

AGREEMENT FOR DESIGN-BUILD SERVICES

COUNTY OF NEVADA HEALTH AND HUMAN SERVICES AGENCY- BEHAVIORAL HEALTH

PSYCHIATRIC HEALTH FACILITY and MENTAL HEALTH REHABILITATION CENTER

THIS AGREEMENT, made this ____ day of _____, 20____, by and between Crestwood Behavioral Health, Inc. whose place of business is at 520 Capitol Mall Ste 800 hereinafter called ("Contractor"), and the COUNTY OF NEVADA hereinafter referred to as ("County").

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

1.0 SCOPE OF WORK AND PROGRAMMATIC DESIGN CRITERIA

Nevada County Behavioral Health was awarded Behavioral Health Continuum Infrastructure Program (BHCIP) funding supported by The California Department of Health Care Services (DHCS) to address historic gaps in the behavioral health care continuum and meet the growing demand for services and support across the life span of vulnerable individuals in need. Information regarding BHCIP can be found here: [Home - BHCIP \(buildingcalhhs.com\)](https://www.buildingcalhhs.com/home-bhcip) and information specific to funding may be found here: [California Department of Health Care Services Proposition 1: Behavioral Health Infrastructure Bond Act of 2024 \(buildingcalhhs.com\)](https://www.buildingcalhhs.com/california-department-of-health-care-services-proposition-1-behavioral-health-infrastructure-bond-act-of-2024).

This project must be aligned with BHCIP funding requirements and adhere, as appropriate, to the Program Funding Agreement attached as Exhibit A.

The State priorities and the requirements for BHCIP include:

- Address urgent needs in the care continuum for people with mental health or substance use conditions, including unhoused people, veterans, older adults, adults with disabilities, and children and youth.
- Invest in behavioral health and community care options that advance health equity of behavioral health care and community options.
- Increase options across the life span that serve as an alternative to incarceration, hospitalization, homelessness, and institutionalization.
- Meet the needs of vulnerable populations with the greatest barriers to access, including people experiencing unsheltered homelessness and justice involvement.
- Leverage county and Medi-Cal investments to support ongoing sustainability.

Nevada County Behavioral Health (NCBH) offers a continuum of behavioral health services to Nevada County residents, with many services delivered in partnership with community-based providers. Nevada County Behavioral Health prioritizes Nevada County members who are adults (18 + years), low-income (<138% Federal Poverty Level (FPL)), uninsured, and reside within the County of Nevada. As defined by BHCIP stipulations, this project must make a commitment to serve Medi-Cal beneficiaries.

This project will provide a turnkey operation of a Psychiatric Health Facility (PHF) and a Mental Health Rehabilitation Center (MHRC) facility. Post-construction, supportive services will also be provided to support clientele in alignment of Medi-Cal billable settings. This Facility will include a total of 16 beds, (8 PHF/8 MHRC.) (Note: BHCIP funding cannot be used to fund services.)

The County site for this project has been identified on the campus of the Eric Rood Administrative Center (a County-owned property) APN No.005-020-024.

Summary of Core Deliverables for this Design Build Project:

Contractor has been selected based on competitive **RFP No. 190141- Nevada County Behavioral Health Continuum Infrastructure Program Development** to complete this Design Build Project and provide supportive services post construction:

- 1) In partnership with Nevada County Behavioral Health Director, Develop a program model for development and delivery of PHF and/or MHRC programs that is aligned with facility requirements as described in [California Department of Health Care Services Proposition 1: Behavioral Health Infrastructure Bond Act of 2024 \(buildingcalhhs.com\)](#); and
- 2) Design/Build a 16 bed (8 PHF/8 MHRC) facility; and
- 3) Provide program service delivery with terms developed that are mutually agreeable (post-construction).

PERMITTING –Permit Fees are to be paid by Contractor. The Contractor is responsible for all permit documents, submittals, responses to comments and corrections from the reviewing agencies [Commercial-Plan-Submittal-Checklist-PDF](#). The Nevada County Building Department will route the submitted plans for review to one or more of the following CDA Department: Planning, Environmental Health, Code Compliance, and/or Public Works. Outside the CDA, the fire agency will also review the plans. The plans will be reviewed based on the latest code cycles. [Grading-Packet-PDF](#), and [Grading-Bond-Form-PDF](#).

GRADING - All site grading must comply with County Building code requirements.

CEQA/NEPA - It is anticipated that the requirements of CEQA shall not apply to the Project pursuant to Welfare & Institutions Code Section 5960.3. Should it be determined that CEQA requirements shall apply to the Project, the Consultant will be expected to prepare any necessary environmental studies to satisfy CEQA/NEPA requirements for the project. Selected Design/Build providers will be responsible for providing documents and studies required of the environmental review for the proposed project to meet CEQA/NEPA requirements.

2.0 PREVAILING WAGE REQUIREMENTS

- 2.1 The Work is subject to the payment of not less than prevailing wages under Labor Code Section 1770 et seq. D-B Entities are hereby notified that the Director of Industrial Relations has ascertained the general prevailing rate of per diem wages and the rates for overtime and holiday work in the locality in which the work is to be performed for each craft, classification or type of worker needed to perform the Work under the contract which will be awarded to the successful Contractor. Information can be found at <http://www.dir.ca.gov/dlsr/DPreWageDetermination.htm>
- 2.2 This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Further information on Compliance Monitoring Unit requirements can be found at <https://www.dir.ca.gov/Public-Works/Enforcement.html>
- 2.3 Contractor agrees to comply with all related provisions of the Labor Code, including but not limited to, the provisions of Labor Code Section 1775 relating to the payment of prevailing wages, Section 1777.5 relating to the employment of apprentices and Section 1811-1813 relating to the payment of Overtime. Failure to comply with the proper prevailing wage requirements may result

in a penalty of up to \$200 per day per worker. Failure to comply with apprenticeship requirements may result in a penalty of \$100-\$300 for each calendar day of violation. Failure to pay proper overtime rate may result in a penalty of \$25 per day per worker.

- 2.4 The Contractor shall forfeit as penalty the amount specified by law for each calendar day or portion thereof for each worker (whether employed by the Contractor or Subcontractor) paid less than the stipulated prevailing rates for any work done under the Contract as specified in Labor Code Section 1775.
- 2.5 The County will not recognize or be liable for any claims for additional compensation because of the payment of the wages set forth in the Contract Documents or Contractor's failure to pay prevailing wages. The possibility of wage increases is one of the elements to be considered by the Contractor in determining its proposal, and will not under any circumstances be considered as the basis of a claim against the County or the Project Manager. Any cost associated with the submission of electronic certified payroll and related documentation to the County or the State are also to be included in the Contractor's bid price and no change order will be granted for any costs incurred by the Contractor.

3.0 DEPARTMENT OF INDUSTRIAL RELATIONS PUBLIC WORKS CONTRACTOR REGISTRATION

- 3.1 D-B Entities that are not registered with the Department of Industrial Relations (DIR) before submitting a proposal may be deemed non-responsive.
- 3.2 No contractor or subcontractor may be listed on a bid proposal for a public works project submitted on or after March 1, 2015 unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5, with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a).
- 3.3 No contractor or subcontractor may be awarded a contract for public work on a public works project awarded on or after April 1, 2015 unless registered with the Department of Industrial relations pursuant to Labor Code section 1725.5.

4.0 ENTITY DESCRIPTION

THIS PROJECT WILL BE COMPLETED BY (check one):

☐

Individual

☐

Partnership

☐

Joint Venture

☒

Corporation

Delaware

State in which incorporated

NOTE: If Design Build Entity is a corporation, the State in which incorporated shall be inserted above and the legal name of the corporation shall be set forth below, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation; if Proposer is a partnership, the true name of the firm shall be set forth below, together with the signature of a partner authorized to sign contract in behalf of the partnership; and if Proposer is an individual, that person's signature shall be placed below. If signature is by an agent, other than an officer of a corporation or a member of a partnership, a Power of Attorney must be on file with the County prior to opening the proposal or submitted with the proposal; otherwise, the proposal will be regarded as irregular and unauthorized. If proposal is submitted by partnership or joint venture, the members are:

Business Address _____

(Street and/or P.O. Box) (City) (State) (Zip)

Business Telephone Number: _____ Facsimile Number: _____

NOTE: If Design Build Entity as a joint venture, each person affiliated with the Joint Venture shall provide the information required below with respect to his or her licensure.

Contract must be executed in same name-style in which the Design Build Entity is licensed and prequalified. D-B Entities proposing jointly as a combination of several business organizations are specially cautioned that such Proposer must be jointly licensed and pre-qualified in the same form and style in which the proposal is executed. The undersigned Proposer certifies and agrees to provide the information and comply with the requirements contained in this Proposal.

Legal Name of Proposer: _____

Federal I.D. Number: _____

Contractor's License No.: _____ License Classification: _____

Expiration Date of Contractor's License: _____

PRINTED NAME _____

SIGN HERE _____

Signature of Contractor

DATE: _____

(Day/Month/Year)

Title of Proposer

Article I. Work

- 1.1 Contractor shall provide, furnish, and perform all necessary planning, architectural, engineering, and all other design services of any type, procurement, permitting and support services, construction, landscaping, clean-up, and all other construction services of any type, provide and furnish all necessary supplies, materials and equipment (except those to be provided by County, if any) and all necessary supervision, labor, and services required for the complete engineering, design, procurement, quality assurance, construction and all necessary installation, start-up and testing required for a complete, operational, and fully functional Project, as further described in Section 01 11 00 Summary of Work and Section 01 11 01 Summary of Work – Design Services of the Division 1 General Specifications, and Contractor's Best and Final Proposal (hereinafter, the all-inclusive obligations of the Contractor set forth in this sentence shall be referred to as the "Work"). Except with regard to any material to be provided and/or installed by County, Contractor shall fully commission and turn over a complete, operational, and fully functional Project to County. Without limiting the generality of this Agreement, Contractor shall provide the following work and Services:
- 1.2 Contractor shall prepare complete designs, engineering, working drawings, shop drawings and generate drawings and/or engineering analysis setting forth in detail the specifications and requirements for the purchasing and procurement of the services, materials and equipment and for the construction of the complete, operational, and fully functional Project, and shall furnish the services of all necessary supervisors, engineers, designers, draftsmen, and other personnel necessary for the preparation of those drawings and specifications required for the Work, including the pertinent information for natural gas, water supply, and any other utilities, as required.
- 1.3 Contractor shall provide, install and complete as specified and pay for all labor, materials and equipment, tools, supplies, construction equipment and machinery, construction, start-up and testing, utilities, transportation, and other facilities and services (including any temporary materials, equipment, supplies and facilities) necessary for the proper execution and completion of the complete, operational, and fully functional Project, including the permanent interconnection for electricity, natural gas, water supply, and any other utilities and demonstration of fully satisfactory operation of all systems and equipment.
- 1.4 Contractor shall supervise and direct the Work, and shall furnish the services of all supervisors, forepersons, skilled and unskilled labor, and all other personnel necessary to design and construct the complete, operational, and fully functional Project. Contractor shall provide, manage and organize such personnel as necessary to complete the Work in accordance with all requirements of the Contract Documents.
- 1.5 Contractor shall obtain, at Contractor's expense, all governmental and private approvals, licenses, and permits required to complete the Work; provided, however, County will be responsible for paying the cost of all fees imposed by regulating agencies

with jurisdiction over the project except as may otherwise be noted in the Contract Documents. Contractor shall design and construct complete, operational, and fully functional Project in full compliance with all applicable laws, codes and standards (both public and private), including but not limited to, the standards included and warranties expressed in the Contract Documents and manufacturer's recommendations pertaining to individual items of equipment or systems.

Article II. County's Project Manager and Representatives

- 2.1 County may assign all or part of its rights, responsibilities and duties to a Facilities Management or HHS Project Manager or other representative. County shall inform Contractor in writing of such assignment and the extent of its representative's authority.
- 2.2 All notices or demands to County under the Contract Documents shall be to County's Project Manager at:
 - Pat Souza or Eric Zibbel, Project Manager
 - County of Nevada
 - 950 Maidu Ave.
 - Nevada City, CA 95959

or to such other person(s) and address(es) as County shall provide to Contractor.

Article III. Contract Time and Liquidated Damages

- 3.1 Contractor shall complete the Work within the following schedule reflecting the date the Contract Time commences to run as set forth in the Notice to Proceed and the General Conditions. County reserves the right to modify or alter the Commencement Date of the Work.
- 3.2 Therefore, Contractor accepts the following completion obligations:
 - 3.2.1 Contractor acknowledges that it is in County's best interests to begin work as soon as possible after County award of the Contract and issuance of the Notice to Proceed. As noted elsewhere in this agreement, Contractor may, at its option, phase preparation and issuance of Construction Documents to facilitate commencement of work such as site work, utilities installation and foundation installation. County will reasonably phase its reviews and approvals of such phasing to support Contractor's work.
 - 3.2.2 Contractor shall diligently pursue completion of the work, Contractor shall achieve Substantial Completion of the entire project as agreed upon between both parties in writing and upon determination and negotiation with the selected Firm.
 - 3.2.3 Contractor shall achieve Final Completion within 30 calendar days of the date when County certifies Substantial Completion as defined in the General Conditions.
 - 3.2.4 While the parties acknowledge that Substantial Completion shall be defined in the General Conditions Section 1.09, Contractor agrees it shall fully participate in and cooperate with the County in obtaining all necessary permit final approvals

required to operate the Project.

3.3 Liquidated Damages:

County and Contractor recognize that time is of the essence of this Agreement and that County may suffer financial loss in the form of additional contract administration expenses (including project management and consultants' expenses), delay and loss of public use, if the Work is not completed within the time specified in Paragraph 3.2.2 above plus any extensions thereof allowed in accordance with the Contract Documents. Consistent with Section 1.15 of the General Conditions and Paragraph 3.2.2 above, Contractor and County agree that because of the nature of the Project, it would be impractical or extremely difficult to fix the amount of actual damages incurred by County because of a delay in completion of the Work.

Accordingly, County and Contractor agree that Contractor shall pay County the following liquidated damages measures that apply separately and cumulatively:

- 3.3.1 Contractor shall pay County Five Hundred (\$500) per calendar day for every day by which Substantial Completion exceeds the date set in Paragraph 3.2.2 above.
- 3.3.2 Liquidated damages for delay shall cover and be in lieu of the actual damages suffered by County as a result of delay. Liquidated damages are intended to compensate County for damages it incurs as a result of delay, but do not cover the cost of completion of the Work or damages not arising from delays. These liquidated damages shall be the County's sole remedy for recovery of damages due to delays in the Work.
- 3.3.3 Subject to the liquidated damages measures in the Contract Documents, Contractor shall have no liability for consequential damages arising out of the completion of the Work under the Contract Documents, except to the extent that such consequential damages arise from personal injury, property damage, economic loss or defective work, or are otherwise covered by any insurance maintained by Contractor or any Subcontractor, Supplier, design professional or any other party involved on the Project.
- 3.3.4 Compensable Delays claimed by the Contractor shall be evaluated and determined based upon the specific factors involved and the causes of the delays including trade standards and any other acceptable means for the resolution of Compensable Delays as may become agreeable to both parties.

Article IV. Contract Sum

- 4.1 County shall pay the Contractor the sum of the Base Project **(\$17,970,738)** as the "Contract Sum" for the completion of the Work in accordance with the Contract Documents and the amounts stipulated in the Contractor's Cost Proposal. The total Contract Sum shall be

Seventeen million Nine hundred seventy thousand Seven hundred thirty-eight dollars (\$17,970,738.)

- 4.2 The Contract Sum is all inclusive and includes all Work; all federal, state, and local taxes on materials and equipment, and labor furnished by Contractor, its subcontractors, subconsultants, architects, engineers, and vendors or otherwise arising out of Contractor's performance of the Work, including any increases in any such taxes during the term of this Agreement; and any duties, fees, and royalties imposed with respect to any materials and equipment, labor or services. The taxes covered hereby include (but are not limited to) occupational, sales, use, excise, unemployment, FICA, and income taxes, customs, duties, and any and all other taxes on any item or service that is part of the Work, whether such taxes are normally included in the price of such item or service or are normally stated separately. Notwithstanding the foregoing, each party shall bear such state or local inventory, real property, personal property or fixtures taxes as may be properly assessed against it by applicable taxing authorities.

Article V. Contractor's Representations and Warranties

In order to induce County to enter into this Agreement, Contractor makes the following representations and warranties:

- 5.1 By execution of the attached, CERTIFICATION OF WORKERS' COMPENSATION, Contractor certifies awareness of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and compliance with such provisions before commencing the performance of this Agreement.
- 5.2 Contractor has visited the Project Site and has reasonably examined the nature and extent of the Work, site, locality, actual conditions, as-built conditions, and all local conditions and federal, state and local laws and regulations that in any manner may affect cost, progress, performance or furnishing of Work or which relate to any aspect of the design and the means, methods, techniques, sequences or procedures of construction to be employed by Contractor and safety precautions and programs incident thereto.
- 5.3 Contractor has reasonably examined all reports of exploration and tests of subsurface conditions, as-built drawings, drawings or reports, available for design and construction purposes, of physical conditions, including those which are identified in the Project Improvement Information⁶ or which may be apparent at the site and accepts the criteria set forth in these documents and the General Conditions to the extent of the information contained in these documents upon which the Contractor is entitled to rely. Contractor agrees that except for the information so identified, Contractor does not and shall not rely on any other information contained in these documents.
- 5.4 After contract award, Contractor will conduct or obtain any additional examinations, investigations, explorations, tests, reports and studies, including but not limited to geotechnical investigations upon which the design will be based, that pertain to the surface and subsurface conditions, as-built conditions, Underground Facilities and all

other physical conditions at or contiguous to the site as Contractor considers necessary for the performance or furnishing of Work at the Contract Sum, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents.

- 5.5 Contractor has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.
- 5.6 Contractor has given County prompt written notice of all conflicts, errors, ambiguities, or discrepancies that it has discovered before contract award in or among the Contract Documents and as-built drawings and actual conditions and the written resolution thereof through Addenda issued by County is acceptable to Contractor.
- 5.7 Contractor is duly licensed, organized, existing and in good standing under applicable state law, and is duly qualified to conduct business in the State of California.
- 5.8 Contractor has duly authorized the execution, delivery and performance of this Agreement, the other Contract Documents and the Work to be performed herein. The Contract Documents do not violate or create a default under any instrument, agreement, order or decree binding on Contractor.
- 5.9 Contractor confirms its intent to include in the Project the following pre-qualified subcontractors, who were listed in the Contractor's RFQ earlier in this project. Contractor acknowledges its responsibility to provide County with a complete and updated list of subcontractors as they become known on the project, and that such listing shall be in accordance with the requirements of California Public Contract Code § 20133 *et seq.*

[illegible]

Article VI. Contract Documents

Any and all obligations of the County and the Contractor are fully set forth and described herein. All of the above documents are intended to cooperate so that any work called for in one and not mentioned in the other or vice versa is to be executed the same as if mentioned in all said documents. The documents comprising the complete Contract are hereinafter collectively referred to as the Contract Documents.

