



**PROJECT & FACILITIES MANAGEMENT
DEPARTMENT**

**172 & 351 BUILDING DEMOLITION PROJECT
SAN BERNARDINO, CALIFORNIA**

PROJECT SPECIFICATIONS

10.10.1508

May 15, 2023



Scope of Total Building Demolition
For
Hall of Records (HoR) and Public Health (PH) Buildings

The HoR and PH buildings shall be demolished in their entirety including utilities. The reinforced shoring shall be provided for demolition of structural footings and foundation below grade. The contractor shall submit engineering analyses, calculations, and plans for geotechnical and structural shoring and backfill to the grade level signed and stamped by a California licensed civil / structural engineer for review. The contractor shall submit a take-down demolition, excavation, shoring, backfill compaction, disposal, and safety protection program including calculations, plans, procedures, and sequences prior to commencement of the building demolition.

1. Architectural improvements.
2. Structural improvements.
3. Mechanical improvements.
4. Electrical improvements.
5. Plumbing improvements.
6. Fire alarm improvements.
7. Fire sprinkler improvements.
8. Communications and data transmission improvements.
9. Underground sewer piping improvements.
10. Underground storm drainage piping improvements.
11. Water service piping improvements.
12. Underground high voltage (HV) power improvements from the central plant.
13. Underground steam and steam condensate return piping improvements from the central plant.
14. Underground communications and data transmission improvements.

The contractor shall verify all existing improvements, not limited to the above-mentioned improvements, and completely remove and dispose of them in a legal manner as allowed by the City, County, California, and federal regulations.



DAHL, TAYLOR & ASSOCIATES, INC.

CONSULTING ENGINEERS

Hall of Records (HoR) Building

The Hall of Records (HoR) building has a basement and six (6) stories above grade, is a reinforced concrete structure, and is also referred to as the 172 building. The following documents are provided for reference only.

1. 172 A2-6 and A8-10 architectural plans.
2. 172 E1-9 electrical plans.
3. 172 P1-5 plumbing plans.
4. 172 S1-4, 9, 14, 16, & 17 structural plans.

Public Health (PH) Building

The Public Health (PH) building has a basement and four (4) stories above grade, is a reinforced concrete structure, and is also referred to as the 351 building. The following documents are provided for reference only.

1. 351 architectural plans and alteration plans 1964.
2. 351 AC1-7 mechanical plans.
3. 351 E1-9 electrical plans.
4. 351 P1-4 plumbing plans.
5. 351 S1-12 structural plans.

The following documents are common to both buildings and are provided for reference only.

1. Site plan.
2. GPR site map by GeoVision.
3. Underground (UG) high voltage (HV) feeder map.

The attached photographic documents of both buildings are provided for informational purposes only.

10.10.1508 - 172 & 351 BUILDING DEMOLITION PROJECT

PROJECT SPECIFICATIONS

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SECTION 01100**SUMMARY OF THE WORK****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 WORK INCLUDED IN THE CONTRACT

- A. Work Included in the Contract: All Demolition and services required for the Hall of Record (HoR) and Public Health (PH) Buildings Demolition Project, including:
 - 1. Site preparation and protection.
 - 2. Site utilities and lighting removal and protection.
 - 3. Site paving and hardscape removal and protection.
 - 4. Landscape irrigation system and landscape planting removal and protection.
 - 5. Site removal and protection.
 - 6. Building removal and protection.
 - 7. Building Utility disconnections and shut offs to maintain continuous operations for remaining structures and facilities.

1.3 PERMITS, LICENSES AND FEES

- A. Permits, Licenses and Fees, General: Refer to Contract General Conditions, Article 4.12.
- B. Licenses: Contractor shall obtain and pay all licenses associated with Demolition activities, such as business licenses, contractors' licenses and vehicle and equipment licenses. All costs for licenses shall be included in the Contract Sum.
- C. Parking Fees: Contractor shall obtain and pay for all parking permits and fees for vehicles parked off the Demolition Site if required. Refer to Section 01550 - Vehicular Access and Parking for additional parking requirements.

PART 2 – PRODUCTS (Not Used)**PART 3 – EXECUTION** (Not Used)**END OF SECTION**

SECTION 01140**WORK RESTRICTIONS****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 CONTRACTOR'S USE OF PREMISES AND SITE, GENERAL

- A. Contractor's Use of Premises and Site, General: Refer to General Conditions, Article 4.00.
1. Contractor shall always perform Work so as to impose no hardship on the County or others engaged in the County's work nor cause unreasonable delays or hindrance thereto.
 2. Demolition activities shall be scheduled to minimize disruption to the County and to Campus users.
 3. Contractors may not interrupt any Campus utilities without prior written permission from the County.

1.3 USE OF PREMISES

- A. Use of Site and existing Structures: Limit use of premises to work in areas indicated. Do not disturb portions of site beyond areas in which the Work is indicated.
1. Limits: Confine Demolitions operations to Project Area indicated on the Drawings. Use of other areas shall be only with the approval of County's Representative.
 2. County Occupancy: Where existing buildings and site areas are indicated for continued use by County, make provisions to continued use by scheduling and sequencing of Work under the Contract. Make provisions for temporary barriers, enclosures, covers, directional signage and other Demolition facilities and temporary controls to enable continuing use. Allow also for County occupancy of site.

1.4 CONTRACTOR'S USE OF PROJECT AREA

- A. Location of Work: The Work shall be accomplished within areas indicated on Drawings as Project Area or, if not indicated, to areas as directed by County's Representative. Use of other areas, including parking areas, shall be subject to approval by the County's Representative. Refer to Section 01525 - Demolition Staging Areas and Section 01550 - Vehicular Access and Parking for additional requirements.
1. The contractor shall not unreasonably encumber the site with materials or equipment.

2. The contractor shall assume full responsibility for the protection and safekeeping of equipment and materials stored on the premises.
 3. Contractors shall move any stored equipment which interferes with operations of County or contractors performing work under separate contracts for County.
 4. Temporary closures or restrictions of use of public thoroughfares, necessary to accomplish the Work, shall be made only as approved in advance by public safety and parking authorities having jurisdiction, as directed by County's Representative.
- B. Contractor's Use of the Project Area: Unless otherwise specified or indicated in the Drawings, during the Demolition period the Contractor shall have full use of the designated Project Area for Demolition operations, including use of the site. The contractor's use of Project Area shall be limited only by County's right to perform Demolition operations with its own forces or to employ separate contractors on portions of the Project in accordance with the Contract General Conditions.
- C. General Use of Adjacent Facilities: New Demolition activities shall not impact the weather or rain protection / drainage systems of adjacent facilities throughout Demolition period. Repair damage caused by Demolition operations.
- D. Protection of Existing Improvements and Facilities: Contractor shall protect property adjacent to the Project Area and all existing improvements and facilities within the Project Area, including paving and landscaping indicated to remain.
1. All existing improvements and facilities, except those specifically indicated for removal, shall be protected with temporary barriers, enclosures, and passageways. Refer to additional requirements specified in Section 01560 - Temporary Barriers and Enclosures.
 2. After completion of Work, existing improvements and facilities shall be restored to original condition and location. Project Area shall be cleaned and restored to presentable condition, equivalent to or better than the condition prior to start of Work.
 3. Should existing improvements and facilities be damaged or soiled beyond renovation or repair, new products shall be provided by Contractor equivalent to existing products, as directed by County's Representative.
- E. Project Area Access: Limit access to site to indicated routes and access points as indicated. If routes and access points are not indicated, access shall be as approved and as directed by County's Representative. Do not restrict access to adjacent facilities and do not restrict access for those performing work under separate contracts for the County.
1. Access to and egress from Project Area shall be in strict conformance to prearranged routes approved by County's Representative, with the understanding that curtailment of Demolition traffic or revision of access routes may be required on short notice if County's

operations mandate such changes because of excessive noise or problems of safety, service, or supply.

2. Driveways and Entrances: Keep driveways and entrances always serving premises clear and available to service and emergency vehicles. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
 - b. Emergency Access: Provide pathways, drives, gates, directional signage, and other provisions as required by authorities having jurisdiction for emergency access to Project Area and adjoining campus facilities. This may require providing 'break-away' fencing sections at critical locations to access emergency fire department access points, fire hydrants, etc.
 - c. Emergency Egress: Maintain all pathways, drives, gates, and other means of egress during Demolition as required by public safety authorities having jurisdiction.

1.5 TIME RESTRICTIONS

- A. Contractor's Work Hours: Work shall be limited to Monday through Friday, except County-observed holidays (unless prior approval has been granted by the County), during hours of 7:00 a.m. to 5:00 p.m. Contractor can begin his daily mobilization effort at 6:00 a.m. if the trades and their Demolition vehicles do not create an unacceptable noise condition. Defining an unacceptable noise condition will be at the sole discretion of the County and is not to be appealed to by the Contractor.
 1. Work on other days and at other hours shall be only with written approval of County's Representative. Provide 3 days' notice in writing to County's Representative for all work outside normal work hours and days as stated above.
 2. Any work, during the week prior to and of final exam periods, shall be restricted to work that does not produce any unacceptable noise – as determined by the County. This includes any vibrations and other distracting and inhibiting activities.
 3. If it becomes necessary to perform Work on weekends and holidays, to meet milestone and final completion dates, Work shall be performed at no change in Contract Sum unless authorized by written Change Order or Field Instruction.
- B. Utility Outages and Shutdown: Schedule utility outages and shutdowns to nights, weekends, school holidays or times and dates acceptable to and approved by County's Representative. Shutdown of utility services during normal business hours shall be limited to a maximum timeframe of 2 hours for a one-day period unless other arrangements have been discussed and approved by the County beforehand. Utility interruptions are not allowed to impact campus activities and written approval in accordance with Paragraph B.2 is required. Emergency

generators may be necessary, with regards to an electrical impact, which will include the Contractor retaining a high-voltage subcontractor, (HV sub will need to be approved by the County as well as their safety shut-down / close procedures) and installing any necessary temporary equipment, temporary transfer switches, temporary cabling, etc. to successfully complete the work while electrical service has been interrupted.

1. Time and duration of outages and shutdowns shall not hinder normal campus activities except as authorized in writing by County's Representative.

2. **Total Project Utility Impact Matrix** submission requirement:

Contractor shall provide an extraction from their Demolition schedule that isolates all utility outages. This matrix will need to be submitted a min. of 60 calendar days prior to the start of work that is critical path supporting any utility interruption or outage. Matrix's format will require County's Representative approval. Matrix's information will include, at a minimum, which utility will be impacted, type of impact, location(s) on project site or anywhere on campus that will be affected by this interruption or outage and duration expected. Matrix to include a column that reads: Temporary measures in-place so that the Contractor can fill this out in advance for review / approval by the County.

Individual utility impact submission requirement:

From the general information provided in the matrix noted above, Contractor will submit a separate request at least 30 calendar days, prior to each utility outage or interruption, requesting approval from the County's Representative, for that specific impact. Critical information necessary to be submitted: Identify the utility, type of impact and expected date and duration. The most important item to be submitted for review / approval is the temporary plan, the Contractor will provide, to mitigate the impact's affect to the County including the immediate adjacent facilities. This plan may include at no additional cost to the County, temporary signage for either vehicular or pedestrian detours, temporary roadway steel plates or temporary walkways, temporary site lighting or additional fencing and screening that may need to be moved, modified, or be reset more than once during any given impact / utility outage. This mitigation plan needs to be developed as an acceptable option to the General Contractor prior to presenting it to the County. Contractor is required to perform his 'due diligence' before submitting mitigation plan to the County.

3. The contractor shall provide temporary utilities to occupied facilities and adjacent properties when utilities must be interrupted for more than two hours, unless otherwise directed by County's Representative.
4. Power interruptions beyond the authorized time shall be subject to liquidated damages in the amount of \$4,000 per day.
5. Refer also to requirements for temporary utilities specified in Section 01510 - Temporary Utilities.

1.6 NOISE AND VIBRATION RESTRICTIONS

- A. Noise Restrictions: Minimize noise from Demolition activities. Limit loud Demolition activities to dates and times noted above. The County will determine what constitutes 'loud Demolition' activities.
- B. Vibration Restrictions: Do not perform activities which cause vibrations in adjacent occupied spaces, including spaces above and below location where Work is performed. If vibrations through structure, perform Work, during normal business hours, at times when County activities are not being conducted.

PART 2 - PRODUCTS

Not Applicable to this Section

PART 3 - EXECUTION

Not Applicable to this Section

END OF SECTION

NOT FOR BIDD

SECTION 01310**PROJECT MANAGEMENT AND COORDINATION****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Coordination of Work under Contract.

1.3 RELATED SECTIONS

- A. Section 01100 - Summary of the Work:

1.4 COORDINATION

- A. Coordination, General:

1. Coordinate the Work according to provisions stated in Contract General Conditions. Do not delegate responsibility for coordination to any subcontractor.
 - a. Anticipate the interrelationship of all subcontractors and their relationship with the total work.
 - b. Resolve differences or disputes between subcontractors and materials suppliers concerning coordination, interference, or extent of work between sections. The Contractor's decisions, if consistent with the Contract Documents, shall be final. The Engineer is not required to coordinate work between sections and will not do so.
 - c. Coordinate the work of subcontractors and material suppliers, so that their work is performed in a manner to minimize interference with, and to facilitate the progress of the work.
2. Coordinate Work under the Contract with work under separate contracts by County.
3. Coordinate utility and building services shut downs and closures of vehicular and pedestrian thoroughfares, including access to buildings and parking areas, to minimize disruption of County activities.
4. Be responsible for providing anchorage, blocking, joining and other detailing as required to provide complete project.

5. Do not obstruct spaces required by the Code in front of electrical equipment, access doors, etc.
 6. Do not cover any piping, wiring, ducts, etc., until properly inspected and approved and until proper certificates have been issued.
 7. Remove and replace all Work under any Section which is not in accordance with the Contract Documents with other materials and Work which is in conformance with the Contract Documents. Repair or replace all other Work damaged by these operations at no increase in contract price.
 8. This work shall be coordinated with all associated Work in a manner that will ensure that all work will be accomplished as rapidly as the progress of the project will permit and so that no work will be delayed for want of associated work.
- B. Relationship of Contract Documents: Drawings, Specifications and other Contract Documents in the Project Manual are intended to be complementary. What is required by one shall be as if required by all. What is shown or required, or may be reasonably inferred to be required, or which is usually and customarily provided for similar work, shall be included in the Work.
- C. Discrepancies in Contract Documents: In the event of error, omission, ambiguity or conflict in Drawings or Specifications, Contractor shall bring the matter to attention of County's Representative in a timely manner during the bidding period, for determination and direction by County's Representative in accordance with provisions of the Contract General Conditions.
- D. Demolition Interfacing and Coordination: Layout, scheduling and sequencing of Work shall be solely the Contractor's responsibility.
1. The contractor shall verify, confirm, and coordinate field measurements so that Demolition correctly and accurately interfaces with conditions existing prior to Demolition.
 2. Contractor shall bring together the various parts, components, systems, and assemblies as required for the correct interfacing and integration of all elements of Work. Contractor shall coordinate Work to connect abutting, adjoining, overlapping and related elements, including work correctly and accurately under separate contracts by County, utility agencies and companies.

1.5 COORDINATION OF SUBCONTRACTS AND SEPARATE CONTRACTS

- A. Superintendence of Work: Contractor shall appoint a field superintendent and a project manager, who shall directly, and full time supervise and coordinate all Work of the Contract.
- B. Subcontractors, Trades and Materials Suppliers: Contractor shall require all subcontractors, trades, crafts and suppliers to coordinate their portions of Work with the Contractor's field superintendent to prevent scheduling, sequencing, dimensional and other conflicts and omissions.

1.6 MECHANICAL AND ELECTRICAL COORDINATOR

- A. Mechanical and Electrical Coordinator: Contractor shall employ and pay for services of a person, technically qualified and administratively experienced in field coordination for the type of mechanical and electrical Work required for this Project, for the duration of the Work.
 - 1. Work out all "tight" conditions involving work of various sections in advance before installation. If necessary, and before work proceeds in these areas, prepare supplementary drawings for review showing all work in "tight" areas.
 - 2. Provide supplementary drawings and additional work necessary to overcome "tight" conditions at no increase in contract price. Refer to Section 01330, "Submittal Procedures."

PART 2 - PRODUCTS

Not Applicable to this Section.

PART 3 - EXECUTION

3.1 COORDINATION REQUIRED

- A. Coordinate progress schedules.
- B. Conduct meetings with Contractor, suppliers, installers, and others concerned with the Work, to establish and maintain coordination of layout, sequencing and completion of various elements of Work.
- C. Participate in Demolition progress meetings. Report on progress of Work to be adjusted under coordination requirements and any necessary changes in sequencing and scheduling of Work.
- D. Transmit minutes of coordination meetings and reports to County's Representative, Engineer, Engineer's consultants (as applicable) and to meeting participants.
- E. Field Conditions: Mechanical and electrical coordinator shall verify field dimensions and clearances and relationship to available space provisions. Report conflicts in writing to County's Representative.

3.2 OBSERVATION OF WORK

- A. Observations by Mechanical and Electrical Coordinator: Mechanical and electrical coordinator shall assist Contractor and inspectors in determining compliance of Work with requirements of the Contract Documents.
- B. Mechanical and Electrical Exception List: Mechanical and electrical coordinator shall maintain list of observed deficiencies and defects, and proposed remedial actions, including completion

date for remedial actions.

1. The exception list shall be made available promptly upon request for review by Contractor, County's Representative and Engineer.

END OF SECTION

NOT FOR BID

SECTION 01312**PROJECT MEETINGS****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 REQUIREMENTS INCLUDED

- A. Pre-Demolition conference.
- B. Demolition progress meetings.

1.3 RELATED REQUIREMENTS

- A. Section 01450 - Quality Control: General requirements for Demolition quality, to be reviewed at Demolition progress meetings.
- B. Section 01321 - Demolition Progress Schedules: General requirements for Demolition progress schedules, to be reviewed at Demolition progress meetings.
- C. Section 01322 - Demolition Progress Reports: General requirements for Demolition progress reports, to be reviewed at Demolition progress meetings.
- D. Section 01770 - Contract Closeout Procedures: Contract closeout meeting.

1.4 PRE-DEMOLITION CONFERENCE

- A. Pre-Demolition Conference: County's Representative will administer a pre-Demolition conference immediately prior to Contractor mobilization onto the project site. The contractor shall record minutes during this meeting and make appropriate distribution to all County Representative's selected Team members.
 - 1. Representatives of the County, the Contractor, Engineer, and Engineer's Consultants, and campus representatives, as appropriate, will attend.
 - 2. Contractors and major subcontractors, as appropriate, shall attend.
- B. Schedule: Schedule Pre-Demolition conference within 5 days of Demolition start date established in the Notice to Proceed.
- C. Location: The Pre-Demolition conference will be held at a location as directed by the County's

Representative.

- D. **Site Mobilization Meeting:** County's Representative will administer site mobilization meeting for clarification of responsibilities of County, Engineer, and Contractor in use of site and for review of contract administration.
- E. **Schedule:** Site mobilization meeting shall be immediately prior to Contractor's move onto site, unless otherwise directed by County's Representative.
- F. **Location:** At Project site, unless otherwise directed.
- G. **Agenda:** Site mobilization meeting shall cover the following topics as a minimum.
 - 1. **Special Project Procedures:** Site access restrictions, if any, and requirements to avoid disruption of operations at adjoining facilities. Present County's requirements for use of premises.
 - 2. **Designation of Key Personnel:** Contractor shall designate key personnel and provide a name and address list which includes the following.
 - a. Contractor: Project Manager and Superintendent.
 - b. Major subcontractors: Principal/Project Manager and Superintendent.
 - c. Major materials suppliers: Contact person.
 - 3. **Subcontractors List:** Distribute and discuss list of subcontractors and suppliers.
 - 4. **Coordination:** Review requirements for Contractor's coordination of Work. Review sequence and schedule for work being performed for County under separate contracts. Discuss coordination of Demolition to minimize impacts on continuing Campus operations.
 - 5. **Project Communication Procedures:** Review requirements and administrative requirements for written and oral communications.
 - 6. **Demolition Schedule:** Distribute and discuss initial Demolition schedule and critical work sequencing of major elements of Work.
 - 7. **Campus and Site Security:** Review requirements for Contractor to develop and implement site security.
 - 8. **Safety Program:** Review requirements for Contractor to develop and implement safety program in compliance with Contract General Conditions.
 - 9. **Site Access by County's Representative and Engineer:** Review requirements and administrative procedures Contractor may wish to institute for identification and reporting purposes.

10. Permits and Fees: Review Contract requirements and review schedule and process for obtaining permits and paying fees.
11. Project Layout: Review requirements for layout of Work, including surveying requirements.
12. Demolition Facilities: Designate storage and staging areas, Demolition office areas and parking areas and review site access requirements.
13. Temporary Utilities: Requirements for establishing and paying for temporary water, power, lighting and other utility services during Demolition, including metering and allowances. Refer to Section 01510 - Temporary Utilities.
14. Demolition Progress Schedules: Review requirements for preparation and updating of Demolition progress and submittals schedules.
15. Payment Procedures: Review requirements for preparation and submission of applications for progress payments and for final payment.
16. Change Procedures: Review requirements and administrative procedures for Change Orders, Field Instructions and Contractor's Requests for Interpretation (RFI).
17. Demolition Cleaning: Review requirements for progress and final cleaning specified in Section 01740 - Cleaning Requirements.
18. Contract Closeout: Review requirements specified in Section 01770 - Contract Closeout Procedures, including procedures for filing of Notice of Completion, final payment, and submittals.

1.5 DEMOLITION PROGRESS MEETINGS

- A. Demolition Progress Meetings: Meetings will be held to review progress and quality of Demolition. The essence of the discussion of each meeting shall be entered into the written record (minutes) of the meeting.
- B. Schedule: Demolition progress meetings shall be periodically scheduled throughout progress of the Work. Frequency shall be as determined necessary for progress of Work. Generally, it is intended that Demolition progress meetings be held at weekly intervals.
- C. Administration: Contractor shall make physical arrangements for meetings. The contractor will prepare an agenda with copies for participants, preside over meetings, record minutes, and distribute copies within two working days to County's Representative, Engineer, participants, and those affected by decisions made at meetings. Each discussion item at Demolition progress meetings shall be numerically identified and carried through subsequent meeting minutes until resolved.
- D. Attendance: Contractor's project manager and jobsite superintendent shall attend each meeting. The contractor's subcontractors and suppliers may attend as appropriate to the subject under

discussion. The County's Representative will attend each meeting. Engineer and Engineer's consultants, as appropriate to agenda topics for each meeting and as provided in the County-Engineer Agreement, will also attend.

E. Suggested Agenda for Each Demolition Progress Meeting:

1. Meeting Minutes: Review and correct, if necessary, minutes of previous meeting.
 - a. Unless published minutes are challenged in writing prior to the next regularly scheduled progress meeting, they will be accepted as properly stating the activities and decisions of the meeting.
 - b. Persons challenging published minutes shall reproduce and distribute copies of the challenge to all indicated recipients of the particular set of minutes.
 - c. Challenge to minutes shall be settled as priority portions of "old business" at the next regularly scheduled meeting.
2. Progress of the Work: Since last meeting and proposed progress.
 - a. Identify potential problems which might impede progress.
 - b. Develop corrective measures and procedures, including but not necessarily limited to additional man loading to regain planned schedule.
 - c. Review 3-week "look ahead" Demolition schedule, including identification of conflicts and delays.
3. RFI Status: Review status of Requests for Interpretation (RFI) status.
4. Submittals Status: Review shop drawings, product data and samples submission and review status.
5. Contract Modifications: Pending Change Orders and Field Orders. Review status of proposed substitutions.
6. Old Business: Active discussion topics carried over from previous meetings.
7. New Business: New topics of discussion affecting Demolition progress and quality.
8. Quality Control: Review maintenance of quality standards and identification of non-conforming Work, including proposed remedial measures to be taken by Contractor.
9. Project Record Documents: Status of project record drawings and specifications.
10. Environmental and Safety Issues.
11. Other items affecting progress and quality of the Work.

F. Meeting Time and Location: As mutually agreed by County's Representative and Contractor, at on-site location.

- G. Special Meetings: As necessary, the County's Representative may convene special meetings to discuss specific Demolition issues in detail and to plan specific activities.

1.6 CONTRACT COMPLETION MEETING

- A. Contract Closeout Meeting.

PART 2 - PRODUCTS

Not applicable to this Section.

PART 3 - EXECUTION

Not applicable to this Section.

END OF SECTION

NOT FOR BID

SECTION 01320**ELECTRONIC PROJECT MANAGEMENT SYSTEM****1.1 GENERAL****1.2 DESCRIPTION**

- A. This Section is in addition to the Contract General Conditions.
- B. The Contractor shall provide and maintain an Electronic Project Management (EPM) system, Prolog Website and/or Prolog Manager, by Meridian Project Systems for electronic Demolition management document control and communications among the County, Engineer of Record, other project-related consultants, and Contractors. The Contractor shall provide one (1) Prolog Manager Enterprise license, for County's use, to facilitate the use of the program during the project and shall become the property of the County at project completion. The Contractor will be responsible for additional licenses renewal fees after the license has been turned over to the County for a period of 1 year from the filing of the project's Notice of Completion. The system will be maintained by the Demolition Manager @ Risk but operated collaboratively by the Project Team.
- C. The EPM system will contain information the following information available to the contractor and project team:
1. Submittal Information and Logs
 2. Requests for Information and Logs
 3. Inspection Requests / Reports
 4. Non-Compliance Inspection Reports
 5. Project Photographs
 6. Project Meeting Minutes
 7. Project FTP Site
 8. Electronic Drawings, Sketches and any Architectural Supplemental Issued (ASI's) sketches.
 9. Other Documentation as determined by the County's Representative.
- D. All Request for Information (RFIs) and Inspection Requests shall be submitted by the Contractor to the County electronically, via Prolog Website.

- E. The County will **NOT** except faxed and/or computer-generated documentation and/or hand written documentation of RFIs, RFI Sketches, and/or Inspection Requests unless approved by the County.
1. The Contractor shall be solely responsible for data entry via Prolog Website for the generation of RFIs.
 2. The contractor shall be solely responsible for the scanning of sketches / drawings as necessary for the electronic submittal and attachment of necessary information related to RFIs.
 3. Contractor shall supply field personnel all necessary computer equipment necessary to enter RFI's electronically.
- F. Submittals shall be submitted via hard copy per Section 01330 Submittals.

1.3 CONTRACTOR'S RESPONSIBILITIES

- A. The Contractor shall have sufficient computer(s) with capabilities to access the system at their on-site and off-site project offices. At the pre-Demolition meeting, the Contractor shall provide to the County's Representative the email addresses of all Contractor personnel that the Contractor chooses to have access to the EPM system and information. At a minimum, this will include the Contractor's Project Manager and Superintendent. These personnel shall have sufficient computer skills required to access the Internet, log on to the EPM system, and utilize the system. The Contractor shall plan an average of 4-hour training for each of the Contractor's personnel who will be using the system. Having the above capability in place onsite is a condition precedent to processing the Contractor's first payment request.

1.4 OFFICIAL RECORDS

- A. The documentation and records maintained on the EPM system will be the "Official Records" for the project. This documentation shall be the records for the adjudication of all disputes. At the conclusion of the project all records can be made available via Adobe "pdf" and/or Prolog Manager "bex" files for import/export.

END OF SECTION

SECTION 01321**DEMOLITION PROGRESS SCHEDULES****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Requirements for Demolition Schedule, for monitoring and reporting progress of Demolition. Section 4.17 of the Contract General Conditions will govern the case of a conflict within Section 01321 including all sub paragraphs.
- B. Requirements for Submittals Schedule, for monitoring and reporting status of submittals of product data, shop drawings, samples, and reports of quality control activities.

1.3 RELATED SECTIONS

- A. Section 01100 - Summary of the Work: Summary of multiple prime contracts, for preparing a combined Contractor's Demolition Schedule.
- B. Section 01330 - Submittals Procedures: General requirements for submittals to be included in Submittals Schedule.
- C. Section 01450 - Quality Control: Submission of schedule of tests and inspections.

1.4 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the Demolition project. Activities included in a Demolition schedule consume time and resources.
 - 1. Critical activities are activities on the critical path. They must start and finish on the planned early start and finish times.
 - 2. Predecessor activity is an activity that must be completed before a given activity can be started.
- B. CPM: Critical path method, which is a method of planning and scheduling a Demolition project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of a Project.

