event of equipment failure, and other items of instruction as recommended by the manufacturer of each system or equipment. Provide weather-resistant materials or weatherproof enclosures for operating instruction exposed to the weather. Operating instruction shall not fade when exposed to sunlight and shall be secured to prevent easy removal or peeling.

2.05 CATALOGED PRODUCTS/SERVICE AVAILABILITY

- A. Materials and equipment shall be current products by manufacturers regularly engaged in the production of such products. Products shall have been in satisfactory commercial or industrial use for 2 years prior to bid opening. The 2-year period shall include applications of equipment and materials under similar circumstances and of similar size. The 2-year period shall be satisfactorily completed by a product for sale on the commercial market through advertisements, manufacturers' catalogs, or brochures. Products having less than a 2-year field service record will be acceptable if a certified record of satisfactory field operation for not less than 6,000 hours, exclusive of the manufacturers' factory or laboratory tests, is furnished. The equipment items shall be supported by service organizations which are reasonable convenient to the equipment installation in order to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Examine the areas and conditions under which the work of this Section will be installed. Correct conditions detrimental to the proper and timely completion of the Work. Do not proceed until unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Drawings:
 - 1. The general arrangement and location of wiring and equipment is shown on the electrical drawings and shall be installed in accordance therewith, except for minor changes required by conflict with the work of other trades.
 - 2. The Contractor shall coordinate and verify equipment mounting requirements with the devices or equipment to be installed, prior to rough in.
 - 3. Drawings indicate the circuit and panel which supplies each device or fixture. Provide and install conduit and conductors to make all connections from panel to nearest device and from first device to additional devices on same circuit. Conduit size and fill shall satisfy NEC requirements. Two or three different phases supplied by a 3-phase panel may share a single neutral only if circuit positions are adjacent in the panel. Do not exceed 4 #12 or 3 #10 conductors in a 1/2" conduit, 7 #12 or 5 #10 in a 3/4" conduit, and 11 #12 or 9 #10 in a 1" conduit, unless otherwise noted. Provide common handle-tie on breakers for multi-wire branch circuits (with common neutral), per NEC. If more than three current carrying conductors are installed in one conduit, conductor size shall be increased as required per NEC. Do not share neutrals for branch circuit runs to electronic equipment or where noted on the drawings.
 - 4. Control wiring is generally not shown on the plans. Contractor shall refer to control diagrams and provide and install all wiring and raceways required to make all interconnections.
 - 5. All branch circuit wiring No. 12 or No. 10 as noted, all control wiring No. 14, except as noted next to "slash marks" on the drawings, or as noted under "Wire," as specified herein.

6. All dimensions, together with locations of doors, partitions, etc. are to be taken from the Architectural Drawings, verified at site by this Contractor.
 7. Maintain "as-built" records at all times, showing the exact location of concealed conduits and feeders installed under this contract, and actual numbering of each circuit. Upon completion of work and before acceptance can be considered, this Contractor must forward to the Architect, updated CAD plans, corrected to show the electrical work as actually installed.
 8. All standard 20A branch circuit conductors shall be #12 minimum for up to 75 linear circuit feet, #10 minimum for up to 150 linear circuit feet, and #8 for runs longer than 150 feet.
- B. Measurements: Before ordering any material or closing in any work, verify all measurements on the job. Any differences found between dimensions on the drawings and actual measurements shall be brought to the Architect's attention for consideration before proceeding.

3.03 FIELD QUALITY CONTROL

- A. All workmanship shall be first class and carried out in a manner satisfactory to and approved by the Architect.
- B. This Contractor shall personally, or through an authorized and competent representative, constantly supervise the work and so far as possible keep the same foreman and workmen on the job throughout.

3.04 INSTALLATION/APPLICATION/ERECTION

- A. All electrical raceways and devices shall be installed concealed (for raceways) and/or flush mounted (for devices), unless otherwise noted. Provide cut-in boxes and "fish" flexible MC or flex conduit and wire through existing walls to remain, unless shown otherwise on plans. Cut and patch to facilitate such installation to match adjacent and original finish.
- B. All cutting, repairing and structural reinforcing for the installation of this work shall be done by the General Contractor in conformance with the Architect's requirements.

3.05 TEMPORARY LIGHTING AND POWER

- A. Provide and install temporary lighting and power systems for the duration of construction, of adequate size to accommodate the required lighting and power loads. Coordinate with other trades to insure adequate sizing.
- B. Provide distribution equipment as required to support all construction activities.

3.06 FIRE STOPPING AND FIRE RATED PENETRATIONS

- A. All electrical equipment mounted in, on, or through fire rated construction shall be installed to maintain the fire rating of the construction.
- B. Provide fire rated pads (or other suitable assembly) around all electrical junction boxes in fire rated walls/ceilings/floors to maintain the fire rating.
- C. Provide fire rated construction around all recessed light fixtures and/or panel board / cabinets mounted flush in fire rated walls to maintain the fire rating. Coordinate depth of construction with other trades to avoid conflicts.
- D. Conduit sleeves shall be provided as a means of routing cables through fire-rated walls or floors. Openings in sleeves and conduits used for system cables and those which remain (empty) spare shall be sealed with an approved fireproof, removable sagging material. Sleeves which pass vertically from floor to floor shall be sealed in a similar manner using an approved re-enterable system. Additional penetrations through rated assemblies necessary for passage of tel/data wiring shall be made using an approved method and permanently sealed after installation of cables.

3.07 ADJUSTING AND CLEANING

- A. All electrical equipment, including existing equipment not "finish painted" under other sections, shall be touched up where finished surface is marred or damaged.
- B. All equipment shall be left in clean condition, with all shipping and otherwise unnecessary labels removed there from.

3.08 SCHEDULES

- A. Coordination: Coordinate installation of electrical items with the schedule for other work to prevent unnecessary delays in the total Work.

3.09 WARNING SIGN MOUNTING

- A. Provide the number of signs required to be readable from each accessible side, but space the signs a maximum of 30 feet apart.

3.10 PAINTING OF EQUIPMENT

- A. Factory Applied: Electrical equipment shall have factory-applied painting systems which shall, as a minimum, meet the requirements of NEMA ICS 6 corrosion-resistance test, except equipment specified to meet requirements of ANSI C37.20 shall have a finish as specified in ANSI C37.20.
- B. Field Applied: Paint electrical equipment as required to match finish or meet safety criteria. Painting shall be as specified in the respective equipment section.

3.11 TESTS

- A. Testing and inspection: See Section 26 08 00 - Testing.

END OF SECTION

SECTION 26 0800

TESTING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Work Included in This Section: All materials, labor, equipment, services, and incidentals necessary to perform the testing and inspection of the electrical work, including but not limited to the general systems noted below:
 - 1. Grounding system.
 - 2. Distribution system.
 - 3. Any other electrical work as might reasonably be implied as required, even though not specifically mentioned herein or shown on the drawings.
 - 4. All work shall comply with Sections 26 05 00 and 26 27 00.
 - 5. In addition to the general system tests and inspections indicated above, the Contractor shall perform the following inspections and tests. The Contractor shall provide all material, equipment, labor, and technical supervision to perform such tests and inspections:
 - a. System Grounding.
 - b. Panelboard.
 - c. Feeder.
 - 6. The purpose of these tests is to assure that all tested electrical equipment is operational and within industry and manufacturer's tolerances and is installed in accordance with design specifications.

1.02 APPLICABLE CODES, STANDARDS, AND REFERENCES

- A. All inspections and tests shall be in accordance with the International Electrical Testing Association - Acceptance Testing Specifications ATS-2021 (referred to herein as NETA ATS-2021).

1.03 QUALIFICATIONS

- A. Qualifications of the Testing Firm shall be as listed in NETA ATS-2021.

PART 2 - PRODUCTS

2.01 THIS ARTICLE DOES NOT APPLY TO TESTING.

PART 3 - EXECUTION

3.01 GENERAL

- A. Final test and inspection to be conducted in presence of the Authority having Jurisdiction (AHJ) or Inspector of Record (IOR). Test shall be conducted at the expense of, and managed by, the Contractor, at a mutually agreed time. Submit written test report of all tests, with test result values and overall outcome.
- B. All portions of the electrical installation shall be inspected and tested to ensure safety to building occupants, operating personnel, conformity to code authorities and Contract Documents, and for proper system operation.

3.02 INSPECTIONS AND TESTS

- A. Tests: Field tests shall be performed and reports submitted, as per Section 26 05 00, Part 1.
 - 1. Final Inspection Certificates: Prior to final payment approval, deliver to the Owner, with a copy to the Architect, signed certificates of final inspection by the appropriate local authority having jurisdiction.
 - 2. Grounding System:
 - a. All ground connections shall be checked and the entire system shall be checked for continuity.

- b. Ground tests shall meet or exceed the requirements of the National Electric Code.
- 3. Power Distribution System:
 - a. Test panel board for grounds and shorts with main disconnected from feeder, branch circuits connected and circuit breakers closed, all fixtures in place and permanently connected and grounding jumper to neutral lifted and with all wall switches closed.
 - b. Test each individual circuit at panelboard with equipment connected for proper operation. Inspect the interior of panel.
 - c. Check verification of color coding, tagging, numbering, and splice make-up.
 - d. Verify that all conductors associated with each circuit are in same conduit.

END OF SECTION

SECTION 26 2700

BASIC ELECTRICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Work included in this Section: All materials, labor, equipment, services, and incidentals necessary to install the electrical work as shown on the drawings and as specified hereinafter, including but not limited to the work listed below:
 - 1. Raceways, feeders, branch circuit wiring, wiring devices, safety switches and connections to all equipment requiring electric service.
- B. Any other electrical work as might reasonably be implied as required, even though not specifically mentioned herein or shown on the drawings.
- C. All work shall comply with Section 26 05 00.

1.02 RELATED WORK

- A. Division 23 - Motors and Mechanical Equipment Installation

1.03 SUBMITTALS

- A. Comply with the provisions of Section 26 05 00.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Refer to Section 26 05 00, Basic Electrical Requirements, Part 2 - Products.
- B. List of Equipment Manufacturers:
- C. Conduit and Conduit Fittings
 - 1. Allied Tube and Conduit, Wester Tube and Conduit, LTV Steel Tubular, National Electric Products, AFC, Republic Steel Corporation, Rome Cable Corporation, United States Steel Corporation, Killark Electric Manufacturing Company, Racor, VAW Aluminum Company, Bridgeport, Steel City, Thomas & Betts, Carlon, O.Z. Gedney, Appleton, Regal.
- D. Wire and Cable (600V)
 - 1. American Wire Company, General Wire and Cable Corporation, Okonite Company, Rome Cable Corporation, Cerrowire, American Insulated Wire, AFC Cable Systems, Essex, Simplex Wire and Cable Company, Southwire.
- E. Solderless Lugs and Grounding Connections
 - 1. Burndy Engineering Company Inc, O.Z. Gedney Company Inc, Penn Union Electric Corporation, Thomas and Betts Company Inc.
- F. Pull Boxes, Gutters, Special Cabinets
 - 1. Schneider-Square D Company, Columbia Electric Manufacturing Company, General Electric Company, Eaton Inc.
- G. Outlet Boxes
 - 1. Appleton Electric Company, Killark Electric Manufacturing Company, Lew Electric Fittings Company, National Electric Products Corporation, Racor, Steel City Electric Company, Carlon, Bowers.
- H. Wiring Devices
 - 1. Leviton, Arrow-Hart, Cooper, Hubbell, Lutron, Bryant.
- I. Conduit Racks, Hangers
 - 1. General Electric Company, Killark Electric Manufacturing Company, Caddy, National Electric Products Corporation, Republic Steel Corporation, Rome Cable Corporation, United States Steel Corporation, VAW Aluminum Company, Superstrut, B-Line.

- J. Safety Switches (Disconnect and Fusible)
 - 1. Schneider-Square D Company, Eaton-Cutler Hammer Inc, General Electric Company.
- K. Fuses
 - 1. Bussman Manufacturing Company, Chase-Shawmut Company.
- L. Firestopping
 - 1. 3M, Nelson.