6.1 The Contract Documents which comprise the entire Agreement between County and Contractor concerning the Work consist of the following, including all changes, addenda and modifications thereto, as listed on Table of Contents and List of Drawings, Tables and Schedules:

- ✓ Request for Proposal No. 190141 and Contractor's response to the RFP
- ✓ Notice of Award
- ✓ Final Construction Budget – from Pacific Sundance
- ✓ ROM letter of pricing confirmation -from Crestwood Behavioral Health Inc, dated 12/9/24
- ✓ Notice to Proceed
- ✓ Agreement for Design-Build Services
- ✓ Certification of Nondiscrimination in Employment
- ✓ Certification of Worker's Compensation
- ✓ Performance Bond
- ✓ Payment Bond
- ✓ General Conditions
- ✓ Supplemental or Special Conditions
- ✓ Design Criteria (as published in the Request for Proposals)
- ✓ Technical Proposal and Project Specifications (as submitted by the Design-Build Team)
- ✓ Design-Build Cost Proposal (as submitted by Design-Build Team and accepted by County)
- ✓ Drawings and Technical Specifications
- ✓ Addendum
- ✓ Approved Change Orders

- 6.2 The Contract Requirements for design and construction are as defined in the Contract Documents, unless otherwise specifically excluded, modified, or amended. Construction Documents produced by the Design-Build Contractor may serve as Contract Documents between the Design-Build Contractor and Subcontractor but are an instrument for fulfilling the Design-Build Contract Requirements as defined by the Contract Documents and do not replace them.
- 6.3 There are no Contract Documents other than those listed above in this Document, Article VI. The Project Improvement Information and other reports or information provided regarding or pertaining to existing conditions, the Geotechnical Report, and other information supplied through these documents, are not Contract Documents. The Contract Documents may only be amended, modified or supplemented as provided in the General Conditions.

Article VII. Miscellaneous

- 7.1 Terms used in this Agreement are defined in the 00 72 00 General Conditions and Section 01 42 00 References and Definitions and will have the meaning indicated therein.
- 7.2 It is understood and agreed that in no instance is any person, signing this Agreement for or on behalf of County or acting as an employee or representative of County, liable on this Contract, or upon any warranty of authority, or otherwise, and it is further understood and agreed that liability of County is limited and confined to such liability as authorized or imposed by the Contract Documents or applicable law.
- 7.3 Contractor shall not assign any portion of the Contract Documents, and may subcontract portions of the Contract Documents only in compliance with the Subcontractor Listing requirements of California Public Contracting Code §20133 *et seq.*
- 7.4 The Contract Sum includes all allowances (if any).
- 7.5 In entering into a public contract or a subcontract to supply goods, services or materials pursuant to a public contract, the Contractor or Subcontractor irrevocably offers and agrees to assign to the awarding body all rights, title and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. § 15) or under the Cartwright Act, (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time County tenders final payment to the Contractor, without further acknowledgment by the parties.
- 7.6 This Agreement is executed in the County of Nevada and is intended to be performed in the State of California, and the laws of that State shall govern its interpretation and effect. Any legal proceedings regarding this agreement initially shall be brought under the jurisdiction of the Superior Court of the County of Nevada, State of California. Each party waives and federal court removal and/or original jurisdiction rights it may have

- 7.7 Contractor accepts the claims procedures established in the General Conditions of this Agreement, Section 1.12, as established under California Government Code Section 930.2 et seq.
- 7.8 County shall have the right to timely and fully review all phases of Contractor's design including, but not limited to, drawings, specifications, shop drawings, samples and submittals, as specified in the Contract Documents. Such review, approval and other action shall not relieve Contractor of its responsibility for a complete design complying with the requirements of the Contract Documents; but rather, such review shall be in furtherance of County's monitoring and accepting the design as developed and issued by the Contractor, consistent with these Contract Documents. Contractor's responsibility to design and construct the Project in conformance with the Contract Documents shall be absolute.
- 7.9 By entering into this Agreement, the Contractor accepts and agrees to the terms and conditions of Insurance and Indemnification stipulated in Section 1.04 of the General Conditions.
- 7.10 INTERPRETATION:
1. The parties hereto acknowledge and agree that each has been given the opportunity to independently review this Agreement with legal counsel, and/or has the requisite experience and sophistication to understand, interpret and agree to the particular language of the provisions of the Agreement.
 2. In the event of a controversy or dispute between the parties concerning the provisions herein, this document shall be interpreted according to the provisions herein and no presumption shall arise concerning the draftsmanship of such provision.
- 7.11 This Agreement supersedes any and all agreements, either oral or in writing, between the Parties with respect to the subject matter herein. Each party to this Agreement acknowledges that no representation by any party which is not embodied herein or any other agreement, statement, or promise not contained in this Agreement shall be valid and binding.

IN WITNESS WHEREOF, this Contract has been duly executed by the parties hereinabove named, on the day and year first herein written.

CONTRACTOR: (Name of Contractor)

(If a Corporation, two signatures are required unless corporate authorization of a singular signature is provided.)

Dated this _____ day of _____, 20__

CONTRACTOR: **CRESTWOOD BEHAVIORAL HEALTH, INC.**

NAME
TITLE

NAME
TITLE

ADDRESS:

TELEPHONE:

APPROVED: **STATE OF CALIFORNIA
COUNTY OF NEVADA**

HEIDI HALL
HONORABLE, CHAIR OF THE BOARD

ATTEST TO
CHAIR OF THE BOARD or DESIGNEE

DATE OF BOARD APPROVAL

APPROVED AS TO FORM BY:

APPROVED AS TO FUNDS BY:

COUNTY COUNSEL

COUNTY AUDITOR

5.0 CERTIFICATION OF NONDISCRIMINATION IN EMPLOYMENT

(This certification shall be executed by the Proposer (Contractor) in accordance with Section 60-1.6 of the Regulations of the President's Committee on Equal Employment Opportunity for implementing Executive Orders 10925 and 11114.)

The Contractor represents that he (has, has not) participated in a previous contract or subcontract subject to either the equal opportunity clause herein or the clause contained in Section 301 of Executive Order 10925; that he (**has, has not**) filed all required compliance reports; and that the representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained prior to subcontract awards.

NAME OF PROPOSER

PRINT NAME OF PROPOSER

(Signature of Bidder)

Dated: _____

(NOTE: Circle has or has not above, whichever applies.)

The contractors will comply, with all Federal statutes relating to non-discrimination. These include but are not limited to (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352), which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. Subsections 1681-1683 and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S. C. Sec. 794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (29 U.S.C. Subsections 6101-6107) which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 93-255), as amended, relating to non-discrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to non-discrimination on the basis of alcohol abuse or alcoholism; (g) Subsections 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to the confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. Sec. 3601 et seq.), as amended, relating to the sale, rental, or financing of housing; (i) Subtitle A, Title II of the Americans with Disabilities Act of 1990, which prohibits discrimination against disabled persons; and (j) Department of Justice Non-Discrimination Regulations, 28 CFR Part 42, Subparts C, D, E, and G; and Department of Justice regulations on disability discrimination, 28 CFR Part 35 and Part 39 and any other non-discrimination provisions in the specific statute(s) under which application for Federal assistance is being made.

* * * * *

6.0 CERTIFICATION OF WORKERS' COMPENSATION

(LABOR CODE SECTION 1861)

STATE OF CALIFORNIA
COUNTY OF NEVADA

I, the undersigned, do hereby certify:

That I am aware of the provisions of Section 3700 of the Labor Code of the State of California, which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this Contract.

Executed at _____, California, on the _____ day of _____ .

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

Contractor-Employer

* * * * *

7.0 BOND OF FAITHFUL PERFORMANCE

KNOW ALL PERSONS BY THESE PRESENTS, THAT WHEREAS, COUNTY OF NEVADA, STATE OF CALIFORNIA, ("Owner") has awarded to [Crestwood Behavioral Health, Inc.] as Principal ("Contractor"), a contract for the work described as follows: **PSYCHIATRIC HEALTH FACILITY and MENTAL HEALTH REHABILITATION CENTER**

AND, WHEREAS, pursuant to Public Contract Code 10224, the Contractor is required to furnish a bond in connection with said contract, guaranteeing the faithful performance thereof.

NOW, THEREFORE, the undersigned Contractor and [enter name of surety], licensed by the State of California to execute bonds and undertakings as sole surety, "Surety," are held and firmly bound unto the Owner in the sum of [WRITE AMOUNT] Dollars (\$000.000.00) for the payment of which sum Contractor and Surety bind themselves, their successors, and assigns, jointly and severally, by this instrument.

THE CONDITION OF THIS OBLIGATION IS SUCH,

1. Contractor will faithfully perform the work described in [CONTRACT NO.] and shall furnish all tools, equipment, apparatus, facilities, transportation, labor, and material, other than any material agreed to be furnished by the County, necessary to complete the work in a good workmanlike manner.
2. Contractor's work will be done in accordance with all applicable law and completed on or before [completion date], or as otherwise provided by lawful extensions of time granted by the County. Should Contractor fail to complete all required work within the time allowed, County may, at its sole discretion, cause all required work to be completed and the Contractor and Surety will be firmly bound for the payment of all necessary costs therefore.
3. Contractor guarantees its work against any defective work, labor, or materials for a period of one (1) year following completion and acceptance by the County.
4. Surety, for value received, agrees no changes, time extensions, alteration, or modification of the contract documents or of the obligation to be performed will in any way affect its obligation on this bond, and it waives notice of any such change, extension of time, alteration, or modification of the contract documents or of the obligation to be performed.
5. This bond consists of this instrument, the Contract Documents, and the following two (2) exhibits, all of which are incorporated by this reference:
 - a. A certified copy of the appointment, power of attorney, bylaws, or other instrument entitling or authorizing the persons executing this person to do so; and
 - b. Current proof that the Surety is licensed to do business in the State of California for the type of insurance required by this bond.
6. This obligation will remain in effect for one (1) year following the County's acceptance of work as complete. If at that time, Contractor has performed its obligation, the obligation will be null and void.
7. If suit is brought upon this bond, Surety agrees it will pay, in addition to the basic obligation herein, all court costs, expenses, and all reasonable attorneys' fees awarded and fixed by the Court, and to be taxed as costs, and to be included in the judgment therein rendered.

Approved as to form:

By: _____
Nevada County Counsel's Office

By: _____
*Surety Attorney-in-Fact
(Signature must be notarized)

By: _____
Contractor
(Signature must be notarized)

Date: _____

Date: _____

Date: _____

Address of Surety: _____

*Attorney-in-fact must have power of attorney on file with the Nevada County Clerk or attached to this bond.

8.0 BOND FOR LABOR AND MATERIALS

KNOW ALL PERSONS BY THESE PRESENTS, THAT WHEREAS, COUNTY OF NEVADA, STATE OF CALIFORNIA, ("Owner") has awarded to [CONTRACTOR NAME] as Principal ("Contractor"), a contract for the work described as follows:

[CONTRACT DESCRIPTION]

AND, WHEREAS, pursuant to Public Contract Code section 10223, the Contractor is required to furnish a bond in connection with said contract, to secure the payment of claims of laborers, mechanics, and other persons as provided by law.

NOW, THEREFORE, we, the undersigned Contractor and [enter name of surety], licensed by the State of California to execute bonds and undertakings as sole surety, "Surety," are held and firmly bound unto the Owner in the sum of [WRITE AMOUNT] Dollars (\$000.000.00) for the payment of which sum Contractor and Surety bind themselves, their successors, and assigns, jointly and severally, by this instrument.

THE CONDITION OF THIS OBLIGATION IS SUCH,

1. That if said Principal or its subcontractors shall fail to pay any of the persons named in Civil Code section 9100, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal and subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor, that the surety herein will pay for the same, otherwise this obligation is to be void. In case suit is brought upon this bond, the Surety will pay a reasonable attorney's fee to be fixed by the court.
2. This bond shall inure to the benefit of any persons named in Civil Code section 9100 as to give a right of action to such persons or their assigned in any suit brought upon this bond.
3. The aggregate liability of the Surety hereunder, including costs and attorney fees, on all claims whatsoever, shall not exceed the penal sum of the bond in accordance with the provisions of Section 996.470(a) of the Code of Civil Procedure.
4. This bond is executed by the Surety, to comply with the provisions of Public Contract Code sections 7103, 10221, and 10222, of Chapter 5, Title 3, Part 6, Division 4 of the Civil Code and of Chapter 2, Title 14, Part 2 of the Code of Civil Procedure and said bond shall be subject to all of the terms and provisions thereof.
5. This bond may be cancelled by the Surety in accordance with the provisions of Section 996.310 et seq. of the Code of Civil Procedure.
6. This bond to become effective _____.

Approved as to form:

By: _____
Nevada County Counsel's Office

By: _____
*Surety Attorney-in-Fact
(Signature must be notarized)

By: _____
Contractor
(Signature must be notarized)

Date: _____

Date: _____

Date: _____

Address of Surety: _____

*Attorney-in-fact must have power of attorney on file with the Nevada County Clerk or attached to this bond.

9.0 NONCOLLUSION AFFIDAVIT

State of California) County of _____)

_____, being first duly sworn, deposes and says that he or she is _____ of _____ the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Signature: _____
Title: _____
Date: _____

Subscribed and sworn to before me this _____ day of _____, 20____.

Signature of Notary Public



**NEVADA
COUNTY**
CALIFORNIA

**PSYCHIATRIC HEALTH FACILITY
AND
MENTAL HEALTH REHABILITATION CENTER
SECTION 1
10.0 DIVISION 00**

DESIGN BUILD ENTITY

FOR

RFP No. 190141

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SECTION 00 40 10

SUBCONSULTANT/SUBCONTRACTOR PROCUREMENT

1.0 GENERAL

- A. Contractor shall use only subconsultants and subcontractors selected as provided in this Section 00 40 10.
- B. If the Contractor is a partnership, limited partnership, or other association, Contractor must use the partners, general partners, and association members which were identified by Contractor in its responses (together, "Pre-Qualification Document") submitted in response to the document entitled "Pre-Qualification & Proposals for Design/Build Entities, Nevada County Psychiatric Health Facility and Mental Health Rehabilitation Center" submittal dated August 30, 2024 and any amendments, modifications or supplements thereto as being intended to participate in performing the Contract, and, except upon providing the County with satisfactory evidence of the parties' default or other good cause, may not substitute or replace, any of those partners, general partners or association members.
- C. Any subconsultant or subcontractor identified in the Pre-Qualification Document is eligible to perform Work as provided in the Pre-Qualification Document, provided that subconsultant or subcontractor is appropriately licensed for contracting, architectural, and engineering work and otherwise eligible to perform Work as provided in the Contract Documents, including without limitation this Section 00 40 10.
- D. Contractor shall procure all subconsultants and subcontractors not described in Subsections 1.0.B and 1.0.C above as provided in this Section 00570. Further, Contractor may replace or substitute any subconsultant or subcontractor described in Subsection 1.0.C above (but not Subsection 1.0.B above) in the same manner as it procures other subconsultants and subcontractors, as provided in this Section 00 40 10.

2.0 SUBCONSULTANT/SUBCONTRACTOR PROCUREMENT PLAN

- A. Contractor shall provide a Subconsultant/Subcontractor Procurement Plan ("Procurement Plan") complying with this Subsection 2.0.
- B. The Procurement Plan shall, in narrative form, detail Contractor's planned packaging and selection method for all subconsultants and subcontractors, excluding only subconsultants and subcontractors identified in Subsections 1.0.B and 1.0.C to be used by Contractor. This plan shall include, but is not limited to the following:
 - 1. A list of all expected or anticipated subconsultant/subcontractor packages, broken down by category of service, including pre-construction and construction phases.
 - 2. A description of the scope of Work for each package.
 - 3. The qualification criteria to be used in selecting the subconsultant/subcontractor team expected to perform the services for each package.

4. The estimated costs required to complete the scope of Work for each package.
 5. The proposed method of selection (i.e., low bid, informal bid, competitive negotiation, best value, etc.), including all items described in Subsection 3.0 below (to the extent applicable).
 6. A description of how letting these packages in the proposed manner will further the best interests of the County and promote best value design and construction.
 7. A description of any intended subconsultant/subcontract commercial terms that differ from the Contract Documents and of any liquidated damage measures.
- C. The successful Contractor shall make any revisions to its Procurement Plan reasonably requested by the County. Following receipt of a finally approved Procurement Plan, the successful Contractor shall implement the Procurement Plan.

3.0 OTHER REQUIREMENTS

- A. As required by Public Contract Code Section 20133(f), all subcontractors bidding on contracts to perform Work shall be afforded the protections contained in Chapter 4 (commencing with Section 4100) of Part 1 of the Public Contract Code. Without limiting the foregoing, Contractor shall do both of the following:
1. Provide public notice of the availability of work to be subcontracted in accordance with the publication requirements applicable to the competitive bidding process of the County.
 2. Provide a fixed date and time on which the subcontracted work will be awarded in accordance with the procedure established pursuant to this Section 00 40 10.

END OF SECTION

SECTION 00 40 20
ESCROW BID DOCUMENTS

1.0 Requirements for Escrow Bid Documents.

- A. Contractor shall submit, within the time period established in Notice of Award, a set of all then existing Escrow Bid Documents, and shall subsequently submit within fifteen (15) days of their preparation or receipt all Escrow Bid Documents subsequently prepared or received by Contractor. The Escrow Bid Documents will be examined by County and will be used only for the resolution of change orders and claims disputes.
- B. The submission of the Escrow Bid Documents, as with the bonds, insurance and worker's compensation documents required and other Contract award submittals, is considered an essential part of the Contract award.
- C. If, at any time, the above required information is not submitted and approved as required, Contractor agrees that County may, in addition to any other right under the Contract documents, withhold from the Contractor for each set of Escrow Bid Documents not timely submitted the sum of \$50,000 in Contract funds otherwise due until the above required information is submitted, at which time the \$50,000 shall be released to Contractor.
- D. The Escrow Bid Documents shall be submitted in person by an authorized representative of the Contractor to County.