- C. **Critical Path:** The longest continuous chain of activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. **Event:** The starting or ending point of an activity.
- E. **Float:** The measure of leeway in starting and completing an activity.
 - 1. Float time is not for the exclusive use or benefit of either County or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the following activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- F. **Fragnet:** A partial or fragmentary network that breaks down activities into smaller activities for greater detail.
- G. **Major Area:** A story of Demolition, a separate building, or a similar significant Demolition element.
- H. **Milestone:** A key or critical point in time for reference or measurement.
- I. **Network Diagram:** A graphic diagram of a network schedule, showing activities and activity relationships.

1.5 SUBMITTALS

- A. **Qualification Data:** For firms and persons specified in Article titled "Quality Assurance" and in-house scheduling personnel to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of Engineers and owners, and other information specified.
- B. **Submittals Schedule:** Submit a minimum of four copies of the schedule. Refer to copy and printing quantity below. Arrange the following information in a tabular format:
 - 1. Scheduled date for first submittal.
 - 2. Specification Section number and title.
 - 3. Submittal category (action or informational).
 - 4. Name of subcontractor, trade contractor.
 - 5. Description of the Work covered.

6. Scheduled date for County's final release or approval.
 7. Purchase Date
 8. Installation Date
- C. Preliminary Demolition Schedule, Final Demolition Schedules, and Project's Final As-built Schedules: Submit one full size color printed copy & three (3 ea.) half size reduced to a readable ½ size color print – 11" x 17" and an electronic pdf.
- D. Preliminary Network Diagram: Submit on full size set and three (3 ea.) reduced to a readable ½ size color print – 11" x 17" that shows entire network for entire Demolition period.
- E. Contractor's Monthly Updated Demolition Schedule: Submit one full size sheet of initial schedule and three (3 ea.) reduced to a readable ½ size color print – 11" x 17" that will show entire schedule for entire Demolition period. This delivery is required every month and submission will include incorporating all Field Instructions, Critical Path Change Order Requests as well as all approved Change Orders.
1. Submit an electronic copy of schedule, using software indicated, on compact disk (CD) labeled to comply with requirements for submittals. Include type of schedule (Initial or Updated) and date on label.
 2. Prepare and submit at each Demolition Project Meeting, a three-week "look ahead" schedule. This schedule shall be updated every two weeks. Contractor, County's Representative and Engineer shall review this schedule at the Demolition Progress Meeting to identify early changes in progress and conflicts. Look-ahead schedules to be printed on standard 8 ½ x 11.
- F. CPM Reports: Concurrent with CPM schedule, submit four printed copies of each of the following computer-generated reports. The format for each activity in reports shall contain activity number, activity description, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float.
1. Activity Report: List of all activities sorted by activity number and then early start date, or actual start date if known.
 2. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by activity number and then early start date, or actual start date if known.
 3. Total Float Report: List of all activities sorted in ascending order of total float.

1.6 QUALITY ASSURANCE

- A. Scheduling Consultant Qualifications: An experienced specialist in CPM scheduling and reporting.

- B. Prescheduling Meeting: Conduct meeting at Project site to comply with requirements in Section 01312 - Project Meetings. Review methods and procedures related to the Preliminary Demolition Schedule and Contractor's Demolition Schedule, including, but not limited to, the following:
1. Review software limitations and content and format for reports.
 2. Verify availability of qualified personnel needed to develop and update schedule.
 3. Discuss constraints, including phasing, work stages, area separations, interim milestones, and partial occupancy by County.
 4. Review time required for review of submittals and resubmittals.
 5. Review requirements for tests and inspections by independent testing and inspecting agencies.
 6. Review and finalize list of Demolition activities to be included in schedule.
 7. Review submittal requirements and procedures.
 8. Review procedures for updating schedule.

1.7 COORDINATION

- A. Schedules Coordination, General: Coordinate preparation and processing of schedules and reports with performance of Demolition activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's Demolition Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
1. Secure time commitments for performing critical elements of the Work from parties involved.
 2. Coordinate each Demolition activity in the network with other activities and schedule them in proper sequence.

1.8 REVIEWS BY COUNTY'S REPRESENTATIVE AND ENGINEER

- A. Reviews by County's Representative and Engineer: Review by County's Representative and Engineer will be to ascertain the general status of Demolition and shall not be interpreted to establish or approve the means, methods, techniques, and sequences of Demolition.

1.9 REVIEW BY CONTRACTOR

- A. Reviews by Contractor: All schedules shall be reviewed and approved by the Contractor prior to submission for review by County's Representative and Engineer.
- B. Changes and Deviations: Identify all deviations from requirements of Contract Drawings and Contract Specifications.
 - 1. Changes in the Work shall not be authorized by submittals review actions.
 - 2. No review action, implicit or explicit, shall be interpreted to authorize changes in the Work.
 - 3. Changes shall only be authorized by separate written Change Order or Field Instruction, in accordance with the Contract General Conditions.

PART 2 - PRODUCTS

2.1 SUBMITTALS SCHEDULE

- A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by Demolition schedule. Include time required for review, resubmittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
 - 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Demolition Schedule.
 - 2. Initial Submittal: Submit concurrently with Preliminary Demolition Schedule. Include submittals required during the first 60 days of Demolition. List those required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
 - 3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's Demolition Schedule.

2.2 CONTRACTOR'S DEMOLITION SCHEDULE, GENERAL

- A. Computer Software: Prepare schedules using computer program that has been developed specifically to manage Demolition schedules, as identified in the Contract General Conditions, Article 4.17 "Progress Schedule" and as acceptable to County's Representative.
 - 1. Computer program shall be compatible with program version used by California State Polytechnic County, Pomona.
 - 2. Comply with specific requirements as directed by County's Representative.
- B. Procedures: Comply with procedures contained in AGC's "Demolition Planning & Scheduling."
- C. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Contract Completion.

1. Contract Completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by executed Change Order.
- D. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
1. Activity Duration: Define activities so no activity is longer than 30 calendar days, unless specifically allowed by County's Representative.
 2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 3. Submittal Review Time: Include review and resubmittal times indicated in the Contract General Conditions and Supplemental General Conditions in the schedule. Coordinate submittal and resubmittal review times in Contractor's Demolition Schedule with Submittals Schedule.
 4. Startup and Testing Time: Include not less than 30 days for startup and testing.
 5. Completion: Indicate completion in advance of Contract Completion date and allow time for administrative procedures by County's Representative and Engineer, necessary for certification of Completion.
- E. Constraints: Include constraints and Work restrictions indicated in the Contract Documents and as follows in schedule and show how the sequence of the Work is affected.
1. Phasing: Arrange list of activities on schedule by phase.
 2. Work under more than one contract: Include a separate activity for each contract.
 3. Work by County: Include a separate activity for each portion of the Work performed by County.
 4. Work Restrictions: Refer to Section 01100 - Summary of the Work. Show the effect of the following items on the schedule:
 - a. Coordination with existing site and adjacent facilities.
 - b. Impacted dates and durations of adjacent facilities.
 - c. Utility and/or site interruptions of traffic and/or utility services.
 - d. Provisions for future Demolition (not applicable).
 - e. Seasonal variations.
 - f. Environmental control.
 5. Work Stages: Indicate important stages of Demolition for each major portion of the

Work, including, but not limited to, the following:

- a. Subcontract awards.
 - b. Submittals.
 - c. Tests and inspections.
 - d. Adjusting.
 - e. Curing.
 - f. Startup and placement into final use and operation.
 - g. Critical Path activities
6. Area Separations (if applicable): Identify each major area of Demolition for each major portion of the Work. Indicate where each Demolition activity within a major area must be sequenced or integrated with other Demolition activities to provide for the following:
- a. Structural completion.
 - b. Permanent space enclosure.
 - c. Completion of mechanical demolition.
 - d. Completion of electrical demolition.
 - e. Completion.
 - f. site work.
- F. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed for both Pre-Demolition phases as well as including the NTP for the Demolition phase through Project completion and Close-out.
1. Milestone: Design Phases Submittals by Engineer and Approvals
 2. Milestone: Bid & Award Phases Approvals
 3. Milestones: All major Demolition related milestones as deemed necessary by County's Representative.
- G. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using fragments to demonstrate the effect of the proposed change on the overall project schedule.

PART 3 - EXECUTION

3.1 CONTRACTOR'S DEMOLITION SCHEDULE

- A. Scheduling Consultant: Engage a consultant to provide planning, evaluation, and reporting using CPM scheduling.
1. In-House Option: County's Representative may waive the requirement to retain a consultant if Contractor employs skilled personnel with experience in CPM scheduling and reporting techniques. Submit qualifications.

2. Meetings: Scheduling consultant shall attend all meetings related to Project progress, alleged delays, and time impact.
- B. Contractor's Demolition Schedule Updating: At monthly intervals, update schedule to reflect actual Demolition progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
1. Revise the schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 2. Include a report with an updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 3. As the Work progresses, indicate Actual Completion percentage for each activity.
- C. Distribution: Distribute copies of approved schedule to County's Representative and Engineer, separate contractors, Project Inspector, Testing Laboratory, and other parties identified by Contractor with a need-to-know schedule responsibility.
1. Post copies in Project meeting rooms and temporary field offices.
 2. When revisions are made, distribute updated schedules to the same parties and post them in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of Demolition activities.

END OF SECTION

SECTION 01322**DEMOLITION PROGRESS REPORTS****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Demolition progress reports.

1.3 RELATED SECTIONS

- A. Section 01312 - Project Meetings: Review of Demolition progress and submittals status at Project meetings.
- B. Section 01321 - Demolition Progress Schedules: Demolition Progress Schedule and Submittals Schedule.
- C. Section 01770 - Contract Closeout Procedures: Notice by Contractor of progress of the Work sufficient for Contract Completion review and Acceptance by County.

1.4 DEMOLITION PROGRESS REPORTS

- A. Daily Log: Contractor shall maintain a written daily log at the job site with the following information as a minimum:
 - 1. Date.
 - 2. Weather conditions.
 - 3. Subcontractors and trades performing Work under the Agreement on the Site, and number of workers each and number of hours worked by each worker.
 - 4. Others on the Site perform work for County under separate contracts.
 - 5. List of visitors to site, giving name, company or agency affiliation and telephone number.
 - 6. Descriptions of situations and circumstances which could delay normal progress of Work, or which could be basis of claim for change in Contract Time or Contract Sum.
 - 7. Changes to Work and who authorized changes.

- 8. Comments, as Contractor determines are appropriate for Project record.

- B. Submission of Logs: Submit one copy of daily logs to County's Representative and Engineer at weekly intervals (typically on every Friday morning), for review by County's Representative.

PART 2 - PRODUCTS

Not applicable to this Section.

PART 3 - EXECUTION

Not applicable to this Section.

END OF SECTION

NOT FOR BID

SECTION 01330**SUBMITTALS PROCEDURES****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Administrative requirements for shop drawings, product data and samples submittals.
- B. Administrative requirements for submittals reporting results of tests and inspections, during field Work.
- C. Contractor's review of submittals.
- D. Engineer's review of submittals.
- E. Product data submittals.
- F. Shop drawing submittals.
- G. Sample submittals.
- H. Reports of results of tests and inspections.

1.3 RELATED SECTIONS

- A. Section 01321 - Demolition Progress Schedules: Submittals Schedule.
- B. Section 01450 - Quality Control: Test and inspection reports.
- C. Section 01770 - Contract Closeout Procedures: Submittals for occupancy, Acceptance and Final Payment.

1.4 DEFINITIONS

- A. Shop Drawings, Product Data and Samples: Instruments prepared and submitted by Contractor, for Contractor's benefit, to communicate to Engineer the Contractor's understanding of the design intent, for review and comment by Engineer on the conformance of the submitted information to the general intent of the design. Shop drawings, product data and samples are not Contract Documents.

- B. Shop Drawings: Drawings, diagrams, schedules, and illustrations, with related notes, specially prepared for the Work of the Contract, to illustrate a portion of the Work.
- C. Product Data: Standard published information ("catalog cuts") and specially prepared data for the Work of the Contract, including standard illustrations, schedules, brochures, diagrams, performance charts, instructions, and other information to illustrate a portion of the Work.
- D. Samples: Physical examples that demonstrate the materials, finishes, features, workmanship, and other characteristics of a portion of the Work. Accepted samples shall serve as quality basis for evaluating the Work.
- E. Other Submittals: Technical data, test reports, calculations, surveys, certifications, special warranties and guarantees, operation and maintenance data, extra stock and other submitted information and products shall not be Contract Documents but shall be information from Contractor to Engineer to illustrate a portion of the Work for confirmation of understanding of design intent.

1.5 ADMINISTRATIVE REQUIREMENTS

- A. Administrative Requirements for Submittals: Submittals shall be made in accordance with requirements specified herein and in Division 2 through 16 Sections of the Specifications. See also Article 5 of the Contract General Conditions for additional requirements, especially those regarding requests for alternatives or equals and for substitutions.
- B. Contractor Coordination of Submittals: Coordinate preparation and processing of submittals with performance of Demolition activities. Transmit each submittal sufficiently in advance of performance of related Demolition activities to avoid delay.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - a. The Engineer will return without action submittals requiring coordination with other submittals until related submittals are coordinated.
- C. Submittals List: Contractor shall prepare and submit a Submittals List for review and approval by County's Representative and Engineer. Submittals List shall identify all specified submittals to be made and shall serve as checklist for submittals.
 - 1. The format shall be suitable for the Project and shall be subject to acceptance by the County's Representative. Comply with directions by County's Representative for scope and format of Submittals List.

2. Submittals list shall include the following submittal types and headings:

- SD = Shop Drawings are required
- PD = Product Data required
- SA = Samples required
- CO = Color samples required
- SS = Site Sample installations are required
- LM = List of Materials
- RD = Record Drawings required
- CE = Certificates are required
- PR = Manufacturer's instructions or specifications required
- OM = Operation and Maintenance manuals are required
- EQ = Maintenance materials/equipment are required
- WA = Warranties and/or guarantees are required
- LR = Laboratory Reports are required
- FT = Factory Test reports are required
- ST = Site Test reports required
- RP = Submittal to the Engineer for record purposes only and not for review or approval
- O = Other submittal requirements as specified in Section

3. Sample Table:

<u>Section</u>	<u>SD</u>	<u>PD</u>	<u>SA</u>	<u>CO</u>	<u>SS</u>	<u>LM</u>	<u>RD</u>	<u>CE</u>	<u>PR</u>	<u>OM</u>	<u>EQ</u>	<u>WA</u>	<u>LR</u>	<u>FT</u>	<u>ST</u>
	<u>RP</u>	<u>O</u>													
05120	x				x		x				x				x
09250		x			x										
10810		x	x												

D. Transmission of Submittals: Package each submittal appropriately for shipping and handling. Transmit all submittals from Contractor to Engineer, unless otherwise directed, using a transmittal form. Submittals received from sources other than the Contractor will be returned without action. Include all information specified below for identification of submittal and for monitoring of review process.

1. The engineer will provide an example Letter of Transmittal, if requested.
2. Engineer will forward one copy of submittal to County's Representative for review.

E. Timing of Submittals: Make submittals sufficiently in advance of Demolition activities to allow shipping, handling and review by the Engineer and Engineer's consultants. Allow sufficient review time so that installation will not be delayed because of the time required to process submittals, including time for resubmittals.

1. See Contract General Conditions and Supplementary General Conditions for additional requirements.

2. There will be structural and non-structural submittals requiring the appropriate review timelines to be incorporated into the initial draft project schedule. These structural and non-structural systems will pertain to 'Performance-Based-Approach' design systems such as but not limited to: Steel Stud Design, (if applicable), curtain walls, skylights, and steel stairs.
3. If an intermediate submittal is necessary, process the same as the initial submittal.
4. No extension of Contract Time will be authorized because of failure to transmit submittals to the Engineer sufficiently in advance of the Work to permit processing.

F. Submittals Identification:

1. Provide a space approximately 4-inches by 5-inches on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken. Include the following information on the label for processing and recording action taken:
 - a. Project name and County's project number
 - b. Submission date
 - c. Name and address of Engineer
 - d. Name and address of Contractor
 - e. Name and address of subcontractor
 - f. Name and address of supplier
 - g. Name of manufacturer
 - h. Number and title of appropriate Specification Section
 - i. Drawing number and detail references, as appropriate.
2. Identify each element on submittal by reference to Drawing sheet number, detail, schedule, room number, assembly or equipment number, Specifications article and paragraph, and other pertinent information to clearly correlate submittal with Contract Drawings. On the submittal transmittal form or separate sheet record deviations from Contract Document requirements, including minor variations and limitations. Include Contractor's certification that information submitted complies with requirements of the Contract Document.
3. Identify each submittal by Specification Section number followed by a number indicating sequential submittal for that Section. Resubmittals shall use the same number as original submittal, followed by a letter indicating sequential resubmittal.

First submittal for Section 09250 - Gypsum Board. 09250-2

Second submittal for Section 09250 - Gypsum Board.

A Resubmittal of second submittal for Section 09250 - Gypsum Board.

09250-2B Second resubmittal of second submittal for Section 09250 - Gypsum Board.

4. Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
- G. Grouping of Submittals: Unless otherwise specifically permitted by the Engineer, make all submittals in groups containing all associated items. The Engineer may reject partial submittals as incomplete or hold them until related submittals are made.
- H. Unsolicited Submittals: Unsolicited submittals may be returned unreviewed.
- I. Record Submittals: When record submittals are specified, submit three copies or sets only. Record submittals will not be reviewed but will be retained for historical and maintenance purposes.

1.6 SUBMITTALS SCHEDULE

- A. Submittals Schedule: As specified in Section 01321- Demolition Progress Schedules.

1.7 CONTRACTOR'S REVIEW OF SUBMITTALS

- A. Contractor's Review of Submittals: Prior to submission to Engineer for review, Contractor shall review each submittal for completeness and conformance to specified requirements. Contractor shall stamp each submittal with a review action stamp and sign each copy of submittal. Submittals without stamp and signature will be returned unreviewed. Contractor's submittal action stamp shall certify the following actions by Contractor:
 1. Field measurements have been determined and verified.
 2. Conformance with requirements of Contract Drawings and Specifications is confirmed.
 3. Catalog numbers and similar data are correct.
 4. Work being performed by various subcontractors and trades is coordinated.
 5. Field Demolition criteria have been verified, including confirmation that information submitted has been coordinated with the work being performed by others for County and actual site conditions.
 6. All deviations from requirements of Drawings and Specifications have been identified and noted.
- B. Changes in Work: Changes in the Work shall not be authorized by submittals review actions. No review action, implicit or explicit, shall be interpreted to authorize changes in the Work. Changes shall only be authorized by separate written direction, in accordance with the Contract General Conditions.

1.8 REVIEW OF SUBMITTALS BY COUNTY'S REPRESENTATIVE AND ENGINEER

- A. Review of Submittals by County's Representative and Engineer: Submittals shall be a communication aid between Contractor and Engineer by which interpretation of Contract Documents requirements may be confirmed in advance of Demolition.
1. Reviews by County's Representative, Engineer and Engineer's consultants shall be only for general conformance with the design concept of the Project and general compliance with the information given in the Drawings and Specifications.
 2. Except for submittals for record, information, or similar purposes, where action and return are required or requested, the Engineer will review each submittal, mark to indicate action taken, and return promptly.
- B. Review Action: Engineer will stamp each submittal with a uniform, self-explanatory action stamp. Stamp will be appropriately marked, as follows, to indicate the action taken:
1. Final Unrestricted Release: Where submittals are marked "Approved," that part of the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents; final acceptance will depend upon that compliance.
 2. Final-But-Restricted Release: When submittals are marked "Approved as Noted," that part of the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.
 3. Returned for Re-submittal: When submittal is marked "Not Approved, Revise and Resubmit," do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain a different action mark.
 - a. Do not permit submittals marked "Not Approved, Revise and Resubmit" to be used at the Project site, or elsewhere where Work is in progress.
 - b. Note: Any work performed prior to receiving a fully approved submittal shall be done at the Contractor's risk and shall be subject to being replaced if Contract requirements are not met.
- C. Contract Requirements:
1. Review actions by Engineer and Engineer's consultants shall not relieve the Contractor from compliance with requirements of the Contract Drawings and Specifications.
 2. No review action, implicit or explicit, shall be interpreted to authorize changes in the Work. Changes shall

only be authorized by separate written Change Order or Field Instruction, in accordance with the Contract General Conditions.

1.9 PRODUCT DATA SUBMITTALS

- A. Product Data: Catalog cuts, photographs, illustrations, standard details, standard schedules, performance charts, material characteristics, color and pattern charts, test data, roughing-in diagrams and templates, standard wiring diagrams and performance curves and listings by Code authorities and nationally recognized testing and inspection services. Where product data must be specially prepared because standard printed data is not suitable for use, submit according to requirements for shop drawings, specified below.
- B. Modifications to Standard Product Data: Modify manufacturer's standard catalog data to indicate precise conditions of the Project.
1. Provide space for review action stamps and, if required by authorities having jurisdiction, license seal of Engineer and Engineer's design consultant, if applicable.
 2. Mark each copy to show applicable choices and options. Where printed product data includes information on several products, some of which are not required, mark copies to highlight applicable information.
 3. Include the following information: Manufacturer's printed recommendations, Compliance with recognized trade association standards, Compliance with recognized testing agency standards, Application of testing agency labels and seals, Notation of dimensions verified by field measurement, and Notation of coordination requirements.
 4. Do not submit product data until compliance with requirements of the Contract Documents has been confirmed.
 5. Proceed with installation only using reviewed copy of product data. Do not permit use of unmarked copies of product data in connection with Demolition.
- C. Copies: Submit 8 copies, minimum, of original catalog pages or xerographic copies only, with applicable data highlighted and cross-referenced to Drawings and Specifications requirements. Submittal information needs to be easily identified as to what text, model numbers, details, etc. being requested to be reviewed. Reference to specification sub-section is required to be noted on the submittal, located appropriately within the submittal itself. Wet-process and thermal paper copies will not be acceptable. Distribution of product data submittals shall be:
1. Engineer: One copy.
 2. Engineer's consultant: One copy.
 3. County's Representative (pre-review): One copy.
 4. County's Representative (post-review): One copy.

5. Project Inspector: One copy.
6. Contractor: Three copies.

1.10 SHOP DRAWINGS SUBMITTALS

- A. Shop Drawings: Drawings, diagrams, schedules, and other graphic depictions to illustrate fabrication and installation of a portion of the Work. Shop Drawings shall include fabrication and installation drawings, setting diagrams, schedules, patterns, templates, and similar drawings. Include the following information:
 1. Identification of products and materials included.
 2. Compliance with referenced standards.
 3. Notation of coordination requirements.
 4. Dimensions.
 5. Notation of dimensions established by field measurement.
- B. Coordination: Show all field dimensions and relationships to adjacent or critical features of Work.
- C. Preparation of Shop Drawings: Prepare and submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not considered Shop Drawings.

Special Note:

Electronic submission of shop drawings will be an acceptable option once the entire core team agrees on when this electronic submission is permissible. It may not be the initial submittal but possibly latter submissions.

1. Provide space for review action stamps and, if required by governing authorities having jurisdiction, license seal of Engineer and Engineer's design consultant, if applicable.
2. Prepare shop drawings on minimum sheet size of 17-inches by 22-inches, or smaller if a multiple of 8-1/2 inches by 11-inches. The maximum size shall be 30-inches by 42-inches.
3. Except as noted in product Specifications Sections, submit one correctable translucent reproducible print and six blue- or black-line prints of shop drawings. The reproducible and one print will be returned after review.
4. Do not use Shop Drawings without an appropriate final review stamp indicating action

taken in connection with Demolition.

- D. **Distribution of Reviewed Shop Drawings:** Distribution of reviewed shop drawings will be by Engineer.
1. Engineer: One copy (from reviewed reproducible).
 2. Engineer's consultant: One copy (from reviewed reproducible).
 3. County's Representative: One copy (pre-review print) and one copy (from reviewed reproducible).
 4. Project Inspector: One copy (from reviewed reproducible).
 5. Contractor: One copy (reviewed reproducible) and one copy (opaque print).

1.11 SAMPLES SUBMITTALS

- A. **Samples:** Full-size, fully fabricated samples, cured and finished as specified and physically identical with the material or product proposed. Samples shall include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern.
1. Mount, display, or package Samples in the manner specified to facilitate review of qualities indicated. Prepare Samples to include the following:

Generic description of the Sample. Sample source.
Product name or name of manufacturer. Compliance with recognized standards. Availability and delivery time.
 2. Submit Samples for review of kind, color, pattern, and texture, for a final check of these characteristics with other elements, and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
 3. Submit actual samples. Photographic or printed reproductions will not be accepted.
 4. Field samples specified in individual Sections are special types of samples. Field samples shall be full-size examples erected on site to illustrate finishes, coatings, or finish materials and to establish the standard by which the Work will be evaluated.
- B. **Preliminary or Selection Submittals:** Where samples are for selection of color, pattern, texture, or similar characteristics from a range of standard choices, submit full set of choices for the specified material or product.
1. Preliminary submittals will be reviewed and returned with the Engineer's mark indicating selection and other action.

- C. Quantity: Except for samples illustrating assembly details, workmanship, fabrication techniques, connections, operation, and similar characteristics, submit 3 sets. One sample will be returned marked with the action taken.
1. Maintain sets of samples, as returned, at the Project site, for quality comparisons throughout the course of Demolition.
 2. Unless otherwise noted, full-size and complete samples will be returned and may be incorporated into field mock-ups. Samples may be incorporated into the Work (completed Demolition) only with written approval of the Engineer.
 3. Other samples shall be produced and mounted on cardstock in 8-1/2" by 11" format, three hole punched and suitable for inclusion in product sample binders. Contractor shall provide binders as directed.
 4. Contractors shall prepare and distribute additional samples to subcontractors, manufacturers, fabricators, suppliers, installers, and others as necessary for performance of the Work.
- D. Color Samples: Engineer will review and select colors for Project only after all colors are received, so that colors may be properly coordinated.
- E. Review of Field Samples: Review by Engineer of field samples will be made for the following products if not otherwise required and if requested by Contractor. This is not a complete list but shows examples of items that will require Owner and Engineer approval.
1. Casework.
 2. Portland cement plaster system: Trowel finish, imprinted texture, colors, abrasive blasting, exposed aggregate and acid washing.
 3. Exterior plaster finish color and texture.
 4. Gypsum board textures and finishes.
 5. Gypsum plaster textures and finishes.
 6. Field-applied paint colors and finishes: Drawdowns and brush-outs.
 7. Handrails, stair nosing, and stair finishes.
 8. Signage for color, size, text, and graphic layout.
 9. Exposed sheet metal finishes.
 10. Other exterior finishes.

1.12 MANUFACTURER'S INSTRUCTIONS

- A. Manufacturer's Instructions: Submit manufacturer's instructions for preparation, mixing, assembly, handling, application, and installation of products, as applicable and as specified in product Sections of the Specifications.
1. Include applicable ICC/(ICBO) ES Evaluation Reports. Evaluation Reports shall be current and shall be annotated for applicable products.

2. Include applicable Material Safety Data Sheets, for Project record only.
 3. Include written recommendations, as applicable, from manufacturer for Project conditions.
- B. Copies: Submit six copies minimum. Distribution will be:
1. County's Representative: Two copies.
 2. Engineer: One copy.
 3. Engineer's consultant: One copy.
 4. Project Inspector: One copy.
 5. Contractor: As necessary, retained by Contractor.
6. Reviews by Engineer and County's Representative: Manufacturer's instructions shall be for information and will not be reviewed by Engineer or County's Representative.

1.13 REPORTS OF RESULTS OF INSPECTIONS AND TESTS

- A. Reports of Results of Inspections and Tests: Submit technical data, test reports, calculations, surveys, and certifications based on field tests and inspections by independent inspection and testing agency and by authorities having jurisdiction.
1. Reports of results of inspections and tests shall not be considered Contract Documents.
 2. Refer to Section 01450 - Quality Control for additional requirements.

PART 2 - PRODUCTS

Not applicable to this Section.

PART 3 - EXECUTION

Not applicable to this Section.

END OF SECTION

SECTION 01340**REQUESTS FOR INTERPRETATION (RFI)****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Procedures for submitting requests for interpretation (RFI).
- B. Limitations on use of RFI to obtain interpretation and clarification.