2.02 MATERIALS

- A. Panelboards:
 - 1. Flush mounted with branch circuits as indicated on the drawings.
 - 2. Enclosures: code gauge galvanized sheet steel with welded full flange end pieces, stretcher- leveled steel trim, backpan and door.
 - 3. Bussing of copper with silver-plated contact surfaces.
 - 4. Trims on surface-mounted cabinets secured with nickel-plated screws with cup washers, bottom of all trims to have lugs for resting on cabinet flange.
 - 5. Panel shall be 20 inches minimum in width, provided with approved gutter space, barriers and adjustable supports. Doors mounted with concealed hinges provided with combination spring latch and lock. Doors and trims and surface mounted cabinets primed and finished with one coat baked on gray enamel. All visible panel enclosures and covers in finished (occupied) areas shall be painted to match adjacent wall finish.
 - 6. Breakers on same phase to be aligned horizontally. Each panel provided with quantity (5) spare handle locks. Install handle locks on all breakers serving fire alarm equipment.
 - 7. Each branch circuit of panelboards to have a permanently fixed number with one word directory, mounted under celluloid on inside of cabinet door, showing circuit numbers and typewritten description of outlets controlled by breakers. Color code mains and each breaker terminal, same as conductor insulation.
 - 8. Each panel shall be equipped with a copper ground bus.
 - 9. All panels shall be fully bussed to accept future circuit breakers, with breaker hardware provided where indicated on the drawings.
 - 10. Panel board submittals shall include diagrams of the circuit breaker arrangements in the panels. Arrange circuit breakers in panels exactly as shown on the panel schedules in the construction documents - no deviations permitted.
- B. Circuit Breakers:
 - 1. General: Circuit breakers shall be molded case rated for 240 volts, multiple or single pole and amperage rating as shown on the drawings, bolt on, manually operated with "de-ion" arc chutes.
 - 2. Main circuit breaker shall be rated to interrupt the available short circuit current, as indicated on the drawings.
 - 3. Branch circuit breakers shall be rated for the amps interrupting capacity or U.L. series rated with the distribution and main circuit breakers, General Electric type THQB or equal, minimum 10,000 A.I.C for 120/208 volt.
 - 4. Where mechanical equipment is U.L. listed for overcurrent protection with fuses or HACR type circuit breakers, provide fuses where a fused switch is shown. Where the overcurrent protection is a circuit breaker provide HACR, (Heating, Air-Conditioning and Refrigeration) type.
- C. Raceways: Only the raceways specified below shall be utilized on this project. Substitutions shall be pre-approved in writing. All bare conduit ends (stub-ups or stub-outs) shall be provided with bushed ends or manufactured insulated throat connectors:
 - 1. Rigid Type - hot dip galvanized or sherardized steel, use on all exterior locations, below grade or in concrete slab, and to 18" on either side of structural expansion joints in floor

slabs, with completely watertight, threaded fittings throughout. Compression fittings are not acceptable.

- a. All rigid steel conduit couplings and elbows in soil or concrete or under membrane to be ½ lap wrapped with Scotch #50 tape and threaded ends coated with T&B #S.C.40 rust inhibitor prior to installation of couplings.
- b. ½ lap wrap all rigid steel conduit stub-ups from slab or grade to 6" above finished grade level with Scotch #50 tape.
2. In lieu of rigid steel conduit for power and control raceways and branch circuit conduits in soil or concrete slabs, "Schedule 40" PVC with Schedule 80 PVC conduit elbows and stub-ups may be used with code size (minimum No. 12) ground wire. A "stub-up" is considered to terminate 6" above the finished surface.
 - a. Schedule 80 PVC conduit shall be used in all concrete footings or foundations and to 18" of either side of footings or foundation walls.
 - b. Schedule 80 PVC conduit shall be used in all concrete masonry unit (CMU) walls or columns.
 - c. All conduit runs in concrete floor slabs (where allowed) shall be installed to comply with all applicable CBC and structural codes to maintain the structural integrity of the floor slab. Where conflicts occur, alternate routing shall be provided at no additional cost to the Owner.
 - d. Where schedule 80 PVC is coupled to schedule 40 or other raceways with differing interior dimensions, each end shall be reamed with a reaming tool to reduce the edge profile for protection of the passing conductors during the pull.
3. Electrical metallic tubing shall be used exposed in interior electrical and mechanical rooms, in interior unfinished spaces, and in interior concealed and furred spaces, made up with steel watertight or steel set screw type fittings and couplings. EMT shall not be used in under-building crawl spaces or other areas subject to moisture. Set screws shall have hardened points. Die-cast zinc fittings are unacceptable.
4. Use flexible conduit for all motor, transformer and recessed fixture connections, minimum ½"; "Seal tight" type used outdoors and in all wet locations, provide with code size (minimum No. 12) bare ground wire in all flexible conduit.
5. All conduit cuts (factory or field cut) shall be perfectly square to the length of the conduit and cut ends shall be reamed with a reaming tool to provide a smooth edge to the passing conductors and to remove all burs and scrapes. Use of a hand file is not acceptable.
6. All electrical raceways shall be installed concealed, unless otherwise noted. Cut and patch to facilitate such installation to match adjacent and original finish. All exposed conduits, where required, shall be installed parallel to building members.
7. Where existing conditions preclude the installation of EMT in existing walls to remain, provide and install cut-in type boxes and "fish" flexible MC or flex conduit and wire through existing walls to remain, unless shown otherwise on plans.
8. Fasten conduits securely to boxes with locknuts and bushings to provide good electrical continuity.
9. Provide chrome escutcheon plates at all exposed wall, ceiling and floor conduit penetrations.
10. Support individual suspended conduits with heavy malleable strap or rod hangers; supports for ½ inch or ¾ inch conduit placed on maximum 7-foot centers; maximum 10-foot centers on conduits 1 inch or larger.
11. Support multiple conduit runs from Kindorf B907 channels with C-105 and C-106 straps.
12. Conduit bends - long radius.
13. Flash conduits through roof, using approved roof jack; coordinate with General Contractor.
14. To facilitate pulling of feeder conductors, install junction boxes as shown or required.

15. Minimum cover of conduits in ground outside of building - 24 inches, unless otherwise noted.
- D. Outlet Boxes and Junction Boxes. Verify all backbox requirements with devices to be installed prior to rough-in.
1. One piece steel knockout type drawn boxes, unless otherwise noted, sized as required for conditions at each outlet or as noted.
 2. Flush-mounted boxes equipped with galvanized steel raised covers for device mounting flush with finished surface. Provide extension rings as required on all acoustical or additional wall treatment areas to bring top of cover flush with finished surface (coordinate with architectural drawings). Devices shall be capable of being tightly mounted to boxes without distorting or bending device or mounting hardware.
 3. Switch and receptacle outlets - not smaller than 4-inch-square in furred walls, with raised cover for single device; ganged where required.
 4. Outlet and switch boxes for wet locations, cast aluminum FS or FD type with cast aluminum gasketed spring lid cover. Weatherproof "Bell" type boxes are not acceptable.
 5. All connectors from conduit to junction or outlet boxes shall have insulated throats. Connectors shall be manufactured with insulated throats as integral part. Insertable insulated throats are unacceptable.
 6. Conduit Bodies: Malleable iron type, with lubricated spring steel clips over edge of conduit body, O-Z/Gedney type EW, or equal.
 7. Pull boxes: All site pull boxes shall be flush in-ground concrete, with engraved covers identifying service use (i.e. electrical, communications, etc.). Boxes shall be Nema 250, Type 6, outside flanged, with recessed cover for flush mounting, by Christy or equal, with required depth to provide box and conduit depths shown or required.
 - a. Provide concrete covers for all boxes in planted or paved areas (up to available concrete cover size).
 - b. Provide galvanized steel covers for all larger boxes (when concrete is not available), or in traffic areas. No cast iron covers.
 - c. Provide bolted covers and slab bottoms (with grouted perimeter) or vault type boxes for all electrical distribution and signal system pull boxes used for site distribution, to prevent rodent entry. No collar type boxes with dirt or gravel bottoms
 - d. Provide drain hole at bottom of all vault type boxes, with loose aggregate base below, for proper drainage.
 - e. All covers to be completely flush with finished adjacent surfaces.
 - f. Provide galvanized steel H20 rated covers and installation of box rated for H20 in all traffic areas.
 - g. Provide pullboxes per utility company specifications for all electrical primary and secondary services and for telecommunications service runs. Verify exact size and type prior to order with each utility company.
- E. Wire and Cable (line voltage and signal systems):
1. 600-volt class where used for or run with line voltage power wiring, insulation color coded, minimum No. 12 AWG for power branch circuits, No. 14 for power control circuits, and wiring size and type as directed by signal system manufacturer for each signal system.
 2. All conductors shall be copper.
 3. Size and insulation type:
 - a. Standard locations: #12 to #1 AWG: THWN for wet locations and THHN for dry locations. #1/0 through #4/0 AWG: XHHW (55 Mils). 250MCM and larger: XHHW (65 Mils). All wire sizes used shall be based on a 75 degree insulation rating, unless specifically used with 90 degree rated breakers and devices.

- b. All wiring (power and signal) installed underground between buildings, or in wet or damp locations, shall be outside listed and rated for wet locations.
- c. High temperature and non-standard locations: Provide wire type and insulation category suitable for area of use as defined in NEC table 310-13.
4. Conductors No. 8 and larger and as otherwise noted on drawings shall be stranded. Power conductors No. 12 and No. 10 shall be solid or stranded. Power conductors No. 14 or smaller shall be solid.
5. Install all wiring branch circuits and feeders (low voltage and line voltage) in conduit unless noted otherwise on the drawings. Contractor shall mandrel all feeders and pass a "sock" (or utilize other suitable means) through each raceway prior to pull to remove all water and construction debris. All raceways shall be completely clear of any obstructions or debris and all cut ends shall be reamed, prior to pull. Utilize pulling compound on all runs to insure minimum friction and pulling tension.
6. Megger test all feeders prior to energizing. See section 26 08 00 for additional information.
7. Approximately balance branch circuits about the neutral conductors in panels.
8. Connections to devices from "thru-feed" branch circuit conductors to be made with pigtails, with no interruption of the branch circuit conductors.
9. Neutral conductor identified by white outer braid, with different tracers of "EZ" numbering tags used where more than one neutral conductor is contained in a single raceway.
10. Neatly arrange and "marlin" wires in panels and distribution panelboards with "T and B Ty-rap" or approved equal plastic type strapping.
11. All wire and cable shall bear the Underwriters' Label, brought to the job in unbroken packages; wire color-coded as follows:

a. Voltage	Phasing	A	B	C	N
b. 120/208	3PH4W	Black	Red	Blue	White
c. 2083PH	3W	Black	Red	Blue	--
12. The equipment grounding conductor shall be insulated copper; where it is insulated, the insulation shall be colored green.
13. Label each wire of each electrical system in each pull box, junction box, outlet box, terminal cabinet, and panelboard in which it appears with "EZ" numbering tags indicating the connected circuit numbers.
- F. Switches: Model numbers are Hubbell, color to be selected by architect, unless otherwise noted. All switches to utilize screw terminals for wire connections - no plug-in terminations:
 1. Pilot Light (on with load on) - Hubbell No. 1221-PLC
 2. Motor Rated Double Pole (30A) - Hubbell No. 7832
 3. Motor Rated Three Pole (30A) - Hubbell No. 7810.
- G. Receptacles: Mounting straps and contacts shall be one piece design, constructed of minimum .050" solid brass. Base shall be high strength, heat resistant, glass reinforced nylon. Device shall accept up to #10 wire, side or back wired with screw terminals - no plug-in terminations. Hubbell, Leviton, Pass & Seymore, or equal. Color to be selected by architect, unless otherwise noted. Numbers listed below are Hubbell:
 1. 20A 3PG 125 volt ground fault interrupter receptacle; GFI receptacles shall conform to the 2006 UL requirements to a) interrupt power to the unit in the event of internal failure, or b) provide an audible or visual indication of internal failure of the GFI; No. GF20 or equal. Through wiring to down stream GFI designated receptacles is not acceptable.
 2. GFI Module (blank face), no indicator light, 20A - No. GFBF20 or equal.
 3. All receptacles located in exterior or wet locations shall be corrosion resistant with UV stabilized body.
 4. All receptacles in locations identified in NEC 406.12 (i.e. dwelling units, hotel/motel guest rooms, child care, preschool, K-12 schools, business office common areas, clinics, medical,

and outpatient facilities, assembly area common areas, dormitory units, and assisted living units) shall be tamper resistant.