2.0 Scope of Escrow Bid Documents.

- A. Contractor shall submit one copy of all estimates and supporting subcontractor quotes received or generated by Contractor in preparation of Contract prices for the Best and Final Offer, and such additional prices determined following submission of the Best and Final Offer as the scope of the work is defined through design development, as specified in Subsections 5 and 6 hereof. This material is hereinafter referred to as "Escrow Bid Documents". The Escrow Bid Documents shall be submitted for both the design and the construction activities and shall relate to each contract entered into and/or bid package issued by Contractor. The Escrow Bid Documents will be held in escrow for the duration of the Contract.
- B. Contractor agrees that the Escrow Bid Documents constitute all written information used in the preparation of its Contract price, and that no other written Contract price preparation information shall be considered in resolving disputes or claims. Contractor also agrees that nothing in the Escrow Bid Documents shall change or modify the terms or conditions of the Contract Documents.

3.0 Ownership of Escrow Bid Documents.

- A. The Escrow Bid Documents are, and shall always remain, the property of Contractor, subject to joint review by County and Contractor, as provided herein.
- B. County agrees that Escrow Bid Documents may: constitute trade secrets; not be known outside Contractor's business; be known only to a limited extent and only by a limited number of employees of Contractor; be safeguarded while in Contractor's possession, be extremely valuable to Contractor; and be extremely valuable to Contractor's competitors by virtue of it reflecting Contractor's contemplated means and methods of construction.

County agrees to safeguard the Escrow Bid Documents, and all information contained therein, against disclosure to the fullest extent permitted by law, consistent with County's full and complete use of this information to resolve disputes with the Contractor. Should the use of this information be necessary to resolve disputes, County will stipulate to the terms of a reasonable protective order.

4.0 Escrow Bid Documents will be used in the determination of price adjustments and change orders and in the resolution of disputes and claims.

5.0 Format and Contents of Escrow Bid Documents.

- A. Contractor may submit Escrow Bid Documents in their usual cost estimating format; a standard format is not required. The Escrow Bid Documents shall be submitted in the English language.
- B. Escrow Bid Documents must clearly itemize the estimated costs of performing each item of the Work, separating Work items into sub-items as required to present a detailed cost estimate and allow a detailed cost review. The Escrow Bid Documents shall include all designer, engineer, architect or subcontractor bids or quotes, supplier bids or quotes, quantity takeoffs, crews, equipment, calculations of rates of production and progress, copies of quotes from subcontractors and suppliers, and memoranda, narratives, add/deduct sheets, and all other information used by the Contractor to arrive at the Contract prices for the Contract. Estimated costs should be broken down into Contractor's usual estimate categories such as direct labor, repair labor, equipment ownership and operation, expendable materials, permanent materials and subcontract costs as appropriate. Plant and equipment and indirect costs should be detailed in the Contractor's usual format. The Contractor's allocation of indirect costs, contingencies, markup and other items to each work item shall be identified.
- C. All costs shall be identified. For work items amounting to less than \$10,000, estimated unit costs are acceptable without a detailed cost estimate, provided that labor, equipment, materials and subcontracts, as applicable, are included and provided that indirect costs, contingencies and markup, as applicable, are allocated.

6.0 Submittal of Escrow Bid Documents.

- A. The Escrow Bid Documents shall be submitted by the Contractor in a sealed package within the time described in Subsection 1.A. The sealed package shall be clearly marked on the outside with the Contractor's name, date of submittal, Project name and the words "Escrow Bid Documents - Open only in the presence of Authorized Representatives of both County and Contractor".
- B. By submitting Escrow Bid Documents, Contractor represents that the material in the Escrow Bid Documents constitutes all the documentary information used in preparation of the portion or portions of the Contract price referred to in the Escrow Bid Documents submitted and that the Contractor has personally examined the contents of the Escrow Bid Documents container and has found that the documents in the container are complete.
- C. If Contractor's Bid is based upon subcontracting any part of the work, each subcontractor whose total subcontract price exceeds five percent (5%) of the total Contract price proposed by Contractor, shall provide separate Escrow Bid Documents to be included with those of Contractor. Such documents shall be opened and examined in the same manner and at the same time as the examination described below for Contractor.

7.0 Storage, Examination and Final Disposition of Escrow Bid Documents.

- A. The Escrow Bid Documents will be placed in escrow, for the life of the Contract, in a mutually agreeable institution. The cost of storage will be paid by Contractor for the duration of the Project until final Contract payment and the final resolution of all claims and disputes arising out of or relating to the Work or the Contract. The storage facilities shall be the appropriate size for all the Escrow Bid Documents and located conveniently to both County's and Contractor's offices.
- B. The Escrow Bid Documents shall be examined by both County and Contractor, at any time deemed necessary by either County or Contractor, to assist in the negotiation of price adjustments and change orders or the settlement of disputes and claims. Examination of the Escrow Bid Documents is subject to the following conditions:
 - 1. As trade secrets, the Escrow Bid Documents are proprietary and confidential.
 - 2. County and Contractor shall each designate, in writing to the other party and 7 days prior to any examination, representatives who are authorized to examine the Escrow Bid Documents. No other person shall have access to the Escrow Bid Documents.
 - 3. Access to the documents may take place only in the presence of duly designated representatives of both County and Contractor. If Contractor fails to designate a representative or appear for joint examination on 7 days' notice, then County representative may examine the Escrow Bid Documents upon an additional three days' notice.
- C. The Escrow Bid Documents will be returned to Contractor at such time as the Contract has been completed and final resolution, by settlement or otherwise, of all claims and disputes has been achieved.

END OF SECTION

SECTION 00 40 21

ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION

P.C.C. § 22300

This Escrow Agreement ("Escrow Agreement") is made and entered into this **[DATE]** day of **[MONTH]**, **2021**, by and between the COUNTY OF NEVADA, acting by and through its DEPARTMENT OF HEALTH AND HUMAN SERVICES AGENCY ("County"), and **[Name of Contractor]** whose place of business is _____ hereinafter called ("Contractor"), and **[insert either]** County, as escrow agent **[or] [Name of Bank]**, a state or federally chartered bank in the state of California, whose place of business is located at _____ ("Escrow Agent"). This Escrow Agreement is intended to incorporate the requirements of PCC § 22300.

For the consideration hereinafter set forth, County, Contractor and Escrow Agent agree as follows:

1. Pursuant to Section 22300 of Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by County pursuant to the Design/Build Project for New Psychiatric Health Facility and Mental Health Rehabilitation Center entered into between County and Contractor for the New Psychiatric Health Facility and Mental Health Rehabilitation Center in the amount of **[Contract Sum]** dated **[Date of Contract]** (the "Contract"). Alternatively, on written request of Contractor, County shall make payments of the retention earnings directly to Escrow Agent. When Contractor deposits the securities as a substitute for Contract earnings, Escrow Agent shall notify County within ten (10) calendar days of the deposit. The market value of the securities at the time of substitution shall be at least equal to the cash amount then required to be withheld as retention under terms of Contract between County and Contractor. Securities shall be held in name of **[NAME]**, and shall designate Contractor as beneficial owner.
2. County shall make progress payments to Contractor for those funds which otherwise would be withheld from progress payments pursuant to Contract provisions, provided that Escrow Agent holds securities in form and amount specified above.
3. When County makes payment of retention earned directly to Escrow Agent, Escrow Agent shall hold them for the benefit of Contractor until the time that the escrow created under this Escrow Agreement is terminated. Contractor may direct the investment of the payments into securities. All terms and conditions of this Escrow Agreement and the rights and responsibilities of the Parties shall be equally applicable and binding when County pays Escrow Agent directly.
4. Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account, and all expenses of County. Such expenses and payment terms shall be determined by County, Contractor and Escrow Agent.
5. Interest earned on securities or money market accounts held in escrow and all interest earned on that interest shall be for sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to County.
6. Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from County to Escrow Agent that County consents to withdrawal of amount sought to be withdrawn by Contractor.

7. County shall have the right to draw upon the securities in event of default by Contractor. Upon seven (7) days' written notice to Escrow Agent from County of the default, Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by County.
8. Upon receipt of written notification from County certifying that the Contract is final and complete, and that Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all monies and securities on deposit and payments of fees and charges.
9. Escrow Agent shall rely on written notifications from County and Contractor pursuant to Subsections 5 through 8, inclusive, of this Escrow Agreement and County and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of securities and interest as set forth above.
10. The parties agree and acknowledge that this Escrow Agreement does not apply to the retention for Escrow Bid Documents contained in General Specifications of the Contract.
11. Names of persons who are authorized to give written notice or to receive written notice on behalf of County and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of County:

Title

Name

Signature

Address

On behalf of Contractor:

Title

Name

Signature

Address

On behalf of Escrow Agent:

Title

Name

Signature

Address

At the time the Escrow Account is opened, County and Contractor shall deliver to Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

County

Contractor

Title

Title

Name

Name

Signature

Signature

Escrow Agent

Title

Name

Signature

END OF SECTION

SECTION 00 45 01
APPRENTICESHIP PROGRAM

ARTICLE 1 - COMPLIANCE REQUIRED

- 1.01** Contractor and Subcontractors shall comply with the requirements of California Labor Code §§1776, 1777.5, and 1777.6 concerning the employment of apprentices by Contractor or Subcontractors. Willful failure to comply may result in penalties, including loss of the right to Bid on or receive public works contracts.

ARTICLE 2 - CERTIFICATION OF APPROVAL

- 2.01** California Labor Code §1777.5, as amended, and Public Contract Code Section 20133 requires any Contractor or Subcontractor employing tradespersons in any apprenticeable occupation to apply to the joint apprenticeship committee nearest the site of a public works project and which administers the apprenticeship program in that trade for a certification of approval. The certificate shall also fix the ratio of apprentices to journeypersons that will be used in performance of the Contract. The ratio of work performed by apprentices to journeypersons in such cases shall not be less than one *hour* of apprentices work for every five *hours* of labor performed by journeypersons (the minimum ratio for the land surveyor classification shall not be less than one apprentice for each five journeypersons), except:
- A. When unemployment for the previous three-month period in the area exceeds an average of 15 percent;
 - B. When the number of apprentices in training in the area exceeds a ratio of one to five;
 - C. When a trade can show that it is replacing at least 1/30 of its membership through apprenticeship training on an annual basis state-wide or locally; or
 - D. Assignment of an apprentice to any work performed under a public works contract would create a condition which would jeopardize his or her life or the life, safety, or property of fellow employees or the public at large or if the specific task to which the apprentice is to be assigned is of such a nature that training cannot be provided by a journeyperson.

ARTICLE 3 - FUND CONTRIBUTIONS

- 3.01** Contractor is required to make contributions to funds established for administration of apprenticeship programs if Contractor employs registered apprentices or journeypersons in any apprenticeable trade on such contracts and if other contractors on the public works site are making such contributions.

ARTICLE 4 - APPRENTICESHIP STANDARDS

- 4.01** Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of the California Department of Industrial Relations, or from the Division of Apprenticeship Standards and its branch offices.

END OF SECTION

SECTION 00 45 10

IRAN CONTRACTING ACT CERTIFICATION (Public Contract Code Sections 2200 *et seq.*)

Project Name: PSYCHIATRIC HEALTH FACILITY and MENTAL HEALTH REHABILITATION CENTER

As required by California Public Contract Code section 2204, Proposer certifies that the option checked below relating to Proposer's status in regard to the Iran Contracting Act of 2010 (Public Contract Code sections 2200 *et seq.*) is true and correct:

- ☐ Proposer is not:
- (i) identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code section 2203; or
 - (ii) a financial institution that extends, for 45 days or more, credit in the amount of \$20,000,000 or more to any other person or entity identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code section 2203, if that person or entity uses or will use the credit to provide goods or services in the energy sector in Iran.
- ☐ Nevada County has exempted Proposer from the requirements of the Iran Contracting Act of 2010 after making a public finding that, absent the exemption, Nevada County will be unable to obtain the goods and/or services to be provided pursuant to the Contract.
- ☐ The amount of the Contract payable to Proposer for the Project is less than \$1,000,000.

CERTIFICATION

I, the official named below, CERTIFY UNDER PENALTY OF PERJURY, that I am duly authorized to legally bind the Proposer to the above selected option. This certification is made under the laws of the State of California.

Contractor

Firm

Signed

Date

Name/Title

Note: In accordance with Public Contract Code section 2205, false certification of this form shall be reported to the California Attorney General and may result in civil penalties equal to the greater of \$250,000 or twice the Contract amount, termination of the Contract and/or ineligibility to bid on contracts for three years.

END OF SECTION

SECTION 00 72 00
GENERAL CONDITIONS

1.01 INVESTIGATIONS AND SUBCONTRACTORS

A. INVESTIGATION REQUIRED

1. Prior to submitting a bid for this Contract and prior to proceeding with the design and construction, Contractor must do all things referred to in the Agreement for Design-Build Services regarding Contractor's representations and warranties contained in Article V thereof. Contractor is charged with all information and knowledge that a reasonable contractor would ascertain from having performed this required pre-bid review, research and analysis. The Contract Sum must include entire cost of all work "incidental" to completion of the Work, as that term is defined in Subsection 1.05.F of these General Conditions.
2. Conditions Shown or Indicated in the Contract Documents: The County warrants, and Contractor relies on the accuracy of limited types of information shown or indicated in the Contract Documents as they refer to underground conditions, as-built conditions, or other conditions or obstructions, including such information contained in Existing Conditions reports.
 - a. As to above-ground conditions or visible as-built conditions, there is no warranty, express or implied, or any representation express or implied, that such information is correctly shown or indicated, so long as such information is reasonably verifiable by pre-bid investigation. Contractor is required to make an independent investigation and verify existing above-ground conditions as a condition to contracting. In proceeding with the design and construction, Contractor shall rely on the results of its own independent investigation.
 - b. As to any subsurface condition shown or indicated in the Contract Documents, as well as those subsurface conditions identified in Existing Conditions reports. Contractor may rely only upon the accuracy of actual reported depths, actual reported character of materials, actual reported soil types, actual reported water conditions, or actual obstructions shown or indicated to the extent provided for in Existing Conditions reports. The County is not responsible for any unreasonable opinions or conclusions drawn from such information. Compensation for unknown differing site conditions shall be allowed as provided in the Contract Documents.
3. Reference is made to Existing Conditions reports for identification of:
 - a. Subsurface Conditions: Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that have been made available for informational purposes; and
 - b. Physical Conditions: Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been made available for informational purposes.
 - c. These reports and drawings are not Contract Documents but as provided in Existing Conditions reports, Contractor may rely on the information in these reports and drawings. However, Contractor shall independently verify the information provided in the reports in developing the design of the Project.
4. Subsurface conditions affecting cost or quantities of Work differing from those indicated in Existing Conditions reports and elsewhere in the Contract Documents, or in the

information supplied for informational purposes, will be compensated by the County. Compensation for unknown differing site conditions shall be allowed as provided in the Contract Documents.

5. Except for the reliance described above, and except in the case of latent conditions not discoverable upon a reasonable pre-bid investigation, and except as otherwise provided in Existing Conditions reports, Contractor may not rely upon or make any claim against the County, or any of its consultants, with respect to: any unreasonable Contractor interpretation of or unreasonable conclusion drawn from any technical data or other such data, interpretations, opinions or information, contained in such information. Compensation for unknown differing site conditions shall be allowed as provided in the Contract Documents.
6. Records of existing structures on or in the vicinity of Site of Work may be supplied in Existing Conditions reports, or may be on file in the County's offices and may be examined by Contractor (but subject to the conditions of Existing Conditions reports). Contractor should note that existing structures or facilities may differ from records on file, or may have been altered, and that no representation is made, nor responsibility taken nor warranty given either express or implied, by the County as to the accuracy of locations and other data shown on records, except as otherwise provided in the Contract Documents. After contract award, Contractor is to conduct all necessary investigations and become familiar with any and all actual as-built conditions. Compensation for unknown differing site conditions shall be allowed as provided in the Contract Documents.
7. See Subsection 1.13.D concerning notice of concealed or unknown conditions.

B. CONTRACTORS AND SUBCONTRACTORS

1. Contractor must list with its bid and provide required information for those major contractors, subcontractors and specifically identified designers (together for purposes of these General Conditions, "Subcontractor") who will perform a portion of Work, as far as such persons or entities are known on bid day. Contractor shall submit updated Subcontractor Lists to County as they become reasonably available following Notice to Proceed. Contractor shall provide the following information:
 - a. Name of Subcontractor.
 - b. Business address of Subcontractor.
 - c. Brief description of portion of Work to be performed under subcontract.
 - d. Amount to be paid for Subcontractor's work, labor, or service.
 - e. The Subcontractor's California Contractor's State License Number or Professional License Numbers.
2. Contractor shall constantly give personal attention to faithful prosecution of Work, whether performed by Contractor's own forces or under subcontract, and shall keep the work under personal control and shall not assign by power of attorney or otherwise, nor subcontract the whole or any part thereof, except as herein provided.
3. Consistent with Public Contract Code Sections 4101 *et seq.*, Contractor shall not substitute any other person or firm as a Subcontractor or subconsultant in place of any of those listed in Bid or later (for actual building design or construction), nor shall any Subcontractor assign or transfer subcontract, or permit the same to be performed in whole by any other Subcontractor without written approval of County. Should Contractor thereafter let out or subcontract any portion of Work in violation of this requirement, County shall have the right to assess Contractor a penalty of ten percent (10%) of the

amount of the subcontract involved. Contractor shall provide County with a complete copy of all executed subcontracts or final commercial agreements with Subcontractors and/or suppliers.

4. Contractor shall provide the County with a copy of any bid qualification forms to be utilized in bid packages prior to issuance of the bid package. County will have the right to review and request inclusion of any qualification requirements it deems necessary to insure the qualifications of the bidders. Contractor and the County shall agree on a final form of the bid qualification forms. Contractor shall provide the County with all completed bid qualification forms submitted by each subcontractor to which Contractor intends to award any subcontract. At the time Contractor provides the County with completed bid qualification forms submitted by each subcontractor to which Contractor intends to award any subcontract, Contractor shall advise the County of the date by which Contractor intends to enter each subcontract with each subcontractor. County shall review the completed bid qualification forms submitted by each subcontractor and, prior to the date by which Contractor intends to enter each subcontract with each subcontractor, County shall advise Contractor in writing of its reasonable disapproval of any such subcontractor(s). Contractor shall upon request provide the County with a copy of each contract which Contractor proposes to enter into for subcontracting or assigning any portion of Work.
5. Subcontract agreements and assignments shall preserve and protect the rights of County under the Contract Documents so that subcontracting and assignments will not prejudice such rights. To the extent of the Work to be performed by a Subcontractor, Contractor shall require the Subcontractor's written agreement (1) to be bound to the terms of Contract Documents and (2) to assume vis-à-vis Contractor all the obligations and responsibilities that Contractor assumes toward County under the Contract Documents. (These agreements include for example, and not by way of limitation, all warranties, claims procedures and rules governing submittals of all types to which Contractor is subject under the Contract Documents.)
6. Contractor shall provide for the assignment to County of all rights any Subcontractor may have against any manufacturer, supplier, or distributor for breach of warranties and guarantees relating to the Work performed by the Subcontractor under the Contract Documents.
7. Each Subcontractor shall be reliable and responsible and fully able to perform its portion of the Work covered by the proposed subcontract or assignment, and able to complete the Work in accordance with the Contract Documents. Contractor may not use unqualified, inexperienced or non-responsive Subcontractors. At a minimum, each Subcontractor and its proposed superintendent must have prior experience on at least two subcontracts of similar scope and complexity; for detention facility-specific portions of the Work, the prior minimum experience must be on detention facilities. In addition, Subcontractors must not have been terminated for default on any project within the previous three years, and must never have submitted a false claim to any public entity.
8. No subcontract or assignment of this contract shall relieve Contractor or Sureties of liabilities or obligations under Contract. Contractor's surety must give written consent to all Subcontractors or assignments.
9. No assignment by Contractor of Contract or any part thereof, or funds to be received there under by Contractor, will be recognized unless such assignment has written approval of County and Surety has been given due notice and approved of such assignment in writing.

