

DOCUMENT 00 01 10

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DIVISION

IMPERIAL COMMUNITY COLLEGE DISTRICT
IMPERIAL VALLEY COLLEGE
RELOCATABLE CLASSROOM

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4. Section 4-336: Verified Reports.

E. During the entire construction period, it shall be the sole responsibility of each Contractor to maintain conditions at the Project Site to meet the requirements of the Federal Occupational Safety and Health Administration (OSHA) and California occupational regulations. This

the site. The Contractor shall become fully informed of all applicable standards and regulations and inform all persons and representatives responsible for work under this Contract.

1.04 CONTRACTOR USE OF SITE AND PREMISES

- A. Limit use of site and premises to allow:
 1. Work by Owner, if required.
 2. Use of site and premises by Owner and public when and if Owner takes beneficial occupancy of portions of project.
- B. Access to Site: Coordinate with Owners Representative.
- C. Building Exits During Construction: Maintain all exits. Do not obstruct at any time.
- D. Time and Construction Schedule Considerations affecting school operations if Owner requires partial occupancy.
 1. Schedule all construction operations with Owners Representative.
 2. Construction operations generating excessive noise, such as use of pneumatic tools and power actuated fastener equipment, shall be scheduled with the Architect and approved by owner.

Locate all noise generating equipment, such as cut-off saws, in a remote location away from classroom areas.

Provide Owners Representative with 10 working days notice prior to commencing such operations.
 3. Construction operations, such as material deliveries, debris removal, and crane operations shall not occur when students, staff or visitors are present at construction site. Schedule such operations around school schedule, including recess and lunch periods. Where, in the opinion of the Architect and Owner the construction site is sufficiently remote or isolated that students, staff or visitors are not exposed to such operations construction operations may proceed as scheduled.
 4. After Owner takes a beneficial occupancy of portions of project the Prime Contractor, subcontractors and all support staff will not be allowed to enter such school facilities during hours school is in session. Where access is required to complete the work, coordinate access and scheduling with Architect for non-school time.

- E. Utility Outages and Shutdown: Provide minimum 15 working days notice of any utility interruption. No deviation to the commencement, nor duration of the outage or shutdown from the schedule agreed upon is allowed.

- F. Storage Areas: Coordinate with Owner. Contractor will establish acceptable path for products, staging areas and trash disposals.

1.05 OWNER OCCUPANCY

- A. The Owner may take beneficial occupancy of certain portions of the project for the conduct of normal school and business operations prior to final completion.

- B.

1.06

SECTION 01 20 00 – CONTRACT MODIFICATIONS AND PAYMENT PROCEDURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Schedule of Values.
- B. Inspector of Record Payment Provisions
- C. Change Procedures.
- D. Progress Payment Coordination
- E. Payment for Contract Modifications
- F. Request for Information

1.02 RELATED DOCUMENTS OR SECTIONS

- A. Document 00 52 13 – Agreement Form.
- B. Document 00 72 26

SECTION 01 29 76 - APPLICATIONS FOR PAYMENT

PART 1 GENERAL

1.01

SECTION 01 31 19 - COORDINATION AND MEETINGS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Coordination.
- B. Pre-construction meeting.
- C. Progress meetings.
- D. Pre-installation meetings.

1.02 COORDINATION

- A. Coordinate scheduling, submittals, and Work of the various sections of the Project Manual to assure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later and for accommodating items to be installed by the Owner.
- B. Coordinate sequence of Work to accommodate Owner occupancy, as specified in Document 01 11 00.

1.03 PRECONSTRUCTION MEETING

- A. Architect will schedule a meeting after Notice of Award.
- B. Attendance Required: Architect, Project Coordinator, Prime Contractor, Major Subcontractors, Project Inspector and key Owner personnel.
- C. Agenda:
 - 1. Contract Agreement:
 - a. Transmit Performance and Material Bonds to Architect.
 - b.

- b. Owner Occupancy.
 - c. Work by Owner.
 - d. Access to Site - Owner Contact.
5. Construction Process:
- a. Contractor to give overview of construction.
 - b. Contractor to identify items to be selected by Architect/Owner and date selections must be made.
 - c. Contractor to review special requirements for equipment, safety, and noise.
6. Project Close-out:
- a. Close-out Binder.
 - b. As-Built Documents.
 - c. Final Verified Reports.
- D. Contractor