- H. Plates: Leviton, or equal, except as noted:
 - 1. The color of all faceplates shall match the color of the devices installed under/in the faceplate, except as specifically noted otherwise.
 - 2. For flush outlet boxes, for switches, and receptacles: nylon, color to be selected by architect, unless otherwise noted.
 - 3. Plates for surface-mounted outlets: galvanized steel unless otherwise noted.
 - 4. Weatherproof duplex receptacle plates for exterior locations with ground fault interrupter receptacles in type FS or FD boxes - Hubbell #WPFS26 or compatible equal. Verify cover compatibility with box type and device installed.
 - 5. Weatherproof "in-use" cover, vertical or horizontal mount, for exterior with GFCI receptacles. Die-cast metal alloy, TayMac MX series or equal with openings to match installed devices.
 - 6. Locking plates for duplex receptacles where noted; Pass & Seymour #WP26-L (non-weather proof).
 - 7. Locking plates for duplex exterior GFCI receptacles (or in wet or damp locations); Heavy duty cast aluminum flush cover with locking latch and key, Pass & Seymour #4600 with appropriate mounting plate for type of device installed. Coordinate backbox requirements and finished wall trim-out with wall installer prior to rough-in to insure an adequate and neat trim appearance upon completion.
- I. Equipment Disconnects: All disconnects shall be located to allow proper code required clearance in each area. Locations shown on drawings are diagrammatic only. The contractor shall coordinate exact locations in the field (with other trades) prior to rough-in to insure proper clearances.
 - 1. Motor Disconnect Switches and Safety Switches: General Electric Company Heavy Duty Type "THD", cover interlocked with operating handle so that cover cannot be opened with switch in closed position and switch cannot be closed with cover in open position. 240V or 480V rating, single or multi-pole as required or as noted on drawings, in Nema 1 enclosure indoors or Nema 3R enclosure outdoors unless otherwise noted. Provide dual element motor circuit fuses sized as recommended by equipment manufacturer (for final equipment actually installed).
 - 2. Code required disconnects: Provide a local disconnect in addition to the branch circuit protection device for all equipment as required by code (whether shown or not). Disconnects shall consist of a motor rated switch (or disconnect) for all motor loads less than 3/4HP or other suitable disconnect sized to match branch circuit conductors and load current of equipment, with number of poles as required.
- J. Lugs and Connectors: Thomas and Betts "lock-tite", for No. 4 and larger wire; 3M "Scotchlock" fixed spring screw-on type wire connectors with insulator for No. 6 and smaller wire.
 - 1. All splices shall be made up with screw-on type connectors - no plug-in or push-in style connectors acceptable. Wires shall be solidly twisted together with electricians pliers before screw-on connector is installed to ensure a proper connection in the event of wire nut failure. No exceptions.
 - 2. Connectors listed or labeled for "no wire twisting required" are not an acceptable substitute for actual wire twisting.
 - 3. Utilize porcelain type connectors in all high temperature environments (above 105 degrees Celsius).
- K. Splice Insulation: "Scotch" electrical tape with vinyl plastic backing or rubber tape with protective friction tape for interior work.
 - 1. Splices in electrical cables of 600 volt insulation class in underground system duct shall be made only in accessible locations such as pullboxes, light pole handholes, etc., using a

compression connector on the conductor and by insulating and waterproofing (for exterior and underground locations) by one of the following methods:

- a. Cast type splice insulation shall be provided by means of a molded casting process employing a thermosetting epoxy resin insulating material which shall be applied by a gravity poured method or by a pressure injected method. The component materials of the resin insulation shall be in a packaged form ready for convenient mixing after removing from the package. Do not allow the cables to be removed until after the splicing material has completely set.
- b. Gravity poured method shall employ materials and equipment contained in an approved commercial splicing kit which includes a mold suitable for the cables to be applied. When the mold is in place around the joined conductors, the resin mix shall be prepared and poured into the mold. Do not allow cables to be moved until after the splicing materials have completely set.

L. Identification: Refer to Section 26 05 00.

M. Firestopping: as manufactured by 3M Fire Protection Products or equal.

1. Fire-rated and smoke barrier construction: Maintain barrier and structural floor fire and smoke resistance ratings including resistance to cold smoke at all penetrations, connections with other surfaces or types of construction, at separations required to permit building movement and sound vibration absorption, and at other construction gaps.
2. Systems or devices listed in the UL Fire Resistance Directory under categories XHCR and XHEZ may be used, providing that it conforms to the construction type, penetration type, annular space requirements and fire rating involved in each separate instance, and that the system be symmetrical for wall penetrations. Systems or devices must be asbestos free.

PART 3 - EXECUTION

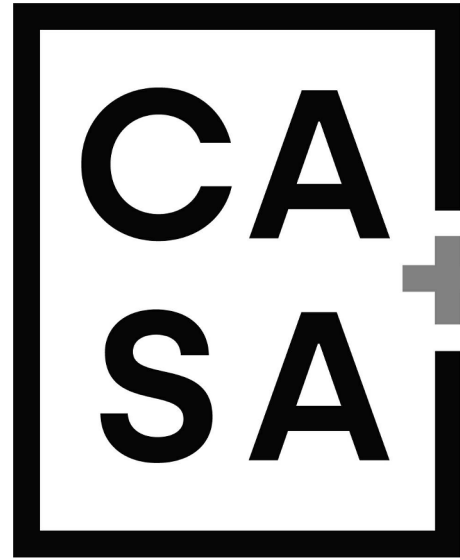
3.01 REFER TO BASIC ELECTRICAL REQUIREMENTS - SECTION 26 05 00 FOR WORK UNDER THIS SECTION.

3.02 TESTS

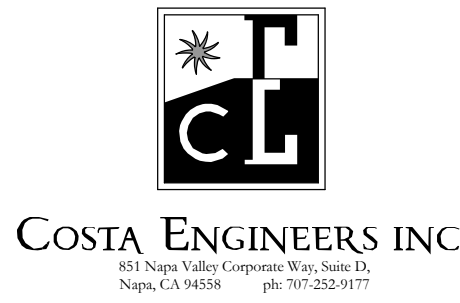
A. Testing and Inspection: See Section 26 08 00 - Testing.

END OF SECTION

DSA APP. NO:



STUDIO
1100 Lincoln Avenue Suite 202B
Napa, CA 94558



310 NOVA ALBINO WAY, SAN RAFAEL, CA 94903

OLD GALLINAS
OFFICE INTERIORS

251 NORTH SAN PEDRO RD.
SAN RAFAEL, CA 94903

SAN RAFAEL CITY SCHOOLS

PROJECT No.: 2024-030.00

DESIGN DEVELOPMENT

MECHANICAL
LEGENDS AND
SCHEDULES

M-1.1

HVAC LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
		EQUIPMENT TYPE
		EQUIPMENT NUMBER
		DETAIL / DRAWING NUMBER
		SHEET NUMBER
	SA OR OA	SECTION THRU SUPPLY AIR OR OUTSIDE AIR DUCT
	RA OR EA	SECTION THRU RETURN AIR OR EXHAUST AIR DUCT
		ROUND DUCT DOWN
	DN OR UP	SLOPE DUCT DOWN OR UP IN DIRECTION OF FLOW
	AL	ACOUSTICAL LINING
	FC	FLEXIBLE DUCT CONNECTION
	VD	VOLUME DAMPER
	FD	FIRE DAMPER
	TV	TURNING VANES
		FLEXIBLE DUCT
		45° ROUND DUCT TAKE-OFF
		45° RECTANGULAR DUCT TAKE-OFF
		90° TURN - ROUND DUCT
		90° RADIUS TURN - ROUND OR RECTANGULAR DUCT
		SQUARE TO ROUND DUCT TRANSITION
		DUCT TRANSITION
		RECTANGULAR DUCT 90° SPLIT
		THERMOSTAT @ 48" AFF MAX TO CENTER LINE
	AP	ACCESS PANEL
	POC	POINT OF CONNECTION
	POD	POINT OF DEMOLITION
	BHP	BRAKE HORSEPOWER
	HP	HORSEPOWER
	SAD	SEE ARCHITECTURAL DRAWINGS
	SSD	SEE STRUCTURAL DRAWINGS
	SCD	SEE CIVIL DRAWINGS
	AFC	ABOVE FINISH CEILING

ACCEPTANCE TESTING

WHEN CERTIFICATION IS REQUIRED BY TITLE 24, PART 1, SECTION 10-103.2, THE ACCEPTANCE TESTING SPECIFIED BY SECTION 120.5(a) SHALL BE PERFORMED BY A CERTIFIED MECHANICAL ACCEPTANCE TEST TECHNICIAN (CMATT). IF THE CMATT IS OPERATING AS AN EMPLOYEE, THE CMATT SHALL BE EMPLOYED BY A CERTIFIED MECHANICAL ACCEPTANCE TEST EMPLOYER. THE CMATT SHALL DISCLOSE ON THE CERTIFICATE OF ACCEPTANCE A VALID CMATT CERTIFICATION IDENTIFICATION NUMBER ISSUED BY AN APPROVED ACCEPTANCE TEST TECHNICIAN CERTIFICATION PROVIDER. THE CMATT SHALL COMPLETE ALL CERTIFICATE OF ACCEPTANCE DOCUMENTATION IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS IN SECTION 10-103(a)(4).

(ASHRAE 15.8.10.1) CMC 1109.4.1 Protection from Mechanical Damage. Passages shall not be obstructed by refrigerant piping. Refrigerant piping shall not be located in an elevator, dumbwaiter, or other shaft containing a moving object, or in a shaft that has openings to living quarters, or to means of egress. Refrigerant piping shall not be installed in an enclosed public stairway, stair landing, or means of egress. (ASHRAE 15.8.10.2)

APPLICABLE GOVERNING CODES:

2022 CALIFORNIA BUILDING CODE
2022 CALIFORNIA ELECTRICAL CODE
2022 CALIFORNIA MECHANICAL CODE
2022 CALIFORNIA PLUMBING CODE
2022 CALIFORNIA ENERGY CODE
2022 CALIFORNIA FIRE CODE
2022 CALIFORNIA GREEN BUILDING STANDARDS

BLDG 'MECHANICAL' SHEET LIST

1	M-1.1	MECHANICAL LEGENDS AND SCHEDULES
2	MD-2.1	BUILDING C MECHANICAL DEMO FLOOR PLAN
3	M-2.1	BUILDING C NEW MECHANICAL FLOOR PLAN
4	M-2.2	BUILDING C MECHANICAL ROOM
5	M-3.1	MECHANICAL DETAILS
6	M-4.1	VRV PIPING AND WIRING DIAGRAMS

BRANCH SELECTOR SCHEDULE

MARK	MFR	MODEL NUMBER	ELECTRICAL DATA			WEIGHT	REMARKS
			V-Ø-HZ	MCA	MOCP		
BS-01	DAIKIN	BSFQ54TVJ	208-1-60	0.6	15	73 lb	1
REMARKS: 1. MOUNT PER DETAIL B/M-3.1.							