10. Contractor shall require each of its Subcontractors to execute agreements containing indemnity provisions coextensive with those in this Contract.

1.02 SCOPE OF DESIGN-BUILD RESPONSIBILITY

A. DESCRIPTION OF WORK

Contractor shall provide a complete and operable Project (including tie-ins to existing utility facilities) in accordance with this Agreement, including providing, furnishing, and performing all Services and providing and furnishing all necessary supplies, housing, Materials and Equipment, and all necessary supervision, labor, and Services required for the engineering, design, procurement, construction quality control, construction, installation, Startup, Checkout, Testing, site cleanup and for the training of County's personnel, all in conformity with the requirements, Legal Requirements, criteria, Performance Guarantees, and warranties set forth in the Contract Documents, for a complete and fully operable Project in full conformance with Contract requirements. The signature and seal of a licensed engineer or architect shall be obtained as necessary for compliance with the Legal Requirements.

B. ALL-INCLUSIVE DESIGN-BUILD OBLIGATION

Without limiting the generality of Subsection 1.02.A hereof, Contractor shall provide, at a minimum, the following Services and Materials and Equipment as further specified and described in Section 01 11 00 Summary of Work and Section 01 11 01 Summary of Work - Design Services of the General Specifications provided, however, that these sections shall not be construed in any way to limit Contractor's obligations hereunder to design, engineer, furnish, construct, Checkout, Startup, and Test a complete and operable Project (including tie-ins to existing utility facilities) in accordance with the provisions of this Agreement.

1. Contractor shall provide all engineering services and design, which will set forth in detail with specifications, drawings and requirements for the procurement of the Materials and Equipment and for the construction of the entire Project and tie-in to the Interconnection Facilities. Contractor shall furnish the services of all personnel, including supervisors, engineers, designers and draftsmen necessary for the preparation of all drawings and specifications required for the Work. The design shall include all architectural, civil, structural, mechanical, electrical, instrumentation and control work.
2. Contractor shall provide all equipment and materials and furnish the services of all supervision, buyers, inspectors, expeditors, and other personnel necessary to procure all Materials and Equipment for the construction of the Project and tie-in to the Interconnection Facilities. Contractor shall provide, install, complete and pay for all labor, Materials and Equipment, tools, supplies, construction equipment and machinery, construction utilities (including all water, power and sanitary facilities), transportation (including specified infrastructure and improvements on and off the Site), customs clearance, quality assurance, and other facilities and services (including any temporary or consumable materials, water, fuels, and electricity necessary for the proper execution and completion of the Work, including any of the utilities, as required). Contractor shall maintain all Materials and Equipment in accordance with manufacturer's requirements while such Materials and Equipment are in transit or care and custody of the Contractor. Should Contractor cause damage to public or private roadways in its performance of the Work, Contractor shall make repairs as necessary without cost to the County. This excludes normal wear and tear from operations required for construction.

3. Contractor shall supervise and direct the Work, and shall furnish the services of all supervisors, foremen, skilled and unskilled labor, and all other personnel in sufficient quantities and with sufficient skills necessary to perform the Services in accordance with this Agreement. At County's request, Contractor shall replace, at Contractor's expense, any individual if it is determined by County and Contractor that such individual's continued presence would jeopardize the quality or timely completion of the Work. Whenever required by applicable laws or the Contract Documents, Contractor shall employ licensed personnel as necessary to perform engineering, design, architectural, or other professional services in the performance of the Work.
4. All such professional services shall be performed with the degree of care, skill, and responsibility customary among such licensed personnel that specialize in work similar to the Work of this contract. Contractor shall be responsible for all labor relations matters relative to the Work on the Site and shall at all times use all reasonable efforts to maintain harmony among all workers employed in connection with the Work on the Site. Contractor shall adopt and implement reasonable policies and practices designed to avoid work stoppage, slowdowns, disputes and strikes.
5. Contractor shall be solely responsible for all construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work under this Agreement, and County shall not be responsible for or exercise any control over the actions or omissions of Contractor, any supplier, or any of their employees or agents performing any of the Work or Contractor's warranty obligations. Contractor shall prosecute the Work continuously and diligently and complete the Work in accordance with all requirements of this Agreement.
6. Contractor shall coordinate ingress and egress to and from the Site so as to minimize disruption to the Work and to traffic in the vicinity of the Site.
7. Contractor shall be responsible for the layout of the work and shall perform all necessary surveying during the construction of the Project and tie-in to the Interconnection Facilities. The accuracy of all grades, elevations, alignments, and plumbing of any structures and the location of all Facilities described in the final plans and specifications shall be the responsibility of the Contractor. Contractor shall preserve all permanent survey construction monuments and benchmarks. Prior to the final completion date, Contractor shall accurately correct all Project (including tie-ins to Interconnection Facilities) documents to as-built conditions and deliver to the County these as-built documents in accordance with the Contract Documents. Such documents shall show the location of the Project (including tie-ins to Interconnection Facilities) and shall show all related easements, improvement, utilities and rights of way above and below ground, on and off the Site, as of the date of delivery of such documents. Such documents shall also show the dimensions and the distances to the nearest benchmarks.
8. Contractor shall provide appropriate installation and startup representatives from suppliers of major equipment and control systems, all necessary supervising personnel, all equipment, tools, construction and temporary material, and all labor for Checkout, Startup and Testing. Contractor shall be responsible for Checkout, Startup and Testing of the Project and shall carry out those activities in accordance with all applicable codes and Legal Requirements, Startup and Checkout requirements and procedures as set forth in the Contract Documents.
9. Contractor shall provide onsite facilities suited to support its activities at the project site. Such facilities shall be suitably size and furnished to accommodate project meetings with

the Contractor, its designated staff and subcontractors and the County, its staff and designated consultants. Contractor shall provide such temporary facilities as necessary in support of the work as further described in Section 01 50 00 Temporary Facilities and Controls of the General Specifications.

10. Except for safety and warning signs, Contractor shall not install any signs on the Site without the express written consent of County. With County approval and that of other authorities having jurisdiction governing signage, the Contractor may place a project information sign. Such signage shall prominently display salient project data and the contracting authority. County shall have final approval of size, location, text and layout.
11. Contractor shall be responsible for all Site security until final completion, or termination of the Agreement. Such security shall include, to the extent reasonably necessary, barriers, lighting, fencing, controlled access, and other measures required to prevent vandalism, theft, and danger to personnel, the Project, Materials and Equipment. The nature and extent of Site security measures shall be determined by Contractor, and the County relies upon the Contractor's means and methods to provide adequate and appropriate Site security. Contractor shall institute such measures as to prevent incidental site access from the adjacent County property and facilities.
12. Contractor shall prepare or cause to be prepared and shall furnish to County all drawing logs, drawings, manufacturer's drawings and data, supplier manuals and operating manuals in accordance with the Contract Documents.
13. Contract shall ensure that County and its representatives shall, at all times, have access to the Project for all purposes. In order to allow County and its representatives to be present, Contractor shall give County at least three (3) days advance notice of any system or equipment Checkout or Testing. If County desires access to any places where work is being performed or from which Materials and Equipment are being obtained, Contractor shall provide or arrange reasonable access thereto and shall provide County reasonable advanced notice of any factory tests or other off site tests. Contractor shall maintain the Site in a safe condition to permit County and any person authorized in writing by County to inspect and review all field work during working hours, including Materials and Equipment, installation, calibration, Startup and Testing.
14. As part of the procurement of equipment, Contractor shall provide to County a list of recommended operating spare parts, which list shall include all relevant costs and ordering lead time information with terms and conditions. If requested, Contractor shall procure such operating spare parts from Suppliers, as requested by County, on behalf of County. The cost of such operating spare parts shall be covered by change order.
15. When any equipment or portion of the Work is damaged, Contractor shall inform County as soon as possible and provide County a damage report detailing such occurrence, any required repairs, and the estimated duration of such repairs.
16. Contractor shall provide to County all tests and measurements, laboratory analyses, and reports made or prepared in connection with the Work.

1.03 CONTRACT AWARD AND COMMENCEMENT OF THE WORK

A. COMMENCEMENT OF WORK

1. The Contract Time will commence to run on the day indicated in the Notice to Proceed. As a condition to County signing the Agreement, however, Contractor shall deliver to County the executed agreements, forms, bonds, and insurance documents required by Request for Proposals from Bidders in the required quantities and within the required times. A Notice to Proceed may be given at any time within thirty (30) days after County's execution of the Agreement. See also Section 1.15 of these General Conditions.
2. Contractor shall start to perform the work on the date when the Contract Time commences to run, but no work shall be done at the Site prior to the date on which the Contract Time commences to run.

B. MOBILIZATION

1. Mobilization shall include moving onto the Site of all plant and equipment; furnishing and erecting plants, temporary buildings, and other construction facilities; all as required for the proper performance and completion of the Work. Mobilization shall be undertaken in compliance with the requirements of the Contract and any staging plan approved by the County and shall include, but not be limited to, the following principal items:
 - a. Moving onto the Site Contractor's plant and equipment as required.
 - b. Installing temporary construction power and wiring.
 - c. Establishing fire protection system for the temporary facilities.
 - d. Developing construction water supply.
 - e. Providing field office trailers for the Contractor and County with all specified furnishings and utility services including telephones/data connections.
 - f. Providing connections to onsite sanitary facilities and potable water facilities as specified or providing a port-a-potty as needed.
 - g. Arranging for and erection of Contractor's work and storage yard(s).
 - h. Submittal to the County of all required Subcontractor insurance certificates and bonds, if required.
 - i. Posting all OSHA and CalOSHA required notices and establishment of safety programs.
2. Within thirty (30) calendar days following issuance by the County of a Notice of Award, the Contractor shall submit to the County, for its review and concurrence, a mobilization plan and schedule.
 - a. The mobilization plan and schedule shall be subject to review and concurrence by the County prior to, and as a condition precedent to, execution of the Contract.
 - b. The mobilization plan and schedule shall be developed in both narrative and graphic format, and shall include, at a minimum, the following:
 - 1) A mobilization plan and schedule for initial construction activities, which include but are not limited to interior and exterior demolition, any proposed site excavation and perimeter structural shoring, parking and traffic control, temporary facilities and staging, followed by construction of interior improvements.
 - 2) A detailed sequential plan for commencement of interior construction consistent with the scheduling requirements of this Contract for all

demolition, design, construction and other activities to be undertaken during the first sixty (60) days following execution of the Contract.

1.04 BONDS AND INSURANCE

A. BONDS

1. Within the time period specified in Request for Proposals from Bidders, Contractor must file with the County the following bonds:
 - a. Corporate surety bond, in the form of Performance Bond, in a sum not less than 100 percent of amount of Contract, to guarantee faithful performance of Contract ("Performance Bond").
 - b. Corporate surety bond, in the form of Labor and Material Payment Bond, in a sum not less than 100 percent of amount of Contract, to guarantee payment of wages for services engaged and of bills contracted for materials, supplies, and equipment used in performance of Contract ("Labor and Material Bond").
2. Corporate sureties on these bonds and on bonds accompanying Bids must be duly licensed and legally authorized to engage in the business of furnishing surety bonds in the State of California. Sureties must be satisfactory to the County and shall have an A.M. Best Company financial rating of A:VII or better.
3. Amount of the Contract, as used to determine amounts of bonds, shall be the total amount fixed in the Contract for performance of required Work (or corrected total if errors are found.)
4. In the event of increases in the Contract Sum by Change Orders, or otherwise, aggregating to ten percent (10%) of the Contract Sum or more, and by all such subsequent increases in the Contract Sum thereafter, the Contractor shall submit to the County evidence of additional bond coverage for such increases in the Contract Sum. Contractor shall be compensated for such additional bond coverage.

B. INSURANCE HOLD HARMLESS AND INDEMNIFICATION AGREEMENT

1. The COUNTY and all officers, employees, outside parties hired to inspect the work and volunteers thereof connected with the work, including, but not limited to, the Director and the Engineer, shall not be answerable or accountable in any manner: for any loss or damage to any of the materials or other things used or employed in performing the work; for injury to or death of any person, either workmen or the public; or for damage to property from any cause, the County is responsible except to the extent caused by the negligence or willful misconduct of the CONTRACTOR.
 - a. The CONTRACTOR (including its subcontractors) shall be responsible for any liability imposed by law and for injuries to or death of any person including, but not limited to, workmen and the public or damage to property resulting from defects or obstructions or from any cause whatsoever during the progress of the work or at any time before its completion and final acceptance.
 - b. The CONTRACTOR shall indemnify and save harmless the COUNTY and all officers, employees, outside parties hired to inspect the work and volunteers thereof connected with the work, including, but not limited to, the Director and the Engineer, from all claims, suits, or actions of every name, kind, and description brought forth or on account of injuries to or death of any person, including, but not limited to, workmen and the public or damage to property resulting from the CONTRACTOR'S performance of the contract except as otherwise provided by statute. The duty of the

CONTRACTOR to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code.

- c. With respect to third party claims against the CONTRACTOR, the CONTRACTOR waives any and all rights to any type of express or implied indemnity against the COUNTY, its officers or employees.
 - d. It is the intent of the parties that the CONTRACTOR will indemnify and hold harmless the County, its officers, employees, and agents from any and all claims, suits, or actions as set forth above, other than the negligence or willful misconduct of the County, its officers and employees.
2. **INSURANCE:** CONTRACTOR shall file with COUNTY concurrently herewith a Certificate of Insurance, in companies acceptable to COUNTY, with a Best's Rating of no less than A:VII showing.
 3. **WORKER'S COMPENSATION AND EMPLOYERS LIABILITY INSURANCE:**
 - a. Worker's Compensation Insurance shall be provided as required by any applicable law or regulation. Employer's liability insurance shall be provided in amounts not less than one million dollars (\$1,000,000) each accident for bodily injury by accident, one million dollars (\$1,000,000) policy limit for bodily injury by disease, and one million dollars (\$1,000,000) each employee for bodily injury by disease.
 - b. If there is an exposure of injury to PROVIDER'S employees under the U.S. Longshoremen's and Harbor Worker's Compensation Act, the Jones Act, or under laws, regulations, or statutes applicable to maritime employees, coverage shall be included for such injuries or claims.
 - c. Each Worker's Compensation policy shall be endorsed with the following specific language:
 - d. Cancellation Notice: "This policy shall not be changed without first giving thirty (30) days prior written notice and ten (10) days prior written notice of cancellation for non-payment of premium to the County of Nevada."
 - e. Waiver of Subrogation: The workers' compensation policy shall be endorsed to state that the workers' compensation carrier waives its right of subrogation against the County, its officers, directors, officials, employees, agents or volunteers, which might arise by reason of payment under such policy in connection with performance under this agreement by the CONTRACTOR.
 - f. CONTRACTOR shall require all SUBCONTRACTORS to maintain adequate Workers' Compensation insurance. Certificates of Workers' Compensation shall be filed forthwith with the County upon demand.
 4. **GENERAL LIABILITY INSURANCE:**
 - a. Comprehensive General Liability or Commercial General Liability insurance covering all operations by or on behalf of CONTRACTOR, providing insurance for bodily injury liability and property damage liability for the limits of liability indicated below and including coverage for:
 - 1) Premises and operations;
 - 2) Products and completed operations;
 - 3) Contractual liability insuring the obligations assumed by PROVIDER in this Agreement;
 - 4) Broad form property damage (including completed operations);
 - 5) Explosion, collapse, and underground hazards;
 - 6) Personal injury liability; and

Except with respect to bodily injury and property damage included within the products and completed operations hazards, the aggregate limits, where applicable, shall apply separately to CONTRACTOR'S work under the Contract.

- b. One of the following forms is required:
 - 1) Comprehensive General Liability;
 - 2) Commercial General Liability (Occurrence); or
 - 3) Commercial General Liability (Claims Made).
- c. If CONTRACTOR carries a Comprehensive General Liability policy, the limits of liability shall not be less than a Combined Single Limit for bodily injury, property damage, and Personal Injury Liability of:
 - Two million dollars (\$2,000,000) each occurrence
 - Six million dollars (\$6,000,000) aggregate
- d. If CONTRACTOR carries a Commercial General Liability (Occurrence) policy:
 - 1) The limits of liability shall not be less than:

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- Two million dollars (\$2,000,000) each occurrence (combined single limit for bodily injury and property damage)
 - Two million dollars (\$2,000,000) for Personal Injury Liability
 - Two million dollars (\$2,000,000) for Products-Completed Operations
 - Six million dollars (\$6,000,000) General Aggregate

- 2) If the policy does not have an endorsement providing that the General Aggregate Limit applies separately, or if defense costs are included in the aggregate limits, then the required aggregate limits shall be six million dollars (\$6,000,000).

- e. Special Claims Made Policy Form Provisions:

CONTRACTOR shall not provide a Commercial General Liability (Claims Made) policy without the express prior written consent of COUNTY, which consent, if given, shall be subject to the following conditions:

- 1) The limits of liability shall not be less than:

- Two million dollars (\$2,000,000) each occurrence (combined single limit for bodily injury and property damage)
 - Two million dollars (\$2,000,000) for Personal Injury Liability
 - Two million dollars (\$2,000,000) aggregate for Products Completed Operations
 - Six million dollars (\$6,000,000) General Aggregate

- 2) The insurance coverage provided by CONTRACTOR continue up to one (1) year following the completion of the contract in order to provide insurance coverage for the hold harmless provisions herein if the policy is a claims made policy.