SECTION 01 33 00 – SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. Submittal Procedures: Coordinate submittal preparation with construction, fabrication, other submittals, and activities that require sequential operations. Transmit in advance of construction operations to avoid delay.
1. Coordinate submittals for related operations to avoid delay because of the need to review submittals concurrently for coordination. The Architect reserves the right to withhold action on a submittal requiring coordination until related submittals are received. Specifically, in order to assure proper coordination of all project colors, no submittals which require the selection of material colors will be processed and released until all submittals requiring the selection of material colors have been submitted.
 2. Processing: Allow 14 days for initial review. Allow more time if the Architect must delay processing to permit coordination. Allow 14 days for reprocessing.
 - a. No extension of Contract Time will be authorized because of failure to transmit submittals sufficiently in advance of the Work to permit processing.
 3. Submittal Preparation: Place a permanent label on each submittal for identification. Provide a 4- by 5-inch (100- by 125-mm) space on the label or beside title block to record review and approval markings and action taken. Include the following information on the label for processing and recording action taken.
 - a. Project name.
 - b. Date.
 - c. Name and address of the Architect.
 - d. Name and address of the Contractor.
 - e. Name and address of the subcontractor.
 - f. Name and address of the supplier.
 - g. Name of the manufacturer.
 - h. Number and title of appropriate Specification Section.
 4. Submittal Transmittal: Package each submittal appropriately. Transmit with a transmittal form. The Architect will not accept submittals from sources other than the Contractor.
 5. An extended processing period is required for submittals and resubmittal of “Deferred Approval Items” which required approval of the Division of the State Architect. The Owner cannot guarantee processing of such submittals within a stipulated time period.
- B. Contractor's Construction Schedule:
1. As per General Conditions, Article 32.
- C.

5. Meter readings and similar recordings.
 6. Emergency procedures.
 7. Orders and requests of governing authorities.
 8. Services connected, disconnected.
 9. Equipment or system tests and startups.
 10. Substantial Completions authorized.
- D. Shop Drawings: Submit newly prepared information drawn to scale. Indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information. Include the following information:
1. Dimensions.
 2. Identification of products and materials included by sheet and detail number.
 3. Compliance with standards.
 4. Notation of coordination requirements.
 5. Notation of dimensions established by field measurement.
 6. Sheet Size: Except for templates and full-size Drawings, submit six copies on sheets at least 8-1/2 by 11 inches but no larger than 36 by 48 inches.
 - a. Do not use Shop Drawings without an appropriate final stamp indicating action taken.
- E. Product Data: Collect Product Data into a single submittal for each element of construction. Mark each copy to show applicable choices and options. Wh

SECTION 01 35 23 – CONTRACTOR SAFETY

1.01 GENERAL

A. HEALTH AND SAFETY POLICY

1. The policy of the School District is to promote safety at a level to minimize personal injury and potential property damage.

END OF SECTION 01 35 23

SECTION 01 45 24 TESTING AND INSPECTION REQUIREMENTS FOR SCHOOL CONSTRUCTION

PART 1 - GENERAL

1.01 SUMMARY

- A. Regulatory Requirements:
 - 1. Part 1, Title 24, Section 4-335, California Code of Regulations: Testing required by the Division of the State Architect (DSA).
 - 2. Part 2, Title 24, California Code of Regulations (2015 IBC and 2016 CBC): Inspections, testing and approvals required by individual sections therein.
- B. Selection of the material required to be tested shall be by the laboratory or the Owner's representative and not by the Contractor.
- C. Minimum test and inspections required: See Structural Tests and Inspections, Division of the State Architect form DSA 103 (2016 CBC).
- D. 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 in the job.
- E. Selection and Payment of Testing Laboratory:
 - 1. Owner will employ and pay for services of an independent Testing Laboratory approved by the Architect, DSA, and the Structural Engineer to perform inspection and testing in accordance with Part 1, Title 24, Section 4-335, California Code of Regulations.
 - 2. Contractor shall pay for mileage and travel time for inspection services, required travel more than 300 miles from this project to test products purchased by Contractor. Testing Laboratory shall forward all billings and records of such costs to the Owner for approval. Such costs, if determined by the Owner to be attributable to the Contractor under this provision, will be deducted from Contractors final payment (or any funds due and payable) by change order.
 - 3. When materials tested fail to meet requirements herein specified, they shall be promptly corrected or removed and replaced and retested. Costs involved in retesting will be paid by the Owner and deducted from Contractors final payment (or any funds due and payable) by change order.
- F. Laboratory Responsibilities:
 - 1. Laboratory shall be licensed to conduct testing and inspection operations in California. It shall be supervised by a State Licensed Civil Engineer who shall certify all reports.
 - 2. Perform specified inspection, sampling and testing of Products in accordance with standards specified herein.
 - 3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 4. Promptly notify Architect, Project Inspector and Contractor by letter of observed irregularities of non-conformance of Work or Products.
 - 5. Immediately upon Testing Laboratory determination of a test failure, the laboratory shall telephone the results of test to Architect. On the same day laboratory shall send written test results to those named on the distribution list below.

G. Laboratory Reports:

1. After each inspection and test, the testing facility shall promptly (no later than 14 days after test is complete) submit one copy of laboratory report to the following.
 - a. Owner
 - b. Architect
 - c. Project Inspector
 - d. General Contractor
 - e. Structural Engineer
 - f. Mechanical and Electrical Engineers (Related Tests and Inspections)
 - g. Division of the State Architect
2. Test reports shall include all tests made, regardless of whether such tests indicate that the material is satisfactory or unsatisfactory. Samples taken but not tested shall also be reported. Records of special sampling operations as required shall also be reported.