VRV HEAT RECOVERY UNIT OUTDOOR SCHEDULE

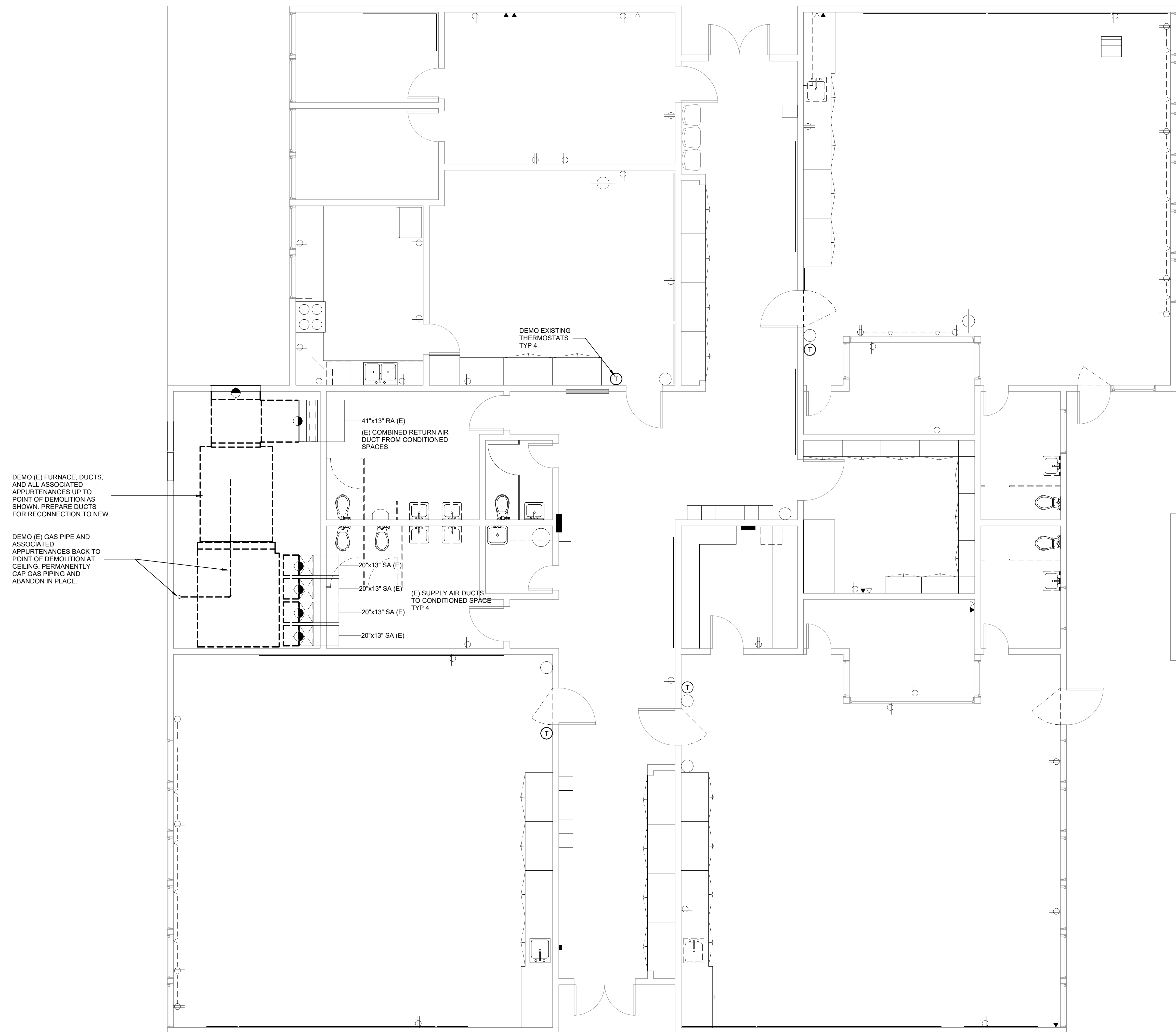
MARK	MFR	MODEL NO.	NOMINAL UNIT CAPACITIES (MBH)		ELECTRICAL DATA				SERVICE	REMARKS
			HEATING	COOLING	EER	V-Ø-HZ	MCA	MOP		
HR-01	DAIKIN	REYQ240AATJB	270000	230000	9.9	208-3-60	73.3	80	957 lb	BLDG C
REMARKS: 1. MOUNT PER DETAIL XXX. USE MASON SUPER W PAD, 0.20" MIN STATIC DEFLECTION. 2. FACTORY CHARGED WITH R-32 REFRIGERANT. 3. DRAIN CONDENSATE ACCORDING TO DRYWELL. SEE DETAIL D/M-3.1.										

VRV INDOOR UNIT SCHEDULE

MARK	MFR	MODEL	TON	AIRFLOW	RATED COOLING CAPACITY (BTU/h)	SENSIBLE COOLING CAPACITY (BTU/h)	RATED HEATING CAPACITY (BTU/h)	ELECTRICAL DATA			FILTER	WEIGHT	SERVICE	REMARKS
								V/Ø/HZ	MCA	MOCP				
FC-01	DAIKIN	FXTQ48TBVJUA	4	1520 CFM	48000	32700	54000	208-1-60	6.5	15	2" MERV 13	150 lb	BLDG C	1, 2, 3, 4, 5, 6
FC-02	DAIKIN	FXTQ48TBVJUA	4	1520 CFM	48000	32700	54000	208-1-60	6.5	15	2" MERV 13	150 lb	BLDG C	1, 2, 3, 4, 5, 6
FC-03	DAIKIN	FXTQ48TBVJUA	4	1520 CFM	48000	32700	54000	208-1-60	6.5	15	2" MERV 13	150 lb	BLDG C	1, 2, 3, 4, 5, 6
FC-04	DAIKIN	FXTQ48TBVJUA	4	1520 CFM	48000	32700	54000	208-1-60	6.5	15	2" MERV 13	150 lb	BLDG C	1, 2, 3, 4, 5, 6
REMARKS: 1. MULTI-POSITION UNIT MOUNTED PER DETAIL A/M-3.1. 2. PROVIDE WITH MICROMETL FILTER BOX AND 2" MERV 13 FILTER. 3. PROVIDE WITH DAIKIN THERMOSTAT AND CO2 SENSOR MOUNTED 48" AFF. CO2 MONITOR FOR MONITORING ONLY. 4. CONTROL DIAGRAM PER DETAIL. 5. PROVIDE WITH ALL NECESSARY REFRIGERANT PIPING AND APPURTENANCES, R32 REFRIGERANT. 6. PROVIDE CONDENSATE OVERFLOW SENSOR TO SHUT DOWN UNIT IN EVENT OF CONDENSATE OVERFLOW.														

OSA MECHANICAL VENTILATION SCHEDULE

ROOM #	ROOM NAME	Area	SF	ROOM CLASSIFICATION	CEC TABLE 120.1-A				SYSTEM DESIGN		SERVED BY
					(MIN) MIN	(MIN) MAX	(MIN) MIN	(MIN) MAX	DESIGN (OA)	DESIGN (OA)	
C1	(N) FACILITIES OFFICE	971	971	62- Office Buildings - Office Space	0.15	0.15	146	146	200	200	
C3	CLASSROOM	1007	1007	62- Educational Facilities - Classrooms Age 9 PLUS	0.15	0.38	152	383	400	400	
C4	(N) STAFF TRAINING ROOM	946	946	62- Educational Facilities - Classrooms Age 9 PLUS	0.15	0.38	142	360	400	400	
C5	STAFF	946	946	62- Office Buildings - Office Space	0.15	0.15	142	142	200	200	



DEMO (E) FURNACE, DUCTS, AND ALL ASSOCIATED APPURTENANCES UP TO POINT OF DEMOLITION AS SHOWN. PREPARE DUCTS FOR RECONNECTION TO NEW.

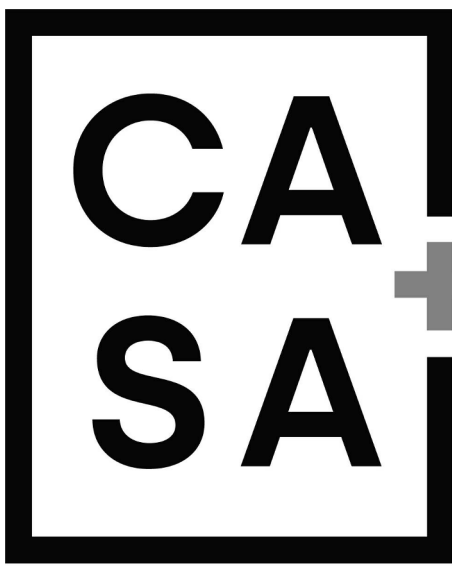
DEMO (E) GAS PIPE AND ASSOCIATED APPURTENANCES BACK TO POINT OF DEMOLITION AT CEILING. PERMANENTLY CAP GAS PIPING AND ABANDON IN PLACE.

1 BUILDING C MECHANICAL DEMO FLOOR PLAN
1/4" = 1'-0"

GENERAL NOTES

1. FOR MECHANICAL GENERAL NOTES, LEGENDS, AND SYMBOLS, REFER TO SHEET(S)
2. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE MECHANICAL WORK WITH OTHER TRADES.
3. THIS CONTRACTOR SHALL RETAIN SPECIFIC EQUIPMENT AS DIRECTED BY OWNER AND DELIVER TO OWNER SPECIFIED LOCATION.
4. ALL EQUIPMENT, MECHANICAL EQUIPMENT, PIPING, VALVING, CONTROLS, ETC. RENDERED USELESS BY THIS WORK SHALL BE DEMOLISHED AND REMOVED FROM THE SITE.
5. LOCATION OF EXISTING MECHANICAL EQUIPMENT, DUCTWORK, AIR OUTLETS, PIPING, CONTROLS, VALVING, ETC. HAS BEEN BASED ON THE BEST AVAILABLE INFORMATION OBTAINABLE AT THE SITE AND THROUGH RECORD DRAWINGS. VERIFY EXACT LOCATIONS, SIZES, AND EXTENT OF EXISTING SYSTEMS PRIOR TO START OF DEMOLITION WORK.
6. PATCH ALL WALLS, CEILINGS, ROOF AND OTHER SURFACES TO MATCH EXISTING CONDITIONS.
7. TEMPORARY CAP EXISTING OPEN DUCT REMOVE FROM REGISTERS DURING CONSTRUCTION. PREPARE DUCT FOR RECONNECTION.

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**OLD GALLINAS
OFFICE INTERIORS**