Conformity of Coverages – If more than one policy is used to meet the required coverages, such as a separate umbrella policy, such policies shall be consistent with all other applicable policies used to meet these minimum requirements. For example, all policies shall be Occurrence Liability policies or all shall be Claims Made Liability policies, if approved by the County as noted above. In no cases shall the types of policies be different.

5. **ENDORSEMENTS:** Each Comprehensive or Commercial General Liability policy shall be endorsed with the following specific language:
 - a. "The County of Nevada, its officers, agents, employees, and volunteers are to be covered as insured for all liability arising out of the operations by or on behalf of the named insured in the performance of this Agreement."
 - b. "The insurance provided by the Contractor, including any excess liability or umbrella form coverage, is primary coverage to the County of Nevada with respect to The County's standing as an additional insured and no insurance held or owned by the County of Nevada shall be called upon to contribute to such a loss."
 - c. "This policy shall not be changed without first giving thirty (30) days' prior written notice and ten (10) days prior written notice of cancellation for non-payment of premium to the County of Nevada."
6. **AUTOMOBILE LIABILITY INSURANCE:**
 - a. Automobile Liability insurance covering bodily injury and property damage in an amount no less than one million dollars (\$1,000,000) combined single limit for each occurrence.
 - b. Covered vehicles shall include owned, non-owned, and hired automobiles/trucks.
7. **PROFESSIONAL LIABILITY INSURANCE (ERRORS & OMISSIONS):**
 - a. Professional Liability Insurance for Errors and Omissions coverage in the amount of not less than two million dollars (\$2,000,000) combined single limit for each occurrence and two million dollars (\$2,000,000) aggregate.
 - b. If Contractor sub-contracts in support of Contractor's work provided for in the agreement, Professional Liability Insurance for Errors shall be provided by the subcontractor in an amount not less than one million dollars (\$1,000,000) in aggregate.
 - c. The insurance coverage provided by the consultant shall continue for up to one (1) year following completion of the contract in order to provide insurance coverage for the hold harmless provisions herein if the policy is a claims made policy.
8. **POLLUTION LIABILITY:**
 - a. Contractor shall purchase and thereafter maintain, so long as such insurance is available on a commercially reasonable basis, Pollution Liability insurance in the amount of not less than one million dollars (\$1,000,000) each occurrence and one million dollars (\$1,000,000) general aggregate covering liability arising from the sudden and accidental release of pollution on the project site.
9. **ADDITIONAL REQUIREMENTS:**
 - a. Premium Payments – The insurance companies shall have no recourse against the County and funding agencies, its officers and employees or any of them for payment of any premiums or assessments under any policy issued by a mutual insurance company.
 - b. Policy Deductibles – The CONTRACTOR shall be responsible for all deductibles in all of the Contractor's insurance policies. The maximum amount of allowable deductible for insurance coverage required herein shall be \$100,000.
 - c. Contractor's Obligations – CONTRACTOR's indemnity and other obligations shall not be limited by the foregoing insurance requirements and shall survive the expiration of this agreement.
 - d. Verification of Coverage – CONTRACTOR shall furnish the County with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and

endorsements are to be received and approved by the County before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the CONTRACTOR's obligation to provide them. The County reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

- e. Material Breach – Failure of the CONTRACTOR to maintain the insurance required by this agreement, or to comply with any of the requirements of this section, shall constitute a material breach of the entire agreement.

- 10. BUILDER'S RISK/COURSE OF CONSTRUCTION INSURANCE utilizing an "all risk" (special perils) coverage form, with limits equal to the completed value of the project and no coinsurance penalty provisions.

1.05 DRAWINGS AND SPECIFICATIONS

A. INTENT

The Contract Documents are complementary; what is called for by one is as binding as if called for by all. It is the intent of the Contract Documents to describe a functionally complete Project and individual systems therein to be designed and constructed in accordance with the requirements of the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the requirements of the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be furnished and performed whether or not specifically called for. When words or phrases, which have a well-known technical or construction industry or trade meaning are used to describe Work, materials or equipment, such words or phrases shall be interpreted in accordance with that meaning.

B. DRAWING DETAILS AND SPECIFICATION DESCRIPTIONS

The Drawings and Technical Specifications (CSI format) establish performance criteria the final design and construction must meet and, along with the warranty and other requirements in the Contract Documents, establish the minimum design, material, quality, workmanship and other standards required under the Contract Documents. Contractor has full "turnkey" responsibility to deliver the fully functional, operational Project described in Section 01 11 00 as referenced in the General Specifications.

C. SPECIFICATIONS AND DRAWINGS DO NOT CONTROL DIVISION OF WORK

The Divisions and Sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or suppliers or delineating the work to be performed by any specific trade.

D. INTERPRETATION OF CONTRACT, DRAWINGS AND SPECIFICATIONS

Should any discrepancy appear or any misunderstanding arise as to the importance of anything contained in the Contract and the Drawings and Specifications included in the Contract Documents, the matter shall be referred to the County, who shall issue with reasonable promptness so as not to delay Contractor's performance such written clarifications or interpretations of the requirements, which shall be consistent with the intent of and reasonably inferable from the Contract and Drawings and Specifications. Reasonable promptness may vary with issue; however, it is the goal of the County to respond in no longer than five (5) working days. It is the intent of the Contract Documents that the Contractor shall have responsibility to provide

a complete and comprehensive design (and construction thereof) for the Project in order to allow a complete and fully operational Project on a “turnkey” basis. The County's review of Contractor's designs, shop drawings, samples and submittals shall not relieve Contractor of its responsibility for a complete design complying with the requirements of the Contract Documents; but rather, such review shall be in furtherance of the County's monitoring and accepting the design as developed and issued by Contractor, consistent with these Contract Documents.

E. CHECKING/UPDATING OF DRAWINGS

Contractor shall develop the final design and construction drawings for the Work and, thereafter, during design and construction, shall continuously check such drawings for conformance to actual conditions and update such drawings to maintain complete and current as built drawings as construction progresses.

F. NECESSARY AND INCIDENTAL WORK

Contractor shall perform reasonably implied parts of Work as “incidental work” although absent from Drawings and Specifications. Incidental work includes any work not shown on Drawings or described in Specifications that is normally or customarily required as a part of the Work shown on Drawings or described in Specifications. Incidental work shall be treated as if fully described in Specifications and shown on Drawings, and the expense of incidental work shall be included in price Bid and Contract Sum.

G. STANDARDS TO APPLY WHERE DETAILED AND/OR PERFORMANCE SPECIFICATIONS ARE NOT FURNISHED

Wherever in the Contract Documents, or in any orders given by County, it is provided that Contractor shall furnish materials or manufactured articles or shall do work for which no detailed or performance specifications are set forth, the following general specifications shall apply.

1. Design and construction shall meet the standards required by the Contract Documents to provide the County with a fully functional Project, designed and constructed in a manner consistent with the standards, equipment, materials and design, found in comparable, fully functional, contemporary facilities.
2. Materials or manufactured articles shall be of the grade, in quality and workmanship, consistent with the requirements of this Contract and obtainable in the market from firms of established good reputation, or, if not ordinarily carried in stock, shall conform to the usual standards for materials or articles of the kind required, with due consideration of the use to which they are to be put. Work for which no detailed specifications are set forth herein shall conform to the requirements of Subsection 1.05.G.1 above. All such Work shall be consistent with the Contract Documents.

H. PRECEDENCE OF DOCUMENTS

In the case of discrepancy or ambiguity in the Contract Documents, the following order of precedence shall prevail:

1. Modifications in inverse chronological order, and in the same order as specific portions they are modifying (i.e., later-issued language shall take precedence and prevail over earlier conflicting versions or language).
2. Executed Agreement, and terms and conditions referenced therein.
3. General Conditions.
4. Supplementary Conditions.

5. Division 1-General Specifications.
6. Technical Specification (in appropriate CSI format for the project).
7. Written numbers over figures, unless obviously incorrect.
8. Figured dimensions over scaled dimensions.
9. Large-scale Drawings over small-scale Drawings.

Any conflict between Drawings and Technical Specifications will be resolved in favor of the document of the latest date (i.e., the most recent document), and if the dates are the same or not determinable, then in favor of Specifications.

Any conflict between a bill or list of materials shown in the Contract Documents and the actual quantities required to complete Work required by Contract Documents, will be resolved in favor of the actual quantities.

If there is any discrepancy or ambiguity concerning the quality or quantity of Work or materials required under the Contract Documents, Contractor shall (1) immediately bring such discrepancy or ambiguity to the attention of the County and (2) without regard to the order of precedence above, provide the better quality of or greater quantity of Work or materials, without an increase in the Contract Sum, unless otherwise ordered by the County.

I. DESIGN DELIVERABLES, SHOP DRAWINGS AND SUBMITTALS TO BE FURNISHED BY CONTRACTOR IN ADDITION TO COMPLETED DESIGN DRAWINGS

1. Contractor shall submit to County for review a schedule of all deliverables required in Section 01 11 01 Summary of Work Design Services and Deliverables, identifying each required deliverable and the date on which it will be submitted to the County ("Schedule of Deliverables"). A preliminary Schedule of Deliverables will be submitted within sixty (60) days of the Notice to Proceed. The County understands that a more complete Schedule of Deliverables will not be available until the beginning of the Construction Documents Phase as defined in Section 01 11 01. A more complete Schedule of Deliverables will be submitted to the County when the final design is submitted to the County at the end of the Design Development Phase as defined in Section 01 11 01.
2. Due to the design-build nature of the Project, Contractor and County will jointly develop a list of submittals and shop drawings, which are to be submitted to the County. Contractor shall submit to County for review a preliminary schedule of shop drawings and submittals ("Schedule of Submittals"), which will list each required submittal in order by specification section and the times for submitting, reviewing and processing such submittal. A preliminary Schedule of Submittals will be submitted within sixty (60) days of the Notice to Proceed. The County understands that a more complete Schedule of Submittals will not be available until sixty (60) days after approval of 100% Construction Drawings or final bid package procurement, whichever is later. Contractor will endeavor to provide updated partial Schedules of Submittals as available every sixty (60) days through the course of the Project. Shop drawings and submittals shall be in addition to Contractor's design developed pursuant to this Agreement.
3. Contractor shall submit submittals and shop drawings to County for review in strict accordance with Section 01 33 00 Submittal Procedures. Submission of a submittal or shop drawing shall constitute Contractor's representation that all requirements of Section 01 33 00 Submittals Procedures have been complied with. All submittals and shop drawings will be identified as County may require and made in the number of copies specified in Section 01 33 00 Submittals Procedures.
4. Contractor shall not perform work requiring submission of a submittal or shop drawing prior to submission and favorable review of the submittal or shop drawing. The County's review of submittals or shop drawings shall be performed so as not to delay Contractor's

performance. Where a submittal or shop drawing is required by the Contract Documents or shop drawings accepted by County, Architect or Engineer of Record, any related Work performed prior to favorable review of the pertinent submittal or shop drawing will be at the sole expense, responsibility and risk of Contractor. County's review of shop drawings, samples and submittals shall not relieve Contractor of its responsibility for a complete design complying with the requirements of the Contract Documents; but rather, such review shall be in furtherance of the County's monitoring and accepting the design as developed and issued by the Contractor, consistent with these Contract Documents.

1.06 CONSTRUCTION BY THE COUNTY OR BY SEPARATE CONTRACTORS

A. THE COUNTY'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

1. County may perform with its own forces, construction or operations related to the Project. County may also award separate contracts in connection with other portions of the Project or other construction or operations, on the Site or areas contiguous to the Site, under conditions similar to these Contract Documents, or may have utility owners perform other work.
2. When separate contracts are awarded for different portions of the Project or other construction or operations on the Site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate County/Contractor Contract.

B. MUTUAL RESPONSIBILITY

1. Contractor shall afford all other contractors, utility owners, and the County (if the County is performing work with its own forces), proper and safe access to the Site, and reasonable opportunity for the installation and storage of their materials, shall ensure that the execution of its Work properly connects and coordinates with their work, and shall cooperate with them to facilitate the progress of the Work.
2. Contractor shall coordinate its work with the work of other separate contractors, the County, and utility owners, including, at a minimum, holding monthly of coordination meetings with them. The County or its designee shall have the right to participate in these coordination meetings, and shall be advised of the results of these coordination meetings at the monthly Progress Meeting.
3. Unless otherwise provided in the Contract Documents, Contractor shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of County and the others whose work will be affected.
4. The duties and responsibilities of Contractor under Subsections 1.06.B.1 through 3 above are for the benefit of the County and also for the benefit of such utility owners and other contractors working at the Site to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between the County and such utility owners and other contractors.
5. To the extent that any part of Contractor's Work is to interface with work performed or installed by others, Contractor shall inspect and measure the in-place work and promptly report to County any defect in such in-place work that will impede or increase the cost of the Contractor's interface unless corrected. The County will require the Contractor responsible for the defective work to make corrections so as to conform to its contract requirements. If Contractor fails to measure, inspect and/or report defects that are

reasonably discoverable, all costs of accomplishing the interface acceptably shall be borne by Contractor. This provision shall be included in any and all other contracts or subcontracts for Work to be performed where such a conflict could exist.

C. COUNTY AUTHORITY OVER COORDINATION

1. County shall have authority over coordination of the activities of multiple contractors in those cases where the County contracts with others for the performance of other work on the Project, the County performs work with its own forces, or utilities perform work on the Site. (The authority of County with respect to coordination of the activities of multiple prime contractors and utility owners, however, shall not in any manner relieve Contractor of its obligation to other contractors and utility owners to coordinate its work with utility owners and other contractors as specified above.) Contractor shall promptly notify County in writing when another contractor on this Project fails to coordinate its work with the Work of this Contract.
2. Contractor shall suspend any part of the Work herein specified or shall carry on the same in such manner if directed by County when such suspension or prosecution is necessary to facilitate the work of other contractors or workers. No damages or Claims (as defined in Section 1.12 below) by Contractor will be allowed therefore to the extent the suspension or work change is due to Contractor's failure to perform its obligation herein specified to coordinate its work with utility owners and other contractors. If the suspension or work change is due in whole or in part to the failure of another County employed contractor to coordinate its work with Contractor and other contractors and utility owners, then resulting damages or Claims by Contractor will be allowed. The County reserves the right to back charge Contractor for any damages or claims of other contractors incurred as a result of Contractor's failure to perform its obligations to coordinate with other contractors and utility owners, and in its discretion, County may deposit the funds retained with a Court of competent jurisdiction pursuant to applicable interpleader procedures and Contractor releases County of any further liability regarding such funds.
3. The County may at any time and in its sole discretion, designate a person, firm or corporation other than the County, to have authority over the coordination of the activities among the various prime contractors.

1.07 THE COUNTY AND PAYMENT

A. THE COUNTY'S REPRESENTATIVES

The designated authorized Representative(s) or the Project Manager of the County will have limited authority to act on behalf of the County as set forth in the Contract Documents. Except as otherwise provided in the Contract Documents or subsequently identified in writing by County, the County will issue all communications to Contractor through the County's Project Manager, and Contractor shall issue all communications to the County through County's Project Manager in a written document delivered to County. Should any direct communications between Contractor and County's consultants, architects or engineers not identified herein occur during field visits or by telephone, Contractor shall immediately confirm them in a written document copied to County.

B. MEANS AND METHODS OF DESIGN AND CONSTRUCTION

1. Subject to those rights specifically reserved in the Contract Documents, the County shall not supervise, direct, or have control over, or be responsible for, Contractor's design or means, methods, techniques, sequences or procedures of construction or for the safety

- precautions and programs incident thereto, or for any failure of Contractor to comply with laws and regulations applicable to the furnishing or performance of Work.
2. The County shall not be responsible for Contractor's failure to perform or furnish the Work in accordance with Contract Documents.

C. RECEIPT AND PROCESSING OF APPLICATIONS FOR PAYMENT

As required by Section 01 29 00 Measurement and Payment Procedures of the General Specifications, Contractor shall prepare and submit Applications for Payment and warrant title to all Work covered by each Application for Payment. County will review Contractor's Applications for Payment and make payment thereon, and Contractor shall make payments to Subcontractors, suppliers and others, as required by Section 01 29 00 Measurement and Payment Procedures.

1.08 CONTROL OF THE WORK

A. SUPERVISION OF WORK BY CONTRACTOR

1. Contractor shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such personal skills and expertise as may be required and necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the design and means, methods, techniques, sequences and procedures of construction and for the safety precautions and programs incident thereto. The Contractor shall be responsible to see that the completed Work complies accurately with the Contract Documents.
2. Contractor shall keep on the Site at all times during Work progress on the Site a competent resident Superintendent, who shall not be replaced without the express written consent of the County. The Superintendent will be Contractor's representative at the Site and shall have complete authority to act on behalf of Contractor. All communications to the Superintendent shall be as binding as if given to the Contractor.
3. Contractor shall have and maintain at the Site a full-time Quality Control Manager, who will have duties in addition to quality control, and a full-time project manager whose duties shall include quality control document to the County that the Work has been reviewed and either found to meet the terms and conditions of the Contract Documents or has been found deficient and corrective action will be taken promptly.

B. OBSERVATION OF WORK BY COUNTY

The County may observe and monitor the design and construction through its agents, employees, consultants or others. Contractor in no way is relieved of any responsibility by the activities of County in this regard.

C. ACCESS TO SITE

During performance of Work, the County and its respective agents, representatives, consultants, and employees may enter upon the Site, shops or offices with at least a 24 hour notice where any part of Work may be in preparation, or factories where any materials for use in Work are being or are to be manufactured, and Contractor shall provide proper and safe facilities therefore, and shall make arrangements with manufacturers to facilitate inspection of their processes and products to such extent as the County's interests may require. Other contractors performing work for the County may also, for all purposes required by their respective contracts, enter upon the Site.

D. EXISTING UTILITIES

Drawings may indicate above and below grade structures, drainage lines, storm drains, sewers, water, gas, electrical, chemical, hot water, and other similar items and utilities, and additional

information may be on file at the regional notification center, "Underground Service Alert" ("USA"). Contractor shall locate these known existing installations before proceeding with trenching or other operations that may cause damage, shall maintain them in service where appropriate, and shall repair any damage to them caused by the Work, at no increase in Contract Sum. Additional utilities whose locations are unknown to County are suspected to exist. Contractor shall be alert to their existence; if they are encountered, Contractor shall immediately report to County for disposition of the same. In addition to reporting if any utility is damaged, Contractor shall take appropriate action as provided in these General Conditions. Additional compensation or extension of time on account of utilities not shown or otherwise brought to Contractor's attention, including reasonable action taken to protect or repair damage, shall be determined as provided in the Contract Documents.