1.3 RELATED SECTIONS

- A. Section 01310 - Project Management and Coordination: Requirements for organizing and coordinating the Work & Section 01320 – Electronic Project Management System.
- B. Section 01330 - Submittals Procedures: Restriction on use of submittals for changes in materials, products, equipment, and systems.
- C. Section 01630 - Product Substitution Procedures: Procedures for requesting substitutions of materials, products, equipment, and systems.

1.4 DEFINITIONS

- A. Request for Interpretation: A document submitted by the Contractor requesting clarification of a portion of the Contract Documents, hereinafter referred to as an RFI.

1.5 CONTRACTOR'S REQUESTS FOR INTERPRETATION (RFIs)

- A. Contractor's Requests for Interpretation (RFIs): Should Contractor be unable to determine from the Contract Documents the exact material, process, or system to be installed; or when the elements of Demolition are required to occupy the same space (interference); or when an item of Work is described differently at more than one place in the Contract Documents; the Contractor shall request that the Engineer make an interpretation of the requirements of the Contract Documents to resolve such matters. The contractor shall comply with procedures specified herein to make Requests for Interpretation (RFIs).
- B. Submission of RFIs: RFIs shall be prepared and submitted using the standard RFI form found in the ProLog Electronic system.

1. Electronic forms shall be filled in.
 2. Each RFI shall be given a discrete, consecutive number.
 3. Each page of the RFI and each attachment to the RFI shall bear the County's project name, project number, date, RFI number and a descriptive title.
 4. The contractor shall sign all RFIs attesting to good faith effort to determine from the Contract Documents the information requested for interpretation. Frivolous RFIs shall be subject reimbursement from Contractor to County for fees charged by Engineer, Engineer's consultants and other design professionals engaged by the County.
- C. Subcontractor-Initiated and Supplier-Initiated RFIs: RFIs from subcontractors and material suppliers shall be submitted through, be reviewed by, and be attached to an RFI prepared, signed, and submitted by Contractor. RFIs submitted directly by subcontractors or material suppliers will be returned unanswered to the Contractor.
1. Contractor shall review all subcontractor- and supplier-initiated RFIs and take actions to resolve issues of coordination, sequencing, and layout of the Work.
 2. RFIs submitted to request clarification of issues related to means, methods, techniques, and sequences of Demolition or for establishing trade jurisdictions and scopes of subcontracts will be returned without interpretation. Such issues are solely the Contractor's responsibility.
 3. Contractor shall be responsible for delays resulting from the necessity to resubmit an RFI due to insufficient or incorrect information presented in the RFI.
- D. Requested Information: Contractor shall carefully study the Contract Documents to ensure that information sufficient for interpretation of requirements of the Contract Documents is not included. RFIs that request interpretation of requirements clearly indicated in the Contract Documents will be returned without interpretation.
1. In all cases in which RFIs are issued to request clarification of issues related to means, methods, techniques and sequences of Demolition, for example, pipe and duct routing, clearances, specific locations of Work shown diagrammatically, apparent interferences and similar items, the Contractor shall furnish all information required for the Engineer or County's Representative to analyze and/or understand the circumstances causing the RFI and prepare a clarification or direction as to how the Contractor shall proceed.
 2. If information included with this type of RFI by the Contractor is insufficient, the RFI will be returned unanswered.
- E. Unacceptable Uses for RFIs: RFIs shall not be used for the following purposes:
1. To request approval of submittals (use procedure specified in Section 01330 - Submittals

Procedures).

2. To request approval of substitutions (refer to Section 01630 - Product Substitution Procedures).
 3. To request changes that entail a change in Contract Time and Contract Sum (comply with provisions of the Contract General Conditions, as discussed in detail during pre-Demolition meeting).
 4. To request different methods of performing Work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Contract General Conditions).
- F. Disputed Requirements: Comply with the provisions of the Contract General Conditions Section 5.02.
- G. RFI Log: Contractor shall prepare and maintain a log of RFIs, using the ProLog Electronic System and at any time requested by the County's Representative, the Contractor shall furnish copies of the log showing all outstanding RFIs.
- H. Review Time: Engineer will return RFIs to Contractor and County's Representative within 7 calendar days of receipt. RFIs received after 12:00 noon shall be considered received on the next regular working day for the purpose of establishing the start of the 7-calendar day response period.

PART 2 - PRODUCTS

Not Applicable to this Section.

PART 3 - EXECUTION

Not Applicable to this Section.

END OF SECTION

SECTION 01350**SPECIAL PROCEDURES****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

1. Environmental protection procedures.
2. Smoke/odor control procedures.
3. Noise control procedures.
4. Dust and air pollution control procedures.
5. Hazardous materials procedures.
6. Welding and burning mitigation procedures.
7. Erosion and sediment control procedures / Storm Water Pollution Protection Plan (SWPPP).
8. Disposal operations procedures.
9. Cultural resources procedures.
10. Alteration project procedures.

1.3 RELATED SECTIONS

- A. Section 01732 - Cutting and Patching: General requirements for procedures and limitations for cutting and patching the work.

1.4 ENVIRONMENTAL PROTECTION PROCEDURES

- A. Environmental Protection Procedures, General: Requirements specified in this Article are in addition to those of Article 4.03 of the Contract General Conditions.
 1. During the progress of the work, keep the premises occupied in a neat and clean condition and protect the environment both on site and off site, throughout and upon completion of the Demolition project.

2. In coordination with the Campus, develop an Environmental Protection Plan in detail and submit to County's Representative for approval within 30 calendar days from the date of commencement specified in the Notice to Proceed. Distribute approved plans to all employees and to all subcontractors and their employees. Environmental Protection Plan shall include, but not be limited to, the following items:
 - a. Copies of required permits.
 - b. Proposed sanitary landfill site.
 - c. Other proposed disposal sites.
 - d. Noise Control.
 - e. Dust Control.
 - f. Erosion and Sediment Control. (Refer to and comply with the Civil Engineer's Storm Water Pollution and Prevention Plan - SWPPP).
 - g. Copies of any agreements with public or private landowners regarding equipment, materials storage, borrow sites, fill sites, or disposal sites. Such agreements made by Contractor shall be invalid if their execution causes violation of local or regional grading or land use regulations.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct Demolition in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result.
 1. Avoid use of tools and equipment that produce harmful noise. Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms near the site.
 2. Comply with noise control requirements specified below.
- C. Demolition Operations: All Demolition operations shall comply with all applicable Federal, State, and local Codes, ordinances, statutes, and regulations pertaining to water, air, solid waste, and noise pollution. It shall be the Contractor's responsibility to identify and determine necessary measures to be taken to comply with such Codes, ordinances, statutes, and regulations.
- D. Definitions of Contaminants:
 1. Sediment: Soil and other debris that have been eroded and transported by runoff water.
 2. Solid waste: Rubbish, debris, garbage, and other discarded solid materials resulting from Demolition activities, including a variety of combustible and non-combustible wastes, such as ashes, waste materials that result from Demolition or maintenance and repair work, leaves, and tree trimmings.

3. Chemical waste: Includes petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, disinfectants, organic chemicals, and inorganic wastes. Some of the above may be classified as "hazardous."
4. Sanitary wastes:
 - a. Sewage: Domestic sanitary sewage.
 - b. Garbage: Refuse and scraps resulting from preparation, cooking, dispensing and consumption of food.
- E. Hazardous Materials: See also Article below titled "HAZARDOUS MATERIALS PROCEDURES."
 1. Except as otherwise specified, in the event the Contractor encounters on the site material reasonable believed to be asbestos, polychlorinated biphenyl (PCB), or other hazardous materials which have not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the County in writing.
 2. Work in affected areas shall not thereafter be resumed except by written agreement of the County and Contractor if in fact the material is asbestos, PCB, or other hazardous materials and has not been rendered harmless.
 3. Work in affected areas shall be resumed in the absence of asbestos, PCB, or other hazardous materials, or when such materials have been rendered harmless.
- F. Protection of Natural Resources: It is intended that the natural resources within the Project boundaries and outside the limits of permanent work performed under this Contract be preserved in their existing condition or be restored to an equivalent or improved condition upon completion of the work. Confine Demolition activities to areas defined by the public roads, easements, and work area limits shown on the drawings. Return Demolition areas to their pre-Demolition elevations except where surface elevations are otherwise noted to be changed. Maintain natural drainage patterns. Conduct Demolition activities such as ponding of stagnant water conducive to mosquito breeding habitat will not occur at any time.
 1. Land resources protection: Do not remove, cut, deface, injure, or destroy trees or shrubs outside the work area limits. Do not remove, deface, injure, or destroy trees within the Project area without permission from County's Representative. Such improvements shall be removed and replaced, if required, by the Contractor at no change in Contract Time and Contract Sum.
 2. Landscaping protection: Protect trees that are located near the limits of the Project area which may possibly be defaced, bruised, or injured or otherwise damaged by the Contractor's operations. No ropes, cables or guys shall be fastened to or be attached to any existing nearby trees or shrubs for anchorages. Refer to additional requirements specified in Section 01560 - Temporary Barriers and Controls.
 - a. Trimming: Refer to Section 01568 - Tree and Plant Protection.

- b. Excavations around trees: Refer to Section 01568 - Tree and Plant Protection.
 - c. Repair and restoration: Repair or replace trees or other landscape features scarred or damaged by equipment or Demolition operations as specified below. Repair and restoration plan shall be reviewed and approved by County's Representative prior to its initiation.
3. Temporary Demolition:
- a. Remove all signs of temporary Demolition facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, or any other vestiges of Demolition as directed by the County's Representative.
 - b. Level all temporary roads, parking areas and any other areas that have become compacted or shaped.
 - c. Unpaved areas where vehicles have been operated shall receive suitable surface treatment or shall be periodically wetted down to prevent Demolition operations from producing dust damage and nuisance to persons and property, at no additional cost to the County.
 - d. Keep haul roads clear at all times of any object which creates an unsafe condition. Promptly remove any contaminants or Demolition materials dropped from Demolition vehicles. Do not drop mud and debris from Demolition equipment on public streets. Sweep clean turning areas and pavement entrances as necessary.
4. Water resources: Comply with all applicable Federal, State, and local Codes, ordinances, statutes, and regulations pertaining to discharge (directly or indirectly) of pollutants to underground and natural waters.
- a. Perform all Work under the Contract in a manner that any adverse environmental impacts are reduced to a level that is acceptable to County's Representative and authorities having jurisdiction.
 - b. Refer to Division 2 - Site Demolition, earthwork Sections, and Civil Drawings for specific requirements on control of stormwater and disposal of water from dewatering activities.
5. Oily Substances: At all times, special measures shall be taken to prevent oily or other hazardous substances from entering the ground, drainage areas or local bodies of water in such quantities as to affect normal use, aesthetics or produce a measurable impact upon the areas. All soil or water that is contaminated with oily substances due to Contractor's operations shall be disposed of in accordance with applicable regulations, at no change in Contract Time and Contract Sum.

1.5 SMOKE/ODOR CONTROL PROCEDURES

- A. Smoke/Odor Control: Protect primary fresh air intake to existing buildings from exhaust from internal combustion engines, paint and solvent fumes and other noxious fumes and vapors.

1. Implement control methods such as snorkeling from engines exhausts to 50 feet away from air intakes. Provide carbon filters on air intakes as necessary, including periodic replacement of filters to ensure effectiveness.
2. All other activities generating fumes shall be limited to a minimum distance of 50 feet from air intake grilles.
3. If fume-generating procedures must occur within 50 feet of an air intake, Contractor shall do the following:
 - a. Notify the County's Representative at least 14 days in advance of such activities.
 - b. Perform Work when it least impacts the County (evenings, weekends, or particularly windy days).
 - c. Provide carbon filter media, plastic barriers, or other control methods to ensure fresh air only enters the building ventilation system.

1.6 NOISE CONTROL PROCEDURES

- A. Noise Control Procedures, General: Requirements of this Article are in addition to those of Article 4.03 of the Contract General Conditions. Maximum noise levels within 1,000 feet of classrooms, laboratories, residences, businesses, adjacent buildings, and other populated areas:
 1. Noise levels for trenchers, pavers, graders, and trucks: Not exceeding 90 dBA at 50 feet as measured under noisiest operating conditions.
 2. Noise levels for all other equipment: Not exceeding 85 dBA at 50 feet.
- B. Noise Control of Equipment:
 1. Equip jack hammers with exhaust mufflers and steel muffling sleeves.
 2. Use air compressors of a quiet type such as a "whispered" compressor. Compressor hoods shall be closed while equipment is in operation.
 3. Use electrically powered rather than gasoline or diesel-powered fork-lifts.
 4. Provide portable noise barriers around jack hammering, with barriers constructed of 3/4-inch plywood lined with 1-inch-thick duct liner type fiberglass on Work side.
- C. Noise Control of Demolition Operations:
 1. Keep noisy equipment as far as possible from noise-sensitive site boundaries.
 2. Machines shall not be left idling.
 3. Use electric power in lieu of internal combustion engine power whenever possible.

4. Maintain equipment properly to reduce noise from excessive vibration, faulty mufflers, or other sources. All engines shall have properly functioning mufflers.

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- D. Scheduling of Noisy Operations: Schedule Demolition activities to minimize time of noisy operations and disruption to occupants of adjoining facilities. Notify County's Representative in advance of performing Work creating unusual noise and schedule such Work at times mutually agreeable.
- E. Accessory Noise: Do not play radios, tape recorders, televisions, and other similar items at Demolition site.

1.7 DUST AND AIR POLLUTION CONTROL PROCEDURES

- A. Dust and Air Pollution Control Procedures, General: Requirements of this Article are in addition to those of Article 4.03 of the Contract General Conditions. Employ measures to prevent or minimize creation of dust and air pollution. Contractor shall appoint a dust control monitor to oversee and implement all measures specified in this Article.
 - 1. Unpaved areas shall be wetted down, to eliminate dust formation, a minimum of twice a day to reduce particulate matter. When wind velocity exceeds 15 mph, the site shall be watered down more frequently.
 - 2. Store all volatile liquids, including fuels or solvents in closed containers.
 - 3. No on-site burning of debris, lumber and other scrap shall be permitted.
 - 4. Properly maintain equipment to reduce gaseous pollutant emissions.
 - 5. Exposed areas, new driveways and sidewalks shall be seeded, treated with soil binders, or paved as soon as possible.
 - 6. Cover stockpiles of soil, sand, and other loose materials.
 - 7. Cover trucks hauling soil, debris, sand, or other loose materials.
 - 8. Sweep project area streets at least once daily. Refer to Section 01740 - Cleaning Requirements.

1.8 HAZARDOUS MATERIALS PROCEDURES

- A. Identified Hazardous Materials:
 - 1. Contractor shall perform hazardous materials abatement in compliance with requirements described in the document identified above. Costs and time associated with abatement of hazardous materials identified in this report shall be included in the Contract Sum and Contract Time.
 - a. Comply with California Code of Regulations, Title 8, Sections 1529, 1532.1 and 5208.
 - b. Comply with hazardous materials requirements in "San Bernardino County, Contractor Safety Handbook," provided to Contractor under separate cover by County's Representative.
 - 2. Engineer assumes no responsibility relating to existence of any hazardous materials and Engineer assumes no responsibility or liability for performance of Work described in the report identified above.

B. Unidentified Hazardous Materials:

1. Information regarding known asbestos containing material (ACM) is available from County's office of Environmental Health & Safety.
2. Except as otherwise specified, in the event that Contractor encounters on the project site material reasonably believed to be asbestos, polychlorinated biphenyl (PCB), or other hazardous materials which have not been rendered harmless, the Contractor shall immediately stop work in the area affected and report the condition to County's Representative.
3. Work in the affected area shall not be resumed except by written agreement between County and Contractor if in fact the material is asbestos, PCB, or other hazardous materials and has not been rendered harmless.
4. Work in the affected area shall be resumed in the absence of asbestos, PCB, or other hazardous materials, or when such materials have been rendered harmless.

C. Notification and Disclosure: Refer to Contract General Conditions for Asbestos Notification and Disclosure requirements.

1. In the event that hazardous materials are discovered on site during performance of the Work, Contractor shall notify the County's Representative and request directions for abatement of hazardous materials.
2. Comply with hazardous materials requirements in "San Bernardino County, Contractor Safety Handbook," available from the County's web site.
3. County will ensure that the identified hazardous waste and/or hazardous materials are handled and disposed of in the manner specified by the State of California Hazardous Substances Control Law (Health and Safety Code Division 20, Chapter 6.5).

1.9 WELDING AND BURNING MITIGATION PROCEDURES

- A. Welding and Burning Mitigation Procedures: Eliminate welding and burning of steel as much as possible. Where unavoidable, perform welding and burning with all possible precaution to avoid fire hazard. Provide a fire watch for a minimum of 30 minutes after burning stops. Provide protection for all adjacent surfaces.

1.10 EROSION AND SEDIMENT CONTROL PROCEDURES / State of California Storm Water Pollution Protection Plan (SWPPP):

- A. Erosion and Sediment Control Procedures: Contractor will be responsible for generating a full State of California Storm Water Pollution Protection Plan, hire an appropriate State-certified SWPPP consultant to support the Contractor throughout the design and implementation during Demolition. Additionally, Contractor will be required to retain a Civil Engineer, acceptable to the Engineer and the County for the preparation of this effort. Contractor will comply with this Storm Water Pollution Protection Plan (SWPPP) and other project- specific requirements. This

effort will also include preparing the Notice of Project to the local State of California / County of L.A. office as an agent of the County, secure the County's Representative signature, process and pay the permit fees, file the Notice of Completion with the State of California, and provide access and represent the County in the County's final inspection in order to secure sign-off.

There will be a responsibility by the Contractor to administer this SWPPP program, which will require them to deliver this as a complete 'turnkey' program with mandated services necessary to comply with the State of California rules and regulations as it pertains to SWPPP projects of more than 1 acre.

The Contractor will provide a full service SWPPP program that includes inspection & monitoring tasks by an independent / State of California qualified inspection & monitoring firm specifically approved for SWPPP programs or by Contractor's staff that hold the appropriate certifications.

The County will issue a change order for any special inspection costs the Contractor may incur.

The Contractor will be required to coordinate all SWPPP inspection & monitoring requests through the Contractor's approved SWPPP compliance agent or through the Contractor's staff, if they hold the necessary credentials. Scope will include but not be limited to: monitoring, field assistance to inspectors & monitors, maintaining the inspection deficiency list, providing corrective actions, providing inspection logs, reporting out to the County on 'next-steps', report out on the program's BMP implementation status, upcoming monitoring & inspection status, project close-out tasks as they relate to this program, and updating the County on required 6 month and 1 year follow-up requirements.

1.11 DISPOSAL OPERATIONS PROCEDURES

A. Solid Waste Management:

1. Supply solid waste transfer containers. Daily remove all debris such as spent air filters, oil cartridges, cans, bottles, combustibles, and letters. Take care to prevent trash and papers from blowing onto adjacent property. Encourage personnel to use refuse containers. Convey contents to a sanitary landfill.
2. Washing of concrete containers where wastewater may reach adjacent property, storm drains or natural water courses will not be permitted. Remove any excess concrete to the sanitary landfill.

B. Chemical Waste and Hazardous Materials Management: furnish containers for storage of spent chemicals used during Demolition operations. Dispose of chemicals and hazardous materials in accordance with applicable regulations.

C. Garbage: Store garbage in covered containers, pick it up daily and dispose of it in a sanitary landfill.

- D. Grading Spoil and Landscape Debris: Dispose of vegetation, weeds, rubble, and other materials removed by the clearing, stripping and grubbing operations off site at a suitable disposal site in accordance with applicable Federal, State and local Codes, ordinances, statutes and regulations.
- E. Excavated Materials:
1. Native soil complying with the requirements of applicable Division 2 - Site Demolition earthwork Section, may be used for backfilling, fill and embankments as allowed in applicable by that section.
 2. Remove all material which is excavated in excess of that required for backfill. Dispose of unsuitable excavated material from the site and dispose of it legally.
 - a. Excess suitable backfill material shall be hauled off site. No additional compensation will be paid to the Contractor for such off haul. Include all such costs in the Contract Sum.
 - b. Unsuitable backfill material shall be disposed of off-site in accordance with applicable regulations, in a disposal site indicated in the Environmental Protection Plan.
 - c. Remove rubbish and materials unsuitable for backfill immediately following excavation.
 - d. Remove material in excess of that required for backfill immediately following backfill operations.

1.12 CULTURAL RESOURCES PROCEDURES

- A. Cultural Resources Procedures: Requirements specified in this Article are in addition to those required by Article 4.03 of the Contract General Conditions.
1. Project does not pass through any known archaeological sites. However, it is conceivable that unrecorded archaeological sites could be discovered during Demolition.
 2. In the event that artifacts, human remains, or other cultural resources are discovered during subsurface excavations at locations of the Work, the Contractor shall protect the discovered items, cease work for a distance of 35 feet radius in the area, notify the Engineer and comply with applicable law.
 3. County may retain an Archaeologist to monitor and recover data and artifacts during the period that work has ceased.
 4. All items found which are considered to have archaeological significance are the property of the County.

1.13 ALTERATION PROJECT PROCEDURES

- A. Coordinate the work of trades and schedule elements of alterations and renovation work by procedures and methods to expedite completion of the work.
- B. In addition to demolition specifically shown, cut, move, or remove items as necessary to provide

access or to allow alterations and new work to proceed. Include such items as:

1. Repair or removal of hazardous or unsanitary conditions.
 2. Removal of abandoned items and items serving no useful purpose, such as abandoned piping, conduit, and wiring.
 3. Removal of unsuitable or extraneous materials not marked for salvage, such as abandoned furnishings and equipment, and debris such as rotted wood, rusted metals, and deteriorated concrete.
 4. Cleaning of surfaces, and removal of surface finishes as needed to install new work and finishes.
- C. Patch, repair and refinish existing items to remain, to the specified condition for each material, with a smooth and clean transition to adjacent new items of Demolition.
- D. Assign the work of moving, removal, cutting and patching, to trades qualified to perform the work in a manner to minimize the possibility of damage to each type of work, and provide means of returning surfaces to appearance of new work.
- E. Perform cutting and removal work with minimal disruption and in a manner to avoid damage to adjacent work.
- F. Cut finish surfaces such as masonry, tile, plaster, or metals, by methods which terminate surfaces in a straight line at a natural point of division.
- G. Perform cutting and patching as specified in Section 01732 - Cutting and Patching.
- H. Protect existing finishes, equipment, and adjacent Demolition that is scheduled to remain, from damage.
1. Protect existing and new work from weather and extremes of temperature.
 2. Maintain existing interior work above 60 degrees F.
 3. Provide weather protection, waterproofing, heat, and humidity control as needed to prevent damage to remaining work and to new work.

PART 2 - PRODUCTS

2.1 PRODUCTS FOR PATCHING, EXTENDING AND MATCHING

- A. Provide the same products or types of Demolition as that in existing structure as needed to patch, extend, or match existing.
- B. Generally, the Contract Documents will not define products or standards of workmanship present in existing Demolition; determine products by inspection and necessary testing and determine quality of workmanship by using existing as a sample for comparison.
- C. The presence of a product, finish, or type of Demolition requires that patching, extending, or matching shall be performed as necessary to make work complete and consistent with identical standards of quality.

PART 3 - EXECUTION

3.1 CUTTING AND PATCHING

- A. Perform cutting and patching as specified in Section 01732 -Cutting and Patching.

END OF SECTION

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SECTION 01351**HAZARDOUS MATERIAL PROCEDURES****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Hazardous materials abatement.

1.3 UNIDENTIFIED HAZARDOUS MATERIALS

- A. Unidentified Hazardous Materials:

1. In the event the Contractor discovers hazardous materials on the site, the abatement shall be performed to comply with requirements described in the documents. Costs and time associated with abatement of hazardous material will be considered additional scope and Contractor to be compensated per Changes in the Work - Article 6 of the General Conditions. Work shall:
 - a. Comply with California Code of Regulations, Title 8, Sections 1529, 1532.1 and 5208.
 - b. Comply with hazardous materials requirements in "San Bernardino County, California, per our Environmental Health & Safety web site regulations. These California and San Bernardino County EH & S regulations require appropriate manifests be signed and delivered per noted procedures.
2. Engineer assumes no responsibility relating to existence of any hazardous materials and Engineer assumes no responsibility or liability for performance of Work described in the report identified above.

1.4 ADDITIONAL INFORMATION FOR UNIDENTIFIED HAZARDOUS MATERIALS

- A. Unidentified Hazardous Materials:

1. Information regarding known asbestos containing material (ACM) is available from County's office of Environmental Health & Safety.
2. Except as otherwise specified, in the event that Contractor encounters on the project site material reasonably believed to be asbestos, polychlorinated biphenyl (PCB), or other hazardous materials which have not been rendered harmless, the Contractor shall

immediately stop work in the area affected and report the condition to County's Representative.

- 3. Work in the affected area shall not be resumed except by written agreement between County and Contractor if in fact the material is asbestos, PCB, or other hazardous materials and has not been rendered harmless.
- 4. Work in the affected area shall be resumed in the absence of asbestos, PCB, or other hazardous materials, or when such materials have been rendered harmless.

B. Notification and Disclosure: Refer to Contract General Conditions for Asbestos Notification and Disclosure requirements.

- 1. In the event that hazardous materials are discovered on site during performance of the Work, Contractor shall notify the County's Representative and request directions for abatement of hazardous materials.
- 2. Comply with hazardous materials requirements in "San Bernardino County, Contractor Safety Handbook," available from the County's web site.
- 3. County will ensure that the identified hazardous waste and/or hazardous materials are handled and disposed of in the manner specified by the State of California Hazardous Substances Control Law (Health and Safety Code Division 20, Chapter 6.5).

PART 2 - PRODUCTS

Not applicable to this Section.

PART 3 - EXECUTION

Not applicable to this Section.

END OF SECTION

SECTION 01355**SAFETY AND HEALTH PROCEDURES****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Procedures for health and safety protection and requirements for reporting accidents.

1.3 RELATED SECTIONS

- A. Section 01351 - Hazardous Material Procedures: Protection from asbestos containing materials (ACM), polychlorinated biphenyl (PCB), or other hazardous materials.
- B. Section 01560 - Temporary Barriers and Enclosures: Protective barriers.

1.4 SUBMITTALS

- A. Accident Reporting: A copy of each accident report, which the Contractor or Subcontractors submit to their insurance carriers, shall be forwarded to the Engineer and to the County' Representative as soon as possible, but in no event later than seven (7) calendar days after the day the accident occurred.
- B. Other Submittals: If agreed to in writing at the pre-demolition safety meeting, other submittals shall be required. One such submittal that may be included is a plan of action for handling hazardous materials to contain the following:
 - 1. Number, type, and experience of employees to be used for the Work.
 - 2. Description of how safety and health regulations and standards shall be met.
 - 3. Type of protective equipment and work procedures to be used.
 - 4. Emergency procedures for accidental spills or exposures.

PART 2 - PRODUCTS**2.1 GENERAL**

- A. Special facilities, devices, equipment, clothing, and similar items used by the Contractor in the

execution of the Work shall comply with applicable regulations.

PART 3 - EXECUTION

3.1 STOP WORK ORDERS

A. Stop Work Orders:

1. When the Contractor or its Subcontractors are notified by the County's Representative of an incident of noncompliance with the provisions of the Contract, and the action(s) to be taken, the Contractor shall immediately, if so directed, or within 48 hours after receipt of a notice of violation correct the unsafe or unhealthy condition.
2. If the Contractor fails to comply promptly, all or any part of the work being performed may be stopped by the County's Representative with a "Stop Work Order." When, in the opinion of the County's Representative, satisfactory corrective action has been taken to correct the unsafe and unhealthy condition, a start order will be given immediately.
3. The Contractor shall not be allowed any extension of time or compensation for damages by reason of or in connection with such work stoppage. In the event the contractor has not remedied corrective work, after the initial 48-hour notice, to the satisfaction of the County's representative, the County may remedy repairs and/or corrective active and back-charge costs to the CM @ R contractor.

3.2 PROTECTION

A. Protection: Contractor shall take all necessary precautions to prevent injury to the public, building occupants, or damage to property of others.

1. For the purposes of the Contract, the public or building occupants shall include all persons not employed by the Contractor or a Subcontractor working under the Contractor's direction.
2. Work shall not be performed in any area occupied by the public or Owner's employees unless specifically permitted by the Contract or the Owner and unless adequate steps are taken for the protection of the public and the Owner's employees.
3. Whenever practicable, the work area shall be fenced, barricaded, or otherwise blocked off from the public or building occupants to prevent unauthorized entry into the work area.