2. The Owner shall have the right to reject materials and workmanship which are defective or to require their correction. Rejected workmanship shall be satisfactorily corrected and rejected material shall be removed from the premises without cost to owner the Owner. If the Contractor fails to correct such rejected work within a reasonable time, fixed by written notice, the Owner will correct same and charge the expense to the Contractor by Change Order.
3. Should it be considered necessary or advisable by the Owner at any time before final acceptance of the entire work to make an examination of work already completed by removing or tearing out the same, the Contractor shall on request promptly furnish all necessary facilities, labor and materials. If such work is found to be defective in any respect due to fault of the Contractor or his subcontractor, he shall defray all expenses of such examinations and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the additional cost of labor and material necessarily involved in the examination and replacement shall be allowed the Contractor by change order.

K. Inspector - Owners:

1. An Inspector employed by the Owner and approved by the Division of the State Architect in accordance with the requirements of State of California Code of Regulations, Title 24 Part 1 will be assigned to the continuous inspection of the work. His duties are specifically defined in Section 4-342 Part I, Title 24 CCR.
2. The work of construction in all stages of progress shall be subject to the personal continuous observation of the Inspector. He shall have free access to any or all parts of the work at any time. The Contractor shall furnish the Inspector reasonable facilities for obtaining such information as may be necessary to keep him fully informed respecting the progress and manner of the work and character of the materials. Inspection of the work shall not relieve the Contractor from any obligation to fulfill this Contract.

L. Inspector -- Owner -- FIELD OFFICE: See General Conditions.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01 45 24

SECTION 01 50 00 – CONSTRUCTION FACILITIES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Temporary Utilities: Electricity, lighting, heat, ventilation, telephone service, water service and sanitary facilities.
- B. Temporary Controls: Barriers, enclosures and fencing, water, dust, noise & pollution control, parking and traffic control, and protection of the Work.
- C. Construction Facilities: Access roads, progress cleaning, field offices, sheds and removal.
- D. Operational Requirements: Security, project ID/signage and documentation.

1.02 RELATED SECTIONS

- A. Section 01 77 19 - Contract Closeout Procedures.

1.03 TEMPORARY ELECTRICITY

- A. Temporary power will be provided by Electrical Contractor within 50' of buildings.
- B. Any temporary power requirements beyond the 50' provided will be the responsibility of the Contractor requiring the same.
- C. All welding will be done with self contained gas powered units.
- D. Provide generator power for your operations until temporary power is available.

1.04 TEMPORARY LIGHTING

- A. Each Contractor shall be responsible to provide and maintain all temporary lighting as required to safely access and perform their scope of work.
- B. Provide and maintain adequate lighting for construction operations for own work.
- C. Provide adequate lighting for security of construction operations and storage areas for own work.
- D. Provide and maintain at ALL times, temporary lighting and exit/path devices in corridor areas as required by applicable codes.

1.05 TEMPORARY HEAT

- A. Provide temporary heat devices as required to maintain specified conditions for construction operations.
- B. Use of permanent equipment for temporary heating is prohibited without prior approval by Architect.
- C. Unless specified elsewhere, maintain minimum 50°F at interior construction areas.

1.06 TEMPORARY VENTILATION

- A. Ventilate enclosed areas to assist cure of materials to dissipate humidity and to prevent accumulation of dust, fumes, vapors or gases. Where necessary to comply with item B., provide ducted ventilation system.
- B. Locate ventilation discharge point at an approved location, away from walkways, HVAC intakes, windows of occupied areas, and other similar locations.
- C. Utilize temporary fan units as required to exhaust noxious fumes directly to the outside of the building.

1.07 TELEPHONE

- A. Provide, maintain and pay for own telephone service and associated office equipment to own field office as required. No public telephone will be provided.

1.08 TEMPORARY WATER SERVICE

- A. Plumbing Contractor will provide and maintain for suitable water source for construction operations.
- B. Contractor is responsible for distribution, including but not limited to water trucks, hoses, piping, etc. from water source to area of work, as required for Work.

1.09 TEMPORARY SANITARY FACILITIES

- A. Contractor shall provide and maintain required temporary chemical type toilet facilities and enclosures.

1.10 BARRIERS AND BARRICADES

- a. Construct barriers as metal framed/fire-resistive gypsum board fire resistive corridor construction, with self-closing, latching door assembly. Provide temporary partition and door assembly fire resistivity rating equal to the assembly being replaced. Close joints and seal edges at intersections with existing surfaces.
 - b. Use of sheet plastic dust barriers in place of rated assemblies is prohibited.
2. Protect existing surfaces, equipment and furnishings from damage from construction operations and demolition. Where necessary, remove and store in separate area.
 3. Where demolition or construction operations generate fine dust or airborne particulates, provide fire retardant drop cloths, screening or other approved barriers to prevent dust inhalation into existing cabinet interiors, equipment, drawers, and similar conditions.
 4. Provide contamination control mats at construction access locations to prevent tracking of construction dust and dirt into owner occupied portion of building.