1. County and Contractor shall discuss and negotiate a mutual alignment of additional costs (should they arise) to incorporate into the Work main or trunk line utilities identified in the Contract Documents and other utilities or underground structures known or reasonably discernible and that will remain in service, including reasonable adjustments to the design location (including minor relocations) of the existing or new installations. Contractor shall take immediate action to restore any in service installations damaged by Contractor's operations. Should County determine that Contractor has not responded in a timely manner or not diligently pursued completion of the Work, County may restore service and deduct the costs of such action by County from the amounts due under the Contract.
2. Consistent with Government Code Section 4215, as between County and Contractor, County will be responsible for the timely removal, relocation, or protection of existing main or trunk line utility facilities located on the Site only if such utilities are not identified or are incorrectly identified in the Contract Documents. County will compensate for the cost of locating and repairing damage not due to Contractor's failure to exercise reasonable care, in the removing and relocating such main or trunk line utility facilities not indicated in the Contract Documents with reasonable accuracy, and equipment on the Project necessarily idled during such work.
3. Prior to performing Work at the Site, Contractor shall lay out the locations of known underground utilities that are to remain in service and other significant known underground installations. At no additional cost to County, prior to commencing other Work in proximity to such known underground utilities or installations that can be readily inferred from adjacent surface improvements, Contractor shall further locate, by carefully excavating with small equipment, potholing and principally by hand, such utilities or installations that are to remain and that are subject to damage. This obligation applies to all utilities.
4. Nothing in these General Conditions shall be deemed to require County to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the Site can be inferred by Contractor from the presence of an underground transmission main or other visible facilities, such as buildings, new asphalt, meters and junction boxes, on or adjacent to the Site. Contractor shall immediately secure all available information and notify County and utility, in writing, of its discovery, while performing Work under the Contract Documents, of any utility facilities not identified in the Drawings and Specifications.

E. UNDERGROUND FACILITIES

1. Before commencing work of digging trenches or excavation, Contractor shall review all information available regarding subsurface conditions, including but not limited to information supplied in the Existing Conditions reports, and subject to the terms and

conditions of these documents, Contractor shall also comply with Government Code Sections 4216 to 4216.9, and in particular Section 4216.2 which provides, in part:

“Except in an emergency, every person planning to conduct any excavation shall contact the appropriate regional notification center at least two working days, but no more than fourteen (14) calendar days, prior to commencing that excavation, if the excavation will be conducted in an area which is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the excavator, and, if practical, the excavator shall delineate with white paint or other suitable markings the area to be excavated. The regional notification center shall provide an inquiry identification number to the person who contacts the center and shall notify any member, if known, who has a subsurface installation in the area of the proposed excavation.”

2. Contractor shall contact USA, and schedule the Work to allow ample time for the center to notify its members and, if necessary, for any member to field locate and mark its facilities. Contractor is charged with knowledge of all subsurface conditions reflected in USA records. Prior to commencing excavation or trenching work, Contractor shall provide County with copies of all USA records secured by Contractor. Contractor shall advise County of any conflict between information provided in the Existing Conditions reports, the Drawings and that provided by USA records. Contractor's excavation shall be subject to and comply with the Contract Documents, including without limitation Section 1.02 and Subsection 1.08.D of these General Conditions.
3. In the case of any Underground Facilities that are located on County property and are used to furnish services on County property or are under the operation and control of the County, or in any other case in which the USA does not provide an inquiry notification number and notify its members that have subsurface installations of the area of the proposed excavation, then the Contractor shall be fully responsible for locating the Underground Facilities and protecting such Underground Facilities during excavation. In locating the Underground Facilities Contractor shall investigate all records available at the County and all other records available to it relative to the location of such Underground Facilities and shall make use of all necessary industry locating techniques and/or engage qualified locating service to perform such services for the Contractor. The Contractor shall undertake no excavation Work until such time that the Underground Facilities are located and field marked or determined not to be in the area of excavation. Thereafter, subject to any further requirements in the Contract Documents, Contractor shall determine the exact location of the Underground Facilities by excavating with hand tools within the area of the location of the Underground Facilities. Contractor shall provide the County with adequate prior written notice of its proposed excavation work in an area containing County owned Underground Facilities, and shall submit for the County's approval its plan for locating and protecting the Underground Facility from damage due to the excavation work. The County's favorable review of such plan shall in no way limit or restrict the responsibility of the Contractor under the Contract Documents and at law and Contractor shall not rely on the County's review as a representation of the location of the Underground Facility, the suitability of the plan or its compliance with law.
4. The cost of all of the following will be included in the Contract Sum and Contractor shall have full responsibility for (a) reviewing and checking all available information and data including, but not limited to, Existing Conditions reports and information on file at USA; (b) locating all Underground Facilities shown or indicated in the Contract Documents, available information, or indicated by visual observation including, but not limited to, and

by way of example only, engaging qualified locating services and all necessary backhoeing and potholing; (c) coordination of the Work with the owners of such Underground Facilities during construction; and (d) the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

5. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated in the materials supplied by County or in information on file at USA or is otherwise reasonably available to Contractor, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby (and in no event later than seven Days), and prior to performing any Work in connection therewith (except in an emergency as required by Subsection 1.16.D of these General Conditions, identify the owner of such Underground Facility and give written notice to that owner and to County. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
6. Contractor shall be allowed an increase in the Contract Sum or an extension of the Contract Time, or both, to the extent that they are attributable to the existence of any Underground Facility only where the Underground Facility:
 - a. Was not shown or indicated or was incorrectly shown or indicated in the Contract Documents or in the information supplied pursuant to the Existing Conditions reports or in information on file at USA; and
 - b. Contractor did not know of it; and
 - c. Contractor could not reasonably have been expected to be aware of it or to have anticipated it from the information available. (For example, if surface conditions such as pavement repairs, valve covers, or other markings, indicate the presence of an Underground Facility, then an increase in the Contract Price or an extension of the Contract Time will not be due, even if the Underground Facility was not indicated in the Contract Documents, in the information supplied to Contractor pursuant to the Existing Conditions reports, in information on file at USA, or otherwise reasonably available to Contractor.)
7. Underground Facilities are inherent in construction involving digging of trenches or other excavations and Contractor is to apply its skill and industry to verify the information available. Underground Facilities are often in different locations and elevations that existing information indicates, and such differences shall constitute a differing site condition only if such difference is clearly material and is not discoverable through reasonable investigation.

1.09 WARRANTY, GUARANTEE AND INSPECTION OF WORK

A. WARRANTY AND GUARANTEE

1. General Representations and Warranties: Contractor represents and warrants that it, and its Subcontractors and designers of every tier are, and at all times will be, capable of performing every phase of the Work, and possesses or will timely obtain all necessary licenses and/or permits required to perform the Work, as necessary to complete the Work in accordance with the terms of the Contract Documents. Contractor warrants that all design, engineering, design related services, construction work and construction services shall be performed in accordance with generally accepted professional standards of good and sound design and construction practices observed by builders and designers with specific experience and specialized expertise in the Work of the Contract Documents. Contractor warrants that the Work shall be fit for its intended purpose, watertight and meeting current standards for work similar to the Project and

that all systems, equipment , including but not limited to the design and engineering of each item of materials and equipment incorporated therein, shall be new (unless otherwise permitted by the County), shall be of suitable grade of its respective kind for its intended use, shall be free from defects in design, engineering, materials, construction and workmanship, and shall conform in all respects with all applicable requirements of federal, state and local laws, licenses, and permits, the Drawings, Specifications, and all descriptions set forth therein, applicable construction codes and standards, and all other requirements of the Contract Documents including the standard of care specified herein.

2. Environmental and Toxics Warranty: The covenants, warranties and representations contained in this Subsection 1.09.A.3 are effective continuously during Contractor's Work on the Project and following cessation of labor for any reason including, but not limited to, Project completion. Contractor covenants, warrants and represents to County that relative to this project:
 - a. No litigation is pending or, to Contractor's knowledge, proposed, threatened or anticipated with respect to the Contractor, or with respect to any other matter affecting the Project or the operation thereof.
 - b. To Contractor's knowledge after due inquiry, no lead or asbestos-containing materials were installed or were discovered in the Project at any time during Contractor's construction thereof. If any such materials were discovered, Contractor made immediate written disclosure to the County.
 - c. To Contractor's knowledge after due inquiry, no electrical transformers, light fixtures with ballasts or other equipment containing PCB's are or were located on the Project at any time during Contractor's construction thereof. If any such materials were discovered, Contractor made immediate written disclosure to the County.
 - d. To Contractor's knowledge after due inquiry, no storage tanks for gasoline or any other toxic substance are or were located on the Project at any time during Contractor's construction thereof except as required to be installed by the Contract Documents. If any such materials were discovered, Contractor made immediate written disclosure to the County.
 - e. Contractor's operations concerning the Project are not and were not in violation of any applicable environmental federal, state, or local statute, law, ordinance, code, rule, order or regulation dealing with hazardous or toxic materials or substances, and no notice from any governmental body has been served upon Contractor claiming any violation of any such statute, law, ordinance, code, rule, order or regulation, or requiring or calling attention to the need for, any work, repairs, construction, alteration, or installation on or in connection with the Project in order to comply with any such statute, law, ordinance, code, rule, order or regulation, with which Contractor has not complied. If there were or are any such notices with which Contractor has complied, Contractor has provided or shall provide the County with copies thereof.

B. INSPECTION OF WORK

1. All materials, equipment and workmanship used in the Work shall be subject to inspection or testing at all times during construction and/or manufacture in accordance with the terms of the Contract Documents. Work and materials, and manufacture and preparation of materials, from beginning of construction until final completion and acceptance of Work, shall be subject to inspection and rejection by County, its agents, or independent contractors retained by County to perform inspection services, or governmental agencies with jurisdictional interests. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's Site safety procedures and program so that

they may comply therewith as applicable. Upon request or where specified, County shall be afforded access for inspection at the source of supply, manufacture or assembly of any item of material or equipment, with reasonable accommodations supplied for making such inspections.

2. Contractor shall give County forty-eight (48) hours' notice of readiness of the Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
3. If applicable laws or regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, and furnish County with the required certificates of inspection, or approval. The County retains the right to test and inspect the Work without relieving the Contractor of its obligations under this Contract. County will pay the cost of initial testing and Contractor shall pay all costs in connection with any follow-up or additional testing. Contractor shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for the acceptance of materials or equipment to be incorporated in the Work, or of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.
4. If any Work (or the work of others) that is required to be inspected, tested or approved is covered by Contractor prior to such inspection, testing or approval, without written approval of County, it must, if requested by County, be uncovered. Uncovering Work shall be at Contractor's expense unless Contractor has given County timely notice of Contractor's intention to cover the same and County has given its written approval of the covering of the Work prior to such inspection, testing or approval.
5. In any case where Work is covered contrary to the written request of County, it must, if requested by County, be uncovered for County's observation or inspection at Contractor's expense.
6. Whenever required by County, Contractor shall furnish tools, labor and materials necessary to make examination of Work that may be completed or in progress, even to extent of uncovering or taking down portions of finished Work. Should Work be found unsatisfactory, cost of making examination and of reconstruction shall be borne by Contractor. If Work is found to be satisfactory, examination will be paid for by the County in manner herein prescribed for paying for alterations, modifications and extra work, except as otherwise herein specified.
8. Inspection of the Work by or on behalf of County, or County's failure to do so, shall not under any circumstances be deemed a waiver or approval of any non-conforming aspect of the Work. Contractor shall have an absolute duty, in the absence of a written Change Order signed by County, to perform Work in conformance with the Contract Documents and correct defective work promptly upon knowledge thereof.

9. Any inspection, evaluation, or test performed by or on behalf of County relating to the Work is solely for the benefit of County and shall not be relied upon by Contractor. Contractor shall not be relieved of the obligation to perform Work in accordance with the Contract Documents, nor relieved of any guaranty, warranty, or other obligation, as a result of any inspections, evaluations, or tests performed by County, whether or not such inspections, evaluations, or tests are permitted or required under the Contract Documents. Contractor shall be solely responsible for testing and inspecting Work already performed to determine whether such Work is in proper condition to receive later Work.

C. CORRECTION OF DEFECTIVE WORK

1. If Contractor fails to supply sufficient skilled workers, suitable materials or equipment, or to furnish or perform the Work in such a way that the completed Work will conform to Contract Documents, County may order Contractor to replace any Defective Work, or stop any portion of Work to permit County (at Contractor's expense) to replace such Defective Work. The County is not obligated to exercise these rights for the benefit of Contractor or any other party.
2. If required by County, Contractor shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if Work has been rejected by County, remove it from the Site and replace it with Work that is not defective. Contractor shall pay all reasonable claims, costs, losses and damages caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of work of others). Any extraordinary costs incurred in the examination, evaluation and determination that such defective Work should be corrected or removed and replaced will be the responsibility of the Contractor and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to Work and the Contract Sum. Contractor shall provide costs of re-inspection and re-testing. If the parties are unable to agree on the amount of an appropriate decrease in the Contract Sum, the County may deduct from monies due the Contractor all claims, costs, losses, and damages caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of work of others) as well as all costs of the County incurred in exercising such rights and remedies (including, but not limited to, the costs incurred in the examination, evaluation and determination that such defective Work should be corrected or removed and replaced). If the Contractor disagrees with the County's calculation, it may make a claim as provided in Section 1.12. County's rights under this Subsection 1.09.C.2 shall be in addition to any other rights it may have under the Contract Documents or by law.
3. Correction Period: If within one (1) year after the date of Substantial Completion or such longer period of time as may be prescribed by laws or regulations or by the terms of any applicable special warranty or guarantee required by the Contract Documents or supplied with regard to the Work or required by any specific provision of the Contract Documents, any Work is found to be defective, Contractor shall promptly, without cost to the County and in accordance with the County's written instructions, (i) correct such defective Work or, if it has been rejected by the County, remove it from the Site and replace it with Work that is not defective, and (ii) satisfactorily correct or remove and replace any damage to other Work or the work of others resulting there from. If Contractor does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, the County may have the defective Work corrected or the rejected Work removed and replaced, and all claims, costs, losses and damages caused by or resulting there from (including but not limited to all costs of repair or replacement of work of others) shall be paid by Contractor.

- Where Contractor fails to correct Defective Work, or defects are discovered outside the correction period, County shall have all the rights and remedies granted by law.
4. Where defective or rejected Work (and damage to other work resulting there from) has been corrected, removed or replaced under this provision after the commencement of the correction period, the correction period hereunder with respect to such Work will be extended for an additional period of the longer of one year after such correction or removal and replacement has been satisfactorily completed or one (1) year after Substantial Completion.

D. ACCEPTANCE AND CORRECTION OF DEFECTIVE WORK BY THE COUNTY

1. If after giving Contractor the opportunity to repair, should it not do so, the County may accept defective Work: If, instead of requiring correction or removal and replacement of defective Work, the County prefers to accept it, the County may do so. Contractor shall pay all claims, costs, losses and damages attributable to the County's evaluation of and determination to accept such defective Work. If any such acceptance occurs prior to final payment, a change order will be issued incorporating the necessary revisions in the Contract Documents with respect to Work, unless the parties are unable to agree upon an appropriate decrease in the Contract Sum, in which case the County may deduct from monies due Contractor the amount of such claims, costs, losses (including diminution in value), damages, expenses and liabilities attributable to the acceptance of the defective work. If Contractor disagrees with the deduction, the Contractor may make a Claim as provided in Section 1.12. If the acceptance occurs after Final Payment, an appropriate amount shall be paid by Contractor as determined by the County.
2. The County may correct defective Work: If Contractor fails within five (5) calendar days after written notice from the County to begin to correct defective Work or to begin to remove and replace rejected Work as required by County in accordance with Subsection 1.09.C.2, or to provide a plan for correction of defective Work acceptable to the County, or if Contractor otherwise fails to perform the Work in accordance with Contract Documents, the County may, after seven (7) calendar days written notice to Contractor, correct and remedy any deficiency. In connection with such corrective and remedial action, the County may exclude Contractor from all or part of the Site, take possession of all or part of the Work, and suspend Contractor's work related thereto, take possession of all or part of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work any materials and equipment stored at the Site or for which the County has paid Contractor but which are stored elsewhere. Contractor shall allow the County, its representatives, agents, employees, consultants and other contractors and County consultants' access to the Site to enable the County to exercise the rights and remedies under this Subsection 1.09.D.2. All claims, costs, losses (including diminution in value), damages, expenses and liabilities incurred or sustained by the County in exercising such rights and remedies will be the responsibility of Contractor and a change order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work and the Contract Sum. If the parties are unable to agree on the amount of an appropriate decrease in the Contract Sum, the County may deduct from monies due Contractor all claims, costs, losses (including diminution in value), expenses, damages and liabilities attributable to the defective Work, including all costs of repair or replacement of work of others destroyed or damaged by correction, removal or replacement of Contractor's defective Work. If Contractor disagrees with the County's calculation, it may make a Claim as provided in Section 1.12 of these General Conditions.

E. RIGHTS UPON INSPECTION OR CORRECTION

1. The Contractor shall not be allowed an extension of the Contract Time (or any milestones) because of any delay in the performance of the Work attributable to the reasonable exercise by the County of its rights and remedies under this Section 1.09. Where the County reasonably exercises its rights under this Section 1.09, it retains all other rights it has by law or under the Contract Documents, including but not limited to, the right to terminate Contractor's right to proceed with the Work for cause under the Contract Documents and/or make a claim or back charge where a Change Order cannot be agreed upon.
2. Inspection shall not relieve the Contractor of its obligation to have furnished material and workmanship in accordance with Contract Documents. Payment for work completed through periodic progress payments or otherwise shall not operate to waive the County's right to require full compliance with the Contract Documents and shall in no way be deemed as acceptance of the Work paid therefore. Contractor's obligation to complete the Work in accordance with the Contract Documents shall be absolute, unless the County agrees otherwise in writing.

F. SAMPLES AND TESTS OF MATERIALS AND WORK

1. Samples or test specimens of all materials to be used or offered for use in connection with the Work shall be prepared at the expense of Contractor and furnished to County in such quantities and sizes as may be required for proper examination, analysis and tests.
2. All samples shall be submitted in ample time to enable County to make any tests, analyses or examinations necessary before the time at which it is desired to incorporate the material into the Work.
3. County may refuse consideration of further samples of same brand or make of material or product previously determined as unsatisfactory for testing, analysis or examination.

G. PROOF OF COMPLIANCE WITH CONTRACT PROVISIONS

In order that the County may determine whether Contractor has complied or is complying with requirements of Contract not readily enforceable through inspection and tests of Work and materials, Contractor shall at any time when requested submit to the County properly authenticated documents or other satisfactory proofs of compliance with all applicable requirements.