251 NORTH SAN PEDRO RD.
SAN RAFAEL, CA 94903

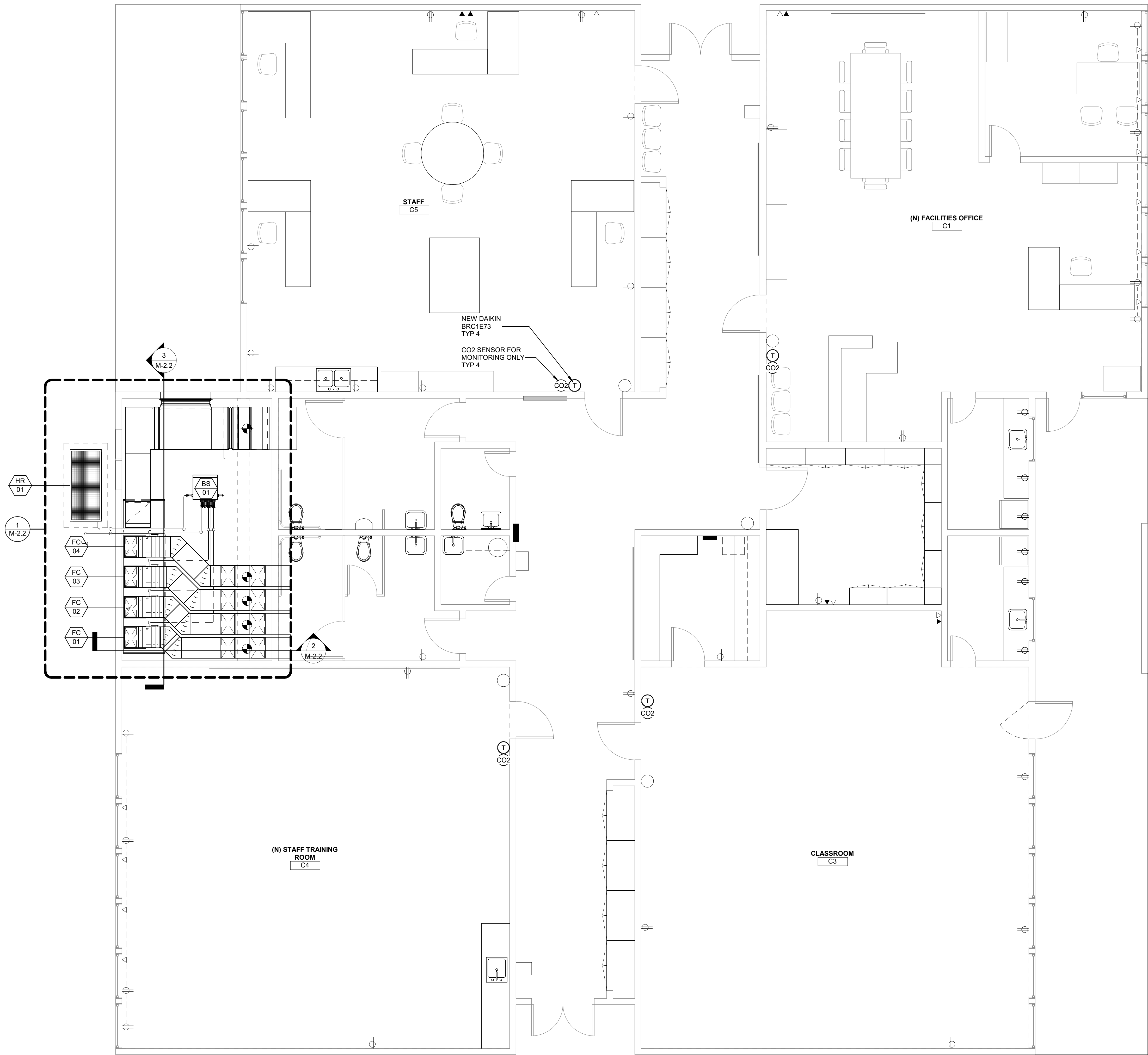
SAN RAFAEL CITY SCHOOLS

PROJECT No.: 2024-030.00

DESIGN DEVELOPMENT

**BUILDING C
MECHANICAL
DEMO FLOOR
PLAN**

MD-2.1

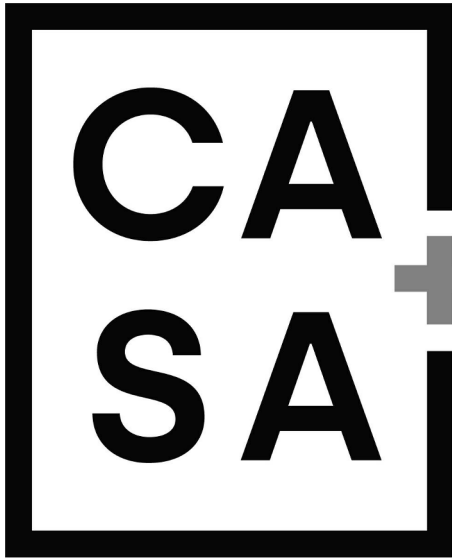


1 BUILDING C NEW MECHANICAL FLOOR PLAN
1/4" = 1'-0"

GENERAL NOTES

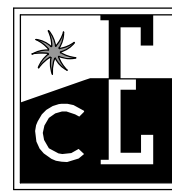
- A. FOR MECHANICAL GENERAL NOTES, LEGENDS, AND SYMBOLS, REFER TO SHEET(S)
- B. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE MECHANICAL WORK WITH OTHER TRADES. MAKE ANY OFFSETS AS REQUIRED TO AVOID CONFLICT WITH PIPING, LIGHT FIXTURES, SKYLIGHTS, ETC.
- C. CONTRACTOR SHALL COORDINATE ALL GRILLE LOCATIONS AND CEILING TYPES PRIOR TO ORDERING GRILLES. SEE ARCHITECTURAL CEILING PLANS AND ELECTRICAL LIGHTING PLANS.
- D. INSTALL T-STAT, & CO2 SENSOR 48 INCHES AFF MAX TO TOP OF BOX. PROVIDE WITH LOCKABLE COVER.
- E. ALL DUCT DIMENTIONS ARE INDICATING INSIDE DIMENTIONS OF THE FREE AREA OF DUCT, UNLESS OTHERWISE NOTED

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**OLD GALLINAS
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SAN RAFAEL, CA 94903

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PROJECT No.: 2024-030.00

DESIGN DEVELOPMENT

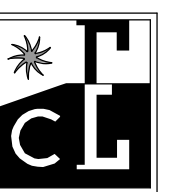
**BUILDING C NEW
MECHANICAL
FLOOR PLAN**

M-2.1

- A. FOR MECHANICAL GENERAL NOTES, LEGENDS, AND SYMBOLS, REFER TO SHEET(S)
- B. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE MECHANICAL WORK WITH OTHER TRADES. MAKE ANY OFFSETS AS REQUIRED TO AVOID CONFLICT WITH PIPING, LIGHT FIXTURES, DAYLIGHTS, ETC.
- C. CONTRACTOR SHALL COORDINATE ALL GRILLE LOCATIONS AND CEILING TYPES PRIOR TO ORDERING GRILLES. SEE ARCHITECTURAL CEILING PLANS AND ELECTRICAL LIGHTING PLANS.
- D. INSTALL T-STAT. & CO2 SENSOR 48 INCHES AFF MAX TO TOP OF BOX. PROVIDE WITH LOCKABLE COVER.
- E. ALL DUCT DIMENSIONS ARE INDICATING INSIDE DIMENSIONS OF THE FREE AREA OF DUCT. UNLESS OTHERWISE NOTED



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51 NORTH SAN PEDRO RD.
SAN RAFAEL, CA 94903