B. Alternate Precautions: When the nature of the Work prevents isolation of the work area, and the public or building occupants may be in or pass through, under or over the work area, alternate precautions such as the posting of signs, the use of signal persons, the erection of barricades or similar protection around particularly hazardous operations shall be used as appropriate.

- C. **Public Thoroughfare:** When Work is to be performed over a public thoroughfare such as a sidewalk, lobby, or corridor, the thoroughfare shall be closed, if possible, or other precautions taken such as the installation of screens or barricades. When exposure to heavy falling objects exists, as during the erection of building walls or during demolition, special protection of the type detailed in 29 CFR 1910/1926 shall be provided.
- D. **Hazardous Conditions:** Storing, positioning or use of equipment, tools, materials, scraps, and trash in a manner likely to present a hazard to the public or building occupants by its accidental shifting, ignition, or other hazardous qualities is prohibited.

END OF SECTION

SECTION 01410**REGULATORY REQUIREMENTS****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 AUTHORITY AND PRECEDENCE OF CODES, ORDINANCES AND STANDARDS

- A. Authority: All codes, ordinances and standards referenced in the Drawings and Specifications shall have the full force and effect as though printed in their entirety in the Specifications.
- B. Precedence:
1. Where specified requirements differ from the requirements of applicable codes, ordinances and standards, the more stringent requirements shall take precedence.
 2. Where the Drawings or Specifications require or describe products or execution of better quality, higher standard or greater size than required by applicable codes, ordinances and standards, the Drawings and Specifications shall take precedence so long as such increase is legal.
 3. Where no requirements are identified in the Drawings or Specifications, comply with all requirements of applicable codes, ordinances and standards of authorities having jurisdiction.

1.3 APPLICABLE CODES, LAWS, AND ORDINANCES

- A. Applicable Codes, Laws, and Ordinances: Refer also to Section 01100 - Summary of the Work regarding permits and licenses.
1. Performance of the Work shall meet or exceed the minimum requirements of California Code of Regulations (CCR), Title 24, including the following:
 - Part 1, Building Standards Administrative Code
 - Part 2, California Building Code
 - Part 3, California Electrical Code
 - Part 4, California Mechanical Code
 - Part 5, California Plumbing Code
 - Part 6, California Energy Code
 - Part 7, California Elevator Safety Demolition Code
 - Part 8, California Historical Building Code
 - Part 9, California Fire Code
 - Part 12, California Reference Standards Code
 - Cal Green Act adopted January 1, 2022

2. Performance of the Work shall also comply with applicable requirements of California Code of Regulations (CCR) as follows:

The California Administrative Code, Title 19 (Industrial Relations, Public Safety) The California Occupational Safety and Health Act
 The California Environmental Quality Act, latest edition
 Requirements of the Regional Water Quality Board
 Public Contract Code, Sections 10700 et seq. (California State Contract Law)
 State/local health departments (regarding food services, pools, etc.)
 Air Quality Management District regulations
 Americans with Disabilities Act (ADA), Title II, ADAAG
 California Coastal Commission Regulations
 Local Public Agency standards.

The County is not subject to local jurisdictions' planning/building codes, nor is it required to obtain building permits from local jurisdictions for construction on real estate owned or controlled by the County. However, the design and Demolition of utility connections and fire-protection systems may require liaison with local jurisdictions. This liaison shall be coordinated through the County project administrator. Demolition or encroachment upon city or county owned property is subject to local codes and permit requirements.

ASHRAE indoor air quality standard 62-2022.

3. References on the Drawings or in the Specifications to "code", "Code" or "building code" similar terms, not otherwise identified, shall mean the codes specified above, together with all additions, amendments, changes, and interpretations adopted by code authorities of the jurisdiction having authority over the Project.
4. The applicable edition of all codes shall be that adopted at the time of issuance of permits by the authority having jurisdiction and shall include all modifications and additions adopted by that authority. The applicable date of laws and ordinances shall be that of the date of performance of the Work.

B. Other Applicable Laws, Ordinances and Regulations:

1. Work shall be accomplished in conformance with all applicable laws, ordinances, rules, and regulations of Federal, State, County, City and special district agencies and jurisdictions having authority over the Project.
2. Performance of the Work shall be accomplished in conformance with all rules and regulations of public utilities, utility districts and other agencies serving the facility.

3. Where such laws, ordinances, rules, and regulations require more care or greater time to accomplish Work, or require better quality, higher standards or greater size of products, Work shall be accomplished in conformance to such requirements with no change to the Contract Time and Contract Sum, except where changes in laws, ordinances, rules, and regulations occur subsequent to the execution date of the Agreement.

PART 2 - PRODUCTS

Not Applicable to this Section.

PART 3 - EXECUTION

Not Applicable to this Section.

END OF SECTION

SECTION 01420**REFERENCE STANDARDS AND ABBREVIATIONS****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Use of references in Drawings and Specifications, including requirements for copies of reference standards at Project site.
- B. Definitions of terms used in Specifications and Drawings, including abbreviations, acronyms, names, and terms which may be used in Specifications.

1.3 RELATED SECTIONS

- A. Section 01410 - Regulatory Requirements: Identification of applicable building Code and other codes, ordinances, and regulations applicable to performance of the Work.

1.4 USE OF REFERENCES

- A. References: The Drawings and Specifications contain references to various standards, standard specifications, codes, practices and requirements for products, execution, tests, and inspections. These reference standards are published and issued by the agencies, associations, organizations, and societies listed in this Section or identified in individual product specification Sections.
 - 1. Wherever term "Agency" occurs in Standard Specifications, it shall be understood to mean the term used for County for purposes of the Contract.
 - 2. Wherever term "Engineer" occurs in Standard Specifications, it shall be understood to mean Engineer or other responsible design professional for purposes of the Contract.
 - 3. Where reference is made to Standard Details, such reference shall be to the Standard Details accompanying the Standard Specifications.
- B. Relationship to Drawings and Specifications: Such references are incorporated into and made a part of the Drawings and Specifications to the extent applicable.
- C. Referenced Grades Classes and Types: Where an alternative or optional grade, class or type of product or execution is included in a reference but is not identified on the Drawings or in the Specifications, provide the highest, best, and greatest of the alternatives or options for the

intended use and prevailing conditions.

D. Copies of Reference Standards:

1. Reference standards are not furnished with the Drawings and Specifications because it is presumed that the Contractor, subcontractors, manufacturers, suppliers, trades, and crafts are familiar with these generally- recognized standards of the Demolition industry.
2. Copies of reference standards may be obtained from publishing sources.

E. Jobsite Copies:

1. The contractor shall obtain and maintain at the Project site copies of reference standards identified on the Drawings and in the Specifications to properly execute the Work. The County may exercise its option to purchase all these items at the depreciated fair market value.
2. At a minimum, the following shall be readily available at the site, as applicable to the Work:
 - a. State Building Codes: As referenced in Section 01410 - Regulatory Requirements.
 - b. Safety Codes: Occupational Safety and Health Act (OSHA) regulations and State of California, California Administrative Code, California Code of Regulations (CCR), Title 8 - Industrial Relations, Chapter 4, Subchapter 7, General Industry Safety Orders (Cal-OSHA), to extent applicable to the Work.
 - c. General Standards:
 - 1) CCR Title 24, Part 2, Volume 3: 2022 California Building Code (CBC) Material, Testing, and Installation Standards.
 - 2) CCR Title 24, Part 12: 2022 California Referenced Standards Code.
 - 3) Underwriters Laboratories, Inc. (UL) Building Products Listing.
 - 4) Factory Mutual Research Organization (FM) Approval Guide.
 - 5) American Society for Testing and Materials (ASTM) Standards in Building Codes.
 - 6) American National Standards Institute (ANSI) standards.
 - d. Fire and Life Safety Standards: All referenced standards pertaining to fire rated Demolition and exiting.
 - e. Common Materials Standards: American Concrete Institute (ACI), American Institute of Steel Demolition (AISC), American Welding Society (AWS), Gypsum Association (GA), National Fire Protection Association (NFPA), Tile Council of America (TCA) and Woodwork Institute of California (WIC) standards to the extent referenced within the Contract Specifications.
 - f. Research Reports: ICC Evaluation Service, Inc. (ICC-ES), formerly ICBO Evaluation Service, Inc. (ICBO ES) Research Reports and National Evaluation Service, Inc. Reports (NER), for products not in conformance to prescribed requirements stated in

California Building Code (CBC).

- g. Product Listings: Approval documentation, indicating approval of authorities having jurisdiction for use of product within the applicable jurisdiction.

F. Edition Date of References:

1. When an edition or effective date of a reference is not given, it shall be understood to be the current edition or latest revision published as of the date of the Contract Drawings and Contract Specifications.
2. All amendments, changes, errata, and supplements as of the effective date shall be included.

G. ASTM and ANSI References: Specifications and Standards of the American Society for Testing and Materials (ASTM) and the American National Standards Institute (ANSI) are identified in the Drawings and Specifications by abbreviation and number only and may not be further identified by title, date, revision, or amendment. It is presumed that the Contractor is familiar with and has access to these nationally- and industry- recognized specifications and standards.

1.5 DEFINITIONS OF TERMS

A. Basic Contract Definitions: Words and terms governing the Work are defined in the Contract General and Supplementary Conditions, as referenced in the Agreement.

B. Words and Terms Used on Drawings and in Specifications: Additional words and terms may be used in the Drawings and Specifications and are defined as follows:

1. "Applicable:" As appropriate for the condition, circumstance, or situation.
2. "Approve(d):" Approval action shall be limited to the duties and responsibilities of the party giving approval, as stated in the Conditions of the Contract. Approvals shall be valid only if obtained in writing and shall not apply to matters regarding the means, methods, techniques, sequences, and procedures of Demolition. Approval shall not relieve the Contractor from responsibility to fulfill Contract requirements.
3. "And/or:" If used, shall mean that either or both items so joined are required.
4. "Directed:" Limited to duties and responsibilities of the County's Representative or Engineer as stated in the Contract General Conditions, meaning "as instructed by the County's Representative or Engineer, in writing, regarding matters other than the means, methods, techniques, sequences and procedures of Demolition. Terms such as "directed", "requested", "authorized", "selected", "approved", "required", and "permitted" mean "directed by the County's Representative or Engineer", "requested by the County's Representative or Engineer", and similar phrases. No implied meaning shall be interpreted to extend the responsibility of the County's Representative, Engineer, or other responsible design professional into the Contractor's supervision of Demolition.

5. "Equal" or "Equivalent:" As determined by Engineer or other responsible design professional as being equivalent, considering such attributes as durability, finish, function, suitability, quality, utility, performance, and aesthetic features.
6. "Furnish:" Means "supply and deliver, to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations."
7. "Indicated:" The term indicated refers to graphic representations, notes, or schedules on the Drawings, or other Paragraphs or Schedules in the Specifications, and similar requirements in the Contract Documents. Terms such as "shown", "noted", "scheduled", and "specified" are used to help the reader locate the reference. There is no limitation on location.
8. "Install:" Describes operations at the Project site including the actual unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
9. "Installer:"
 - a. "Installer" refers to the Contractor or an entity engaged by the Contractor, such as an employee, subcontractor, or sub-subcontractor for performance of a particular Demolition activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged in performing.
 - b. "Experienced Installer:" The term "experienced," when used with "installer" means having a minimum of 5 previous Projects similar in size to this Project, knowing the precautions necessary to perform the Work, and being familiar with requirements of authorities having jurisdiction over the Work.
10. "Jobsite:" Same as site.
11. "Necessary:" With due considerations of the conditions of the Project and as determined in the professional judgment of the Engineer or other responsible design professional as being necessary for performance of the Work in conformance with the requirements of the Contract Documents, but excluding matters regarding the means, methods, techniques, sequences, and procedures of Demolition.
12. "Noted:" Same as "Indicated."
13. "Per:" Same as "in accordance with," "according to" or "in compliance with."
14. "Products:" Material, system, or equipment.
15. "Project Site:" Same as "Site."
16. "Proper:" As determined by the Engineer or other responsible design professional as being

proper for the Work, excluding matters regarding the means, methods, techniques, sequences, and procedures of Demolition, which are solely the Contractor's responsibility to determine.

17. "Provide:" Means "furnish and install, complete and ready for the intended use."
18. "Regulation:" Includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions and agreements within the Demolition industry that control performance of the Work.
19. "Required:" Necessary for performance of the Work in conformance with the requirements of the Contract Documents, excluding matters regarding the means, methods, techniques, sequences, and procedures of Demolition, such as:
 - a. Regulatory requirements of authorities having jurisdiction.
 - b. Requirements of referenced standards.
 - c. Requirements generally recognized as accepted Demolition practices of the locale.
 - d. Notes, schedules, and graphic representations on the Drawings.
 - e. Requirements specified or referenced in the Specifications.
 - f. Duties and responsibilities stated in the Bidding and Contract Requirements.
20. "Scheduled:" Same as "Indicated."
21. "Selected:" As selected by the County's Representative, Engineer, or other responsible design professional from the full selection of the manufacturer's products, unless specifically limited in the Contract Documents to a particular quality, color, texture or price range.
22. "Shown:" Same as "Indicated."
23. "Site:" Same as "Site of the Work" or "Project Site;" the area or areas or spaces occupied by the Project and including adjacent areas and other related areas occupied or used by the Contractor for Demolition activities, either exclusively or with others performing other Demolition on the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land upon which the Project is to be built.
24. "Supply:" See "Furnish."
25. "Testing Laboratory" or "Testing Laboratories:" An independent entity engaged to perform specific inspections or tests, at the Project Site or elsewhere, and to report on, and, if required, to interpret, results of those inspections or tests. Refer to Section 01458 - Testing Laboratory Services.
26. "Testing and Inspection Agency:" Same as "Testing Laboratory."

1.6 ABBREVIATIONS, ACRONYMS, NAMES AND TERMS, GENERAL

REFERENCE STANDARDS AND ABBREVIATIONS

01420-67

- A. Abbreviations, Acronyms, Names and Terms: Where acronyms, abbreviations, names and terms are used in the Drawings, Specifications or other Contract Documents, they shall mean the recognized name of the trade association, standards generating organization, authority having jurisdiction or other entity applicable.
- B. Abbreviations, General: The following are commonly used abbreviations which may be found on the Drawings or in the Specifications:

AC or ac	Alternating current or air conditioning (depending upon context)
AMP or amp	Ampere
C	Celsius
CFM or cfm	Cubic feet per minute
CM or cm	Centimeter
CY or cy	Cubic yard
DC or dc	Direct current
DEG or deg	Degrees
F	Fahrenheit
FPM or fpm	Feet per minute
FPS or fps	Feet per second
FT or ft	Foot or feet
Gal or gal	Gallons
GPM or gpm	Gallons per minute
IN or in	Inch or inches
Kip or kip	Thousand pounds
KSI or ksi	Thousand pounds per square inch
KSF or ksf	Thousand pounds per square foot
KV or kv	Kilovolt
KVA or kva	Kilovolt amperes
KW or kw	Kilowatt
KWH or kwh	Kilowatt hour
LBF or lbf	Pounds force
LF or lf	Lineal foot
M or m	Meter
MPH or mph	Miles per hour
MM or mm	Millimeter
PCF or pcf	Pounds per cubic foot
PSF or psf	Pounds per square foot
PSI or psi	Pounds per square inch
PSY or psy	Per square yard
SF or sf	Square foot
SY or sy	Square yard
V or v	Volts

- C. Abbreviations and Acronyms for Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name

of the entities indicated in Gale Research's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the U.S."

D. Undefined Abbreviations, Acronyms, Names and Terms: Words and terms not otherwise specifically defined in this Section, in the Instructions to Bidders, in the Contract General Conditions, on the Drawings or elsewhere in the Specifications, shall be as customarily defined by trade or industry practice, by reference standard and by specialty dictionaries such as the following:

1. Dictionary of Architecture and Demolition, Third Edition (Cyril M. Harris, McGraw-Hill Book Company, 2000).
2. The American Institute of Architects (AIA) Document M101, "Glossary of Demolition Industry Terms."
3. Encyclopedia of Associations, published by Gale Research Co., commonly available in public libraries.

PART 2 - PRODUCTS

Not Applicable to this Section.

PART 3 - EXECUTION

Not Applicable to this Section.

END OF SECTION

SECTION 01450**QUALITY CONTROL****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Regulatory requirements for testing and inspection.
- B. Contractor's quality control.
- C. Quality of the Work.
- D. Inspections and tests by authorities having jurisdiction.
- E. Inspections and tests by serving utilities.
- F. Inspections and tests by manufacturer's representatives.

1.3 RELATED SECTIONS

- A. Section 01311 - Project Coordination: Coordination of Work under Contract.
- B. Section 01410 - Regulatory Requirements: Compliance with applicable codes, ordinances, and standards.
- C. Section 01458 - Testing Laboratory Services: Selection of independent testing and inspection laboratory; tests and inspections conducted by testing laboratory.
- D. Section 01610 - Basic Product Requirements: Product options, substitutions, transportation and handling requirements, storage and protection requirements, and system completeness requirements.
- E. Mechanical and Electric Sections – Basic Materials and Methods.

1.4 REGULATORY REQUIREMENTS FOR TESTING AND INSPECTION

- A. Building Code Requirements: Comply with requirements for testing and inspections in the California Building Code (CBC), as interpreted by authorities having jurisdiction. Additional requirements for testing and inspection, as adopted by authorities having jurisdiction, shall be

included in the Contract Sum and Contract Time.

- B. Requirements of Fire Regulations: Comply with testing and inspection requirements of the State Fire Marshal. All tests and inspections shall be included in Contract Sum and Contract Time.

1.5 CONTRACTOR'S QUALITY CONTROL

- A. Contractor's Quality Control: Contractor shall ensure that products, services, workmanship, and site conditions comply with requirements of the Drawings and Specifications by coordinating, supervising, testing, and inspecting the Work and by utilizing only suitably qualified personnel.
- B. Quality Requirements: Work shall be accomplished in accordance with quality requirements of the Drawings and Specifications, including, by reference, all Codes, laws, rules, regulations, and standards. When no quality basis is prescribed, the quality shall be in accordance with the best accepted practices of the Demolition industry for the locale of the Project, for projects of this type.
- C. Quality Control Personnel: Contractor shall employ and assign knowledgeable and skilled personnel as necessary to perform quality control functions to ensure that the Work is provided as required.
- D. Coordination of Field Quality Control: Contractor shall coordinate and schedule field quality control activities of County's independent testing and inspection agency and inspectors from authorities having jurisdiction.

1.6 QUALITY OF THE WORK

- A. Quality of Products: Unless otherwise indicated or specified, all products shall be new, free of defects and fit for the intended use.
- B. Quality of Installation: All Work shall be produced plumb, level, square and true, or true to indicated angle, and with proper alignment and relationship between the various elements.
- C. Protection of Existing and Completed Work: Take all measures necessary to preserve and protect existing and completed Work free from damage, deterioration, soiling and staining, until Acceptance by the County.
- D. Standards and Code Compliance and Manufacturer's Instructions and Recommendations: Unless more stringent requirements are indicated or specified, comply with manufacturer's instructions and recommendations, reference standards and building code research report requirements in preparing, fabricating, erecting, installing, applying, connecting and finishing Work.
- E. Deviations from Standards and Code Compliance and Manufacturer's Instructions and Recommendations: Document and explain all deviations from reference standards and building

code research report requirements and manufacturer's product installation instructions and recommendations, including acknowledgement by the manufacturer that such deviations are acceptable and appropriate for the Project.

- F. **Verification of Quality:** Work shall be subject to verification of quality by County or Engineer in accordance with provisions of the Contract General Conditions.
1. Contractors shall cooperate by making Work available for inspections and observations by County's Representative, Engineer, and their consultants.
 2. Such verification may include mill, plant, shop, or field inspection, as required.
 3. Provide access to all parts of the Work, including plants where materials or equipment are manufactured or fabricated.
 4. Provide all information and assistance as necessary, including that from subcontractors, fabricators, materials suppliers, and manufacturers, for verification of quality by County's Representative or Engineer.
 5. Contract modifications, if any, resulting from such verification activities shall be governed by applicable provisions in the Contract General Conditions.
- G. **Observations by Engineer and Engineer's Consultants:** Periodic and occasional observations of Work in progress will be made by Engineer and Engineer's consultants as deemed necessary to review progress of Work and general conformance with the design intent.
- H. **Limitations on Inspection, Test and Observations:** Employment of an independent testing and inspection agency and observations by Engineer and Engineer's consultants shall not relieve Contractor of the obligation to perform Work in full conformance to all requirements of Contract Documents and applicable Building Code and other regulatory requirements.
- I. **Rejection of Work:** The County reserves the right to reject all Work not in conformance with the requirements of the Contract Documents.
- J. **Correction of Non-Conforming Work:** Non-conforming Work shall be modified, replaced, repaired, or redone by the Contractor at no change in Contract Sum or Contract Time.
- K. **Acceptance of Non-Conforming Work:** Acceptance of non-conforming Work, without specific written acknowledgement and approval of the County's Representative, shall not relieve the Contractor of the obligation to correct such Work.
- L. **Contract Adjustment for Non-conforming Work:** Should County's Representative determine that it is not feasible or not in County's interest to require non-conforming Work to be repaired or replaced, an equitable reduction in Contract Sum shall be made by agreement between County's Representative and Contractor. If an equitable amount cannot be agreed upon, a Field

Instruction will be issued and the amount in dispute resolved in accordance with applicable provisions of the Contract General Conditions.

- M. Non-Responsibility for Non-Conforming Work: Engineer and Engineer's consultants disclaim all responsibility for Work produced that is not in conformance with the Contract Drawings and Contract Specifications.

1.7 INSPECTIONS AND TESTS BY AUTHORITIES HAVING JURISDICTION

- A. Inspections and Tests by Authorities Having Jurisdiction: Contractor shall cause all tests and inspections required by authorities having jurisdiction to be made for Work under this Contract and coordinate these tests and inspections with the Demolition Inspector.
 - 1. Except as specifically noted, scheduling, coordinating, and conducting such inspections and tests shall be solely the Contractor's responsibility.
 - 2. All time required for inspections and tests by authorities having jurisdiction shall be included in the Contract Time.
 - 3. Costs for inspections and tests by authorities having jurisdiction will be paid by the County.

1.8 INSPECTIONS AND TESTS BY SERVING UTILITIES

- A. Inspections and Tests by Serving Utilities: Contractor shall cause all tests and inspections required by serving utilities to be made for Work under the Contract.
 - 1. Except as specifically noted, scheduling, coordinating, and conducting such inspections and tests shall be solely the Contractor's responsibility. All time required for inspections and tests by serving utilities shall be included in the Contract Time.
 - 2. Except as specifically noted, all costs for inspections and tests by serving utilities shall be included in the Contract Sum.
 - 3. Insure that persons conducting tests are approved/certified by Jurisdiction Having Authority. (i.e., required testing of backflow assembly shall be performed by a certified Los Angeles County backflow tester.)

1.9 INSPECTIONS AND TESTS BY MANUFACTURER'S REPRESENTATIVES

- A. Inspections and Tests by Manufacturer's Representatives: Contractor shall cause all specified tests and inspections to be conducted by materials or systems manufacturers. Additionally, all tests and inspections required by materials or systems manufacturers as conditions of warranty or certification of Work shall be done, the cost of which shall be included in the Contract Sum.
 - 1. Scheduling, coordinating, and conducting such inspections and tests shall be solely the Contractor's responsibility. All time required for inspections and tests by manufacturer's representatives shall be included in the Contract Time.

2. All costs for inspections and tests by manufacturer's representatives shall be included in the Contract Sum.

1.10 INSPECTIONS BY INDEPENDENT TESTING AND INSPECTION AGENCY

- A. Inspections by independent Testing Laboratory: Refer to Section 01458 - Testing Laboratory Services.

PART 2 - PRODUCTS

Not applicable to this Section.

PART 3 - EXECUTION

Not applicable to this Section.

END OF SECTION

NOT FOR BID

SECTION 01458**TESTING LABORATORY SERVICES****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Administrative and procedural requirements for quality control services.
 - 1. Quality control services include inspections and tests and related actions including reports, performed by independent agencies, and governing authorities. They do not include Contract enforcement activities performed by the County or Engineer.
 - 2. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements.

1.3 RELATED SECTIONS

- A. Section 01450 - Quality Control: General requirements for inspections and tests.
- B. Individual Product Specifications Sections: Specific requirements for inspections and tests.

1.4 RESPONSIBILITIES

- A. Testing Laboratory: County will engage and pay for the services of an independent agency to perform inspections and tests specified as the County's responsibility.
 - 1. Where the County have engaged a testing agency or other entity for testing and inspection of a part of the Work, and the Contractor is also required to engage an entity for the same or related element, the Contractor shall not employ the entity engaged by the County, unless otherwise agreed in writing with the County.
- B. Retesting: The Contractor is responsible for the cost of retesting where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements, regardless of whether the original test was the Contractor's responsibility.
 - 1. Cost of retesting Demolition revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original Demolition.

- C. **Associated Services:** The Contractor shall cooperate with agencies performing required inspections, tests and similar services and provide reasonable auxiliary services as requested.
- D. **Coordination:** The Contractor, Project Manager/Inspector, and each agency engaged to perform inspections, tests and similar services shall coordinate the sequence of activities to accommodate required services with a minimum of delay. In addition, the Contractor shall coordinate activities to avoid the necessity of removing and replacing Demolition to accommodate inspections and tests.
1. The Contractor is responsible for communicating to the Project manager/Inspector the scheduling times for inspections, tests, taking samples and similar activities.
- E. **Payment for Testing Laboratory Services:**
1. Unless otherwise specified, the County will pay for tests and inspections performed by Testing Laboratory, as specified in individual product Sections of the Specifications. Overtime costs due to scheduling for the convenience of the Contractor or to make up for Work behind schedule shall be deducted by Change Order from Contract Sum.
 2. When tests and inspections are required on an overtime basis, initial payment will be made by the County. All costs for overtime testing and inspections shall be deducted by Change Order from Contract Sum.
 3. Unless otherwise specified, Contractor shall be back charged for mileage and travel time for inspection services requiring more than 50 miles from Project site to test products purchased by Contractor.
 - a. Testing Laboratory shall forward all billings and records of such costs to County's Representative for approval.
 - b. Such costs, if determined by the County's Representative to be attributable to the Contractor under this provision, shall be deducted by Change Order from Contract Sum.
 4. The contractor shall pay all costs for repeated observations, reinspection or retesting by Testing Laboratory due to non-conforming Work. Costs shall be deducted by Change Order from Contract Sum.
 5. **Additional Tests, Inspections and Related Services:** Contractor shall be charged costs for additional tests, inspections, and related services, due to the following. Such costs shall be deducted by Change Order from Contract Sum.
 - a. Work is not ready to inspect when inspectors arrive.
 - b. Failure to properly schedule or notify testing and inspection agency or authorities having jurisdiction.
 - c. Changes in sources, lots, or suppliers of products after original tests or inspections.
 - d. Changes in means, methods, techniques, sequences, and procedures of Demolition

- necessitate additional testing, inspection, and related services.
- e. Changes in mix designs for concrete and mortar after review and acceptance of submitted mix design.
 - f. Multiple off-site fabrication sites.
 - g. Fabrication and installation errors.
- F. Segregation in Billing of Overtime Services: Billings for overtime services shall have straight time and overtime costs segregated and shall have substantiation by detailed explanations justifying necessity of services on overtime basis.
- G. Obligation to Perform Work According to Contract Documents: Employment of Testing Laboratory shall in no way relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents and applicable Codes.
- H. Limits on Testing Laboratory's Authority:
1. Testing Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 2. Testing Laboratory may not approve or accept any portion of the Work.
 3. Testing Laboratory may not assume any duties of Contractor.
 4. Testing Laboratory shall have no authority to stop Work.
- I. Contractor's Responsibilities to Testing Laboratory: Contractor shall make the Work in all stages of progress available for personal and continuous observation by the Testing Laboratory.
1. The Testing Laboratory shall have free access to all parts of the Work at all times.
 2. Contractor shall provide the Testing Laboratory with reasonable facilities for Testing Laboratory to obtain such information as Testing Laboratory determines is necessary for Testing Laboratory to be kept fully informed of the progress and manner of performance of the Work and character of products, according to Testing Laboratory's duties and responsibilities.
 3. Observation and inspection of the Work by the Testing Laboratory shall not relieve the Contractor of any obligation to fulfill the requirements of the Contract.
- J. Retesting: When materials tested fail to meet requirements herein specified, they shall be promptly corrected or removed and replaced and retested in a manner required by County's Representative. Costs involved in retesting shall be deducted by Change Order from Contract Sum.