1.11 FENCING

- A. A temporary fence with locked entrance gates will be provided to enclose the Work to deter unauthorized entry, vandalism and/or theft.
 1. The fence will be a 6 foot high commercial grade chain link with vehicular and pedestrian gates and locks.
 2. Any Contractor requiring fencing/barricades above and beyond the fencing shown on the plan sheet, for the execution of their work, shall furnish, install and maintain same as required by local authorities and state safety ordinances and as necessary for the protection of the public.

1.12 DUST CONTROL

- A. Conduct earthwork operations in a manner to prevent windblown dust and dirt from interfering with the progress of the Work, owners's activities and the existing occupied structures in the areas immediately adjacent as well as adjacent properties.
- B. Periodically water construction areas as required to minimize accumulation of dust and dirt.
- C. Water spray or cover with tarpaulins truck loads of soil to additionally minimize generation of dust and dirt from construction operations.
- D. Prevent dust and dirt from accumulating on walks

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1.17 PROGRESS CLEANING

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- A. Provide security and facilities as necessary to protect work and staff from vandalism, unauthorized entry, theft, damage, or assault.
- B. Within a 48-

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PART 2 - PRODUCTS (Not Applicable)

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PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01 50 00

- B. In preparation for substantial completion or occupancy, conduct final inspection of sight-exposed interior and exterior surfaces, and of accessible concealed spaces.
- C. Clean glass and surfaces exposed to view. Remove temporary labels, stains, and foreign substances.
- D. Repair, patch, and touch-up marred surfaces to specified finish, and to match adjacent surfaces.
- E. Broom-clean paved surfaces.
- F. Polish transparent and glossy surfaces.
- G. Vacuum carpeted and soft surfaces.
- H. Wax and polish resilient floor surfaces.
- I. Wash and polish ceramic surfaces.
- J. Clean machinery and equipment.
- K. Clean plumbing fixtures to a sanitary condition. Use non-corrosive, non-abrasive cleaning materials.
- L. Replace filters of operating equipment.
- M. Clean and polish light fixtures.
- N. Clean and polish hardware and metal surfaces.
- O. Clean walls and ceilings of dust, dirt, stains, hand marks, paint spots, plaster drops, and like defects.
- P. Clean construction site. Sweep paved areas and rake clean landscaped surfaces.
- Q. Clean out and flush drains from construction debris. Flood-test prior to occupancy.
- R. Remove waste and surplus materials, rubbish, and construction facilities from the site. Do not use
- S. Keep project clean until it is occupied by the Owner.

PART 2 PRODUCTS Not Used

PART 3 EXECUTION Not Used

END OF SECTION 01 74 00

SECTION 01 77 19 CONTRACT CLOSEOUT PROCEDURES

PART 1 GENERAL

1.01 SUMMARY

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this section.
- B. This section includes administrative and procedural requirements for contract closeout, including but not limited to the following:
 - 1. Inspection procedures.
 - 2. Operation and maintenance manuals.
 - 3. Warranties.
 - 4.
- C. Related Sections include the following:
 - 1. Divisions 02 through 33, for specific closeout and special cleaning requirements for products of those sections.

1.02 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of substantial completion, complete the following. List items below that are incomplete in request.
 - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Obtain and submit releases permitting Owner unrestricted use of the work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 5. Prepare and submit Project Record Documents, operation and maintenance manuals.
 - 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with ma
 - 7. Complete startup testing of systems.
 - 8. Submit test/adjust/balance records.
 - 9. Terminate and remove temporary facilities from project site, along with mockups, construction tools, and similar elements.
 - 10. Complete final cleaning requirements, including touchup painting.
- B. Inspection: Submit a written request for inspection for substantial completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify

be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the work identified in previous inspections as incomplete is completed or corrected.
 - 2. If a reinspection identifies work that remains uncompleted, the Contractor shall be responsible for the cost of additional inspections by the Architect. The Architect will submit a time and

material invoice to the Owner, who will deduct the amount from the balance due to the Contractor.

3. Results of completed inspection will form the basis of requirements for final completion.

1.03 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:

1. Submit a final Application for Payment according to Section 01 29 76.
2. Submit certified copy of Architect completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. and systems. Revise paragraph and subparagraph below to comply with office policy and project requirements.

- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify contractor of construction that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the work identified in previous inspections as incomplete is completed or corrected.
2. If a reinspection identifies work that remains uncompleted, the Contractor shall be responsible for the cost of additional inspections by the Architect. The Architect will submit a time and material invoice to the Owner, who will deduct the amount from the balance due to the Contractor.

1.04 OPERATION AND MAINTENANCE MANUALS

- A. Assemble a complete set of operation and maintenance data indicating the operation and maintenance of each system, subsystem, and piece of equipment not part of a system. Include operation and maintenance data required in individual specification sections and as follows:

1. Operation Data:
 - a. Emergency instructions and procedures.
 - b. System, subsystem, and equipment descriptions, including operating standards.
 - c. Operating procedures, including startup, shutdown, seasonal, and weekend operations.
 - d. Description of controls and sequence of operations.
 - e. Piping diagrams.
2. Maintenance Data:
 - a.
 - b. Name, address, and telephone number of installer or supplier.
 - c. Maintenance procedures.
 - d. Maintenance and service schedules for preventive and routine maintenance.
 - e. Maintenance record forms.
 - f. Sources of spare parts and maintenance materials.
 - g. Copies of maintenance service agreements.
 - h. Copies of warranties and bonds.