H. ACCEPTANCE

Neither inspection by the County or its authorized agents or representatives, nor any order or certificate for the payment of money, nor any payment, nor acceptance of the whole or any part of the Work by the County, nor any extension of time, nor any verbal statements issued by the County or its authorized agents or representatives shall operate as a waiver of any provisions of this Contract, or of any power herein reserved by the County or any right to damage herein provided, nor shall any waiver of any breach of this Contract be held to be a waiver of any other subsequent breach.

I. FINAL ACCEPTANCE AND DATE OF COMPLETION

1. "Substantial Completion" means the stage in the progress of the Construction Work, as determined by the Project Manager, when the Construction Work is complete and in accordance with the Contract Documents except only for completion of minor items which do not impair County ability to occupy and fully utilize the Construction Work for its

- intended purpose and a Certificate of Occupancy has been issued by the Building Official having jurisdiction.
2. When the Contractor gives notice to the Project Manager that the Construction Work is substantially complete, unless Project Manager determines that the Construction Work is not sufficiently complete to warrant an inspection to determine Substantial Completion, Project Manager will inspect the Construction Work, and prepare and give to the Contractor a comprehensive list of items to be completed or corrected before establishing Substantial Completion. The Contractor shall proceed promptly to complete and correct items on the list. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Construction Work in accordance with the Contract Documents. The Project Manager will make an inspection to determine whether the Construction Work is substantially complete. If Project Manager's inspection discloses any item, whether or not included on the list, which must be completed or corrected before Substantial Completion, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item. The Contractor shall then submit a request for another inspection by Project Manager to determine Substantial Completion. Costs for additional inspection by the County shall be deducted from any monies due and payable to the Contractor.
 3. When Project Manager determines that the Construction Work is substantially complete, Project Manager will arrange for inspection by the Authority having Jurisdiction (AHJ) and other officials, as appropriate, for the purpose of issuing a Certificate of Occupancy. After a Certificate of Occupancy has been issued by the AHJ, the Project Manager will prepare a Certificate of Substantial Completion on County form as contained in the Exhibits, which, when signed by the County, shall establish the date of Substantial Completion and the responsibilities of County and The Contractor for security, maintenance, utilities, insurance, and damage to the Construction Work.
 4. Unless otherwise provided in the Certificate of Substantial Completion, the Guarantee To Repair Period for the Work covered by the Certificate of Substantial Completion, shall commence on the date of Substantial Completion of the Construction Work except that Substantial Completion shall not commence the Guarantee to Repair Period for any equipment or systems that:
 - a. Are not fully operational (equipment or systems shall not be considered fully operational if they are intended to provide service to any portion of the building which the County has neither Beneficially Occupied nor accepted as Substantially Complete); or
 - b. Are not accepted by the County.
 5. The Guarantee to Repair Period for equipment or systems which become fully operational and accepted subsequent to Substantial Completion will begin on the date of their written acceptance by County.
 6. The daily rate included in the Agreement and specifically identified as the rate to be paid to the Contractor for Compensable Delays shall not apply to any delays occurring after the Work is substantially completed.

1.10 CONTRACTOR'S ORGANIZATION AND EQUIPMENT

A. CONTRACTOR'S LEGAL ADDRESS

The address and telecopy number given in Bid is hereby designated as the legal address and telecopy number of Contractor, but such address and/or number may be changed at any time by notice in writing, delivered to the County, which in conspicuous language advises the County of a change in legal address or telecopy number. Delivery to Contractor's legal address or

depositing in any post office or post office box regularly maintained by United States Postal Service, in a postpaid wrapper, directed to Contractor at legal address, of any plan, notice, letter or other communication, shall be deemed legal and sufficient service thereof upon Contractor. Telecopy to Contractor's designated telecopy number of any letter, memorandum, or other communication on standard or legal sized paper, with proof of telecopy transmission, shall also be deemed legal and sufficient service thereof upon Contractor.

B. CONTRACTOR'S OFFICE AT THE SITE

Contractor is required to maintain an office at the Site, which office shall be headquarters of representative authorized to transmit and receive instructions, drawings or other communications to and from County. Instructions, drawings, or other communications given to Contractor's representative or delivered at the Site office in representative's absence shall be deemed to have been given to Contractor.

C. CONTRACTOR'S SUPERINTENDENTS OR FOREPERSONS

Contractor shall at all times be represented on Site by one or more superintendents or forepersons authorized and competent to receive and carry out any instructions that may be given to them by the County and Contractor shall be liable for faithful observance of instructions delivered to Contractor or to its authorized representative or representatives on Site.

D. PROFICIENCY IN ENGLISH

Supervisors, forepersons, security guards, safety personnel and employees who have unescorted access to the Site must possess proficiency in the English language in order to understand, receive and carry out oral and written communications or instructions relating to their job functions, including safety and security requirements.

E. CONTRACTOR'S AND SUBCONTRACTORS' EMPLOYEES

Contractor shall employ, and shall permit its Subcontractors to employ, only competent and skillful personnel to do Work. If County notifies Contractor that any of its employees, or any of its Subcontractors' employees employed on the Work is incompetent, disorderly or profane, or fails to observe customary standards of conduct or refuses to carry out any provision of the Contract Documents, or uses threatening or abusive language to any person on the Work (including persons representing County), or violates sanitary rules, or is otherwise unsatisfactory in the reasonable opinion of County, and if County requests that such person be discharged from Work, then Contractor or its Subcontractor shall immediately discharge such person from Work and the discharged person shall not be re-employed on the Work except with consent of County.

F. CONTRACTOR TO SUPPLY SUFFICIENT WORKERS AND MATERIALS

1. Unless otherwise required by the County pursuant to the terms of the Contract Documents, Contractor shall at all times keep on the premises a sufficient amount of equipment and materials and employ a sufficient number of qualified workers to prosecute the Work at a rate and in a sequence and manner necessary to complete the Work herein required within the Contract Times. This obligation shall remain in full force and effect notwithstanding disputes or claims of any type.
2. At any time during progress of Work should Contractor directly or indirectly (through Subcontractors) refuse, neglect or be unable to supply sufficient materials or employ qualified workers to prosecute the Work as required to achieve the Completion Schedule, as manifested by two consecutive months realizing schedule slippage of ten

- (10) days or more on a critical path of activities, then County may require Contractor to furnish additional qualified workers or materials or otherwise prosecute the work in accordance with the Recovery Schedule provided by the Contractor, at no additional cost to County. If Contractor does not comply with the notice within five (5) Business Days of date of service thereof, County shall have the right (but not a duty) to provide materials and qualified workers to finish the Work or any affected portion of Work, as County may elect. County may, at its discretion, exclude Contractor from the Site, or portions of the Site or separate work elements during the time period that County exercises this right. County will deduct from moneys due or which may thereafter become due under the Contract Documents, the sums necessary to meet expenses thereby incurred and paid to persons supplying materials and doing Work. County will deduct from funds or appropriations set aside for purposes of Contract Documents the amount of such payments and charge them to Contractor as if paid to Contractor. Contractor shall remain liable for resulting delay, including liquidated damages and indemnification of County from claims of others.
3. Exercise by the County of the rights conferred upon them in Subsection 1.10.F.2, above, is entirely discretionary on the part of the County. The County shall have no duty or obligation to exercise the rights referred to in Subsection 1.10.F.2, above, and the failure to exercise such rights shall not be deemed an approval of existing work progress or a waiver or limitation of the County's right to exercise such rights in other concurrent or future similar circumstances. The rights conferred upon the County under Subsection 1.10.F.2, above, are cumulative to the County's other rights under the Contract Documents including, but not limited to, the County's rights to terminate the Contract.
 4. The County may, if it deems necessary for reasons other than as described in Subsection 1.10.F.2, direct Contractor to accelerate the Work by increasing crew sizes, working overtime (as permitted by law) and/or performing shift work. If directed to perform overtime and/or shift work, Contractor will work said overtime and/or shift work, and the County shall pay Contractor solely for the additional premium wages paid, plus taxes imposed by law on such additional wages. Unless otherwise directed by the County, accelerated work shall be performed utilizing the most cost-effective available method. For example, the County shall not be responsible to pay the premium for overtime work if the same work could have been performed on second shift utilizing a lower premium.

G. CONTRACTOR TO LIST TRADES WORKING

Contractor shall list the trades working on the Site and their scheduled activities on a daily basis and provide a copy of that list to County on a daily basis.

H. CONTRACTOR'S USE OF THE SITE

Contractor shall not make any arrangements with any person to permit occupancy or use of any land, structure or building within the limit of the Work, for any purpose whatsoever, either with or without compensation, in conflict with any agreement between the County and any owner, former owner or tenant of such land, structure or buildings. Contractor may not occupy County-owned property outside the limit of the Work as shown on the Drawings unless it obtains prior approval from the County.

1.11 PROSECUTION AND PROGRESS OF THE WORK

A. SCHEDULES AND EXAMINATIONS OF CONTRACT DOCUMENTS

1. Before undertaking each part of the Work, the Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon,

- all applicable field and engineering measurements and all actual conditions. The Contractor shall promptly report in writing to the County any conflict, error, ambiguity or discrepancy which the Contractor may discover and shall obtain a written interpretation or clarification from the County before proceeding with any Work affected thereby.
2. The Contractor shall submit an electronic version of an original, plus seven (7) copies, of the following schedules to the County at least five days prior to the Pre-Construction Conference for initial review and discussion:
 - a. Progress Schedules and Reports as required by Specification Sections 01 32 16 (Construction Progress Schedule) and 01 33 00 (Submittal Procedures).
 - b. Preliminary Design Schedule which will list Contractor's preliminary schedule for completing the project design documents (through release for construction), each required submittal and the times for submitting, reviewing and processing such submittal, as required by Specification Section 01 32 16 (Construction Progress Schedule) and 01 33 00 (Submittal Procedures)
 - c. Preliminary schedule of values for all the Work which will include quantities and prices of items aggregating the Contract Sum and will subdivide each schedule of value into component activities in sufficient detail to serve as the basis for progress payments during construction. Such Schedule of Values will include an appropriate amount of overhead and profit applicable to each item of work, will include a line item for project record documents and a line item for project scheduling, and will conform to Specification Section 01 29 00.
 3. Unless otherwise provided in the Contract Documents, at least fifteen (15) Days before submission of the first application for payment, a conference attended by Contractor, County, and others as appropriate, will be held to review for acceptability the schedules submitted in accordance with Subsection 1.11.A.2 of these General Conditions and first reviewed at the Preconstruction Conference. Contractor shall have an additional twelve (12) calendar days to make corrections and adjustments and to complete and resubmit the schedules. Schedules shall be updated and completed as required by Sections 01 29 00 (Measurement and Payment Procedures), 01 32 16 (Construction Progress Schedule) and 01 33 00 (Submittal Procedures). No progress payment shall be due or owing to Contractor until the schedules are submitted to and reasonably acceptable to County and/or County consultants as meeting the requirements of the Contract Documents, including Sections 01 29 00 (Measurement and Payment), 01 32 16 (Construction Progress Schedule) and 01 33 00 (Submittal Procedures). County's acceptance of Contractor's schedules will not create any duty of care or impose on County any responsibility for the sequencing, scheduling or progress of Work nor will it interfere with or relieve Contractor from Contractor's full responsibility, therefore.
 4. Before commencing any portion of the Work, the Contractor shall, to permit proper inspection of the Work and to assure measurements necessary for record and payment, inform the County in writing as to time and place at which the Contractor wishes to commence the Work and the nature of the Work to be done. Information shall be given to the County a reasonable time in advance of time at which the Contractor proposes to begin Work, so that County may make necessary preliminary work without inconvenience or delay to the Contractor. If the County so requires, the Contractor shall submit weekly, a rolling three (3) week schedule, listing the activities anticipated to be performed along with the dates for which work is expected to be performed.
 5. The Contractor shall submit submittals and shop drawings to County for review in accordance with Section 01 33 00 Submittal Procedures. Submission of a Shop Drawing shall constitute the Contractor's representation that all requirements of Section 01 33 00 Submittal Procedures have been complied with. All submittals will be identified as County may require and in the number of copies specified in these General Conditions or Section 01 33 00 Submittal Procedures.

6. The Contractor shall not perform any Work requiring submission of a Shop Drawing or Sample or other submittal prior to submission and a favorable review thereof. Where a Shop Drawing or Sample or other submittal is required by the Contract Documents or the final schedule of Shop Drawing and Sample submissions accepted by the County, any related Work performed prior to County's approval of the pertinent submittal will be at the sole expense, responsibility and risk of the Contractor.
7. The Contractor shall utilize the Progress Schedules in planning, scheduling, coordinating, performing and controlling the Work (including all activities of Subcontractors, assigned contractors, equipment vendors and suppliers). The Contractor shall update the Progress Schedules on a monthly basis for purpose of recording and monitoring the progress of the Work and evaluating and preparing the Contractor's monthly progress payments. Contractor's failure to submit and maintain an acceptable progress schedule may, in County's discretion, and without limiting the materiality of Contractor's other obligations under the Contract Documents, constitute grounds to declare Contractor in material breach of the Contract Documents.

B. LINES AND GRADES, MEASUREMENTS

1. Work shall be done to lines and grades established by Contractor at Contractor's cost in accordance with the Contract Documents, unless the County, in its discretion, directs otherwise.
2. At times it may be necessary to discontinue portions of Contractor's work in order for the County to make measurements or surveys without interruptions or other interference that might impair accuracy of results. At any time, on request of the County, Contractor shall discontinue the Work to such extent as may be necessary for purposes of the County.
3. No direct payment will be made for cost to Contractor of any work or delay occasioned by establishing or checking lines and grades or making other measurements, or by inspection, and no extension of time will be allowed for such delays.

C. COST DATA

1. Contractor shall maintain full and correct information as to number of workers employed in connection with each subdivision of the Work, classification and rate of pay of each worker in the form of certified payrolls, cost to Contractor of each class of materials, tools and appliances used by Contractor in the Work, and amount of each class of materials used in each subdivision of the Work. If Contractor maintains or is capable of generating summaries or reports comparing actual project costs with Bid estimates or any budgets, it shall provide the County with a copy of such report whenever it is requested by or on behalf of the County.
2. The Contractor shall maintain daily job reports recording all significant activity on the job, including the number of workers and specific equipment on Site, work activities, work accomplished, problems encountered and delays. Contractor shall provide County with copies for each Day Contractor works on the Project, to be delivered to County either the same Day or the following morning before starting work at the Site. Contractor shall take weekly progress photographs of all areas of the Work. Contractor shall maintain copies of all correspondence with Subcontractors and records of meetings with Subcontractors. Contractor shall report to the Surety promptly upon receiving requests from the Surety to provide reporting. Contractor shall provide copies of daily job reports as required by the County or specified in Section 01 31 00.
3. County shall have the right to audit and copy Contractor's books and records of any type, nature or description relating to the Project (including but not limited to financial records reflecting in any way costs claimed on the Project), and to inspect the Site, including Contractor's trailer, or other job Site office, and this requirement shall be

contained in the subcontracts of Subcontractors working on Site. By way of example, County shall have the right to inspect and obtain copies of all Contract Documents, planning and design documents, Bid proposal and negotiation documents (subject to Document 00 40 20 [Escrow Bid Documents]), cost records and job cost variance reports, design modification proposals, value engineering or other cost reduction proposals, revisions made to the original design, job progress reports, photographs, and as-built drawings maintained by Contractor. Notwithstanding the foregoing, during construction, County shall have the right to audit, inspect and obtain copies of cost records and job cost variance reports only to the extent such matters are applicable to a Contractor Claim or specifically disputed cost item raised by County, and as may otherwise be required by law.

4. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Contract Modifications, Change Orders, Work Directives, Force Account orders, and written interpretations and clarifications in good order and annotated to show all changes made during construction. These Project Record Documents, together with all approved Samples and a counterpart of all approved Shop Drawings, shall be maintained and available to County for reference. Upon completion of the Work, Contractor shall deliver to County, the Project Record Documents, Samples and Shop Drawings and as-built drawings.
5. County and any other applicable governmental entity shall have the right to inspect all information and documents maintained under this Subsection 1.11.C at any time during the Project and for a period of five years following Substantial Completion. This right of inspection shall not relieve Contractor of its duties and obligations under the Contract Documents. This right of inspection shall be specifically enforceable in a court of law, either independently or in conjunction with enforcement of any other rights in the Contract Documents.

1.12 CLAIMS BY CONTRACTOR

A. GENERAL

1. Contract Interpretation Disputes: Should it appear to Contractor that Work to be performed or any of the matters relative to Contract Documents (including without limitation Drawings or Specifications) are not satisfactorily detailed or explained therein, or should any questions arise as to the meaning or intent of Contract Documents (including without limitation Drawings or Specifications), Contractor shall give written notice to County. Contractor shall bear all costs incurred in giving notice. County will render a determination regarding the issue, which shall be final. If Contractor disagrees with County's decision, or if Contractor contends that County failed to provide a decision, Contractor's sole and exclusive remedy is to file a claim in accordance with this Section 1.12. Contractor shall diligently prosecute the Disputed Work (as defined below) to Final Completion pending resolution of any claim.
2. Work Disputes: Contractor shall give written notice to County of any dispute arising under the Contract Documents respecting the true value of any Work performed, the performance or implementation of Work required by Contract Documents, any Work omitted, any extra Work that Contractor may be required to perform or time extensions, respecting the size of any payment to Contractor during the performance of Contract Documents, or of compliance with Contract Documents procedures. County will render a determination regarding the issue, which shall be final. If Contractor disagrees with County's decision, or if Contractor contends that County failed to provide a decision, Contractor's sole and exclusive remedy is to file a claim in accordance with this Section 1.12. Pending the resolution of any claim, Contractor shall diligently prosecute the Disputed Work to Final Completion.

3. The claim notice and documentation procedure described in this Section 1.12 applies to all claims and disputes arising under the Contract Documents, including without limitation any claim or dispute by any Subcontractor or material supplier. All Subcontractor and supplier claims of any type shall be brought only through Contractor as provided in this Section 1.12. Under no circumstances shall any Subcontractor or supplier make any direct claim against County.
4. "Claim" means a written demand or written assertion by the Contractor seeking, as a matter of right, the payment of money, the adjustment or interpretation of the Contract Documents terms, or other relief arising under or relating to the Contract Documents. In order to qualify as a "claim," the written demand must state that it is a claim submitted under Section 1.12 of these General Conditions.
5. A voucher, invoice, proposed change, Application for Payment, cost proposal, RFI, change order request, or other routine or authorized form of request for payment is not a claim under the Contract Documents. If such request is disputed as to liability or amount, then the disputed portion of the submission may be converted to a claim under the Contract Documents by submitting a separate claim in compliance with claim submission requirements.
6. The provisions of this Section 1.12 survive termination, breach or completion of the Contract Documents, and constitute a claims procedure by agreement under Government Code Section 930.2. The Contractor shall bear all costs incurred in the preparation and submission of a claim.