1.5 TESTS AND INSPECTIONS

- A. Tests and Inspections, General: All Demolition work shall be subject to inspection by the County (hereinafter referred to as Owner) and the Engineer and all such Demolition or work shall remain accessible and exposed for inspection purposes until approved by the Owner.
1. The Owner will provide project personnel, including inspectors, to be available at the project site.
 2. Approval because of an inspection shall not be construed to be an approval of a violation of the provisions of the building code or of other ordinances of the jurisdiction, including plans and specifications. Inspections presuming to give authority to violate or cancel the provisions of code, or of plans and specifications shall not be valid.
 3. It shall be the duty of the contractor to cause the work to remain accessible and exposed for inspection purposes. Neither the Inspector nor the Owner or Engineer shall be liable for the expense entailed in the removal or replacement of any material required to allow inspection.
- B. Inspection Requests: It shall be the duty of the contractor doing the work to notify the Inspector that such work is ready for inspection. The Owner requires that such work is ready for inspection. The Owner requires that every request for inspection be filed at least two working days (48 hours) before such an inspection is desired. Such requests shall be in writing.
- C. Approval Required: Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the Inspector. The Inspector, upon notification, shall make the requested inspections and shall either indicate in writing that a portion of the Demolition is satisfactory as completed, or shall notify the Contractor that same fails to comply with plans and specifications. Any portions which do not comply shall be corrected by the Contractor and such portions shall not be covered or concealed until authorized by the Inspector.
1. There shall be a final inspection and approval of all buildings and structures when completed and ready for occupancy and use.
- D. Inspection Coordination: Contractor shall provide, on a weekly basis, an anticipated Inspection Requirements Schedule, coordinated with the three-week look ahead schedule, showing the anticipated inspection needs for the following three weeks to facilitate appropriate campus coordination and interface as well as mobilization of required inspection staffing.
- E. Required Inspections: Inspections contained in the UBC Section 108 & 1701 including but not limited to those listed below:
1. Listed below are the minimum inspection requirements:
 - a. Frame Inspection: To be made after all framing, fire blocking and bracing are in place and all pipes and vents are complete and the rough electrical, plumbing and heating wires, pipes and ducts are approved.
 - b. Mechanical and Electrical Rough-In Inspection: To be made after all mechanical and

electrical rough-in work is completed.

- c. Lath or Gypsum Board Inspection: To be made after all lathing and gypsum board, interior and exterior, is in place, but before any plastering is applied or before gypsum board joints and fasteners are taped and finished.
- d. Final Inspection: To be made when the building is completed and ready for occupancy.
- e. Other Inspections: In addition to the called inspections specified above, the inspector may make or require other inspections of any Demolition work to ascertain compliance with the provisions of the plans and specifications.
- f. Re-inspections: A re-inspection fee may be assessed for each inspection or re-inspection when such portion of work for which inspection is called is not complete or when corrections called for are not made. Some examples may be:
 1. Footings
 2. Underground utilities
 3. Rebar
 4. Fire sprinklers.
 5. Ceiling above t-bar
 6. Welding
 7. Roof/metal deck
 8. Roofing
 9. Insulation
 10. Rated wall penetrations.
 11. Rated doors and access panels.
 12. High voltage cable installation
 13. High pot high voltage cables

2. The Contractor shall be responsible for reviewing all the Contract Documents for any additional inspection requirements.

1.6 SUBMITTALS

- A. Reports: County' independent testing agency shall submit a certified written report of each inspection, test, or similar service, to the Engineer, (2 copies), the County, the Contractor, and the Project Manager/Inspector.
- B. Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to:

Date of issue,
Project title and number,
Name, address, and telephone number of testing agency,
Dates and locations of samples and tests or inspections,
Names of individuals making the inspection or test,
Designation of the Work and test method,
Identification of product and Specification Section,

Complete inspection, or test data,
Test results and an interpretation of test results,
Ambient conditions at the time of sample-taking and testing,
Comments, or professional opinion as to whether inspected or tested,
Work complies with Contract Document requirements,
Name and signature of laboratory inspector,
Recommendations on retesting.

1.7 SCHEDULES FOR TESTING

- A. Testing and Inspection Schedule: After discussion with County's Representative and Testing Laboratory in advance of performance of testing and inspection services, Contractor shall determine dates and times necessary for Testing Laboratory to schedule performance of required tests and inspections and determine due dates for issuance of reports.
1. Integrate Testing and Inspection Schedule with Demolition Progress Schedule specified in Section 01321 - Demolition Progress Schedules.
 2. Determine and indicate in the Testing and Inspection Schedule necessary time for preparation and submission of reports of tests and inspections.
- B. Revising Testing and Inspection Schedule: When changes of the Demolition schedule are necessary during Demolition, coordinate all such changes of schedule with the testing laboratory as required.
- C. Adherence to Testing and Inspection Schedule: When the Testing Laboratory is ready to test according to the determined schedule but is prevented from testing or taking specimens due to incompleteness of the work, all extra costs for testing attributed to the delay may be back charged to the Contractor and shall not be borne by the County.

1.8 CONTRACTOR'S RESPONSIBILITIES

- A. Contractor's Responsibilities for Inspections and Tests:
1. Notify County's Representative or designated Testing Inspector (if Testing Inspector has been retained by the County) that a special inspector is needed from our Testing Laboratory at least 48 hours in advance of expected time for operations requiring inspection and testing services. Routine inspections that can be handled by our Project Team's inspectors only require 48-hour notice.
 2. Deliver to Testing Laboratory or designated location, adequate samples of materials proposed to be used which require advance testing, together with proposed mix designs.
 3. Cooperate with County's Representative, Testing Laboratory, Project Inspector, Engineer, Engineer's consultants, and other responsible design professionals. Provide access to Work areas and off-site fabrication and assembly locations, including during weekends and after normal work hours.

4. Provide incidental labor and facilities to provide safe access to Work to be inspected and tested, to obtain and handle samples at the Work site or at source of products to be tested, and to store and cure test samples.
5. Provide at least 15 days in advance of the first inspection or test of each type, a schedule of tests or inspections indicating types of tests or inspections and their scheduled dates.
6. Provide 48 hours advance notice to County's Representative, Engineer, and as applicable, responsible design consultant, of each special inspection test and inspection. 24-hour notification is necessary for a routine inspection.

1.9 INSPECTIONS TESTS BY OTHERS

- A. Inspections by Others: Refer to Section 01450 - Quality Control for requirements regarding observations and inspections by County's Representative, Engineer, and Project Inspector.
- B. Tests by Others: Refer to Section 01450 - Quality Control and individual product Specifications Sections for requirements regarding tests and inspections by product manufacturers and others, including serving utilities.

PART 2 - PRODUCTS

Not Applicable to this Section.

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION

- A. Repair and Protection: Upon completion of inspection, testing, sample-taking and similar services, repair damaged Demolition and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes. Comply with Contract Document requirements for "Cutting and Patching."
 1. Protect Demolition exposed by or for quality control service activities and protect repaired Demolition.
 2. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

END OF SECTION

SECTION 01505**PROJECT WASTE MANAGEMENT****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Prepare, submit, and implement a Project Waste Management Plan.

1.3 RELATED SECTIONS

- A. Divisions 2 through 16 inclusive.

1.4 WASTE MANAGEMENT GOALS FOR THE PROJECT

- A. County has established a policy that Demolition projects shall generate the least amount of waste possible and that processes shall be employed that ensure the generation of as little waste as possible, including prevention of damage due to mishandling, improper storage, contamination, inadequate protection, or other factors as well as minimizing over packaging and poor quantity estimating.
- B. Of the inevitable waste that is generated, the waste materials designated in this specification shall be salvaged for reuse and or recycling. Waste disposal in landfills or incinerators shall be minimized. On new Demolition projects this means careful recycling of job site waste, on demolition projects this also means careful removal for salvage.
- C. At the time of Project Completion, waste diversion shall be at least 75 percent by weight or volume of total waste generated by the Project. Contractor to provide services and support to achieve LEED certification points to meet the waste diversion criteria to secure LEED Silver.

1.5 REGULATORY REQUIREMENTS

- A. Regulatory Requirements: Conform to applicable regulations and or standards for disposal and removal of common and hazardous waste. Handle and dispose of all hazardous and banned materials in accordance with all applicable regulations and or standards.
- B. Hazardous and banned materials include but are not limited to asbestos, drywall (banned from disposal), underground storage tanks, Polychlorinated Biphenyls (PCBs), abandoned chemicals (gasoline, pesticides, herbicides, flammable and combustible substances), Freon from cooling equipment, lead-based paints, smoke detectors, and mercury containing switches.

- C. Licensed Facilities: Only those brokerage, storage, transfer, and disposal facilities which comply with the requirements of the applicable regulations and or standards shall be used.

1.6 WASTE MANAGEMENT PLAN

- A. Waste Management Plan: Within 10 calendar days after execution of the Agreement or receipt of Notice to Proceed, whichever is earlier, Contractor shall submit to the County's Representative a Waste Management Plan. The Plan shall contain the following:
 - 1. Analysis of the proposed job site waste to be generated, including the types of recyclable and waste materials generated (by volume or weight). In the case of demolition, a list of each item proposed to be salvaged during the project shall also be prepared.
 - 2. Alternatives to Landfilling: Contractor shall be responsible for preparing a list of each material proposed to be salvaged, reused, or recycled during the Project.
- B. Meetings: Contractor shall conduct Project Waste Management meetings. Meetings shall include subcontractors affected by the Waste Management Plan. At a minimum, waste management goals and issues shall be discussed at the following meetings:
 - 1. Pre-bid meeting.
 - 2. Pre-Demolition meeting.
 - 3. Regular job-site meetings.
- C. Materials Handling Procedures: Prevent contamination of materials to be recycled and salvaged and handle materials consistent with requirements for acceptance by designated facilities. Where space permits, source separation is recommended. Where materials must be co-mingled, they must be taken to a processing facility for separation off site.
- D. Transportation: The Contractor may engage a hauling subcontractor or self-haul or make each subcontractor responsible for their own waste. In any case compliance with these requirements is mandatory.
- E. The contractor shall submit to the County's Representative waybills, invoices and other documentation confirming that all materials have been hauled to the required locations.
- F. Application for Progress Payments: The Contractor shall submit with each Application for Progress Payment a summary of waste materials, recycled, salvaged, and disposed of by the Project.
 - 1. Failure to submit this information shall render the Application for Payment incomplete and shall delay Progress Payment.

2. The Summary shall contain the following information:
 - a. For each material salvaged and recycled from the Project, include the amount (in cubic yards or tons or in the case of salvaged items state quantities by number, type, and size of items) and the destination (i.e., recycling facility, used building materials yard).
 - b. For each material land filled or incinerated from the Project, include the amount (in cubic yards or tons) of material and the identity of the landfill, incinerator and/or transferstation.

PART 2 - PRODUCTS

Not Applicable to this Section.

PART 3 - EXECUTION

Not Applicable to this Section.

END OF SECTION

SECTION 01510**TEMPORARY UTILITIES****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Temporary utilities and services, including:
 - 1. Heating and cooling during Demolition – if needed.
 - 2. Ventilation during Demolition for any LEED compliance requirements or other reasons.
 - 3. Temporary water service.
 - 4. Temporary sanitary facilities.
 - 5. Temporary power and lighting.
 - 6. Demolition telephone, Fax, and internet services.
- B. Removal of temporary utilities.

1.3 RELATED SECTIONS

- A. Section 01100 - Summary of the Work: Contractor's use of site and premises.
- B. Section 01210 – Allowances – Section 2.1. (Temporary utility allowance and billing rates that are charged to Contractor are included in this section).

1.4 SUBMITTALS

- A. Temporary Utilities: Submit reports of tests, inspections, applicable meter readings and similar procedures performed on temporary utilities.

1.5 TEMPORARY UTILITIES AND SERVICES

- A. Temporary Utilities and Services, General: All utilities and other services necessary for proper performance of the Work shall be provided by the Contractor, unless specifically noted otherwise. Refer to 01210-Allowances for information on charge-back costs associated with

water and power utilities provided by the County. Temporary utilities and services shall conform to all applicable requirements of authorities having jurisdiction and serving utility companies and agencies, including the following:

1. Requirements of authorities having jurisdiction, including:
 - a. Cal OSHA.
 - b. California Building Code (CBC) requirements.
 - c. Health and safety regulations.
 - d. Utility agency and company regulations.
 - e. Police, Fire Department and Rescue Squad rules.
 - f. Environmental protection regulations.
 2. Standards:
 3. NFPA Document 241 - Building Demolition and Demolition Activities.
 4. ANSI A10 Series - Safety Requirements for Demolition and Demolition.
 5. NECA Electrical Design Library - Temporary Electrical Facilities.
 6. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services", prepared jointly by AGC and ASC, for industry recommendations.
 7. Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with California Electrical Code (CEC).
- B. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.
- C. Temporary Connections and Fees: Contractor shall arrange and pay for all services, fees, and service charges (if applicable) as well as all initial installation and demobilization costs for all temporary power, water, sewer, gas and other utility services necessary for the Work.
1. Contractor shall: Submit recommended meter specification sheets to County's Representative for each temporary utility needed and install meters to record utility usage. Contractor to submit, monthly, a running log of utility usage based on meter readings. Readings will be in a unit-of-measure that is compatible with the County's billing system. Additionally, Contractor to supply a site map that shows all meter locations and identify each meter with an appropriate symbol that allows easy identification of the location and type of meter in the event the County deems necessary to verify meter readings. Contractor to obtain any necessary permits (if applicable) for temporary utilities, including permits for temporary generators, from authorities having jurisdiction.
 2. All costs for temporary connections, including fees charged by serving utilities (if applicable), shall be included in Contract Sum as an allowance (see Section 01210-Allowances). Actual cost of temporary utility will be charged to Contractor.

- D. Permanent Connections and Fees: Contractor shall arrange for utility agencies and companies to make permanent connections for any public utility agency that requires this for this project. However, the electricity, water, gas, sewer, storm drain, and voice/data fiber connections / services are all Cal Poly Pomona owned utilities.
- E. Use of Temporary Utilities: Enforce strict discipline in use of temporary utilities to conserve on consumption. Limit use of temporary utilities to essential and intended uses to minimize waste and abuse.

1.6 PROJECT CONDITIONS

- 1.7 Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities or permit them to interfere with progress. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on the site.

1.8 HEATING AND COOLING

- A. Temporary Heating and Cooling: Provide and pay for temporary heating and cooling devices, fuel and related service charges to provide ambient temperatures as required to maintain conditions necessary for proper performance of Demolition activities.
- B. Use of Permanent Heating and Cooling Systems: Permanent heating and cooling equipment may be used after completion, testing and inspection of systems and approval of code authorities having jurisdiction.
 1. Prior to operation of permanent heating equipment for temporary heating purposes, verify that installation is approved for operation, equipment is lubricated, and filters are in place.
 2. The contractor shall provide and pay for operation, maintenance and regular replacement of filters and worn or consumed parts.
 3. Immediately prior to Contract Completion review, change disposable filters and clean permanent filters of equipment used during Demolition.
- C. Temperature Criteria: Maintain interior ambient temperature of minimum 50 degrees F and maximum 80 degrees F, unless otherwise specified or approved by County's Representative.

1.9 VENTILATION DURING DEMOLITION

- A. Ventilation During Demolition: Provide and pay for temporary ventilation devices, energy, and related service charges.
- B. Use of Permanent Ventilation Systems: Permanent ventilation equipment may be used after completion, testing and inspection of systems and approval by County's Representative and

authorities having jurisdiction.

1. Prior to operation of permanent ventilation equipment for ventilation purposes during Demolition, verify that equipment is lubricated, and filters are in place.
 2. Contractor shall provide and pay for maintenance and regular replacement of filters and worn or consumed parts of permanent ventilation system used for ventilation during Demolition.
 3. Immediately prior to Contract Completion review, change disposable filters and clean permanent filters of equipment used during Demolition.
- C. Ventilation Criteria: Ventilate enclosed areas to assist cure of materials, to dissipate humidity and to prevent accumulation of dust, fumes, vapors, and gases, as necessary for proper performance of the Work.

1.10 TEMPORARY WATER SERVICE

- A. Temporary Water Service: Locate and connect to existing water source for temporary Demolition water service. Extend branch piping with outlets located so that water is available by use of hoses.
1. Locate and connect to existing water source for temporary Demolition water service, as acceptable to County's Representative.
 2. Extend branch piping with outlets located so that water is available by use of hoses.
 3. Temporary water service piping, valves, fittings, and meters shall comply with requirements of the serving water utility, the County and California Plumbing Code (CPC).
 4. All costs to establish temporary Demolition water system shall be included in the Contract Sum.
 5. Costs for temporary Demolition water consumption shall be paid by Contractor.
- B. Use of Permanent Water System: Permanent water system may be used for Demolition water after completion, sterilization, testing and inspection of system and approval by County's Representative and authorities having jurisdiction.

1.11 TEMPORARY SANITARY FACILITIES

- A. Temporary Sanitary Facilities: Provide and maintain adequate temporary sanitary facilities and enclosures for use by Demolition personnel.
1. The number of temporary toilets shall be suitable for the number of workers.

2. Provide a wash-up sink with soap, towels, and waste disposal.

B. Use of Permanent Sanitary Facilities: Do not use permanent sanitary facilities unless approved by the County's Representative. Immediately prior to Contract Completion review, thoroughly clean and sanitize permanent sanitary facilities used during Demolition.

1.12 TEMPORARY POWER AND LIGHTING

A. Temporary Power and Lighting, General: Comply with NECA Electrical Design Library - Temporary Electrical Facilities.

B. Temporary Power: Provide electric service as required for Demolition operations, with branch wiring and distribution boxes located to provide electrical service for performance of the Work.

1. Provide temporary electric feeder connected to electric utility service at location determined by Contractor and as approved by serving electric utility.

2. Temporary power conduit, raceways, fittings, conductors, panels, connections, disconnects, overcurrent protection, outlets and meters shall comply with requirements of the serving electric utility, California Electrical Code (CEC) and requirements of authorities having jurisdiction.

3. The contractor shall pay all costs to establish a temporary electric service. Costs of temporary power shall be paid by Contractor.

4. As necessary to maintain Demolition progress, the Contractor shall provide and pay all costs associated with generators used for temporary power.

C. Temporary Lighting: Provide temporary lighting as necessary for proper performance of Demolition activities and for inspection of the Work.

1. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.

D. Maintain lighting and provide routine repairs.

E. Protection: Provide weatherproof enclosures for power and lighting components as necessary. Provide overcurrent and ground-fault circuit protection, branch wiring and distribution boxes located to allow convenient and safe service about site of the Work. Provide flexible power cords as required.

F. Use of Permanent Power and Lighting Systems: Permanent power and lighting systems may be used after completion, testing and inspection of systems and approval by County's Representative and authorities having jurisdiction.

1. The contractor shall maintain the lighting and make routine repairs and replacements as necessary.

2. County will pay for reasonable amounts of electricity consumed after permanent power system is operational and approved by authorities having jurisdiction.

G. Service Disruptions: When necessary for energizing and de-energizing temporary electric power systems, minimize disruption of service to those served by public mains. Schedule transfers at times convenient to County and to occupants.

H. Relamping: For permanent lighting used during Demolition, relamp all fixtures immediately prior to Contract Completion (punch list) review.

1.13 DEMOLITION TELEPHONE SERVICE

A. Demolition Telephone Service: Provide telephone service to Contractor's field staff by means of cellular telephones and NEXTEL radio service (or other equal two-way radio service), to enable communications between County's Representative, Project Inspector and Contractor.

1. Include voice message service and paging services.
2. All costs of Demolition telephone, paging and radio services shall be included in Contract Sum.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

A. Materials: Provide new materials; if acceptable to the Engineer, undamaged previously used materials in serviceable condition may be used. Provide materials suitable for the use intended. Their use and methods of installation shall not create unsafe conditions or violate requirements of applicable codes and standards.

B. Equipment: Provide new equipment; or, if acceptable to the County, Contractor may provide undamaged, previously used equipment in serviceable condition. Provide equipment suitable for use intended.

PART 3 – EXECUTION

3.1 TEMPORARY UTILITIES INSTALLATION

A. Temporary Utilities Installation, General: Engage the appropriate local utility company or personnel to install temporary service or connect to existing service.

1. Use Charges: Cost or use charges for temporary facilities are the Contractor's responsibility.
2. Allowance for Utilities Charges: When Contract includes an allowance for metering of utility services, whether through temporary or permanent facilities, unused amount shall

be returned to the County by deductive change order.

- B. **Water Service:** Water may be taken from the County's systems in such quantities and at such times as they are available. If this is done, provide all temporary materials necessary to extend the utility to where they will be used. Contractor to install a meter and reimburse the County for any water used.
- C. **Temporary Electric Power Service:** Electricity may be taken from the County's system if available. If this is done, provide all equipment, including connections, and other materials necessary for extending the utility lines to where they will be used. Coordinate the installation with the County Representative. Contractor to install a meter and reimburse the County for any power used. Where sub-metering is not possible or practical, a flat fee may be established and paid to the County.
 - 1. When not available from the County, the Contractor must arrange and pay for electric service through the local utility or furnish his own portable power.
 - 2. All permanent power used by the Contractor prior to Occupancy by the County shall be metered and paid for by the Contractor.
- D. **Temporary Telephones:** Contractor shall have telephone facility available at its business office for the duration of contract where the Contractor and its superintendent may be contacted. A pay phone for the use of subcontractors is recommended.
- E. **Temporary Fire Protection:** Until fire protection needs are supplied by permanent facilities, install, and maintain temporary fire protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers," and NFPA 241 "Standard for Safeguarding Demolition, Alterations and Demolition Operations."
 - 1. Locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.
 - 2. Store combustible materials in containers in fire-safe locations.
 - 3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways, and other access routes for fighting fires. Prohibit smoking in hazardous fire exposure areas.
 - 4. Provide supervision of welding operations, combustion type temporary heating units, and similar sources of fire ignition.
- F. **Maintenance of Temporary Utilities and Services:** Maintain temporary utilities and services in good operating condition until removal. Protect utilities and services from environmental and physical damage.

3.2 **TERMINATION AND REMOVAL OF TEMPORARY UTILITIES AND SERVICES**

- A. Termination and Removal of Temporary Utilities and Services: Unless the County require that it be maintained longer, remove each temporary facility when the need has ended, or when replaced by authorized use of a permanent facility, or no later than Completion. Complete or, if necessary, restore permanent Demolition that may have been delayed because of interference with the temporary facility. At Completion, clean and renovate permanent facilities that have been used during the Demolition period.
- B. Removal of Temporary Underground Utilities and Restoration: Remove temporary underground utility installations to a minimum depth of 2-feet below utility services.
 - 1. Backfill, compact, and regrade site as necessary to restore areas or to prepare for indicated paving and landscaping.
- C. Cleaning and Repairs: Clean exposed surfaces and repair damage caused by installation and use of temporary utilities and services. Where determined by County's Representative that repair of damage is unsatisfactory, Work, replace Demolition with matching finishes. Refer to requirements specified in Section 01732 - Cutting and Patching Requirements.

END OF SECTION

NOT FOR BIDD

SECTION 01520

DEMOLITION FACILITIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Field offices, storage sheds, etc.
- B. Removal of Demolition facilities.

1.3 RELATED SECTIONS

- A. Section 01100 - Summary of the Work: Contractor's use of site and premises.
- B. Section 01510 - Temporary Utilities: Water, power, and telephone services to Demolition facilities.
- C. Section 01525 - Demolition Staging Areas: Locations for field offices and sheds.
- D. Section 01560 - Temporary Barriers and Enclosures: Coordination of installation and removal of Demolition fencing and barriers with field offices and sheds.
- E. Section 01740 - Cleaning Requirements: Cleaning during Demolition and final cleaning.

1.4 MAINTENANCE OF DEMOLITION FACILITIES CONTROLS

- A. Maintenance: Use all means necessary to maintain Demolition facilities in proper and safe condition throughout progress of the Work.
- B. Replacement: In the event of loss or damage, promptly restore temporary Demolition facilities by repair or replacement at no change in the Contract Sum or Contract Time.

1.5 CONTRACTOR'S FIELD OFFICES AND SHEDS

- A. Contractor's Field Office: Provide a mobile field office of weather-tight Demolition, with lighting, power, ventilation, heating, and cooling to house Contractor. Unless otherwise indicated on the Drawings, locate the field office in staging area described in Section 01525 - Demolition Staging Areas. Comply with County's requirements transmitted through County's Representative.

1. Provide temporary utilities to serve Contractor's field office. Refer to Section 01510 - Temporary Utilities.
 2. The contractor's Field Office shall present a neat, business-like appearance always, internally and externally.
 3. The contractor shall ensure that neither Contractor's Field Office nor other jobsite facilities are used for living quarters.
- B. Storage Sheds for Tools, Materials, and Equipment: Provide weather-tight sheds, with heat and ventilation appropriate for storage of products requiring controlled conditions, with adequate space for organized storage and access, and lighting for inspection of stored materials.
- C. Layout of Field Offices and Sheds: Within 5 days of the Notice to Proceed, Contractor shall submit to County's Representative a proposed layout for field offices, sheds, and storage areas. County's Representative will review and respond within 5 days with comments and directions. Contractor shall comply with directions of County's Representative.

1.6 COUNTY'S DEMOLITION MANAGEMENT FIELD OFFICE

- A. County's Demolition Management Field Office, General: Contractor shall provide, and Contract Sum shall include a field office for exclusive use by County for the duration of the Contract, equipped and furnished as specified below.
1. The contractor shall pay for all temporary water and power services, in accordance with Section 01510 - Temporary Utilities.
 2. Contractor shall provide and pay for twice weekly cleaning services, including trash removal and restocking of toilet facility consumables which include toilet paper and paper towels for normal use for 4 people per month for the duration of the Demolition contract. Contractor shall provide and pay for sewage holding tank emptying services (if applicable) and related services on an as-needed basis, but not less frequently than each week.
 3. Initial progress payment for Work under the Contract will not be approved until County's Demolition Management Field Office is fully equipped and functional.
 4. Unless otherwise directed in writing by County's Representative, County's Demolition Management Field Office, including furnishings and equipment provided by Contractor, shall remain operational until execution or recording of Notice of Completion.
 5. With 14 days of written direction by County's Representative or within 14 days of execution or recording of Notice of Completion, whichever is earliest, Contractor shall take possession and remove County's Demolition Management Field Office from the campus.
 6. County's representatives shall have the right to use County's Demolition Management

Field Office, including furnishings and equipment, for the purpose of Demolition contract administration, testing and inspection for Work under this and any other contract, or other County business, at no change in Contract Sum and Contract Time.

7. Contractor to provide 'service contracts' specifically for all equipment noted below for the duration of the Demolition contract. Contractor will be responsible for providing a service contract that can service the copiers and computers within 24 hours of receiving a service call for the Contractor. The contractor is responsible for logging in all service calls from the County's Representative and managing the dispatching of service representatives to the County's Field Office.
- B. County's Demolition Management Field Office, Demolition: Contractor shall provide, and Contract Sum shall include the following:
1. Double wide field office of prefabricated, weather-tight Demolition, approximately 24 feet wide by 60 feet long, with lockable entrances, operable windows, 3' deep (5' wide) rain shield awning over main entrance and serviceable finishes. Set field office on foundations suitable for normal office loadings, with tie-downs to resist wind and seismic forces. Provide field office of non-combustible Demolition where located within 30 feet of building lines. Install gravel pathway between double wide's main entrance to County staff parking. Comply with NFPA 241.
 2. Provide the field office with two exit doors, with cylinder locks and latch guards. One exit shall be equipped with a code compliant accessibility ramp.
 3. Within field office, provide the following rooms:
 - a. Four private offices, approximately 120 square feet each – 2 at each end of the building.
 - b. Two open workstations: One located outside of the two offices on one end of the trailer and the other located on the other end if the trailer. Final locations to be determined by County Representative.
 - c. The conference room will be the center open area of this modular.
 - d. Private toilet facilities, complete with water closet, lavatory with hot and cold running water, medicine cabinet with mirror and dispensers for toilet paper and paper towels.
 4. Provide field office with operable windows, at least one on each side of each private office and conference room, equipped with blinds, insect screens.
 5. Provide all plumbing, HVAC, power, lighting systems and telecommunications wiring and outlets as necessary for complete and habitable use.