- B. Organize operation and maintenance manuals into suitable sets of manageable size. Bind and index data in heavy duty, 3-ring, vinyl covered, loose leaf binders, in thickness necessary to accommodate contents, with pocket inside the covers to receive folded oversized sheets. Identify each binder on name, and subject matter of contents.

1.05 WARRANTIES

- A. Submittal Time: Submit written warranties to the Architect for designated portions of the work where commencement of warranties, other than date of substantial completion, is indicated.
- B.

SECTION 26 05 00 COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

1.01 SUMMARY

- A. Scope Of Work: The work under this division includes furnishing all labor, material, and equipment necessary for the installation and placing into operation of the electrical systems as indicated on the drawings. The work includes, but is not necessarily limited to, furnishing and installing the following:
 - 1. Provide new power from existing switchboard to existing relocatable sub-panels, including all conduit, wiring, breakers at required for a complete system.
 - 2. Empty conduit systems as indicated on the drawings.
- B. This division of the specification outlines the provisions of the contract work to be performed under this division. This section applies to and forms a part of each section of specifications in Division 26 and all work performed under the electrical and communications contracts. In addition, work in this division is governed by the provisions of the bidding requirements, contract forms, general conditions, supplementary conditions, and all sections under general requirements.
- C. These specifications contain statements which may be more definitive or more restrictive than those contained in the General Conditions. Where these statements occur, they shall take precedence over the General Conditions.
- D. Where the word 'provide' or 'provision' is used, it shall be definitely interpreted as 'furnishing and installing complete in operating condition'. Where the words 'as indicated' or 'as shown' are used, it shall mean as shown on contract drawings.
- E. Where items are specified in the singular, this division shall provide the quantity as shown on drawings plus any spares or extras mentioned on drawings or specifications. All specified and supplied equipment shall be new.

1.02 DEFINITIONS

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

1.03 SUBMITTALS

- A. Shop Drawings:
 - 1. Submit shop drawings and all data in accordance with Section 01 33 00 for all equipment provided under this division.
 - 2. Shop drawings submittals processed are not change orders: the purpose of shop drawings submittals by the contractor is to demonstrate to the Architect that the Contractor understands the design concept. He demonstrates his understanding by indicating which equipment and

material he intends to furnish and install and by detailing the fabrication and installation methods of material and equipment he intends to use. If deviations, discrepancies, or conflicts between submittals and specifications are discovered either prior to or after submittals are processed, the design drawings and specifications shall control and shall be followed.

- B. engineering data including weights, cross sections and maintenance instructions. Standard items of equipment such as receptacles, switches, plates, etc., which are cataloged items, shall be listed by manufacturer.
- C. Index all submittals and reference to these specifications. All submittal items shall be assembled and

13. National Electrical Safety Code (NESC)
14. California Electrical Code Title 24, Part 3
15. California Building Code
16. Americans with Disability Act (ADA)

- B. Comply with all applicable laws, ordinances, rules, regulations, codes, or rulings of governmental units having jurisdiction as well as standards of NFPA, and serving utility requirements.
- C. Owner shall pay all permit fees and inspections required by any public authority having jurisdiction. Contractor shall coordinate work and arrange inspections with any public authority having jurisdiction.
- D. Installation procedures methods and conditions shall comply with the latest requirements of the Federal Occupational Safety and Health Act (OSHA).
- E. Cover no work until inspected, tested, and approved by the Architect. Where work is covered before inspection and test, uncover it and when inspected, tested, and approved, restore all work to original proper condition at no additional cost to Owner.

1.05 DRAWINGS AND SPECIFICATIONS

- A. Drawings and specifications are intended to complement each other. Where a conflict exists between the requirements of the drawings and/or the specifications, request clarification.
- B. The Architect shall interpret the drawings and the specifications, and his decision as to the true intent and meaning thereof and the quality, quantity, and sufficiency of the materials and workmanship furnished there under shall be accepted as final and conclusive.
- C. In case of conflicts not clarified prior to Bidding deadline, use the most costly alternative (better quality, greater quantity, or larger size) in preparing the Bid. A clarification will be issued to the successful Bidder as soon as feasible after the Award and if appropriate, a deductive change order will be issued.
- D. All provisions shall be deemed mandatory except as expressly indicated as optional by the word

1.06 EXAMINATION OF PREMISES

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

1.07 WORK AND MATERIALS

- A. Unless otherwise specified, all materials must be new and of the best quality. Perform all labor in a

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PART 3 - EXECUTION

3.01 CUTTING AND PATCHING

- A. Cut existing work and patch as necessary to properly install new work. As the work progresses, leave necessary openings, holes, chases, etc., in their correct location. If the required openings, holes, chases, etc., are not in their correct locations, make the necessary corrections at no cost to the Owner. Avoid excessive cutting and do not cut structural members without the consent of the Architect and DSA.