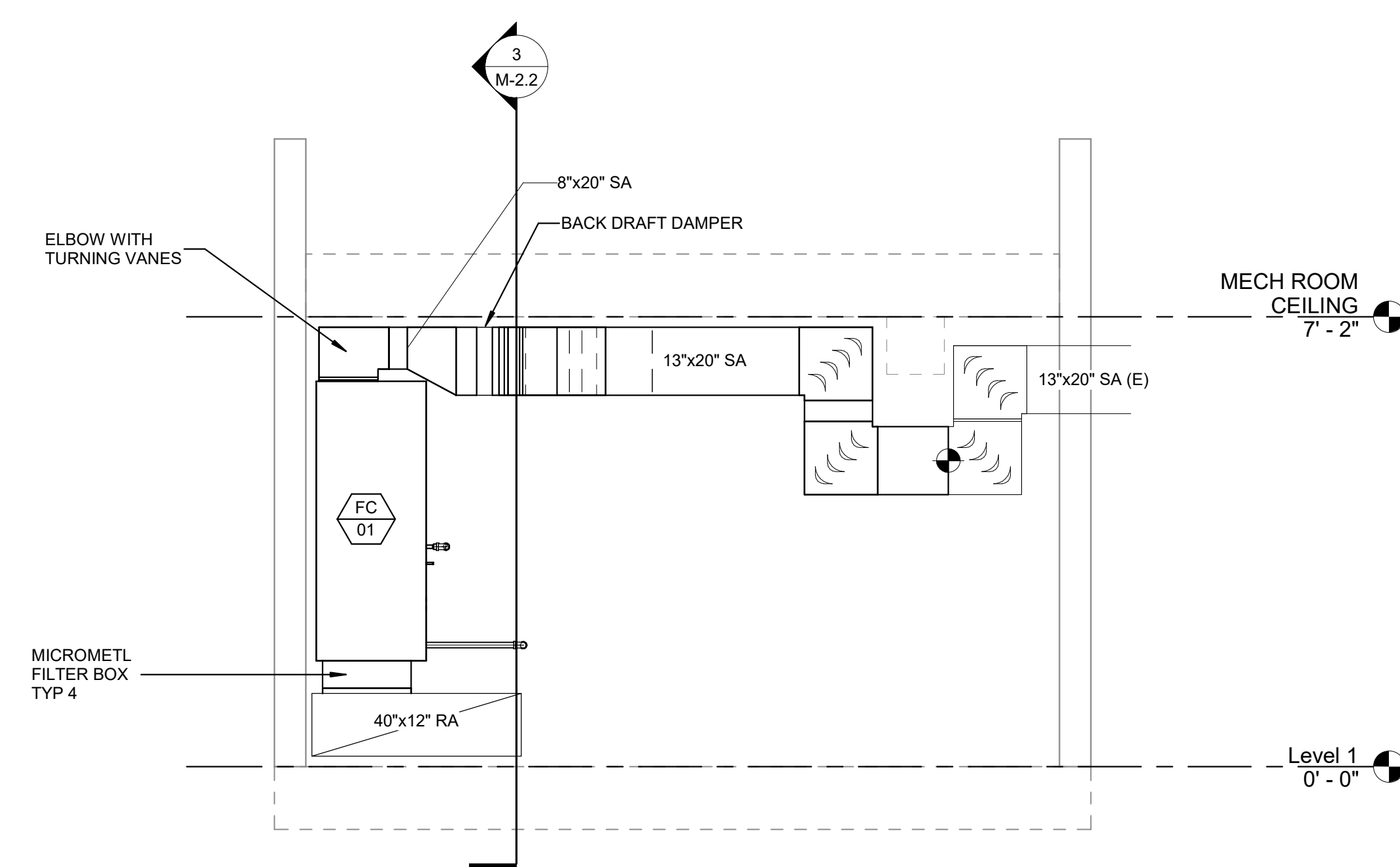
SAN RAFAEL CITY SCHOOLS

PROJECT No.: 2024-030.00

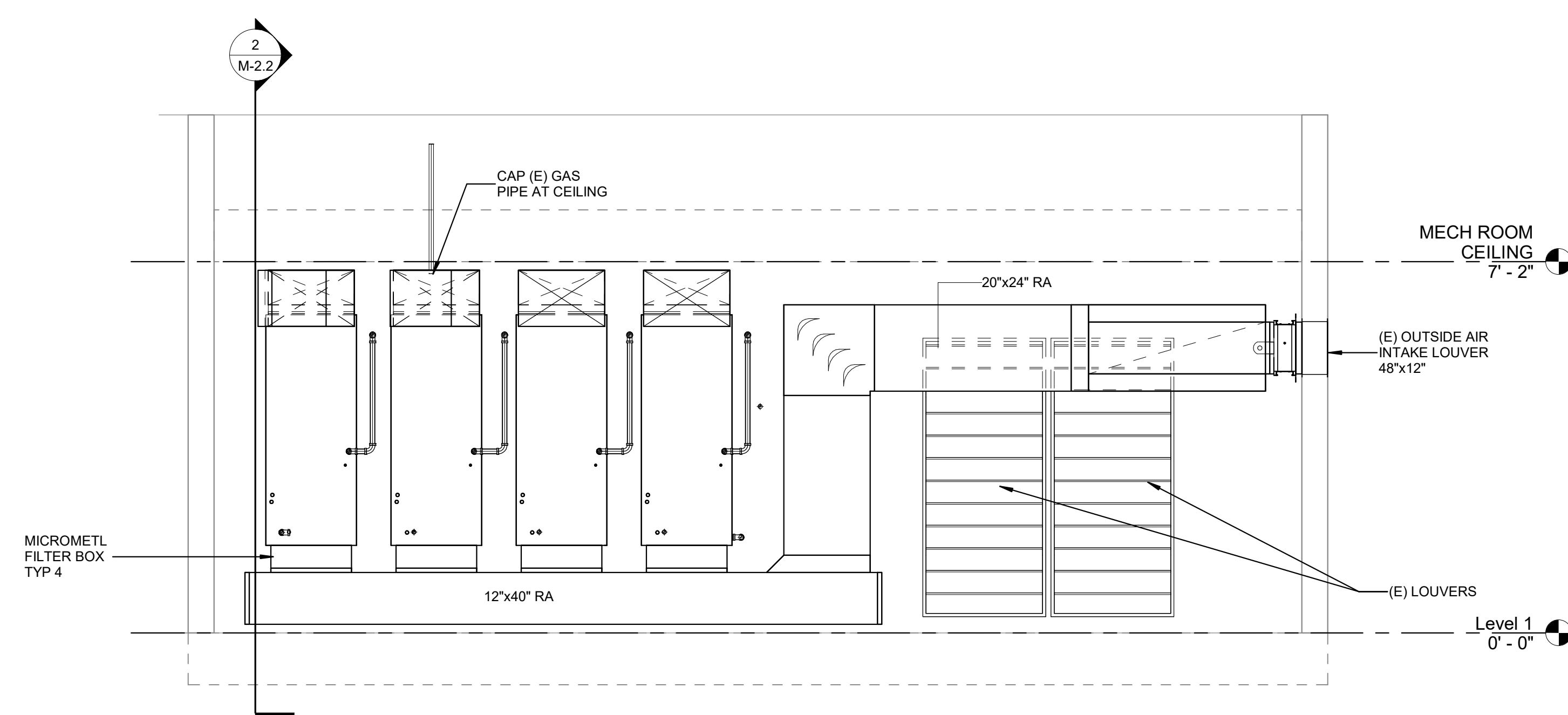
DESIGN DEVELOPMENT

BUILDING C
MECHANICAL
ROOM

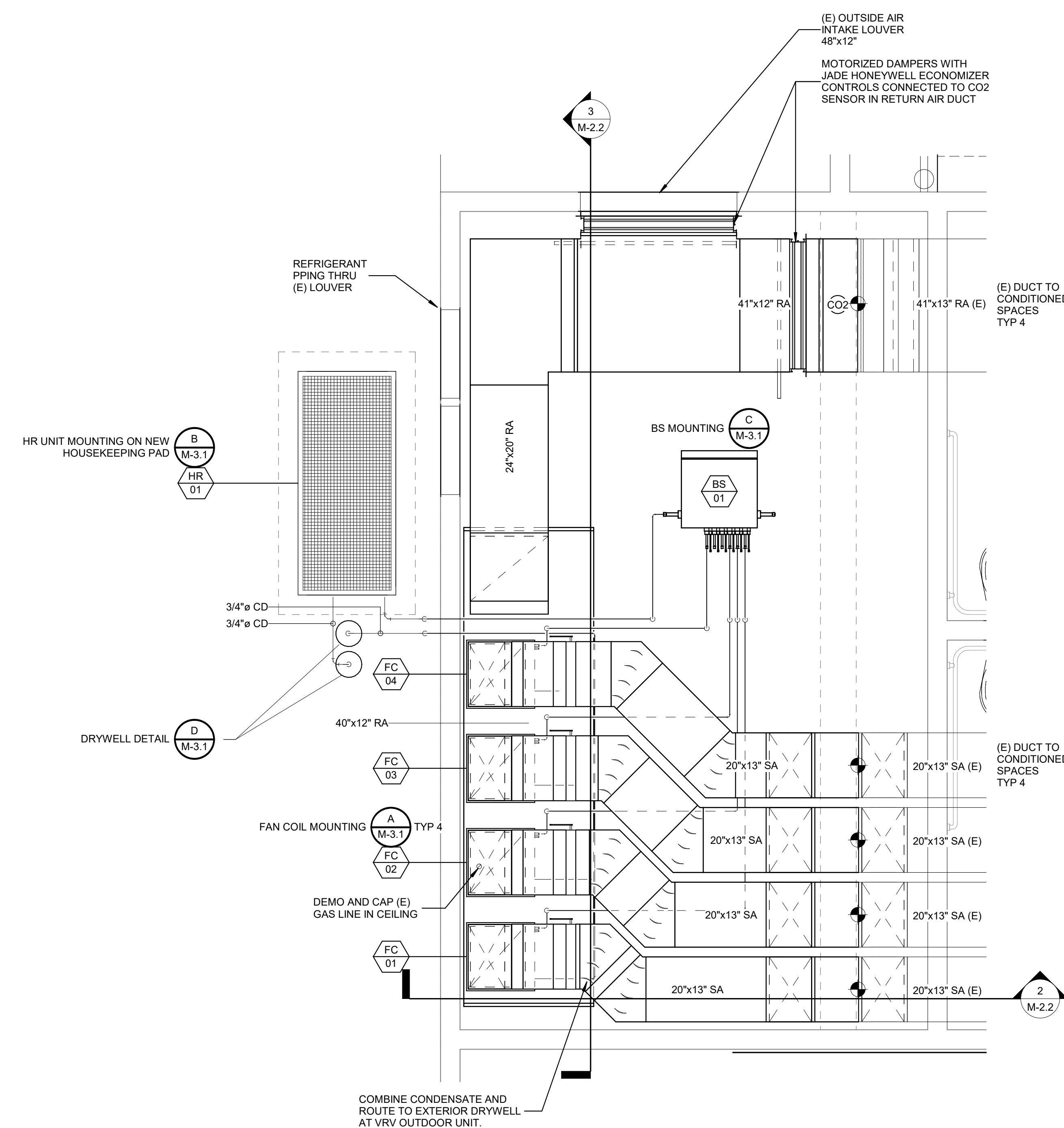
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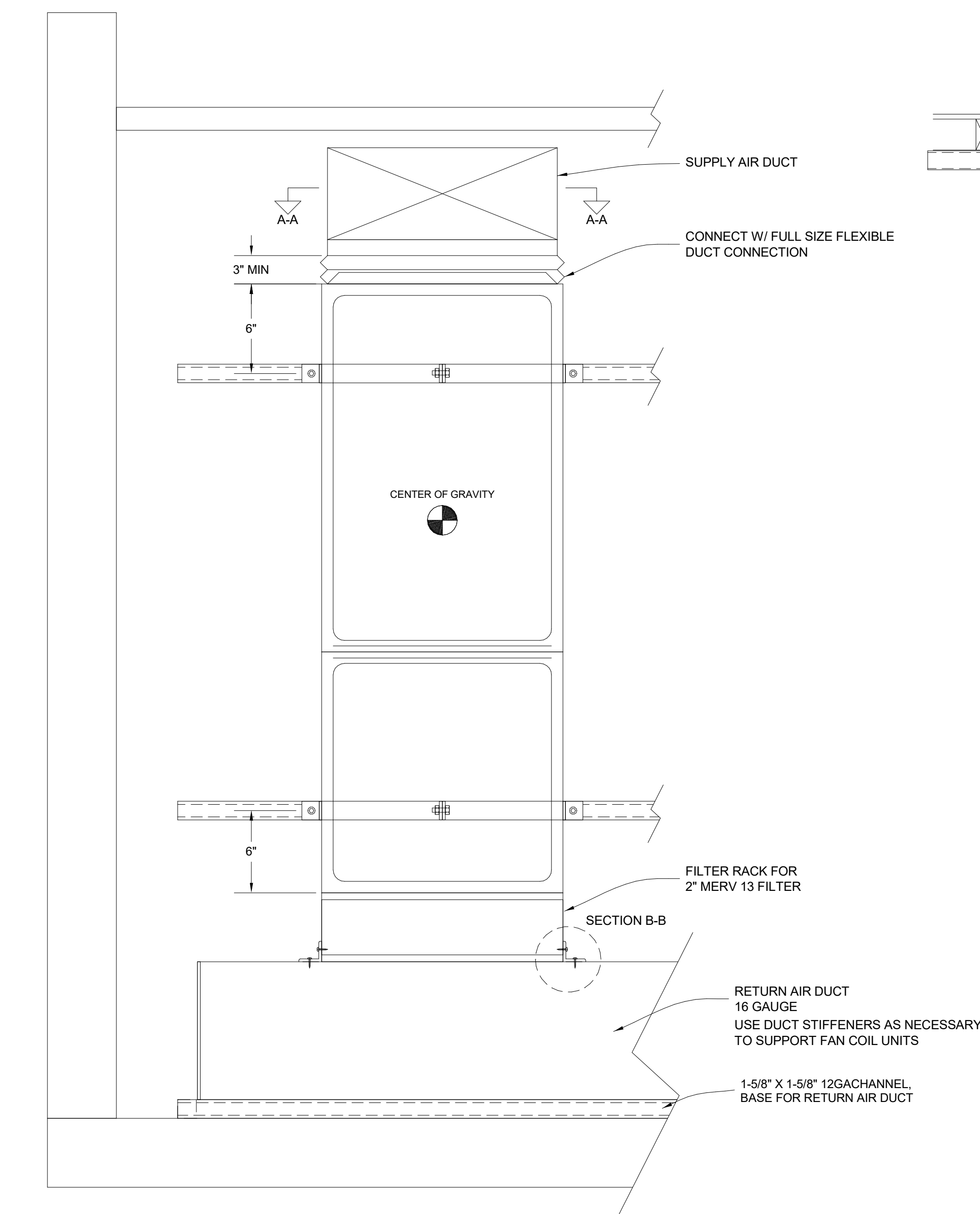
$1/2'' = 1'-0''$