6. Provide properly configured, NEMA polarized electrical outlets which prevent insertion of 110- to 120- volt plugs into higher-voltage outlets. Equip outlets with ground-fault circuit interrupters (GFCI), having reset button and pilot light.
 7. Provide ceiling-mounted fluorescent lighting fixtures, capable of providing uniform lighting of minimum 60 lumens at level 30-inches above floor.
 8. Provide central heating, ventilation, and air conditioning (HVAC) by thermostatically controlled heat pump system and ducting, sufficient to maintain comfortable conditions during all normally anticipated weather conditions.
- C. County's Demolition Management Field Office, Furnishings: Contractor shall provide, and Contract Sum shall include the following furnishings. At Contract close-out, County shall have option to purchase furnishings at depreciated, fair-market value negotiated with Contractor.
1. Door mats: One per entrance, heavy-duty cocoa mat suitable for heavy use and removal of dirt and mud.
 2. Coat rack: Wall mounted tubular steel, with shelf and hanging rod with twelve hangers.
 3. Folding tables: (6 ea.) Six each 36-inches by 72-inches (conference room area) and (2 ea.) two each 30- inches by 72-inches for worktable at printing area. Folding tables to be of heavy-duty steel frame Demolition with wood grain plastic laminate top. Each of the four offices and one workstation (total of 5 ea.) will have a credenza back folding table complying with a 24" wide by 72" long requirement.
 4. Folding chairs: Twenty (24) each, heavy duty, with padded seats and back.
 5. Desks, per 4 (four) offices and 2 workstations (total of 6): One each, 36-inches by 72-inches, double pedestal, painted steel with resilient writing surface top, with under table – pull out computer keyboard pedestal.
 6. Desk chairs, per desk (total of 6): One each, ergonomic design, heavy duty, wheeled pedestals, with adjustable back angle, seat angle and arm height. Contractor to also provide a clear - standard floor mat for each office.
 7. File cabinets: (8 ea.) Eight 5-drawer, legal-size lateral file cabinets, with lockable drawers.
 8. Bookcases: Six (6) each, 60-inches high by 24-inches wide by 13-inches deep, painted steel, with five adjustable shelves.
 9. Cabinets: One each, 84-inches high by 36-inches wide by 13-inches deep, painted steel, with five adjustable shelves and lockable doors.
 10. Plan racks: Two each, factory-manufactured mobile stand by Plan Hold or equal, with 24 removable 36" long drawing clamps each.

11. Plan tables: Field-fabricated by Contractor, with top constructed from 35-inch by 96-inch solid core, 1-3/8 inch thick with tempered hardboard faces, and wood or steel support structure, located in Field Office where directed by County's Representative. Front edge of plan tables to be low (approx. 26" aff) Contractor to review with County's Representative prior to constructing them in the field office.
 12. Markerboards: Four each, 36-inches wide by 48-inches high, with white markerboard suitable for oil- or water-base markers. Contractor to request installation location from Univ. Representative.
 13. Tackboards: Four each, 36-inches wide by 48-inches high, with wood fiberboard core and burlap grain vinyl facing, color as selected by County's Representative. Contractor to request installation location from Univ. Representative.
 14. Metal finish color: For metal furniture, standard beige color. No black furniture.
- D. County's Demolition Management Field Office, Equipment: Contractor shall provide, and Contract Sum shall include the following equipment. County shall be permitted to remove any equipment from field office and use elsewhere. All equipment shall be new and no substitutions or deviations from specified descriptions will be acceptable. Equipment will be returned by County prior to Contract close-out. At Contract close-out, County shall have option to purchase equipment at depreciated, fair-market value negotiated with Contractor.

Contractor's requirement for all equipment provided in the County's CM Field Office: Contractor to provide a 'service contract' specifically for this machine for the duration of the Demolition contract and will be responsible for providing a service contract that will provide service within 24 hours of receiving a service call for the Contractor. The contractor is responsible for logging in all service calls from the County's Representative as well as managing the dispatching of service representatives to the County's Field Office. This requirement includes all: Computers, fax machines, copiers, and printers.

1. Fire extinguisher: Portable, UL-listed and labeled, complying with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size as necessary for location and class of fire exposure, minimum UL Rating 4A-60BC (nominal 10-pound capacity).
2. Drinking water: Containerized hot and chilled water tap-dispenser with paper cup dispenser, with bottled water units and paper cup supply as necessary. Contractor shall provide and Contract Sum shall include weekly restocking of water and paper cups.
3. Refrigerator: Minimum 3.2 cubic feet capacity, compact refrigerator with internal freezer compartment, white color.
4. Microwave oven: One ea. 1200 watt - countertop design, white color with revolving inside turntable.

5. Coffee maker: One each, 12-cup capacity with an automatic shut off feature.
6. General Use Copy machine – 1 each: Mounted on mobile cabinet, must be able to produce both color and black and white copies. This machine will be located near the workstation in the general open area of the Owner's Field Office. Machine must be able to produce copies up to 11-inches by 17-inches, with reduction and enlargement capability, automatic document feeder, and collator (sorter). The copy machine shall include all services and consumables, including toner and paper, for the duration of the Contract. Copy machine to be a NEW machine, not refurbished or rebuilt.
7. Smaller individuals use color printer/copiers: Six each, to be located at each of the six workstations. Printers are to be manufactured by Hewlett-Packard, H-P OfficeJet Model G85 or current equivalent model, 3-year manufacturer's "Next Day Exchange" warranty, with black and tri-color ink cartridges. Contractor shall provide all consumables, including inkjet-suitable paper, for duration of Contract. Printer/fax/copiers and the main room's office printer/copier shall connect to each person's workstations.
8. Personal computers (PCs) and accessories: Six (6) complete systems, including software. Computers are to be the most up to date and recent model numbers to support basic office functions. Laptop specs will be reviewed by our I & IT support staff to confirm that they are current. Equipment will also include cabling, 24" monitor, keyboard & mouse.
9. Telecommunications:
 - a. Provide voice / data lines to each of the 6 workstations, the central copy / print machine as well as to a central location in the middle of the double wide for the conference room tables. Data lines will need to be connected to campus' fiber/copper system. Provide sufficient phone and data jacks for each of the 6 workstations and the one centrally located conference system.
 - b. Provide T1 data line, connected to campus system. Contractor to provide switch and router necessary for a complete operational system that has been approved by the County's I & IT Division.
80. Digital still camera and accessories: Two complete systems, Nikon CoolPix S8000 or current equivalent model by Nikon, with case and all standard features and the following:
 - a. Wide-angle converter lens.
 - b. Two AC Adapter Battery Chargers.
 - c. Three Li-Ion Rechargeable Batteries.
 - d. AC Adapter.
 - d. Four 256 MB memory cards.
9. Flashlights: - 2 ea.: MagLite tubular aluminum flashlights, for three D-size batteries. Include replacement batteries.
10. Hardhats – 15 ea.: Ten each, Class B hardhats, Fibre-Metal or equal. Contractor to

assemble these hardhats prior to turning them over to the County. Any defective hardhat trapping will need to be replaced by the Contractor.

11. First Aid Supplies: Comply with industrial safety regulations and provide a full – wall mounted cabinet inside County’s Field Office.

F. Demolition Signs

1. All signage shall be as approved and as required by County Representative. Contractors shall submit shop drawings of all signage to the County for approval of color, size, type style and mounting style. Signage shall be fabricated and of a type like that generally utilized on State of California CalTrans projects.
2. Miscellaneous Signs: Allow for at least 20 traffic signs whenever required by County’s Representative post warning, detour and other signage in locations as directed at no additional cost to County.
3. Project Sign: Contractor shall furnish and install four (2) 8’ wide by 4’ high signs on support structures consisting of 6” x 6” painted wooden posts at the Project site. The Project sign shall identify the County, Engineer, and Contractor including the Cal Poly Pomona logos/symbols and main exterior rendering of building. The sign shall be located as approved by the County. Contractor shall submit shop drawings of sign, text layout, graphics, and color(s) to County’s Representative for approval.

PART 2 - PRODUCTS

Not applicable to this Section.

PART 3 - EXECUTION

3.1 INSTALLATION OF DEMOLITION FACILITIES

- A. Layout of Field Offices and Sheds: Within 5 days of the Notice to Proceed, Contractor shall submit to County's Representative a proposed layout for field offices, sheds, and storage areas. County's Representative will review and respond within 5 days with comments and directions. Contractor shall comply with directions of County's Representative.
 1. Coordinate with requirements specified in Section 01525 - Demolition Staging Areas.
 2. Coordinate installation of Demolition fencing as specified in Section 01560 - Temporary Barriers and Enclosures.
- B. Installation of County's Demolition Management Field Office: Provide field office and all equipment, machines, and furnishings ready for use within 20 days of commencement date stated in Notice to Proceed or Notice of Award, whichever is earliest.

3.2 REMOVAL OF DEMOLITION FACILITIES

- A. Removal of Demolition Facilities: Unless otherwise mutually agreed by County's Representative and Contractor, remove temporary materials, equipment, services, and Demolition prior to Contract Completion review.
1. Coordinate removal with requirements specified in Section 01510 - Temporary Utilities, Section 01520 - Demolition Facilities, Section 01550 - Vehicular Access and Parking and Section 01560 - Temporary Barriers and Enclosures.
 2. Completely remove in-ground Demolition facilities to minimum depth of 2-feet. Backfill, compact and regrade site as necessary to restore areas or to prepare for indicated paving and landscaping.
- B. Cleaning and Repairs: Clean and repair damage caused by installation or use of temporary Demolition facilities on public and private rights-of-way.

END OF SECTION

SECTION 01525**DEMOLITION STAGING AREAS****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Contractor Staging Area requirements.

1.3 RELATED SECTIONS

- A. Section 01100 - Summary of the Work: Contractor's use of site and premises.
- B. Section 01520 - Demolition Facilities: Field offices and sheds.
- C. Section 01550 - Vehicular Access and Parking: Demolition parking.
- D. Section 01560 - Temporary Barriers and Enclosures: Temporary Demolition barriers, enclosures, and passageways.

1.4 SUBMITTALS

- A. Shop Drawings: Prior to site mobilization, Contractor shall prepare and submit for review by County's Representative a site plan indicating detailed layout of Contractor Staging Area, including:
 - 1. Temporary utilities.
 - 2. Temporary fencing and gates.
 - 3. Temporary offices and sheds.
 - 4. Demolition aids.
 - 5. Vehicular accessways and on-site parking.
 - 6. Temporary barriers and enclosures.
 - 7. Storm water pollution prevention measures.

PART 2 - PRODUCTS

Not applicable to this Section.

PART 3 – EXECUTION:

- A. Cleanliness: Contractor Staging Area shall be kept clear of trash and debris and in neat order. The contractor shall be responsible for cleanliness and order of assigned Contractor Staging Areas, as acceptable to County's Representative.

3.1 CONTRACTOR STAGING AREA REQUIREMENTS

- A. Contractor Staging Areas: Refer to reference drawings included in the RFP for location of Contractor Staging Areas.
1. Contractors shall use only site areas designated specifically by County as Contractor Staging Area for the Project.
 2. The contractor Staging Area for the Project shall be clearly indicated. Equipment placed or located outside of areas designated for Contractor Staging Area shall be removed to within Contractor Staging Area at no change in Contract Time and Contract Sum.
 3. Access to Contractor Staging Areas and other Demolition accessways and thoroughfares shall be always kept clear. Provide traffic and parking control signage acceptable to County's Representative.

3.2 REMOVAL OF DEMOLITION FACILITIES AND TEMPORARY CONTROLS

- A. Removal of Demolition Facilities and Temporary Controls: Unless otherwise mutually agreed by County's Representative and Contractor, remove temporary materials, equipment, services, and Demolition prior to Contract Completion review. Coordinate removal with requirements specified in Section 01510 - Temporary Utilities, Section 01520 - Demolition Facilities, Section 01550 - Vehicular Access and Parking and Section 01560 - Temporary Barriers and Enclosures.
- B. Cleaning and Repairs: Clean and repair damage caused by installation or use of temporary facilities on public and private rights-of-way. The contractor is completely responsible for site restoration acceptable to the County.
- C. Removal of Temporary Utilities and Restoration: Remove temporary underground utility installations to a depth of 2-feet. Backfill, compact, and regrade site as necessary to restore areas or to prepare for indicated paving and landscaping.

END OF SECTION

SECTION 01540**DEMOLITION AIDS****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Demolition aids, including:
 - 1. Temporary lifts and hoists.
 - 2. Debris chutes.
 - 3. Temporary stairs.
 - 4. Scaffolding.

1.3 RELATED SECTIONS

- A. Section 01100 - Summary of the Work: Contractor's use of site and premises.
- B. Section 01560 - Temporary Barriers and Enclosures: Temporary Demolition barriers, enclosures, and passageways.

1.4 CODES AND REGULATIONS

- A. Safety Regulations: Comply with the requirements of all applicable City and County rules and regulations. The contractor shall be solely responsible for jobsite safety.

1.5 TEMPORARY LIFTS AND HOISTS

- A. Temporary Lifts and Hoists: Provide facilities for hoisting materials and personnel. Mobile lifts and truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- B. Temporary Elevator Usage: Section 14240 - Hydraulic Elevators for use of building elevators during Demolition.
 - 1. Provide protective coverings, barriers, devices, signs, or other procedures to protect elevator cars and entrance doors and frames.

2. Clean and restore elevator cars used during Demolition.
3. If, despite such protection, elevators become damaged, engage elevator Installer to restore damaged work so no evidence remains of correction Work.
4. Return items that cannot be refinished in field to the shop, make required repairs and refinish entire unit, or provide new units as required.

1.6 DEBRIS CHUTES

- A. Debris Chutes: Provide chutes as necessary for debris removal.
1. Construct debris chutes of substantial materials. Use cylindrical, laminated fiber forms (Sonotube or equal) to minimize noise of debris removal.
 2. Provide controls at debris chutes to minimize the spread of dust and debris.
 3. Limit use of debris chutes to times to minimize disruption of activities in adjacent spaces.

1.7 TEMPORARY STAIRS AND SCAFFOLDING

- A. Temporary Stairs: Until permanent stairs are available, provide temporary stairs where ladders are not adequate. Cover finished, permanent stairs with protective covering of plywood or similar material so finishes will be undamaged at time of Contract Completion review.
- B. Permanent Stair Usage: Use of permanent stairs will be permitted if the stairs are cleaned and maintained in a condition acceptable to County's Representative.
1. Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress.
 2. If, despite such protection, stairs become damaged, restore damaged areas as acceptable to County's Representative.
 3. Coordinate usage of existing stairs at occupied facilities with County's Representative.
- C. Scaffolding: Provide scaffolding as necessary for access and proper performance of the Work. Design and installation of scaffolding shall be solely the Contractor's responsibility.

PART 2 - PRODUCTS

Not applicable to this Section.

PART 3 - EXECUTION

3.1 MAINTENANCE OF DEMOLITION AIDS

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- A. Maintenance: Use all means necessary to maintain Demolition aids in proper and safe condition throughout the progress of the Work.
- B. Replacement: In the event of loss or damage, promptly restore Demolition aids by repair or replacement at no change in the Contract Sum or Contract Time.

3.2 REMOVAL OF DEMOLITION AIDS

- A. Removal of Demolition Aids: Unless otherwise mutually agreed by County's Representative and Contractor, remove Demolition aids prior to Contract Completion review. Coordinate removal with requirements specified in Section 01510 - Temporary Utilities, Section 01520 - Demolition Facilities, Section 01550 - Vehicular Access and Parking and Section 01560 - Temporary Barriers and Enclosures.
- B. Cleaning and Repairs: Clean and repair damage caused by installation or use of Demolition aids.

END OF SECTION

SECTION 01550**VEHICULAR ACCESS AND PARKING****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Requirements for vehicular access to Work areas.
- B. Requirements for Demolition parking.

1.3 RELATED SECTIONS

- A. Section 01100 - Summary of the Work: Contractor's use of site and premises.
- B. Section 01520 - Demolition Facilities: Coordination of access to field offices and sheds.
- C. Section 01525 - Demolition Staging Areas: Layout of Demolition staging area, including locations for vehicular access and Demolition parking.
- D. Section 01560 - Temporary Barriers and Enclosures: Requirements for temporary Demolition barriers, enclosures, and passageways, applicable to Demolition parking areas.
- E. Section 01580 - Project Identification and Signage: Directional and informational signage.
- F. Section 01570 - Temporary Controls: Storm water pollution prevention measures; video record of existing conditions to be used to determine restoration Work.
- G. Section 01740 - Cleaning Requirements: Cleaning during Demolition and final cleaning.

1.4 PROTECTION OF EXISTING CONDITIONS

- A. Protection of Adjacent Facilities: Contractor shall restrict Work to limits indicated on the Drawings and as specified in Section 01100 - Summary of the Work. Protect existing, adjacent facilities from damage, including soiling and debris accumulation.

1.5 SITE ACCESS

- A. Site Access: Use of designated existing on-site streets and driveways for Demolition traffic is permitted. Review access routes with County's Representative and comply with County's

Representative's directions.

1. Tracked vehicles shall not use paved areas.
 2. Provide unimpeded access for emergency vehicles. Maintain 26 foot (twenty-six) wide driveways with turning space between and around combustible materials.
 3. Provide and maintain access to fire hydrants free of obstructions.
 4. Clean and restore paving and other site features after Demolition use.
- B. Traffic Control: Comply with requirements in "San Bernardino County, Contractor Safety Handbook," available at the County's website.
1. Contractors shall comply with all on-campus traffic regulations, including speed limits. The contractor shall pay all parking and traffic fines.
 2. Blockage of site roadways and access to site parking lots and parking structures shall be only with approval of the County's Representative. Comply with County's restrictions on blocking roadways and parking areas.
 3. Employ trained and equipped flag persons to regulate traffic when Demolition operations or traffic encroach on vehicular and pedestrian traffic lanes.
 4. Provide signage, cones, and other suitable devices for direct traffic. Use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.
 5. Large vehicles shall have public safety escort. Provide minimum 48 hours written notice through County's Representative.

1.6 TRAFFIC SIGNS AND SIGNALS

- A. Traffic Signs and Signals: Provide temporary signs and signals as required by authorities having jurisdiction and in compliance with County's requirements transmitted through County's Representative. Relocate signs and signals as necessary during Demolition. Refer to County Environmental Health & Safety requirements as well as direction from County's Representative.
- B. Provide a minimum of 20 ea. (3' x 3') plastic (weatherproof) exterior signs with detour maps and will be mounted on fencing or separate posts as directed by the County. Contractor to develop a site map plan that reflects the temporary traffic flow, location of detour signs as well as what text is being recommended on these detour signs. All signage will need to be submitted and approved by the County for text graphics, etc. Signs will need to be used for both temporary vehicular and pedestrian path-of-travel adjustments to accommodate the Contractor during Demolition.

1.7 DEMOLITION PARKING

A. Demolition Parking:

1. Do not park on public roadways unless approved by local police and fire authorities.
2. Maintain clear access ways and parking for emergency vehicles, as required by local police and fire authorities.
3. Provide on-site parking for Demolition purposes if available. The County may require the Contractor to utilize off-site overflow parking lots and provide personnel shuttle service to and from the site. Contractor to provide a minimum of 10 (ten) parking spaces for use by County's Owner's Demolition field office. Parking lot to be free of water ponding, sloped for proper drainage and topped with a minimum of 6" of CMB Class II gravel.

PART 2 - PRODUCTS

Not applicable to this Section.

PART 3 - EXECUTION

3.1 MAINTENANCE OF PARKING AND ACCESS ROADS

- A. Maintenance: Maintain traffic and parking areas in a sound condition. Repair breaks, potholes, low areas, standing water and other deficiencies, to maintain paving and drainage in original or specified condition.
- B. Cleaning of Roadways and Parking Areas: Keep public and private rights-of-way and parking areas clear of Demolition-caused soiling, dust, and debris, especially debris hazardous to vehicle tires. Perform cleaning as frequently as necessary. Coordinate with requirements specified in Section 01570 - Temporary Controls and Section 01740 - Cleaning Requirements.

END OF SECTION

SECTION 01560**TEMPORARY BARRIERS AND ENCLOSURES****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Contract General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

- A. Temporary Demolition barriers, enclosures, and passageways.
 - 1. Dust and debris barriers.
 - 2. Security barriers.
 - 3. Temporary chain link fencing.
 - 4. Covered passageways.

- B. Protection of completed Work.

- C. Removal of Demolition facilities and temporary controls.

1.3 RELATED SECTIONS

- A. Section 01100 - Summary of the Work: Contractor's use of site and premises.
- B. Section 01550 - Vehicular Access and Parking: Demolition parking restrictions.
- C. Section 01560 - Temporary Barriers and Enclosures: Temporary Demolition barriers, enclosures, and passageways.

1.4 CODES AND REGULATIONS

- A. California Building Code (CBC): Comply with California Building Code (CBC) Chapter 33, Section 3303 - Protection of Pedestrians During Demolition or Demolition.
- B. Fire Regulations: Comply with requirements of fire authorities having jurisdiction, including California Fire Code (CFC) Article 87 during performance of the Work.
- C. Safety Regulations: Comply with the requirements of all applicable Federal, State, and local

safety rules and regulations. The contractor shall be solely responsible for jobsite safety.

- D. Barricades and Barriers: As required by governing authorities having jurisdiction, provide substantial barriers, guardrails, and enclosures around Work areas and adjacent to embankments and excavations for protection of workers and the public.

1.5 PROTECTION OF EXISTING CONDITIONS

- A. Protection of Adjacent Facilities: Contractor shall restrict Work to limits indicated on the Drawings and as specified in Section 01100 - Summary of the Work: Protect existing, adjacent facilities from damage, including soiling and debris accumulation.

1.6 MAINTENANCE OF DEMOLITION FACILITIES AND TEMPORARY CONTROLS

- A. Maintenance: Use all means necessary to maintain temporary barriers and enclosures in proper and safe condition throughout progress of the Work.
- B. Replacement: In the event of loss or damage, promptly restore temporary barriers and enclosures by repair or replacement at no change in the Contract Sum or Contract Time.

1.7 TEMPORARY BARRIERS, ENCLOSURES AND PASSAGEWAYS

- A. Temporary Barriers, General: Provide temporary fencing, barriers, and guardrails as necessary to provide for public safety, to prevent unauthorized entry to Demolition areas and to protect existing facilities and adjacent properties from damage from Demolition operations.
 1. Refer to temporary fencing and phasing plan in the Drawings. Comply with requirements indicated.
 2. Note requirements for continued occupancy and use of existing buildings and site areas during Demolition.
 3. Comply with applicable requirements of California Building Code (CBC) and of authorities having jurisdiction, including industrial safety regulations. Review requirements with County's Representative.
 4. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire-protection facilities, stairways, and other access routes for firefighting.
 5. Paint temporary barriers and enclosures with appropriate colors, graphics, and warning signs to inform personnel and the public of possible hazards.
 6. Where appropriate and necessary, provide warning lighting, including flashing red or amber lights.

- B. Temporary Chain link Fencing: Provide temporary portable chain-link fencing with windscreen. See Section 01525 - Staging Area for requirements for layout of fencing that will follow the entire contract limit lines for new Demolition as well as the temporary lay down / contractor parking – site office area.
1. Portable Chain-Link Fencing: Minimum 2-inch (50-mm) 11-gage, galvanized steel, chain-link fabric fencing; minimum 6 feet high with galvanized steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top and bottom rails.
 - a. Provide concrete or galvanized steel bases for supporting posts.
 - b. Provide protective barriers at bases to prevent tripping by pedestrians.
 - c. All Demolition related vehicular, or man-gates will have a combination lock on them that has a 4- digit combo lock issued by the County's Representative. This combo will be issued to our Police Dept. as well as our Parking Services and Facilities Departments. Therefore, the changing of this combo is prohibited unless directed by the County's Representative.
 2. Windscreen on Chain-Link Fencing: For screening of Demolition activities from view, equivalent to the following:
 - a. Specified manufacturer: Collins Company, Fullerton, CA (714/870-9779).
 - b. Acceptable manufacturers: None identified. Equivalent products of other manufacturers will be considered in accordance with the "or equal" provision specified in Section 01610 - Basic Product Requirements.
 - c. Windscreen fabric: Closed mesh weave of 30 warp by 16 fills per square inch.
 - 1) Fiber: 5.6 ounce per square yard polypropylene fiber.
 - 2) Shade factor: 78 percent.
 - 3) Tensile strength: 360 pounds for warp and 190 pounds for fill, when tested according to ASTM D1682, grab method.
 - 4) Tear strength: 110 pounds for warp and 70 pounds for fill, when tested according to ASTM D2263, trapezoidal method.
 - 5) The color is forest green or dark sage. No other color will be acceptable. Submit sample to County's representative prior to installation.
 - d. Fabric fabrication:
 - 1) Reinforce hems and seams with 2-3/4-inch black polypropylene folded binding tape, with tensile strength of 300 pounds.
 - 2) Provide center reinforcing tape in addition to reinforced perimeter hems and panel seams.
 - 3) Sew hems and seams with UV light resistant polyester thread.
 - 4) Provide 9/32-inch brass grommets spaced at 12-inches on center in perimeter hems and center reinforcing tape.

- e. Secure windscreen to fence at all grommets.
- f. Locate windscreen on the outside of fence.

C. Tarpaulins: Fire-resistive labeled with flame-spread rating of 15 or less.

D. Covered Passageways: If applicable, erect a structurally adequate, protective, covered walkways for passage of persons along adjacent passageways.

1. Coordinate installation details with County's requirements for continuing operations in adjoining facilities.
2. Review design and details with County's Representative.
3. Comply with applicable regulations of authorities having jurisdiction.
4. Construct covered walkways using scaffold or shoring framing.
5. Provide wood-plank overhead decking, protective plywood enclosure walls, handrails, barricades, warning signs, lights, safe and well-drained walkways, and similar provisions for protection and safe passage.
6. Extend the back wall beyond the structure to complete the enclosure fence.
7. Paint and maintain in a manner as directed by County's Representative.

E. Temporary Wood Fencing: If applicable, erect structurally adequate, protective wood fencing in compliance with California Building Code (CBC) Chapter 33, Section 3303.7 - Pedestrian Protection. Wood fencing shall be provided as required by Table 33-A.

1. Materials: As required by CBC Section 3303.7.
2. Finishes: As acceptable to County's Representative. Fence exposed to public view shall receive minimum of one coat wood primer and one coat semi-gloss paint, color(s) as directed by County's Representative.

F. Temporary Closures: Provide temporary closures for protection of Demolition, in progress and completed, from exposure, foul weather, other Demolition operations, and similar activities. Provide temporary weather tight enclosure for building exterior.

1. Where heating or cooling is needed and permanent enclosure is not complete, provide insulated temporary enclosures. Coordinate closures with ventilating and material drying or curing requirements to avoid dangerous conditions and effects such as mold.
2. Vertical openings: Close openings of 25 sq. ft. (2.3 sq. m) or less with plywood or similar materials.