3.02 CONCRETE

- A. Where used for structures to be provided under the contract such as bases, etc., concrete work, and associated reinforcing shall be as specified under architectural. See architectural drawings for details.
- B. See other sections for additional requirements for underground vaults, cable ducts, etc.

3.03 PAINTING

- A. Paint all unfinished metal with one coat of rust-inhibiting primer. (Galvanized and factory painted equipment shall be considered as having a sub-base finish.)
- B. Finished painting is specified Under "Finishes".
- C. Furnish all connections to electrical services furnished under other sections except as otherwise specifically designated. Provide all necessary connections, etc., required to properly connect all services and equipment.
- D. General: Painting requirements of this section are supplementary to other Painting Sections.
- E. Switchboards, panels, terminal cabinets, equipment enclosures, wireways, boxes, conduit, etc.: Standard gra
- F. Exceptions in public areas:
 - 1. Flush panels and cabinets: Fronts shall have factory applied primer and field applied oil base semi-gloss enamel finish coat (except metal plated parts) to match adjacent wall surfaces.
 - 2. enclosure (can) using the same paint as is on adjacent surface in lieu of semi-gloss paint. Apply etching compound (galvanized surfaces) and undercoater prior to finish coat.
 - 3. above.
 - 4.
 - 5. Ferrous metal miscellaneous parts (except stainless steel): Galvanized in accordance with ASTM A123 or A153.
 - 6. LIGHTING section, including Fixture Schedule. Exception: Paint the trims of recessed fixtures
 - 7. Wiring devices, device plates and floor boxes in public areas: As specified in WIRING DEVICES and DEVICE PLATES Sections.

3.04 UTILITY SERVICES

- A. Upon notification of award of contract, notify the serving power, telephone utilities of the following:

1. Name and address of Contractor.
2. Estimated times of construction start, completion and required service connections.
3. Project service voltage, phase load, and service size.

3.05 TEMPORARY LIGHTING AND POWER

- A. Contractor shall provide on-site generation, labor, materials and/or any required utility fees associated with the installation and maintenance of a temporary power source for C offices during the period of construction.
- B. Building and site shall be sufficiently illuminated so that construction work can be safely performed. Lights shall be controlled by switches located with consideration for safety, security, and convenience.

3.06 RECORD DRAWINGS

- A. The Electrical Division shall maintain record drawings as specified in Section 01 78 39.
- B. Drawings shall show locations of all concealed and exposed conduit runs, giving the number and size of conduit wires. Underground ducts shall be shown with cross section elevations. Drawing changes changes made.
- C. Two sets of reproducible as-built drawings shall be delivered to the Architect. See Section 01 78 39 for additional requirements.

3.07 EXCAVATION AND BACKFILL

- A. Perform all necessary excavation, shoring, and backfilling required for the proper laying of all conduits inside the building and premises, and outside as may be necessary. Remove all excess excavated materials from the site, or as otherwise directed by the Architect.
- B. Excavate all trenches open cut, keep trench banks as nearly vertical as practicable, and sheet and brace trenches where required for stability and safety. Excavate trenches true to line and make bottoms no wider than necessary to provide ample work room. Grade trench bottoms accurately. Machine grade only to the top line of the conduits, doing the remainder by hand. Do not cut any trench near or under footings without first consulting the Architect. All trenches shall be done in accordance with OSHA standards and regulations.
- C. Trenching and backfilling shall be done as per Section 31 23 33. No stones or coarse lumps shall be laid directly on conduit or conduits.
- D. Provide pumps and drainage of all open trenches for purposes of installing electrical duct and wiring.

3.08 ACCESSIBILITY

- A. Install all control devices or other specialties requiring reading, adjustment, inspection, repairs, removal, or replacement conveniently and accessibly throughout the finished building.
- B. All required access doors or panels in walls and ceilings are to be furnished and installed as part of the work under this section.
- C. Provide doors which pierce a fire separation with same fire ratings as the separations.

- D. Refer to 'Finish Schedule' for types of walls and ceilings in each area and the architectural drawings for rated wall construction.
- E. Coordinate work of the various sections to locate specialties requiring accessibility with others to avoid unnecessary duplication of access doors.

3.09 FLASHING

- A. Flash and counterflash all conduits penetrating roofing membrane.

3.10 IDENTIFICATION OF EQUIPMENT

- A. All electrical equipment shall be labeled, tagged, stamped, or otherwise identified in accordance with the following schedules:
- B. General:
 - 1. In general, the installed laminated nameplates as hereinafter called for shall also clearly indicate its use, areas served, circuit identification, voltage and any other useful data.
 - 2. All auxiliary systems, including communications, shall be labeled to indicate function.
 - 3. All labels, tags, and stamps shall use the owner room designation and room numbering system.
 - 4. Provide nameplates for safety switches, switchboards, breakers mounted in switchboards, relay cabinets, signal terminal cabinets, individually mounted enclosed breakers, panelboards, starters, time clocks, remote control switches and similar items. Nameplates shall be laminated black-white-black backlit or phenolic plastic with ¼-inch high lettering engraved through the outer covering except where specifically described otherwise. Affix with self-tapping machine screws (no rivets or glue). The screws shall not project beyond the backside face of enclosure doors or panels.
- C. Conduits and outlet boxes for all special systems including emergency power, fire alarm, and communications systems shall be color coded for identification throughout. Conduits shall be spray painted with the system color code at 3-