Section

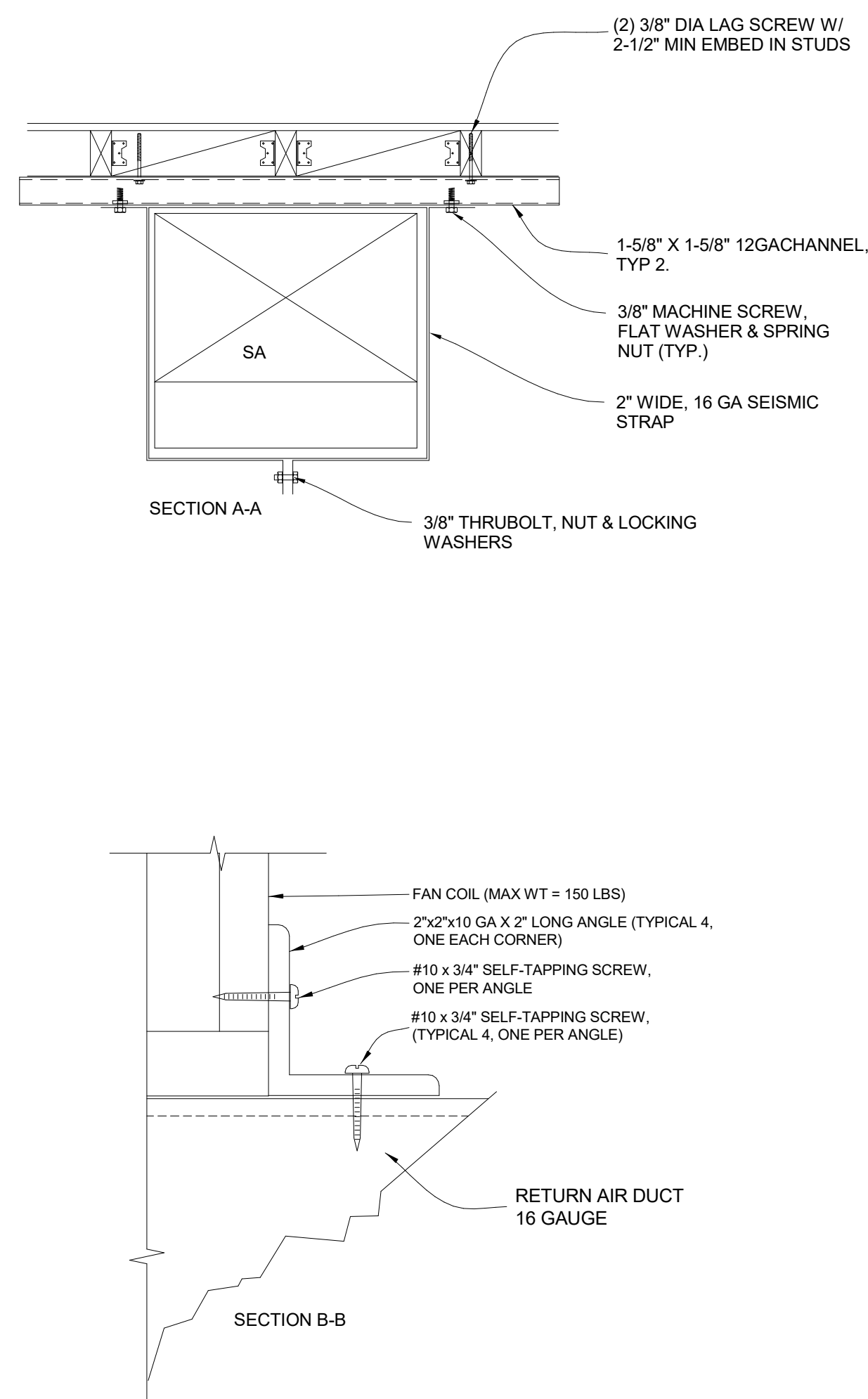


BUILD



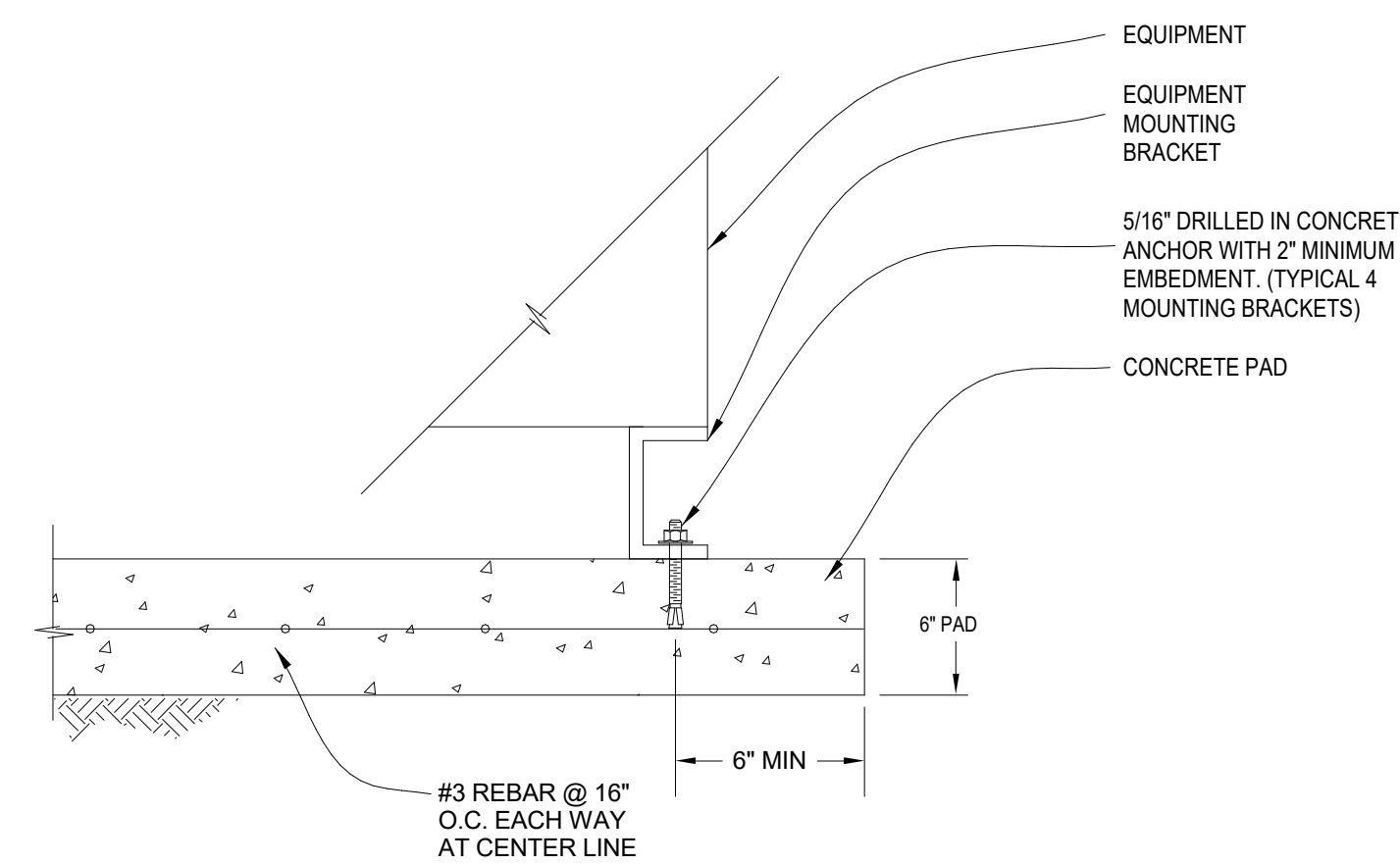
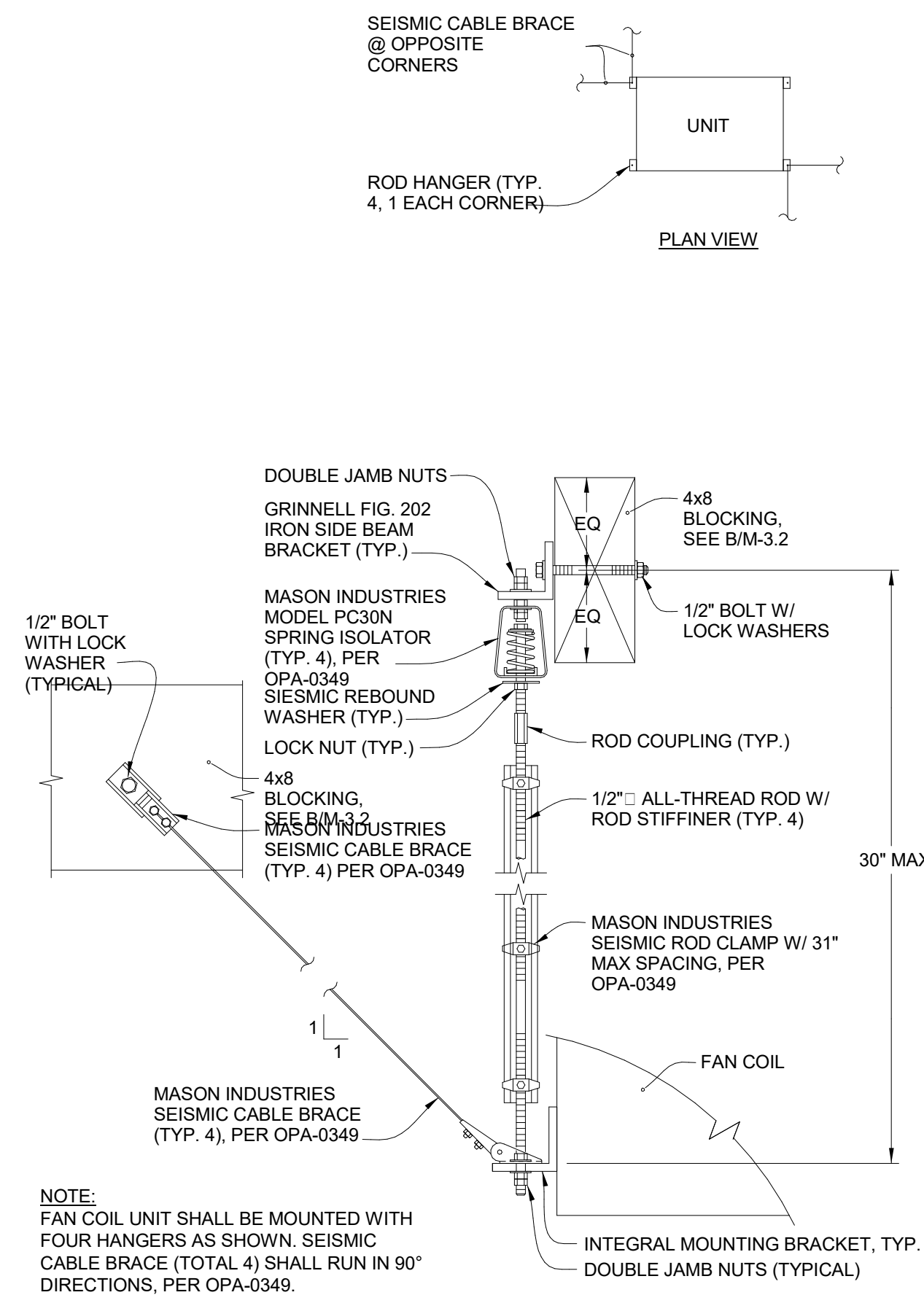
A MULTI POSTITION FAN COIL- VERTICAL POSITION MOUNTING DETAIL

SCALE: NONE



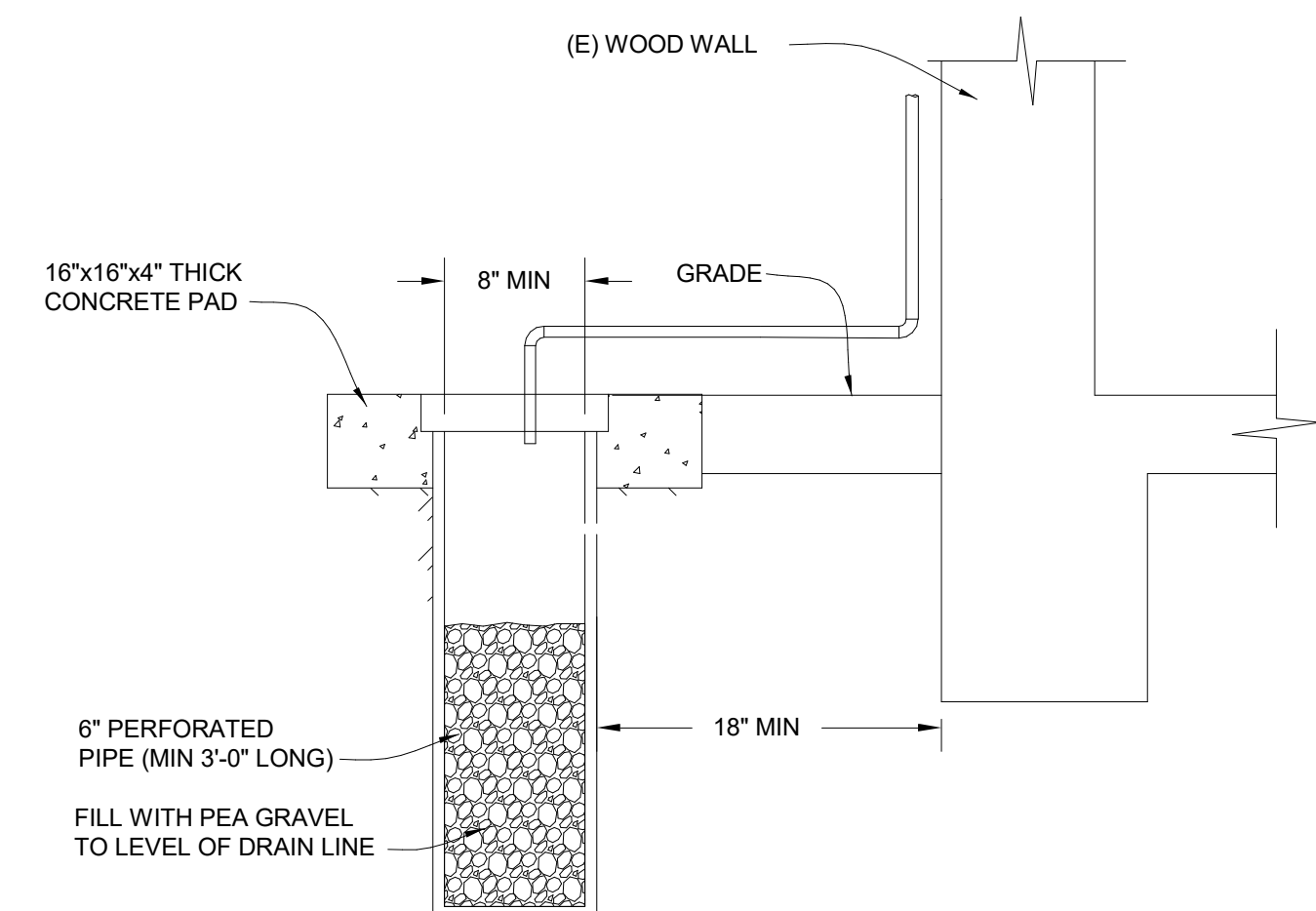
B BRANCH SELECTOR MOUNTING DETAIL

SCALE: NONE



C HEAT RECOVERY UNIT MOUNTING

SCALE: NONE



D DRYWELL

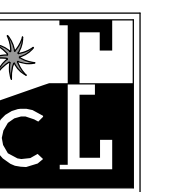
SCALE: NTS

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**OLD GALLINAS
OFFICE INTERIORS**