3. Horizontal openings: Close openings in floor or roof decks and horizontal surfaces with load bearing, wood-framed Demolition.
 4. Install tarpaulins securely using wood framing and other suitable materials.
 5. Where temporary wood or plywood enclosure exceeds 100 sq. ft. (9.2 sq. m) in area, use fire-retardant- treated material for framing and main sheathing.
- G. Temporary Partitions: Where needed and if applicable: Erect and maintain temporary partitions and temporary closures to limit dust and dirt migration, including migration into existing facilities, to separate areas from fumes and noise and to maintain fire-rated separations.
1. Dust barriers: Construct dustproof, floor-to-ceiling partitions of not less than nominal 4-inch (100-mm) studs, 2 layers of 3-mil (0.07-mm) polyethylene sheets, inside and outside temporary enclosure.
 - a. Overlap and tape full length of joints.
 - b. Include 5/8-inch-thick gypsum board at temporary partitions serving as noise barrier.
 - c. Insulate partitions to minimize noise transmission to adjacent occupied areas.
 - d. Seal joints and perimeter of temporary partitions.
 2. Dust barrier passages: Where passage through dust barrier is necessary, provide gasketed doors or heavy plastic sheets that effectively prevent air passage.
 - a. Construct a vestibule and airlock at each entrance to temporary enclosure with not less than 48 inches (1219 mm) between doors.
 - b. Maintain water-dampened foot mats in vestibule where passage leads to existing occupied spaces.
 - c. Equip doors with security locks.
 3. Fire-rated temporary partitions: Maintain fire-rated separations, including corridor walls and occupancy separations, by Demolition of stud partitions with gypsum board faces.
 - a. Demolition details shall comply with recognized time-rated fire-resistive Demolition. Typically, 1-hour rated partitions shall be 2x4 wood studs at 16-inches on center or 3-1/2-inch metal studs at 16- inches on center, with 5/8-inch-thick Type X gypsum board at both faces, with joints filled, taped, and topped.
 - b. Seal partition perimeters with acceptable fire stopping and smoke seal materials.
 - c. Construct fire-rated temporary partitions whenever existing time-rate fire-resistive Demolition is removed for 12 hours or more.
- H. Temporary Floor Protection: Protect existing floors from soiling and damage.
1. Cover the floor with 2 layers of 3-mil (0.07-mm) polyethylene sheets, extending sheets 18 inches (460 mm) up the side walls.

2. Cover polyethylene sheets with 3/4-inch (19-mm) fire-retardant plywood.
 3. Provide floor mats to clean dust from shoes.
- I. Barricades, Warning Signs and Lights, General: Comply with standards and Code requirements for erection of structurally adequate barricades. Paint barricades with appropriate colors, graphics, and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed provide lighting, including flashing red or amber lights.
- J. Guard Rails: Provide guard rails along tops of embankments and excavations. Along public walkways and areas accessible by the public, adjoining excavations provide guardrails in addition to fencing.
1. Guardrails shall be substantially and durably constructed of lumber, firmly anchored by posts embedded in concrete, and complying with Code requirements for temporary barriers.
 2. Guardrails shall comply with dimensional requirements and accommodate loads as prescribed by California Building Code (CBC) for permanent guardrails.
- K. Security Closures and Lockup: Provide substantial temporary closures of openings in exterior surfaces and interior areas as appropriate to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Provide doors with self-closing hardware and locks.
1. Storage: Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.
- L. Temporary Access, Passage, and Exit Ways: Construct temporary stairs, ramps, and covered walkways, with related doors, gates, closures, guardrails, handrails, lighting, and protective devices, to maintain access and exit ways to existing facilities to remain operational.
1. Design and location of temporary Demolition shall be by Contractor, subject to review by County's Representative and authorities having jurisdiction.
 2. Provide temporary lighting, illuminated interior exit signage, non-illuminated directional and instructional signage, and temporary security alarms for temporary exits and exit passageways.
 3. Temporary measures shall suit and connect to existing building systems and shall be approved by County's Representative and authorities having jurisdiction.

1.8 REMOVAL OF TEMPORARY BARRIERS AND ENCLOSURES

- A. Removal of Temporary Barriers and Enclosures: Unless otherwise mutually agreed by County's Representative and Contractor, remove temporary materials, equipment, services, and Demolition prior to Contract Completion review. Coordinate removal with requirements specified in Section 01510 - Temporary Utilities, Section 01520 - Demolition Facilities, Section 01550 - Vehicular Access and Parking and Section 01560 - Temporary Barriers and Enclosures.
- B. Cleaning and Repairs: Clean and repair damage, soiling and marring caused by installation or use of temporary barriers and enclosures.

PART 2 - PRODUCTS

Not applicable to this Section.

PART 3 - EXECUTION

Not applicable to this Section.

END OF SECTION

SECTION 01 71 23**FIELD ENGINEERING****PART 1 – GENERAL****1.01 DESCRIPTION****A. Work Includes:**

1. Employ land surveyors and professional engineers, licensed in the State of California, to perform surveying and field engineering as required per Contract Documents.
2. Establish and maintain baselines and field control points as required for demolition layout survey.
3. Perform survey and measurement to establish design lines and grades.
4. Layout of the Work.
5. Other engineering services, as necessary, to accomplish the Work.

1.02 GENERAL

- A. The contractor shall locate and protect all adjacent areas, utilities, equipment, vehicles, and appurtenances.
- B. Control area of work, so that it does not interrupt operations activities, or bus or car traffic flow on the site. Provide barricade and traffic signs around work area, excavations, and contractor's equipment. Provide flashing lights from dusk to dawn on all sides of demolition work.
- C. Promptly report and repair to the Engineer's satisfaction disruption in utilities caused by demolition work. Repair disruption of utilities immediately.
- D. Make no changes without prior written notice to the Engineer.

1.03 SUBMITTALS

- A. Submit for County's approval the name and professional history of the land surveying firm designated by the Contractor as its project surveyor.

1. At a minimum, the project surveyor must have five to ten years of verifiable experience performing field survey.
- B. On request, submit to PFMD Project Manager documentation that verifies accuracy of field engineering work and surveying work. Submit data certifying all dimensions, elevations, and locations of improvement are in conformance, or non-conformance, with Contract Documents at end of Project.
- C. Prior to completion of project and when requested by PFMD Project Manager, submit a copy of site drawing prepared by California registered engineer and signed by land surveyor verifying that the elevations and locations of the work are in conformance with contract documents.
- D. Contractor shall submit a complete copy of the baseline survey field notes and final layout.
- E. The contractor shall provide as-built redline drawings to the PFMD at the completion of the Project.

1.04 REQUIREMENTS

- A. Field Engineering: Provide field engineering services, as necessary. Utilize recognized engineering practices.
- B. Verification: Verify all existing dimensions before starting work. Record all existing pavement striping and markings and submit this record to PFMD before commencing any demolition work.
- C. Layout and Control of the Work: Establish elevations, lines, and grade for all Work under this Contract. Locate and lay out by instrumentation and similar appropriate means. The contractor is responsible for all demolition field surveys and setting of grades and slopes. New asphalt or concrete paving flow patterns should merge with existing flow patterns on the site so that the flow of water directs towards existing gutters, swales, and storm drains on site. Protect in place existing storm drain system, swales, gutters, concrete walk, storm drain inlets, channel wall, fencing, on-site storage, PFMD equipment, and property during demolition.
- D. Verification of Work: Periodically verify layout and completed conditions of the Work by same means.
- E. Project areas shall be cordoned off using traffic cones during each demolition phase on all sides at the end of workday. The traffic cones shall be removed by the end of each workday.

1.05 QUALITY CONTROL

- A. Contractors shall maintain a complete and accurate log of control and survey work as it progresses.
- B. PFMD Project Manager reserves the option to check Contractor's survey measurements and calculations. Whether PFMD Project Manager exercises this option or not, the requirement for accuracy will not be waived.
- C. On completion of demolition and major site improvements, Contractor shall prepare a final certified survey illustrating dimensions, locations, angles, and elevations of demolition and work site.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Verify locations of survey control points prior to starting any work on the project site. The contractor shall verify all existing dimensions, conditions, layout, grading that will affect the project before commencing any work.
- B. Review PFMD record drawings for underground utilities and field verify all utilities that may affect demolition activities before beginning of demolition work. Contractor shall utilize an independent utility locator company to survey and map all utilities that may affect demolition activities and determine if there are any utility lines in conflict with demolition of this project.
- C. The contractor shall conduct a survey (line and grade) of existing improvements such as top of curb, finished surface, flow lines, etc. before any demolition or removal is undertaken. Areas where pavement has failed or settled shall be documented.
- D. Immediately notify PFMD Project Manager of any discrepancies discovered.
- E. The finished grade shall match the existing grade and ensure positive drainage is provided.

3.02 SURVEYS AND RECORDS

- A. Working from lines and grades established by baseline survey as shown in relation to work, establish and maintain benchmarks and other dependable markers to set lines and levels for work on site as needed to locate each element of the project.
- B. The contractor shall inform tradesmen performing the work of marked lines and grades provided for their use in layout work.
- C. The contractor shall provide a complete copy of baseline survey field notes and final layout to PFMD Project Manager prior to starting demolition.
- D. Certify all lines and grades to PFMD.

3.03 SURVEY REFERENCE POINTS

- A. Contractors shall locate and protect survey control and reference points. Preserve permanent reference points during demolition.
- B. Contractor shall establish appropriate control datum for demolition survey.
- C. Contractor shall report to PFMD Project Manager the loss or destruction of any reference points or relocation required because of changes in grades or other reasons.
- D. Contractor shall replace dislocated survey control points based on original survey control and shall make no changes without prior written notice to and approval by PFMD Project Manager.

PART 4 - MEASUREMENT AND PAYMENT

No separate measurement or payment will be made under this section.

END OF SECTION

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SECTION 01 74 00**CLEANING****PART 1 - GENERAL**

- 1.01 **SUMMARY:** This Section covers general requirements for cleaning up during the Work and for final cleaning.

PART 2 - PRODUCTS (Not Applicable)**PART 3 - EXECUTION**

- 3.01 **CLEAN UP AND DISPOSAL:** Requirements herein are part of all other Sections of the Specifications and shall be coordinated with such additional clean up and disposal requirements as may be specified in other Sections.
- A. **General:** Leave the entire Work broom clean except where vacuum clean or another condition is indicated or specified. Where Work in place is damaged, defaced, stained, or otherwise defective and cleaning does not eliminate the defective condition, the Contractor shall remove the defective Work and provide new conforming Work as directed and approved, at no extra cost to the Owner.
1. **Control During Work:** Take care to avoid the spread of dust, dirt, debris, water, paint, cement, sprayed materials, and other substances about the site or to adjacent property. Clean up splattering or spills of materials at time of occurrence. Remove dirt, debris, waste, and rubbish frequently, and do not allow it to accumulate in the structure or on the site. Do not store flammable or toxic materials in the structure.
 2. **Contractor's Supervision:** Inform all trades and workmen of cleaning up requirements specified and monitor where Work is in progress to ensure full compliance with all clean up requirements in this and other Sections.
 3. **Engineer's Inspection:** Give the Engineer at least 3 working days' advance notice of readiness for inspection as each phase or area of the Work is completed for occupancy. Correct deficient cleaning operations as determined and directed by Engineer.
- B. **Final Clean Up - Exterior:** Clean surfaces of construction and site including fixtures, walls, soffits, floors, hardware, roofs, window and opening ledges and sills, horizontal projections, steps and platforms, walkways, rails, and all like by the surfaces, and adjoining private and public property to the extent soiled Contractor's operations.
- C. **Final Clean Up - Interior:** Leave all surfaces in vacuum clean condition with all dust, dirt, stains, hand marks, paint spots, droppings, and other blemishes and defects completely removed, and conform to following requirements:

1. Hard Floors: Wash and dry concrete, tile, elastomeric, and similar floors, free of streaks or stains.
 2. Resilient Flooring: Freshly wax and buff resilient flooring specified to be waxed in accordance with requirements in Division 9.
 3. Resilient Bases: Clean off adhesive smears and dirt and wipe clean.
 4. Carpet: Vacuum clean free of lint, soil, and dust.
 5. Bare and Painted Surfaces: Clean of dust, lint, streaks, or stains.
 6. Tile Walls: Clean and polish.
 7. Wall Coverings: Remove all adhesive, dirt, or stains on surfaces.
 8. Hardware and Natural Metal: Clean and polish all the exposed surfaces using non-corrosive and non-abrasive materials.
 9. Ceilings: Clean and free of stains, hand marks, and defacing.
 10. Fixture and Equipment Items: Clean and polish all plumbing fixtures, air diffusers, grilles, and registers, mechanical and electrical fixtures, and devices, and like items. Leave lighting fixtures free of dust, dirt, stains, or waste material, diffusers cleaned both sides and reflectors polished. Clean and service operating equipment and machinery, ready for use.
- D. Glass: Wash and polish all vision glass both sides, free of dirt, spots, streaks, and labels. Remove labels and clean and polish mirrors.
- E. Surfaces Not Mentioned: Clean according to the intent of this Section and as required for Engineer's approval.
- 3.02 DISPOSAL: Do not dispose of any rubbish or waste material in fills or backfills. Remove debris, rubbish, and waste material from Owner's property to a lawful disposal area and pay hauling and dumping charges. Conform to Federal, State, and local laws, ordinances, rules, regulations, and orders pertaining to them.

END OF SECTION

SECTION 01 74 19**DEMOLITION WASTE MANAGEMENT AND DISPOSAL****PART 1 - GENERAL****1.01 DESCRIPTION**

- A. Work Includes: Procedures for ensuring optimal diversion of demolition waste generated by the Project, and documentation procedures for tracking waste generation and diversion.

1.02 DEFINITIONS

- A. Certified Mixed Debris Processing Facility: A solid waste processing facility that accepts loads of mixed debris for the purpose of recovering re-usable and recyclable materials and disposing of non-recyclable residual material.
- B. Class III Landfill: A landfill that accepts non-hazardous solid waste such as household, commercial, and industrial solid waste. A Class III landfill shall have a California Integrated Waste Management Board (CIWMB) solid waste facilities permit and is regulated by the Local Enforcement Agency.
- C. Demolition (C&D) Debris: Solid waste and recyclable materials that result directly from Demolition of buildings and other structures, do not contain hazardous waste (as defined in CCR Title 22, Section 66621.3, *et seq.*), and contain no more than 1 percent putrescible wastes by volume, calculated monthly. C&D debris includes, but is not limited to asphalt, concrete, Portland cement, brick, lumber, wallboard, roofing material, ceramic tile, pipe, glass, and associated packaging.
- D. Disposal: Acceptance of solid waste at a legally operating facility for the purpose of landfilling.
- E. Diversion: Activities that result in reducing the amount of waste disposed at a landfill. This can include source reduction activities, composting, recycling, and reuse.
- F. Inert Backfill Site: A location, other than inert fill or other disposal facility, to which inert waste is taken for the purpose of filling an excavation, shoring, or another soils engineering operation.
- G. Inert Fill: A facility that can legally accept inert waste such as asphalt and concrete exclusively for the purpose of disposal.
- H. Inert Debris/Inert Waste: Solid waste and recyclable materials that are source separated or separated for reuse, do not contain hazardous waste (as defined in CCR,

Title 22, section 66261.3 et. seq.) or soluble pollutants at concentrations more than applicable water quality objectives, and do not contain significant quantities of decomposable waste. Inert debris may not contain more than 1 percent putrescible wastes by volume calculated monthly. Gravel, rock, soil, sand, and similar materials, whether processed or not, that have never been used in connection with any structure, development, or other human purpose are not inert debris.

- I. Mixed Debris: Material that includes commingled recyclable and non-recyclable demolition debris.
- J. Mixed Debris Processing Facility: A solid waste processing facility that accepts loads of mixed debris for the purpose of recovering re-usable and recyclable materials and disposing of non-recyclable residual materials. Refer also to Certified Mixed Debris Processing Facility.
- K. Permitted Waste Hauler: A company that possesses a valid and current permit from the County of Riverside to collect and transport solid waste from individuals or businesses in the County of Riverside.
- L. Recycling: The process of sorting, cleaning, treating, and reconstituting materials for the purpose of using the altered form in the manufacture of a new product. Recycling does not include burning, incinerating, or thermally destroying solid waste.
 - 1. On-site recycling materials that are sorted and processed for use in an altered form in the Project, (e.g., concrete is crushed for use as base for a parking lot on the site).
 - 2. Off-site recycling source-separated materials hauled to another location and used in an altered form in the manufacture of a new product.
- M. Recycling Facility: An operation that can legally accept materials for the purpose of processing the materials into an altered form for the manufacture of a new product. Depending on the types of materials accepted and operating procedures, a recycling facility may or may not be required to have a Solid Waste Facilities permit from the CIWMB or be regulated by the Local Enforcement Agency.
- N. Reuse: Materials that are recovered for use in the same form. This includes materials that are reused on-site or off-site.
- O. Salvage: Materials recovered for reuse or sale or donation to a third party.
- P. Source Reduction: Any action causing a net reduction in the generation of solid waste. Source reduction includes, but is not limited to, reducing the use of non-recyclable materials, replacing disposable materials and products with reusable materials and products, reducing packaging, and reducing the amount of yard waste generated.
- Q. Source-Separated Materials (demolition Debris): Material that is sorted at the site of

generation by individual material type for the purpose of reuse or recycling, i.e., loads of concrete that are source-separated for delivery to a base course recycling facility to be crushed into road base material.

- R. **Solid Waste:** Shall mean waste that the CIWMB has deemed acceptable for disposal at a Class III landfill and shall not include source-separated material.
- S. **Transfer Station:** A facility that can legally accept solid waste for the purpose of temporarily storing the materials for re-loading onto other trucks and transporting materials to a landfill for disposal or recovering some materials for reuse or recycling. Transfer stations must be permitted by the CIWMB and regulated by the Local Enforcement Agency.

1.03 SUBMITTALS

- A. **Waste Management Plan (WMP):** Conduct a site assessment and estimate the types and quantities of materials, under the Project, which are anticipated for on-site or off-site processing, recycling, reuse, or disposal.
 - 1. Not more than ten (10) working days after Notice to Proceed, submit to PFMD Project Manager a written WMP. The plan shall show the percentage of recycling for inert debris expected from the Project and the percentage recycling for the remaining C&D debris expected from the Project. While no minimum amounts of recycling have been established for this project, Contractor shall make every reasonable effort to achieve a minimum of 50% by weight of material that is recycled, re-used, salvaged, or otherwise diverted from landfill.
 - 2. The PFMD Project Manager's approval of the Contractor's WMP will not otherwise relieve the Contractor of responsibility for adequate and continuing control of pollutants and other environmental protection measures.
 - 3. Dirt and excavation spoils, whether reused as fill or not, will not be counted in the calculation of diverted and disposed materials.
- B. **Solid Waste Diversion and Disposal Report (SWDD Report):** One week prior to the first of every month, and prior to Contractor's monthly progress estimate for payment, Contractor shall prepare and submit to PFMD Project Manager a written SWDD report quantifying all material generated in the Project which was either disposed or diverted from disposal through reuse or recycling during the time period covered by the SWDD report and progress payment. Include in the Report a cumulative history of the diversion and disposal for the Project. Attach supporting documentation including manifests, weigh tickets, receipts, reports, invoices, and other supporting documents specifically identifying the project, the recyclables and solid waste generated by the Project, and where the material was sent. The final SWDD report shall cover the complete time period of the Project and shall contain a list of the total waste disposed and/or diverted for each reporting period. The final SWDD report and supporting documentation shall be submitted within 30 Calendar Days of Project completion.

1.04 WASTE MANAGEMENT PLAN SUBMITTAL MEETING

- A. On or about 5 working days after Notice to Proceed, PFMD Project Manager will schedule and attend a meeting with the Contractor to discuss the proposed WMP submittal. This meeting shall be held to allow the PFMD and the Contractor an opportunity to develop a mutual understanding regarding the recycling and reuse requirements and programs.

1.05 REUSE, SALVAGE, AND RECYCLING OPTIONS

- A. The contractor shall make use of as many reuse and salvage options as is feasible. One option is the California Materials Exchange (CalMAX), a free program sponsored by the CIWMB.
- B. Recycling shall include both on-site and off-site recycling of source-separated materials, as well as mixed debris recycling efforts.
- C. On-site recycling program shall produce a quality product to meet the specifications identified in the Contract Documents, subject to approval. Estimate the amount of material to be used in the Project and include a program for off-site recycling of any excess material that cannot be used in the Project.
- D. Develop and implement a program to include source separation of solid waste, to the greatest extent feasible, of the following types:
1. Asphalt
 2. Concrete and concrete block
 3. Rock
 4. Wood (lumber)
 5. Green material (i.e. tree trimmings)
 6. Metals
- E. Mixed Debris Recycling: Develop and implement a program to transport loads of commingled demolition materials that cannot be feasibly sourced and separated to a mixed debris recycling facility.

1.06 HAULING AND DISPOSAL OPERATIONS

- A. Hauling: Arrange the collection and hauling of C&D debris by a waste hauler that is permitted by the County of Orange Waste Management Department and Agencies as

applicable.

- B. Recycling And Processing Facilities: Transport C&D debris to recycling or processing facilities. The contractor shall be familiar with the requirements for acceptance of C&D materials at the recycling and processing facilities before the material is delivered. Always call facilities in advance to verify requirements.
- C. Disposal Facilities: Transport C&D debris that cannot be delivered to a recycling or processing facility, to a transfer station or disposal facility that can legally accept the materials for the purpose of disposal.
- D. Site Disposal: Do not burn, bury, or otherwise dispose of solid waste on the Project jobsite. All trash, debris, and removed materials shall be hauled away and legally disposed off-site on the same day they are removed.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

PART 4 – MEASUREMENT AND PAYMENT

No separate measurement or payment will be made under this section.

END OF SECTION

SECTION 02 41 00**DEMOLITION****PART 1 – GENERAL****1.1 RELATED SECTIONS**

- A. Section 31 20 00 “Earthwork”

1.2 REFERENCE STANDARDS

- A. The following is a list of standards which may be referenced in this Section:
1. American National Standards Institute (ANSI): A10.6, Safety Requirements for Demolition Operations.
 2. Standard Specifications for Public Works Construction (“Standard Specifications”), 2018 Edition.

1.3 SUBMITTALS

- A. Existing Conditions: Contractor shall provide documentation of existing items, adjoining construction and site improvements, actual locations of capped conduits and equipment abandoned in place that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.
1. Use sufficiently detailed photographs or videos, which shall be submitted digitally.
 2. Include plans and notations to indicate damage.
- C. Weight Tickets: Submit weight tickets provided by the receiving Landfill.

1.4 QUALITY ASSURANCE

- A. Regulatory Requirements: Contractor shall comply with hauling and disposal regulations of authorities having jurisdiction.

1.5 PROJECT CONDITIONS

- A. Contractor shall not commence demolition or earth moving operations until temporary erosion and sedimentation control measures, specified in Section 31 20 00 “Earthwork”, Subsection 3.1 "Temporary Erosion and Sedimentation Control" are in place.

- B. Contractor shall maintain dust control at all times by watering.
- C. Contractor shall accurately locate all existing utilities to identify any conflicts with the proposed work.
- D. Contractor shall scan the work area using a metal detector of adequate strength prior to any excavation. Contractor shall be responsible for locating, protecting, and documenting on Record Drawings, all manholes, water valves, utility access frames and covers or other metal appurtenances buried below the existing pavement surface whether shown on the plans or not. Contractor shall notify PFMD Project Manager immediately of any existing utility found that is not shown on the plans.
- E. Contractor shall protect in place existing improvements and utilities if specified to be protected in place in the plans.
- F. Any existing site improvements (not indicated on the plans and demolition scope to be removed) that are damaged during demolition operations shall be restored (at the expense of the contractor) to their original conditions, as acceptable to PFMD Project Manager.
- G. Contractor shall remove all existing site improvements indicated on plans and demolition scope and as required for future improvements.
- H. Contractor shall remove or abandon all existing utilities indicated on plans.
- I. Contractor shall comply with federal, state, and local hauling and disposal regulations. In addition to the requirements of the General Conditions, Contractor's safety requirements shall conform to ANSI A10.6.
- J. Contractor shall conduct demolition to minimize interference with adjacent building and parking lot areas.
- K. Contractor shall restore and clean-up site once site clearing operations are completed.
- L. If any material found within the Contractor's work area appears to be contaminated, it shall be handled per the contract documents.

1.6 DEFINITIONS

- A. ACM: Asbestos-containing material.
- B. ACP: Asbestos Cement Pipe
- C. Demolition: Dismantling, razing, destroying, or wrecking of any fixed building, structure, surface or subsurface feature, site element, or any part thereof.
- D. Remove: Detach items from existing construction and legally dispose of them to land fill off-site unless indicated to be removed and salvaged or removed and reinstalled.
- E. Modify: Provide all necessary material and labor to modify an existing item to the condition indicated or specified.

- F. Relocate: Remove, protect, clean, and reinstall equipment, including electrical, instrumentation, and all ancillary components required to make the equipment fully functional, to the new location identified on the Drawings.
- G. Salvage/Salvageable: Remove and deliver, to the specified location(s), the equipment, building materials, or other items so identified to be saved from destruction, damage, or waste; such property to remain that of PFMD Project Manager. Unless otherwise specified, title to items identified for demolition shall revert to the Contractor.

PART 2 - PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 PROTECTION

- A Protection of Existing Site Improvements:
 - 1. Survey the site and examine the Drawings, Specifications, and Demolition Scope to determine the extent of the Work before beginning demolition operations.
 - 2. Take necessary precautions to avoid damage to existing items scheduled to remain in place, to be reused, or to remain the property of the County; any Contractor-damaged items shall be repaired or replaced as directed by the County.
 - 3. Do not overload pavements to remain. Pavement outside the work area damaged by Contractor due to Contractor operations shall be restored to preconstruction conditions at no cost to the County. The contractor shall ensure that the condition of existing pavement outside of work area is documented and included as part of the existing conditions submittal (1.3.A) to the PFMD Project Manager.
 - 4. Do not overload already stabilized areas until the PFMD Project Manager agrees it is acceptable to do so.
- B. Protection of Personnel:
 - 1. During demolition, continuously evaluate the condition of the existing improvement being demolished and take immediate action to protect all personnel working in and around the demolition site.
 - 2. Provide temporary barricades and other forms of protection to protect COUNTY personnel, subcontractor personnel, and any other people who may be present from injury due to demolition Work.
 - 3. Provide protective measures as occupy to provide free and safe passage of COUNTY personnel, subcontractor personnel, and any other people who may be present to occupied portions of the structure.

3.2 RELOCATION OF EMERGENCY MATERIAL STORAGE CONTAINER

- A. Survey the site for existing improvements and utilities necessary for demolition, relocation, and new work.
- B. Relocate the existing emergency material storage container as shown on plans prior to surveying and scanning for the existing underground utilities.

3.3 SAWCUT AND REMOVAL OF EXISTING PCC CURB, PAVEMENT AND SLAB

- A. Sawcut existing PCC curb, pavement and slab as required for demolition.
- B. Legally remove, dispose, and recycle PCC waste materials as required.

3.4 BACKFILLING VOIDS LEFT BY REMOVALS

- A. All voids left by removals of shall be backfilled with properly compacted engineered fill per Section 312000 "Earthwork". The cost to place this fill material shall be part of the demolition work.

3.5 CLEAN UP

- A. Debris and rubbish shall be removed from excavations and shall be removed and transported in a manner that prevents spillage on streets or adjacent areas. Local regulations regarding hauling and disposal shall apply.

3.6 HAUL ROUTE AND DISPOSAL OF MATERIALS

- A. The Contractor shall make every effort to recycle demolished materials. Items required to be removed shall become the property of the contractor and shall be removed from the Project site and be lawfully hauled and disposed of. The cost to haul and dispose of removed items shall be included in the cost of the items of work.
- B. Contractor shall secure a Haul Route Permit from the City for all transport of import and export material on public streets.
- C. The transport of import and export material on public streets shall be in accordance with all local governing agency standards.

END OF SECTION 02 41 00

SECTION 31 10 00**SITE CLEARING****PART 1 - GENERAL****1.01 SUMMARY****A. Section Includes:**

1. Removal of vegetation, grass, grass roots, shrubs, tree stumps, trees, upturned stumps, weed growth, tree roots, brush, masonry, concrete, rubbish, debris, and other materials.
2. Removal of concrete and bituminous surfaces.
3. Removal of existing fences and gates.

B. Related Requirements:

1. Division 01 - General Requirements.
2. Section 31 2200 - Grading.
3. Section 31 2313 - Excavation and Fill.
4. Section 31 2316 - Excavation and Fill for Pavement.
5. Section 31 2319 - Excavation and Fill for Structures.
6. Section 31 2323 - Excavation and Fill for Utilities.
7. Section 31 2326 - Base Course.
8. Section 32 3113 - Chain Link Fences and Gates.
9. Section 32 9000 - Planting.

1.02 SUBMITTALS

- A. Shop Drawings: Submit site plan indicating extent of site clearing.

1.03 QUALITY ASSURANCE

- A. Comply with Standard Specifications for Public Works Construction, current edition, as a minimum requirement.

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

3.01 TREE AND STUMP REMOVAL

- A. Remove trees and stumps indicated or required to be removed. Remove trees, together with bulk of roots, to a minimum depth of 4 feet below required grade, and within a radius of approximately 7 feet beyond perimeter of trunk at grade.
- B. Fill and compact excavation from tree and stump removal. Fill in 6-inch layers, each compacted to 90 percent of maximum density in accordance with ASTM D1557.
 - 1. Back filling shall not commence until the excavation is inspected and tested.