- E. Distribution Switchboards and Feeders Sections, Motor Control Centers, Automatic Transfer Switches:
 - 1. Identification shall be with 1" H 4" laminated white micarta nameplates with black lettering on each major component, each with name and/or number of unit and other pertinent data as required. Emergency power distribution panels shall be identified with red micarta nameplates and white lettering. Letters shall be no less than 3/8" high.
 - 2. Circuit breakers and switches shall be identified by number and name with 3/8" H 1-1/2" laminated micarta nameplates with 3/16" high letters mounted adjacent to or on circuit breaker or switch.

- F. Disconnect Switches, Motor Starters and Transformers:
 - 1. Identification shall be with white micarta laminated labels and 3/8" high black lettering.
 - 2. Emergency equipment shall be identified with red labels and 3/8" high white lettering.

3.11 CONSTRUCTION FACILITIES

- A. Furnish and maintain from the beginning to the completion all lawful and necessary guards, railings, fences, canopies, lights, warning signs, etc. Take all necessary precautions required by City, State Laws, and OSHA to avoid injury or damage to any persons and property.

- B. Temporary power and lighting for construction purposes shall be provided under this section. Refer to 'temporary facilities' for description of work.

3.12 GUARANTEE

- A. Guarantee all material, equipment and workmanship for all sections under this division in writing to be free from defect of material and workmanship for one year from date of final acceptance, as outlined in the general conditions. Replace without charge any material or equipment proving defective during this period. The guarantee shall include performance of equipment under all site

- D. Conduit for wiring for all HVAC and plumbing control shall be furnished and installed under Electrical Division.
- E. Power wiring shall be defined as all wiring between the panelboard switchboard overcurrent device, motor control center starter or switch, and the safety disconnect switch or control panel serving the equipment. Also, the power wiring between safety disconnect switch and the equipment line terminals.
- F. All motor starters which are not part of motor control centers and which are required for equipment furnished under this division shall be furnished and installed under the Electrical Division.
- G. Electrical Division shall make all final connections of power wiring to equipment furnished under this division.
- H.

SECTION 26 05 13 – POWER CONDUCTORS

PART 1 - GENERAL

1.01 SUMMARY

A. P

PART 3 - EXECUTION

3.01 SYSTEMS 600 VOLT OR BELOW

- A. Wire and cable shall be pulled into conduits without strain using powdered soapstone, mineralac, or other approved lubricant. In no case shall wire be repulled if same has been pulled out of a conduit run for any purpose. No conductor shall be pulled into conduit until conduit system is complete, including junction boxes, pull boxes, etc.
- B. All connections and joints in wires shall be made as noted below:
- C. Connections to outlets: Wire formed around binding post of screw.
- D. No. 8 wire and larger - Burndy "Quick-Lug" type QDA, or approved equal, round flange, solderless lug.
- E. Fixture Connections: Circuit wiring connections to fixture wire shall be made with pressure type solderless connectors, Buchanan, Scotchlock, Wing Nut, or approved equal.
- F. Joints in Wire: No. 6 wire and larger, Burndy or approved equal.
- G. No. 8 wire and smaller - Buchanan, Scotchlock, Wing Nut, or equal pressure type solderless connectors.
- H. Uninsulated solderless connectors shall be insulated as follows: Tape and covering of rubber tape, equal in thickness in the insulation. This shall be followed with an outer covering of vinyl tape in two layers.
- I. All wiring throughout shall be color-coded as follows:

	<u>480-Volt System</u>	<u>208-Volt System</u>
A Phase	Brown	Black
B Phase	Orange	Red
C Phase	Yellow	Blue
Neutral	Grey	White
Ground	Green	Green

- J. Wiring must be color(c)10(o)-5(d)-5(ed)-7()-2(as f)6(o)-5(llo)-3(ws:)]TJETQq0.0000096TQq0.00000912 0 612 792 reW

SECTION 26 05 26 - GROUNDING

PART 1 - GENERAL

1.01 SUMMARY

- A. Provisions of General Conditions, Supplementary Conditions, Division One, and Section 26 05 00

than 4 feet below grade level, a counterpoise ground electrode shall be used in place of rods. The counterpoise system shall consist (n)-5]TJETQ.0.-2(e4 74(t (n)-5]TJETQ.0.-2(e4 74(t (n)-5]TJETQ.0.-2(e4 74(t (n)8ITJ

SECTION 31 23 00 EXCAVATION AND FILL

PART 1 - GENERAL

1.01 SUMMARY

- A. Provisions of General Conditions, Supplementary Conditions, and Division 01 apply to this section.
- B. Scope of work: The work under this section includes furnishing all labor, materials, and equipment and performing all operations in connection with Excavation and Fill, as indicated on the drawings, specified herein, or reasonably required to complete the work. The work includes, but is not limited to the following:
 - 1. Excavate native soil.
 - 2. Moisture condition existing native soil.
 - 3. Import and compact engineered fill for structures
 - 4. Import and compact engineered fill for concrete hardscape