251 NORTH SAN PEDRO RD.
SAN RAFAEL, CA 94903

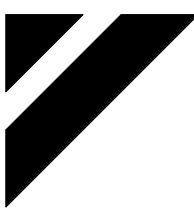
SAN RAFAEL CITY SCHOOLS

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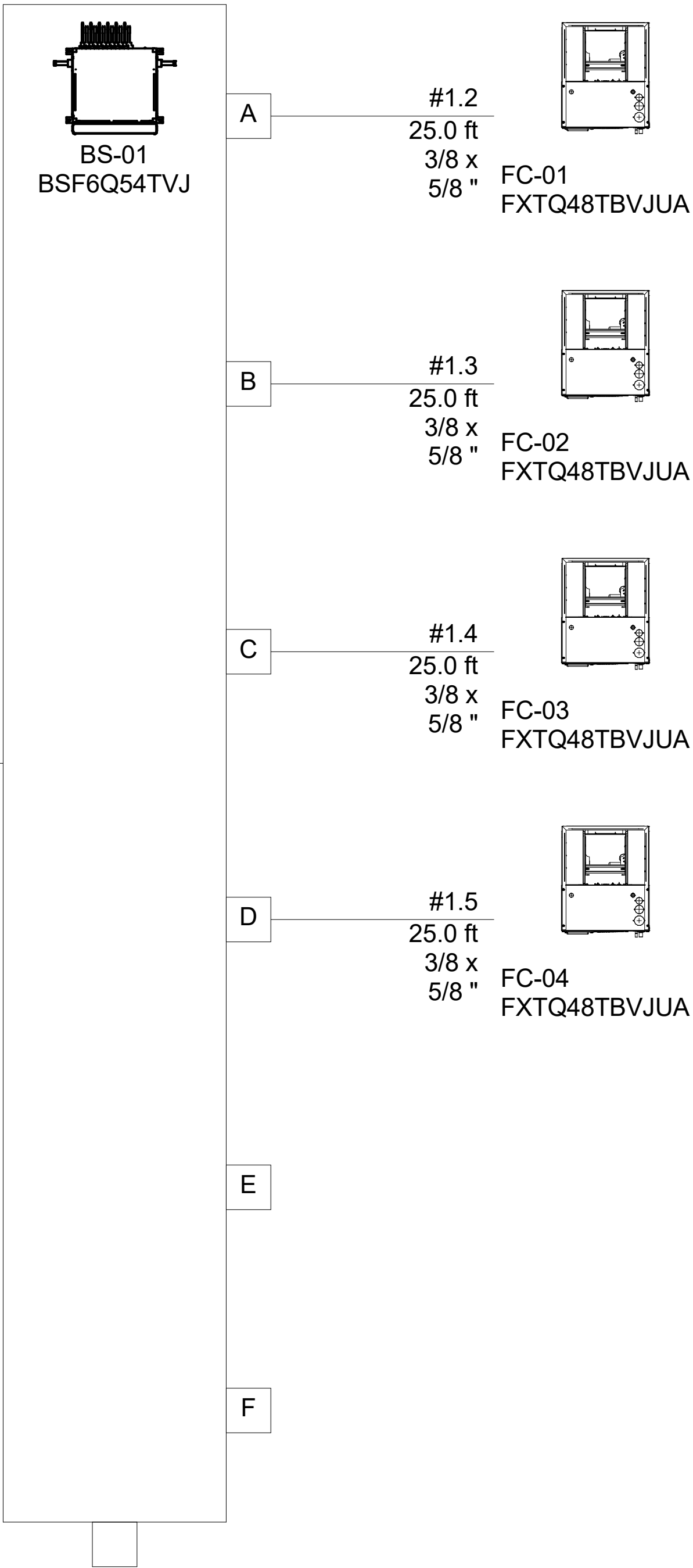
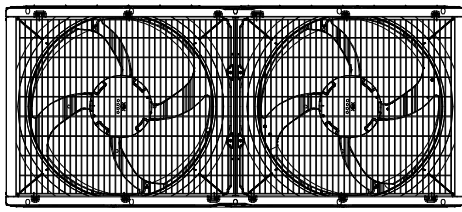
DESIGN DEVELOPMENT

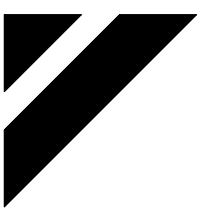
**MECHANICAL
DETAILS**

M-3.1

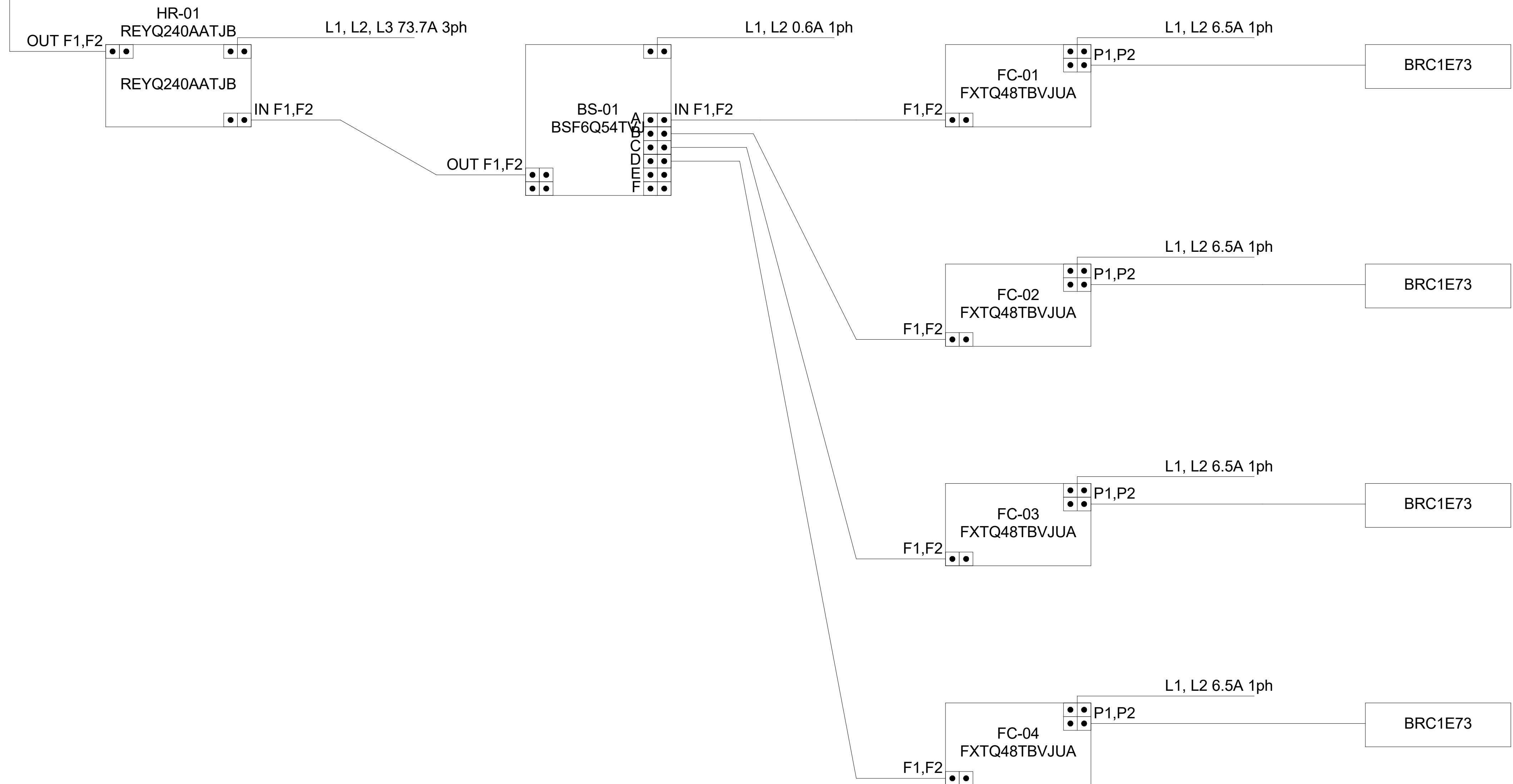
	Client
	USA
	Project
	Old Gallinas Bldg C
	Title
	Piping schematics
Date	HR-01
	Air cooled heat recovery
	VRV EMERION-B-(208-230V)
Drawing No	REYQ240AATJB

HR-01
REYQ240AATJB

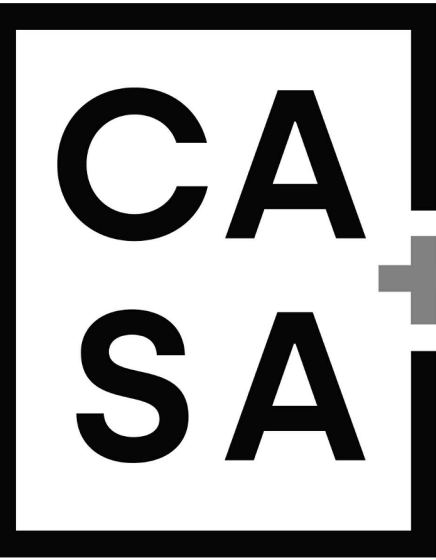


	Client
	USA
	Project
	Old Gallinas Bldg C
	Title
	Wiring schematics
Date	HR-01
	Air cooled heat recovery
	VRV EMERION-B-(208-230V)
Drawing No	REYQ240AATJB

to centralized controller

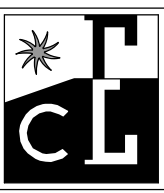
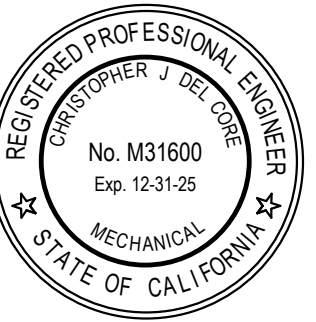


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SAN RAFAEL
CITY SCHOOLS

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OLD GALLINAS
OFFICE INTERIORS

251 NORTH SAN PEDRO RD.
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SAN RAFAEL CITY SCHOOLS

PROJECT No.: 2024-030.00

DESIGN DEVELOPMENT

VRV PIPING AND
WIRING
DIAGRAMS

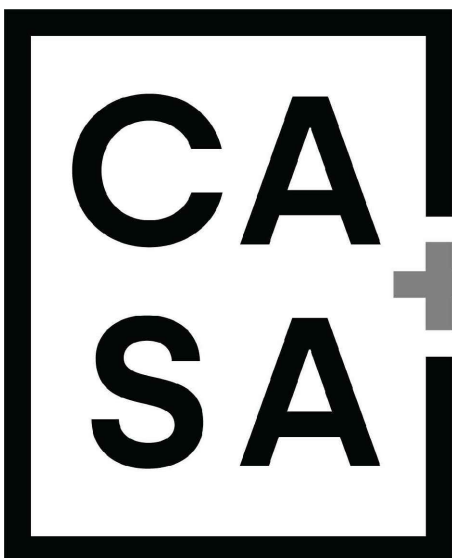
M-4.1



1/4" = 1'-0"

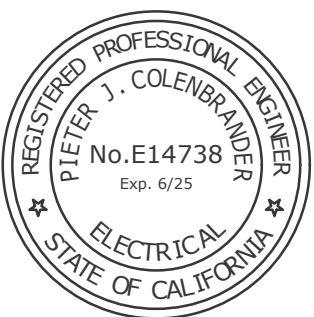
- 1 FIELD VERIFY AND DOCUMENT / TAG ALL (E) CIRCUIT CONDUCTORS IN (E) PANEL '4L' FOR RE-USE / RE-TERMINATION IN NEW WORK.
- 2 AFTER FIELD VERIFICATION / TAGGING, DISCONNECT (E) FEEDER AND (E) BRANCH CIRCUITS FROM (E) PANEL '4L'. REMOVE (E) PANEL.
- 3 PROVIDE AND INSTALL (N) FLUSH MOUNTED PANEL TO REPLACE (E) PANEL IN SAME LOCATION. CUT AND PATCH WALL AND FRAMING AS REQUIRED FOR NEW 20" WIDE PANEL CAN. (N) PANEL WILL BE TALLER THAN (E) PANEL.
- 4 (E) BRANCH PANEL TO REMAIN. PROTECT IN PLACE. DISCONNECT (E) EXPOSED FEEDER TO ADJACENT PANEL. RECONNECT TO (N) PANEL '4LA' WITH CONCEALED CONDUIT AND WIRING IN WALL; (2) #10-3 IN 3/4" C. PROVIDE (N) NAMEPLATE TO READ "PANEL 4LA".
- 4 PROVIDE MOTOR RATED SWITCH DISCONNECT AT FAN COIL UNIT.
- 5 PROVIDE ENGRAVED NAMEPLATE ON DISCONNECT.

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BRAUN CENTER OFFICE INTERIORS

251 NORTH SAN PEDRO RD
SAN RAFAEL, CA 94903

SAN RAFAEL CITY SCHOOLS

5/15/2025 Electrical Set

PROJECT No.: 2024-030.00

CONSTRUCTION
DOCUMENTS

BLDG. C
FLOOR PLAN -
ELECTRICAL

E2.2