3.02 CONCRETE AND BITUMINOUS SURFACING REMOVAL

- A. Break up and completely remove existing concrete surfacing, curbs, gutters, walks and bituminous surfacing to indicated limits. Cutting shall be performed to a neat and even line with proper tools or a concrete cutting saw. The minimum depth of cut shall be 1 1/2-inch, unless otherwise indicated. Remove concrete broken beyond the indicated limits to the nearest joint or score line and replace with new concrete to match existing.

3.03 FENCING

- A. Existing fences scheduled to remain may be removed to facilitate the Work, provided they are installed to their original condition in accordance with requirements of Section 32 3113 - Chain Link Fences and Gates.
- B. Fencing indicated to be removed and not reinstalled shall be completely removed, including footings. Fill and compact excavations.
- C. Install chain link fencing indicated to be relocated or reset in accordance with applicable requirements specified under Section 32 3113 - Chain Link Fences and Gates.

3.04 CLEANUP

- A. Remove rubbish, debris and waste materials and legally dispose of off the Project site.

END OF SECTION

SECTION 31 20 00**EARTHWORK****PART 1 - GENERAL****1.1 RELATED SECTIONS**

- A. Section 02 41 00 “Demolition”

1.2 REFERENCE STANDARDS

- A. The following is a list of standards which may be referenced in this section:
 - 1. Standard Specifications for Public Works Construction (“Standard Specifications”), 2023 Edition
 - 2. American Society for Testing and Materials

1.3 SUBMITTALS

- A. Contractor shall submit a job mix design for all rock and import fill material to be used on project as required in these Special Provisions:
 - 1. Provide copies of gradation reports and material certificates signed by material producer and Contractor, certifying that each material complies with, or exceeds, specified requirements.
 - 2. Provide samples upon request.
- B. Traffic and Safety Plan: Contractor shall prepare a Traffic and Safety Plan showing barricades, traffic cones and stripping for construction equipment entering the project site and using the public roads.

1.4 QUALITY ASSURANCE

- A. Contractor shall hire an independent Geotechnical Testing Agency for daily on-site monitoring and testing during earthwork and compaction efforts.
- B. Geotechnical Testing Agency Qualifications: Qualified according to ASTM E 329 and ASTM D 3740 for testing indicated.
- C. Geotechnical Testing Agency shall monitor and test the following:
 - 1. Inspect and test Class A Topsoil material and confirm that it complies with the Project requirements.

2. Inspect and test placement of Class A Topsoil and confirm that the maximum lift thickness, placement, and compaction of engineering fill complies with the Project requirements.
3. Inspect and test all subgrades and confirm that compaction and bearing capacities comply with the Project requirements.

1.5 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during earth moving operations.
 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from the Engineer.
 2. Provide alternate routes around closed or obstructed traffic ways if required by the Engineer.
 3. Coordinate work with phasing plan.
- B. Utility Locator Service: Notify local "811" before beginning earth moving operations.
- C. Do not commence earth moving operations until temporary erosion- and sedimentation-control measures.
- D. The Engineer shall be present during grading operations to evaluate the suitability of the various soil types exposed during excavation at the site for use as Class A Topsoil. Do not commence earth moving operations without the presence of the Engineer.
- E. Blasting shall not be permitted.

1.6 DEFINITIONS

- A. Backfill: Soil material or controlled low-strength material used to fill an excavation.
 1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
 2. Final Backfill: Backfill placed over initial backfill to fill a trench.
- B. Class A Topsoil: Imported satisfactory soil material for landscaping and planting.
- C. Structures: Footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- D. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill, drainage fill, drainage structure, drainage course, or topsoil materials.

- E. Utilities: On-site underground pipes, conduits, ducts, and cables.
- F. Clearing and Grubbing: Trimming and removal of trees, brush, weeds, stumps, trash, sod, grass, stumps, roots, other vegetation on or below the ground surface, and other debris.

PART 2 - PRODUCTS

2.1 CLASS A TOPSOIL

- A. Provide Class A Topsoil materials only when satisfactory soil materials are not available from excavations.
- B. Material shall be evaluated by the Engineer for its suitability as Class A Topsoil prior to importation to the project site.
- C. Material shall conform to Section 800-1.1.2 of the Standard Specifications for Public Works Construction ("Standard Specifications"), 2023 Edition.

2.2 SUBGRADE BRIDGING MATERIAL, 3 IN. MINUS

- A. Imported Subgrade Bridging Material, 3 in. minus or crushed PCC pavement to be used as stabilization layer shall conform to the following gradations:

<u>Sieve Size</u>	<u>Percent Passing (by weight)</u>
125mm (5")	100
100mm (4")	100
75mm (3")	100
62.5mm (2-1/2")	89
50mm (2")	55
37.5mm (1-1/2")	24
25mm (1")	4
19mm (3/4")	1
12.5mm (1/2")	1
9.5mm (3/8")	1
4.75mm (No.4)	1

2.3 3/4" MINUS ROCK

- A. For gradation refer to Table 200-1.2 (A) of the Standard Specifications as specified in Geotechnical Report (latest revision) recommendations.

PART 3 - EXECUTION

3.1 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. The work includes implementation and maintenance of a Storm Water Pollution Prevention Plan (SWPPP), including QSP and QSD services, and implementation and maintenance of SWPPP Best Management Practices (BMPs) required to prevent and control discharges of dust, soil, sediment, debris, and other pollutant from the project site onto adjacent areas and/or into the storm water conveyance system from construction activities shown on the project drawings.

The SWPPP and BMPs shall apply to all construction related areas and activities associated with the project, such as staging areas, equipment and material storage sites, waste management areas, temporary plant sites, and borrow pit operations which may be outside the construction limits.

- B. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent condition has been established.
- C. When permanent conditions are established, remove erosion and sedimentation controls, and restore and stabilize areas disturbed during removal.
- D. Prevent sediment inundation from construction activities into infiltration and rock gallery trenches.

3.2 PROTECTION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth moving operations.
- B. Protect and maintain erosion and sedimentation controls during earth moving operations.
- C. Protect newly graded areas from traffic and erosion. Keep free of trash and debris.
- D. Repair and reestablish grades to specified tolerances, where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
1. Scarify or remove and replace soil material to depth as directed by the Engineer; reshape and recompact.
- E. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.

1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration.

3.3 DEWATERING AND FLOW CONTROL

- A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
- B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
 1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.

3.4 UNCLASSIFIED EXCAVATION

- A. Unclassified excavation shall consist of excavation of all earth, rock, and buried recycled concrete or asphalt pavement within the project limits that is required for the construction of the parking lot as shown on the plans.
- B. Excavation not designated as unclassified excavation include the following: structure excavation, utility trench excavation, PCC concrete pavement removal, AC pavement removal, temporary or back cut excavations, minor excavations to remove existing site elements, excavations for new footings and foundations, and any excavation separately designated in these Special Provisions.
- C. Excavate, shape, and finish all earthwork to new subgrade and top of slopes in conformance with the lines and grades shown on the plans. Slopes shall be excavated per Section 300-2.5 "Slopes" of the Standard Specifications.
- D. No excavation beyond the limits shown on the plans shall take place without authorization of the Engineer.
- E. Excavated material that meets the criteria for Import Fill Material per this 2.1 "Import Fill Material" and is deemed acceptable by the Engineer shall be reused on-site in applicable Work.
- F. It is anticipated that a portion of the excavated material will be unsatisfactory due to high moisture content and/or unsuitable soils characteristics.

3.5 EXCAVATION FOR NON-BUILDING STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch. If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.

1. Excavations for Non-Building Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.
2. Excavation for Underground Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 1 inch. Do not disturb bottom of excavations intended as bearing surfaces.

3.6 PLACEMENT OF CLASS A TOPSOIL

- A. Grading and placement of Class A Topsoil shall conform to Section 801-2 of the Standard Specifications for Public Works Construction (“Standard Specifications”), 2023 Edition.

3.7 GRADING

- A. Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 1. Provide a smooth transition between adjacent existing grades and new grades.
 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.

3.8 SUBGRADE PREPARATION

- A. Finish subgrades to required elevations within the following tolerances:
 1. Subgrade for pavement, curb and gutter, driveways, or other roadway structures shall not vary more than 0.02 feet from the specified grade and cross section.
 2. Subgrade for subbase or base material shall not vary more than 0.04 feet from the specified grade and cross section.
- B. Subgrade stabilization indicated on plans and within these special provisions are based upon limited geotechnical data and are subject to change. Unstable subgrade soils shall be identified during the initial grading by the Engineer. After the existing AC, concrete and other construction debris have been removed, the bottom of the excavations shall be proof rolled with heavy grading equipment or loaded water truck, to check for yielding or soft areas that flex or pump under load. Engineers shall make the final determination of the subgrade stabilization method after reviewing the soil types exposed at the site during demolition and excavation operations.

3.9 CLEARING AND GRUBBING

- A. Contractor shall remove all trees, brush, weeds, stumps, trash, sod, grass, stumps, roots, other vegetation on or below the ground surface, and other debris. Removal limits shall extend to grading limits. Any vegetation damaged or removed outside the grading limits shall be replaced in kind at no additional expense to COUNTY.

END OF SECTION 31 20 00

NOT FOR BID

SECTION 31 2200**GRADING****PART 1 - GENERAL****1.01 SUMMARY**

- A. Section Includes:
1. General exterior grading, cutting, and filling, including grading for building area, paving, planting areas, banks, and hillsides.
- B. Related Requirements:
1. Division 01 - General Requirements.
 2. Section 31 1000 - Site Clearing.
 3. Section 31 2313 - Excavation and Fill.
 4. Section 31 2316 - Excavation and Fill for Pavement.
 5. Section 31 2319 - Excavation and Fill for Structures.
 6. Section 31 2323 - Excavation and Fill for Utilities.
 7. Section 31 2326 - Base Course.
 8. Section 32 9000 - Planting.

1.02 PROJECT REQUIREMENTS

- A. General:
1. Fees: Pay as required by authorities having jurisdiction over the area.
 2. Bonds: Post as required by authorities having jurisdiction over the area.
 3. Haul Routes and Restrictions: Comply with requirements of authorities having jurisdiction over the area.
 4. Before grading, contact Underground Service Alert of Southern California (USASC) for information on public buried utilities and pipelines. Retain the services of an underground utility locator for on-site utilities.

PART 2 - PRODUCTS**2.01 MATERIALS**

- A. Materials shall conform to requirements specified in this and related sections.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Protect and maintain installed stakes until their removal is required for the Work. Provide replacement grade or location stakes lost or disturbed.
- B. Install grade stakes and compare to indicated grades. If discrepancies are found between existing grades and grades indicated on Drawings, do not proceed until discrepancies are resolved.

3.02 ROUGH AND FINE GRADING

- A. Rough grade area sufficiently high to require cutting by fine grading:
 - 1. Grade area for bituminous surfacing and other paving to the indicated grades, equal to the section of the indicated base and pavement.
 - 2. Slope banks to the required finish grades as cut progresses or leave cuts full and finish grade by mechanical equipment to provide grades and soil densities indicated on the Drawings.
 - 3. Rough grade, fill and compact banks beyond indicated finish grades. Finish grade banks and slopes to indicated grades and specified soil densities.
 - 4. Grade Only Areas: In areas not indicated to receive pavement, rough grade to approximate finish grades and then scarify, moisten, and roll to obtain required density and indicated finish grades.
 - 5. Tolerances: Finish grades shall be within a tolerance of 0.05 inch per foot above or below grades indicated. Provide an average grade as indicated.
- B. Base or Subgrade:
 - 1. After subgrade has been constructed to approximate required grades, scarify to a depth of at least 6 inches:
 - a. After scarifying, process loosened material to a finely divided condition and adjust moisture content to optimum condition by addition of water, addition and blending of dry suitable material, or by drying of existing material.
 - b. Subgrade material shall be compacted by tamping, sheepfoot rollers or pneumatic tire rollers. Required relative compaction shall be [90] percent minimum for the top 6 inches below subgrade.
 - c. Install base course in accordance with Section 31 2326 - Base Course.
 - 2. Tolerance of completed grades of base or subgrade shall not vary more than 0.03 inch per foot from grades indicated. Provide an average grade as indicated.

3.03 SHORING

- A. Provide shoring as necessary to support earth sides of excavations properly and safely, and existing curbs, sidewalks, gutter, drives and stairs, against movement and collapse.
- B. Design and Calculations: Provide in accordance with the requirement of CalOHSA.
- C. Remove shoring upon completion of the Work of this section or when no longer needed unless required otherwise by authorities having jurisdiction.

3.04 EXCESS MATERIAL DISPOSAL

- A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

3.05 PROTECTION

- A. Protect the Work of this section until Substantial Completion.

END OF SECTION

SECTION 31 2313

EXCAVATION AND FILL

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Excavating, filling, backfilling, and compacting for Project site pavement, planting areas, buildings, and other structures.
2. Trenches for utility lines such as water, gas, irrigation, storm drain and sewer lines, concrete-encased conduits, manholes, vaults, valve boxes, catch basins, underground tanks, thrust blocks, yard boxes, pull boxes, and other utility appurtenances.

B. Related Requirements:

1. Division 01 - General Requirements.
2. Section 01 4524 - Environmental Import/Export Materials Testing.
3. Section 31 1000 - Site Clearing.
4. Section 31 2200 - Grading.
5. Section 31 2326 - Base Course.
6. Section 32 0117 - Pavement Repair.
7. Section 32 1313 - Site Concrete Work.
8. Section 32 3113 - Chain Link Fences and Gates.
9. Section 32 8413 - Potable Water Irrigation.
10. Section 32 8426 - Reclaimed Water Irrigation.
11. Section 32 9000 - Planting.
12. Section 33 1100 - Site Water Distribution Utilities.
13. Section 33 3000 - Site Sanitary Sewer Utilities.
14. Section 33 4000 - Storm Drainage Utilities.
15. Division 22 - Plumbing.
16. Division 26 - Electrical.

1.02 PROJECT REQUIREMENTS

A. Import and Export of Earth Materials:

1. Fees: Pay as required by authorities having jurisdiction over the area.

2. Bonds: Post as required by authorities having jurisdiction over the area.
3. Haul Routes and Restrictions: Comply with requirements of authorities having jurisdiction over the area.

1.03 SUBMITTALS

- A. Shoring calculations as required in Article 3.03 of this Section.

1.04 QUALITY ASSURANCE

- A. Comply with the Standard Specifications for Public Works Construction, current edition, except as modified herein.
- B. Sampling, testing, and certification of imported and exported soils shall be performed in accordance with Section 01 4524, Environmental Import/Export Materials Testing.

1.05 TESTING

- A. OWNER will retain a Geotechnical Engineer as an OWNER Consultant who will provide observations, tests, inspections, and approvals identified in the Contract Documents as being responsibility of OWNER.
- B. Imported Soils: The Geotechnical Engineer will obtain initial product Sample for testing in accordance Article 3.05 of this Section.

1.06 PROJECT CONDITIONS

- A. Information on Drawings or in soil investigation report does not constitute a guarantee of accuracy or uniformity of soil conditions over the Project site.

PART 2 - PRODUCTS

2.01 FILL AND BACKFILL MATERIALS

- A. Fill and backfill material shall be a granular material previously removed from excavation or imported fill material, free of clods and stones larger than 3 inches, (2½ inches for utility trenches) foreign materials, vegetable growths, sod, expansive soils, rubbish, and debris. Material shall conform to these specified requirements and related sections.
- B. Fill material exhibiting a wide variation in consistency and moisture content shall be blended and aerated to stabilize and upgrade the material.
- C. Bedding material from trench bottom to one foot above the pipe:
 1. Sand, gravel, crushed aggregate or native free-draining granular material providing a sand equivalent of at least 30 or a coefficient of permeability greater than 1.4 inches per hour.
 2. Sand complying with the Specifications for cement concrete aggregates.
- D. Brick rubble and broken concrete originating from the Project site shall be legally disposed of off the Project site No such material shall be imported from outside the Project site.

E. Permeable Backfill:

1. Provide permeable backfill material behind retaining structures consisting of gravel, crushed gravel, crushed rock, natural sands, manufactured sand, or combinations of these materials conforming to the following gradations:

Sieve Size:	Percentage Passing:
3/4 inch (19mm)	100
3/8 inch (10mm)	80 to 100
No. 100	0 to 8
No. 200	0 to 3

2. Those portions of fill material passing a No. 4 sieve shall provide a sand equivalent of at least 60.
 3. Provided backing for weepholes shall consist of two cubic feet of aggregate in burlap sacks, securely tied. Aggregate shall conform to requirements for No. 3 concrete aggregate as specified in subsection 200-1.4 of the Standard Specifications for Public Works Construction.
 4. Permeable Backfill Alternate Materials: Instead of the materials specified for retaining structures backfill, a drainage matting system Miradrain by Mirafi, Inc., American Wick Drain, JDR Enterprises, or equal, may be provided if reviewed and approved by the ENGINEER.
- F. Cement-sand slurry shall be provided with one sack of cement per cubic yard of the mixture.

2.02 BASE MATERIALS

- A. Concrete Slabs on Grade: Provide "Crushed Aggregate Base" as specified in Standard Specifications for Public Works Construction, Section 200 - Rock Materials, with 3/4-inch maximum size aggregates. Provide a 3-inch-thick base, unless noted otherwise.
- B. Bituminous Surfacing: Provide as indicated on Drawings and specified in Section 31 2326 Base Course.

PART 3 - EXECUTION

3.01 GENERAL

- A. Before initiating intrusive activities, contact Underground Service Alert of Southern California (USA or Dig Alert) to obtain a Dig Alert ticket for location information on buried public and USA member utilities and pipelines at least 48-hours prior to beginning work. A copy of the Dig Alert ticket shall be forwarded to the OWNER. For on-site utilities, retain a state-licensed third-party underground utility locating service.
- B. Where the Work includes a building extension or addition on an occupied Project site, perform Work in such a manner, and at such times, as not to disrupt performance of existing utility services to existing Project site facilities. Where an interruption is necessary, obtain a review from the OAR before proceeding.
- C. Remove concrete or bituminous pavement to straight lines by saw cutting.

3.02 PROTECTION

- A. Protect and guard excavations against danger to life, limb, and property as required by, but not limited to, OSHA regulations.
- B. Protect existing improvements including landscaping against damage. Repair or replace damaged items.
- C. Protect existing utility services and distribution systems from damage or displacement.
- D. Remove conduits or pipes not in service, exposed during Work, unless a minimum cover of two feet is provided. Remove concrete, clay or other non-metallic pipe over 8 inches in diameter, unless otherwise indicated.
- E. Shore, crib, or lag excavations and earthen banks as necessary to prevent cave in, erosion or gulying of sides.
- F. Provide excavations free from standing water by pumping, draining, or providing protection against water intrusion. If soil becomes soft, soggy, or saturated, excavate to firm undisturbed earth and fill as required. Slope adjacent grades away from excavations to minimize entry of water.

3.03 SHORING

- A. Provide shoring as necessary to support earth sides of excavations properly and safely, and existing curbs, sidewalks, gutter, drives and stairs, against movement and collapse.
- B. Design and Calculations: Provide in accordance with requirement of governing Cal-OSHA requirements.
- C. Remove shoring upon completion of the Work of this Section or when no longer needed unless required otherwise by authorities having jurisdiction.

3.04 EXCAVATION

- A. Unclassified Excavations: Comply with the Standard Specifications for Public Works Construction, Section 300: "Earthwork", except as modified herein.
- B. Form sides of footings, pads, grade beams, and slab foundations, unless otherwise indicated. Provide excavations of sufficient size to permit installation and removal of forms and other required Work.
- C. Machine-drill excavation for round footings to size and depth indicated. Provide a collar or casing, or other adequate protection, to exclude dirt and debris. Protect excavations with plank covers until concrete is placed.
- D. Provide excavation bottoms level and free from loose material. Excavate to indicated or required elevations of undisturbed earth.
- E. Barricade trenches, ditches, pits, sumps, and similar Work outside the barricaded working area with chain link fence as specified in Section 01 5000 - Construction Facilities and Temporary Controls, and in accord with Cal-OSHA standards and requirements.
- F. Trenches over five feet in depth shall comply with the Construction Safety Orders of the California Division of Industrial Safety.

G. Where indicated or required to excavate in lawn areas, protect adjoining lawn areas outside of the Work area. Replace or install removed sod upon completion of backfill by installing sod level with adjacent lawns. If installation of removed sod fails, furnish sod, and install to match existing lawns.

H. For Structures:

1. Calculate excavation quantities based on elevations or depths indicated on Drawings.
2. Provide 2,000 psi concrete for backfill of over-excavated areas to indicated or required elevations.
3. Special preparation of bottom of excavated planes areas: Excavate areas shown on Drawings as bottom of excavated planes (B.E.P.), by excavating and filling to indicated grades and elevations.

I. For Utilities:

1. Excavate trenches to required depth for utility lines, such as pipes, conduits, and tanks, with minimum allowance of 6 inches at the bottom and 6 inches at the sides for bedding or concrete encasement as indicated on Drawings. Grade the bottom of trenches to a uniform smooth surface. Remove loose soil from the excavation before placing sand bedding or concrete encasement.
2. Do not install piping lengthwise under concrete walks without review by the ENGINEER.
3. Do not excavate trenches parallel to footings closer than 18 inches from the face of the footing or below a plane having a downward slope of two horizontal to one vertical, from a line 9 inches above bottom of footings.

a. Unless otherwise indicated on Drawings, depth of excavations outside buildings shall provide for a minimum coverage above top of piping, tank or conduit measured from the lowest adjoining finished grade, as follows:

Steel Pipe	24 inches below finish grade.
Copper Water Tube	18 inches below finish grade.
Cast-Iron, Pressure Pipe	36 inches below finished grade.
Plastic Pipe (other than waste)	30 inches below finished grade.
Tanks or other structure	36 inches below finished grade.
Soil, sewer and storm drain	minimum 18 inches below finished grade, and as required for proper pitch and traffic load. Install polypropylene sewer pipe with at least 24 inches of coverage.
Irrigation Pipe:	Non-pressure pipe - 12 inches, pressure pipe - 24 inches.

b. Trench width shall provide space for fitting and joining. Excavate for piping bells and fittings, bell and spigot pipe and other fittings.

4. Where portions of existing structures, walks, paving, or other improvements are removed or cut for piping or conduit installation, replace the material with equal quality, finished to match adjoining existing improvements. Repair pavement as specified in Section 32 0117 - Pavement Repair.
5. Provide a minimum clear dimension of 2 inches from sides of wall excavation to outer surfaces of buried pipes or conduits placed in the same trench or outside surfaces of containers and tanks.

3.05 IMPORT/EXPORT OF MATERIALS

- A. Unclassified Fill and Compaction: Comply with the Standard Specifications for Public Works Construction, Section 300 - Earthwork, except as modified herein. Install and compact fill in layers not to exceed 6 inches in thickness.
- B. Provide fill materials as specified in Part 2- Products. If excavated materials from the Project site are not of the required quality or sufficient quantity, import additional materials as necessary.
- C. In addition to the requirements of this Section, import and/or exported materials shall comply with the requirements of Section 01 4524, Environmental Import/Export Materials Testing.
- D. Imported fill materials shall be sampled by the Geotechnical Engineer, for compliance with the requirements of Part 2 of this Section.
- E. The Geotechnical Engineer, will submit the samples to an independent DSA approved testing laboratory for testing.
- F. Initial sampling and testing shall be performed before importing material to the Project site. Identify the location of the source site in addition to the address, name of the person and entity responsible for the source site. The Geotechnical Engineer, will obtain both the initial and additional samples from the identified site and submit samples for required testing.
- G. The Geotechnical Engineer will perform additional sampling during import operations. If the total quantity of import is determined to be greater than 1000 cubic yards of material, one sample shall be obtained and submitted for testing for each 250 cubic yards of imported material. If the total quantity of import is determined to be less than 1000 yards, one sample shall be obtained and submitted for testing for each 100 cubic yards of imported material.
- H. The independent approved testing laboratory will perform the required tests and report results of tests noting if the tested material passed or failed such tests and will furnish copies to the Project Inspector, ENGINEER, OAR, DSA, CONTRACTOR, and others as required. Report shall state tests were conducted under the responsible charge of a licensed State of California professional engineer and the material was tested in accordance with applicable provisions of the Contract Documents, California Building Code, and the DSA. Upon completion of the Work of this Section, the independent testing laboratory and Geotechnical Engineer will submit a verified report to the DSA as required by the CBC.
- I. Bills of lading or equivalent documentation will be submitted to the Project Inspector on a daily basis.

- J. Upon completion of import operations, provide the OAR a certification statement attesting that imported material has been obtained from the identified source site.

3.06 INSTALLATION OF MATERIALS

- A. Pavement: Fill or backfill materials shall be installed in horizontal layers of 6 inches, unless otherwise required. Each layer shall be evenly placed and moistened or aerated as necessary. Unless otherwise reviewed by the Geotechnical Engineer, each layer of fill material shall cover the length and width of the area to be filled before the next layer of material is installed. Top surface of each layer shall be installed to an approximate level with a crown or crossfall of at least 1 in 50, but not more than 1 in 20. Provide adequate drainage at all times during installation of the Work of this Section.
- B. Structures:
1. After concrete has been placed, forms removed, and concrete Work inspected, backfill excavations with earth to indicated or required grades. Backfill simultaneously on each side of walls or grade beams. Remove rubbish, debris and other waste materials from excavations before placing backfill.
 2. Before placing backfill, adequately cure concrete and provide bracing, if required to stabilize structure. Protect waterproofing or damp-proofing against damage during backfilling operations, with required protection board. Remove bracing as backfill operation progresses.
 3. Do not furnish or install expansive soils for retaining wall backfill.
 4. Rigidly control the amount of water to be installed to provide optimum moisture content for type of fill material furnished. Do not over-saturate or compact by flooding or jetting.
 5. Install wall backfill before installing railings and fences on walls.
 6. Install weep hole drainage at the backside of walls so the backing completely covers the weep holes, is horizontally centered and extends at least 12 inches above the bottom of the weep opening. Provide an 8-inch square section of 1/4 inch galvanized or aluminum screen, with a minimum wire diameter of 0.03 inch, and install at the backside of each weep hole before installing the backfill material.
 7. Where a reviewed drainage matting system is provided instead of permeable backfill for retaining structures, install in accordance with the manufacturer recommendations.
- C. Utilities:
1. Do not install backfill until the Work of this Section has been inspected and tested. Do not furnish or install materials excavated from the Project site containing materials not permitted for backfill.
 2. Backfill electrical or other excavated utility trenches located outside of barricaded installation areas within 24 hours after inspection by the IOR.

3. Install backfill in layers not exceeding 4 inches in thickness, except cement-sand slurry.
4. If materials excavated from the Project site are not permitted for trench backfill in paved areas, backfill trenches with a cement-sand slurry mix. Install backfill to an elevation of the existing undisturbed grades plus one inch.

3.07 COMPACTING

- A. Each layer of fill material shall be compacted by tamping, sheepsfoot rollers, or pneumatic-tired rollers to provide specified relative compaction. At inaccessible locations, provide specified compaction by manually held, operated and directed compaction equipment.
- B. Install and compact sand bedding to provide a uniform bearing under the full length of piping and conduits.
- C. Unless otherwise indicated, compact each layer of fill material to a relative compaction of at least ninety percent.
- D. When fill materials, or a combination of fill materials, are encountered or provided which develop densely packed surfaces as a result of installation or compacting operations, scarify each layer of compacted fill before installing the next succeeding layer.

3.08 INSPECTION AND TESTING

- A. The Geotechnical Engineer will inspect and test excavations, sample material quality for testing as set required in Part 2, and observe installation and compaction of fill materials.
- B. The Geotechnical Engineer will sample imported fill materials from their designated source and submit samples to the independent approved testing laboratory before delivery to the Project site.
- C. Installation of backfill shall be observed by the Geotechnical Engineer.
- D. The Geotechnical Engineer will inspect and test excavation Work before the installation of fill and other materials.
- E. Compaction: Test compaction in accordance with ASTM D1557, Method C.
- F. The Project Inspector will inspect foundation excavations when completed and ready for forms, after forms are in place, and before first placement of concrete.

3.09 PROTECTION

- A. Protect the Work of this Section until Substantial Completion.

3.10 CLEANING

- A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

END OF SECTION