1.02 DEFINITIONS

- A. Definitions in this section include the following:
 - 1. Backfill: Soil materials used to fill an excavation.
 - 2. Borrow: Satisfactory soil imported from off-site for use as fill or backfill.
 - 3. Excavation: Removal of material encountered above subgrade elevations.
 - 4. Fill: Soil materials used to raise existing grades.
 - 5. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.
 - 6. Utilities include on-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

- G. Finish Grading: Place native top soil remo

SECTION 31 23 33 – TRENCHING AND BACKFILLING

PART 1 - GENERAL

1.01 SUMMARY

- A. Provisions of General Conditions, Supplementary Conditions, and Division One apply to this section.
- B. Scope of Work: The work under this section includes furnishing all labor, materials, and equipment and performing all operations in connection with Trenching and Backfilling, as indicated on the drawings, specified herein, or reasonably required to complete the work. The work includes but is not limited to the following:
 - 1. Excavation, backfill and compaction for utilities.
- C. Related Section:
 - 1. Section 33 11 16: Site Water Distribution Piping.
 - 2. Section 33 31 00: Sanitary Sewerage Piping.
 - 3. Section 33 51 13: Natural Gas Piping.

1.02 GENERAL PROVISIONS

- A. Contractor is responsible for the accuracy of all layout work and grades. Erect sheeting, shoring and bracing as necessary for protection of persons, improvements, and excavations. Keep excavation free from water and other fluids until backfilling is completed.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Backfill material shall be non-expansive granular soils that meet the USCS classifications of SM, SP-SM, or SW-SM, with a maximum rock size of 3 inches, and 5 to 20% passing the No. 200 sieve and a minimum sand equivalent of 20.
- B. Select bedding sand shall be Class A screened fill sand with a maximum particle size of 1-1/2 inches, not to exceed 18 percent, free of expansive materials, debris, and organic matter.

PART 3 - EXECUTION

3.01 TRENCHING

- A. Layout: Lay out route of each underground utility prior to trenching. Review drawings and coordinate with adjacent underground work to avoid conflicts.
- B. Clearances: Maintain required horizontal and vertical depth clearances from structural footings or utility trenches running parallel to footings. Maintain area of footing bearing prism and in event that the utility cannot be relocated or its depth changed, proceed as directed by Architect. Where required, lowering of structural footings to maintain proper clearances for underground utilities trenching shall be accomplished as directed.

- C. Excavate trenches for utilities to required lines, grades and elevations indicated on drawings and as specified. Hand trim changes in direction and bottoms of trenches. Provide shoring in trenches over 5 feet in depth and also in trenches where unstable soil conditions are encountered.
- D. Pipe Trench Dimensions: Following requirements are considered minimal unless drawings indicate otherwise in order to provide adequate pipe clearances and bedding. Provide trenches wider than specified minimum where required to properly install particular type of piping. In event that utility company regulations, code requirements, or pipe manufacturer's recommendations differ from these provisions, most restrictive requirements shall take precedence. Pipe burial depth is from finish grade or pavement surface to top of pipe. Trench width shall be measured at top of pipe.

1. Pipe Burial Depths:

Sewer and Drainage:	24" + pipe O.D. + 3" bed
Gas:	30" + pipe O.D. + 4" bed
Water (Domestic)	
PVC:	30" + pipe O.D. + 4" bed

2. Trench Width:

Sewer & Drainage:	12" min., 18" max + pipe O.D. for 4" to 18" dia. pipe
Gas:	8" + pipe O.D.
Water (Domestic):	8" + pipe O.D.

E. Common Trench Requirements:

- 1. Copper piping or metal gas piping shall not be installed in a common trench with any other dissimilar.
- 2. Multiple parallel lines of piping in a common trench shall be separated a minimum of 12 inches, both horizontally and vertically, between individual pipes.
- 3. Domestic water piping shall not run parallel in a common trench with sewer or drainage lines.
- 4. Electrical power and communications conduit, etc. shall not be run in a common trench with sewer, drainage, water or gas piping.

F. Additional provisions for Underground Piping within Building Areas: Refer to applicable specification sections of Division 15 and as indicated on drawings.

G. Requirements for Underground Electrical and Communications Conduit, Ducts, etc.: Refer to applicable specification sections of Division 16 and as indicated on drawings.

3.02 BEDDING AND BACKFILLING OF TRENCHING

- A. Bedding: Lay and bed pipe in compacted select bedding sand of thickness specified above 0.0-nBT to

SECTION 32 13 00 SITEWORK CONCRETE

PART 1 - GENERAL

- C. Reinforcement: Unless indicated otherwise on the drawings, provide welded steel wire fabric, 6 inches by 6 inches, No. 6 gage at mid-height of sidewalks and ramps. Interrupt reinforcement at expansion joints.
- D. Concrete Placement: Dampen subgrade to ret