B. PROCEDURE

1. Should any clarification, determination, action or inaction by the County or County consultants, Work, or any other event, in the opinion of the Contractor, exceed the requirements of or not comply with the Contract Documents, or otherwise result in the Contractor seeking additional compensation in time or money for any reason (collectively "Disputed Work"), then the Contractor shall give County written notice thereof. Contractor and the County shall make good faith attempts to resolve informally any and all such issues, claims and/or disputes. Before commencing the Disputed Work, or within fourteen (14) calendar days after Contractor's first knowledge of the Disputed Work, whichever is earlier, the Contractor must file a written notice and cost proposal for the Disputed Work with the County stating clearly and in detail its objection and reasons for contending the Work or interpretation is outside the requirements of the Contract Documents. The cost proposal shall provide the proposed cost of the disputed work, and if the cost cannot be accurately estimated within the period that the cost proposal is required to be submitted, then Contractor shall provide its best estimate of the cost of the disputed work and immediately provide a more definitive estimate as soon as reasonably practical. If a written notice and cost proposal for the Disputed Work is not issued within this time period, or if the Contractor proceeds with the Disputed Work without first having given the notice required by this Subsection 1.12.B, the Contractor shall waive its rights to further claim on the specific issue.
2. The County will review and provide a decision on the Contractor's timely notice and cost proposal for Disputed Work within fourteen (14) calendar days after receipt thereof. If, after receiving the decision, the Contractor disagrees with it or still considers the Work required of it to be outside of the requirements of the Contract Documents, it shall so notify the County, in writing, within fourteen (14) calendar days after receiving the decision by submitting a notice of potential claim, that a formal claim will be issued. Within thirty (30) calendar days of receiving the decision, the Contractor shall submit its claim in the form specified herein and all arguments, justification, cost or estimates, schedule analysis, and detailed documentation supporting its position. The Contractor's failure to furnish notification within fourteen (14) calendar days and all justifying documentation within thirty (30) calendar days will result in the Contractor waiving its

- right to the subject claim. If Disputed Work persists longer than sixty (60) days, then the Contractor shall, every sixty (60) days until the Disputed Work ceases, submit to the County a document titled "Claim Update" which shall update and quantify all elements of the Claim as completely as possible. Claims or Claim Updates stating that damages, total damages (direct and indirect), schedule input and/or any time extension will be determined at a later date shall not comply with this Subsection 1.12.B and shall result in the Contractor waiving its claim(s).
3. Upon receipt of the Contractor's formal claim including all arguments, justifications, cost or estimates, schedule analysis, and documentation supporting its position as previously stipulated, the County or its designee will review the issue and render a final determination. County will do the same regarding any claim updates submitted in accordance with this section. County may in its discretion conduct an administrative hearing on Contractor's claim, in which case Contractor shall appear, participate, answer questions and inquiries, and present any further evidence or analysis requested by County to evaluate and decide Contractor's claim.
 4. Claims shall be calculated in the same manner as Change Orders per Section 00 90 00 (Revisions, Clarifications and Modifications). EXCEPT WHERE PROVIDED BY LAW OR ELSEWHERE IN THESE CONTRACT DOCUMENTS (IF APPLICABLE), COUNTY SHALL NOT BE LIABLE FOR SPECIAL OR CONSEQUENTIAL DAMAGES, AND CLAIMS SHALL NOT INCLUDE SPECIAL OR CONSEQUENTIAL DAMAGES. CONTRACTOR SHALL BE LIMITED IN ITS RECOVERY ON CLAIMS TO THE CHANGE ORDER CALCULATIONS SET FORTH IN SECTION 00 90 00 (Revisions, Clarifications and Modifications).

C. CLAIM FORMAT

The Contractor shall submit the claim justification in the following format: (a) Cover letter and certification under penalty of perjury of the accuracy of the contents of the claim, (b) summary of claim including underlying facts, entitlement, schedule analysis, quantum calculations and Contract Document provisions supporting relief, (c) list of documents relating to claim including specifications, Drawings, clarifications/requests for information, schedules, notices of delay, cost calculations and spreadsheets, and any others, (d) chronology of events and correspondence, (e) analysis of claim merit, (f) analysis of claim cost, and (g) attach supporting documents referenced in (c).

D. MEDIATION

If the Contractor's claims submitted in accordance with this Section 1.12 at Project completion total more than \$375,000, then such claims shall, as a condition precedent to litigation (or if otherwise permitted by the Contract Documents, arbitration) thereon, first be mediated. Mediation shall be non-binding and utilize the services of a mediator mutually acceptable to the parties and, if the parties cannot agree, a mediator selected by the American Arbitration Association from its panel of approved mediators trained in construction industry mediation. All statutes of limitation shall be tolled from the date of the demand for mediation until a date two weeks following the mediation's conclusion. All unresolved Contractor claims shall be submitted to the same mediator. The cost of mediation shall be equally shared.

E. EXCLUSIVE REMEDY

Contractor's performance of its duties and obligations specified in this Section 1.12 and submission of a claim and mediation as provided in this Section 1.12 is Contractor's sole and exclusive remedy for disputes of all types pertaining to the payment of money, extension of time, the adjustment or interpretation of Contract Documents terms or other contractual or tort relief

arising from Contract Documents. This exclusive remedy and the limitation of liability (expressed herein and elsewhere throughout Contract Documents) apply notwithstanding the completion, termination, suspension, cancellation, breach or rescission of the Work or Contract Documents, negligence or strict liability by County, its representatives, consultants or agents, or the transfer of Work or the Project to County for any reason whatsoever. Compliance with the notice and claim submission and mediation procedures described in Section 1.12 is a condition precedent to the right to commence litigation, file a Government Code Claim, or commence any other legal action. If Contractor fails to raise any claim(s) or issue(s) in a timely protest and timely claim submitted under this Section 1.12, then Contractor may not thereafter assert such claims(s) or issue(s) in any Government Code Claim, subsequent litigation, or legal action. County shall not have deemed to waive any provision under this Section 1.12, if at County's sole discretion; a claim is accepted in a manner not in accord with this Section 1.12.

F. FINAL CLAIM DISPOSITION

If the Contractor's claims submitted in accordance with this Section 1.12 at Project completion total less than \$375,000, then claims resolution shall proceed in the manner prescribed by Article 1.5, Chapter 1, Part 3 of Division 2 of the California Public Contract Code. If such claims exceed \$375,000, then Contractor shall prepare a compendium of claims submitted and not resolved as a result of these procedures, and submit them in a claim submitted under the Government Claims Act, Govt. Code Section 901 *et seq.*, for final investigation and consideration of their settlement prior to initiation of any litigation thereon, as required by Government Code Section 945.4. Pursuant to Government Code Section 930.2, the one-year period in Government Code Section 911.2 shall be reduced to 150 days.

G. SUBCONTRACTOR CLAIMS

Contractor shall present as its claims all Subcontractor, sub-Subcontractor and supplier claims of any type, and prove them under the terms of the Contract Documents. County shall not be directly liable to any Subcontractor, any supplier, or any other person or organization, or to any surety for or employee or agent of any of them, for damages or extra costs of any type arising out of or resulting from the Project.

1.13 LEGAL AND MISCELLANEOUS

A. LAWS AND REGULATIONS

1. Contractor shall keep fully informed of and shall comply with all statutes, laws, ordinances, codes, rules, regulations and orders of any properly constituted authority affecting the Work and persons connected with Work, and shall protect and indemnify the County and its officers, employees, consultants and agents against any claim or liability, including attorney's fees, arising from or based on violation of any statutes, laws, ordinances, codes, rules, regulations or orders, whether by Contractor or by Subcontractors, employees or agents. Authorized persons may at any time enter upon any part of the Work to ascertain compliance of all applicable statutes, laws, ordinances, codes, rules, regulations and orders.
2. Whenever the Drawings and Specifications require large sizes or higher standards than are required by any applicable law, ordinance, regulation or order, the Drawings and Specifications shall govern. Whenever the Drawings and Specifications require something, which will violate such laws, ordinances, regulations or orders, then such laws, ordinances, regulations or orders shall govern.

B. PERMITS AND TAXES

1. Contractor shall procure all permits and licenses applicable to the Work (including environmental matters to the extent applicable), pay all charges and fees, including fees for street opening permits, comply with, implement and acknowledge effectiveness of all permits, initiate and cooperate in securing all required notifications or approvals therefore, and give all notices necessary and incident to due and lawful prosecution of the Work, unless otherwise provided herein. The County will pay applicable building permit, school, sanitation and water fees except as otherwise provided in the Contract Documents, but no mark ups will be allowed on these costs. Contractor shall pay all sales and/or use taxes levied on materials, supplies, or equipment purchased and used on or incorporated into the Work, and all other taxes properly assessed against equipment or other property used in connection with the Work, without any increase in the Contract Sum. Contractor shall make necessary arrangements with proper authorities having jurisdiction over roads, streets, pipelines, navigable waterways, railroads and other works in advance of operations, even where the County may have already obtained permits for the Work.
2. Contractor will be responsible for any documentary, excise, stamp and transfer taxes and any sales, use or other taxes imposed by reason of the design, delivery, sale, transfer, or installation of Work (or any item of the Work) regardless of which party has liability for such tax under applicable law, and any deficiency, interest or penalty asserted with respect thereto. Contractor represents that it has, or will obtain prior to the transfer of title of Work (or any portion of the Work) the necessary seller's permit as required by the State of California. Contractor represents that it will collect, report, and pay all sales or use taxes to the State Board of Equalization. Upon full payment Contractor will issue the County a receipt pursuant to California Revenue and Taxation Code Section 6203, relieving County of all liability for any tax relating to the Work or any item of the Work.

C. NOTICE OF CONCEALED OR UNKNOWN CONDITIONS

1. If either of the following conditions is encountered at the Site when digging trenches or other excavations, Contractor shall give a written Notice of Differing Site Conditions to the County promptly before conditions are disturbed (except in an emergency as required by Subsection 1.16.D of these General Conditions), and in no event later than seven (7) days after first observance of (a) subsurface or latent physical conditions which differ materially from those indicated in the Contract Documents; (b) unknown physical conditions of an unusual nature or which differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents.
2. In response to Contractor's written Notice of Differing Site Conditions under Subsection 1.13.D of these General Conditions, the County will investigate the identified conditions, and if they differ materially and cause increase or decrease in Contractor's cost of, or time required for, performance of any part of the Work, the County will issue either a Request for Proposal or a Change Order under the procedures described in the Contract Documents, including without limitation Section 00 90 00 (Revisions, Clarifications and Modifications).
3. If the County determines that physical conditions at the Site are not Latent or are not materially different from those indicated in the Contract Documents or that no change in terms of the Contract Documents is justified, the County shall so notify Contractor in writing, stating reasons. If the County and Contractor do not agree on an adjustment in Contract Sum or Contract Times, Contractor shall proceed with the Work as directed by the County and may file a claim as provided in Section 1.12 of these General Conditions.
4. Contractor shall not be entitled to any adjustment in the Contract Sum or Contract Times regarding claimed Latent or materially different Site conditions, whether above or below grade if (a) Contractor knew of the existence of such conditions at the time Contractor

submitted its Bid; or (b) Contractor should have known of the existence of such conditions as a result of having complied with the requirements of the Contract Documents, including without limitation Section 1.01 and Subsection 1.08.D of these General Conditions; or (c) the information or conditions claimed by Contractor to be Latent or materially different consist of information, conclusions, opinions or deductions of the kind the Contract Documents, including without limitation Section 1.01 of these General Conditions preclude reliance upon; or (d) Contractor was required to give written Notice of Differing Site Conditions under the Contract and failed to do so within the time required. Compensation for unknown differing site conditions shall be allowed as provided elsewhere in the Contract Documents.

5. If the County and Contractor are unable to agree on entitlement to or as to the amount or length of any adjustment in the Contract Sum or Contract Times required under this Subsection 1.13.D, Contractor shall proceed with the Work as directed by County and may make a claim as provided in Section 1.12 of these General Conditions.

D. NOTICE OF HAZARDOUS WASTE OR MATERIALS CONDITIONS

1. Written Notice of Hazardous Materials Condition by Contractor shall be given in to the County promptly, before any of the following conditions are disturbed (except in an emergency as required by Subsection 1.16.D below), and in no event later than 24 hours after first observance, of any (a) material that Contractor believes may be material that is hazardous waste or hazardous material, as defined in Section 25117 of the Health and Safety Code (including, without limitation, asbestos, lead, PCBs, petroleum and related hydrocarbons, and radioactive material) that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law ("hazardous materials"); (b) other material which may present a substantial danger to persons or property exposed thereto in connection with Work at the Site ("other materials").

Except as otherwise provided in the Contract Documents or as provided by applicable law, Contractor shall not be required to give any notice for the disturbance or observation of any such hazardous materials or other materials where such matter is disturbed or observed as part of the scope of Work under the Contract Documents (such as hazardous waste or hazardous material investigation, remediation or disposal activities which are identified as the subject of Work under the Contract Documents), where Contractor complies with all requirements in the Contract Documents and applicable law respecting such materials.

2. Contractor's written Notice of Hazardous Materials Conditions under Subsection 1.13.E.1 above shall indicate whether the hazardous materials or other materials were shown or indicated in the Contract Documents to be within the Scope of Work, and whether the hazardous materials or other materials were brought to the Site by Contractor, its Subcontractors, suppliers, or anyone else for whom Contractor is responsible. As used

in this section, "hazardous materials" shall include asbestos, lead, PCBs, petroleum and related hydrocarbons, and radioactive material.

3. Contractor shall not be entitled to any adjustment in the Contract Sum or Times regarding claimed hazardous waste or materials if (1) Contractor knew of the existence of such hazardous materials or other materials at the time Contractor submitted its bid; or (2) Contractor failed to give the written Notice of Hazardous Materials Conditions within the time required by Subsection 11.5.1 of these General Conditions. Notwithstanding (1) and (2) above, Contractor may (subject to (3) above) be entitled to adjustment in the Contract Sum or Times regarding claimed hazardous waste or materials if not reasonably discernable from the reports and information provided by County, other information reasonably available to Contractor, visual observation or reasonable investigation. If the County determines that conditions do involve hazardous materials or other materials or that change in Contract Document terms is justified, then the County will either issue a Request for Proposal or an appropriate Change Order under the procedures described in the Contract Documents, including without limitation Section 00 90 00 (Revisions, Clarifications and Modifications).
4. If the County determines that conditions do not involve hazardous materials or other materials or that no change in Contract Document terms is justified, the County shall notify Contractor in writing, stating the reasons for its determination. If the County and Contractor cannot agree on any claimed adjustment in Contract Sum or Contract Times, Contractor shall proceed with the Work and as directed by the County and may file a claim as provided in Section 1.12 of these General Conditions.
5. In addition to the parties' other rights under Subsection 1.13.E.5 of these General Conditions, if the Contractor does not agree to resume work based on a reasonable belief that it is unsafe, or does not agree to resume work under special conditions, the County may order the disputed portion of work deleted from the Work, or performed by others, or the County may invoke its right to terminate Contractor's right to proceed under the Contract Documents in whole or in part for convenience or for cause as the facts may warrant. If Contractor does not agree with the County's determination of any adjustment in the Contract Sum or Times as a result, Contractor may make a claim as provided in Section 1.12 of these General Conditions.

E. SUSPENSION OF WORK

The County may, without cause, order Contractor in writing to suspend, delay or interrupt Work in whole or in part for such period of time as the County may determine. An adjustment shall be made for increases in cost of performance of the Contract Documents caused by any such suspension, delay or interruption, calculated using the measures set forth in Section 00 90 00. No adjustment shall be made to extent: (a) that performance is, was or would have been so suspended, delayed or interrupted by another cause for which Contractor is responsible; or (b) that an equitable adjustment is made or denied under another provision of the Contract Documents; or (c) that the suspension of work was the direct or indirect result of Contractor's failure to perform any of its obligations hereunder. Adjustments made in cost of performance may have a mutually agreed fixed or percentage fee; if the parties cannot agree, Contractor may file a claim under Section 1.12 herein.

F. TERMINATION OF CONTRACT FOR CAUSE AND WRITTEN ASSURANCES OF PERFORMANCE

Contractor shall be in default of this Contract and the County may terminate Contractor's right to proceed under the Contract Documents, for cause:

1. Should Contractor make an assignment for the benefit of creditors, admit in writing its inability to pay its debts as they become due, file a voluntary petition in bankruptcy, be adjudged a bankrupt or insolvent, be the subject of an involuntary petition in bankruptcy which is not dismissed within sixty (60) days, file a petition or answer seeking for itself any reorganization, arrangement, composition, readjustment, liquidation, dissolution, or similar relief under any present or future statute, law, or regulation, file any answer admitting or not contesting the material allegations of a petition filed against Contractor in any such proceeding, or seek, consent to, or acquiesce in, the appointment of any trustee, receiver, custodian or liquidator of Contractor or of all or any substantial part of the properties of Contractor, or if Contractor, its directors or shareholders, take action to dissolve or liquidate Contractor; or
2. Should Contractor commit a material breach of the Contract Documents. If County declares Contractor in default due to material breach, however, County must allow Contractor an opportunity to cure such breach within ten (10) days of the date of notice from County to Contractor providing notice of the default; or, if such breach is curable but not curable within such ten-day period, within such period of time as is reasonably necessary to accomplish such cure promptly. (In order for Contractor to avail itself of a time period in excess of ten (10) days, Contractor must provide County within the ten-day period with a written plan acceptable to County to cure said breach promptly which includes, for example, evidence of necessary resources, Subcontractor commitments, schedules and recovery schedules meeting Contract Document requirements and showing a realistic and achievable plan to cure the breach promptly Contractor must then diligently commence and continue such cure according to the written plan); or
3. Should Contractor violate or allow a violation of any valid law, statute, regulation, rule, ordinance, permit, license or order of any governmental agency applicable to the Project or Work and does not cure such violation within ten (10) calendar days of the date of the notice from the County to Contractor demanding such cure; or, if such failure is curable but not curable within such ten (10) day period, within such period of time as is reasonably necessary to promptly accomplish such cure promptly. (In order for Contractor to avail itself of a time period in excess of ten (10) calendar days, Contractor must provide the County within the ten (10) day period with a written plan to cure said violation acceptable to the County, and then diligently commence and continue performance of such cure according to the written plan.)
 - a. If the County at any time reasonably believes that Contractor is or may be in default under its Contract, as provided in Subsection 1.13.F.1 of these General Conditions, the County may in its sole discretion notify Contractor of this fact and request written assurances from Contractor of performance of the Contract and a written plan from Contractor to remedy any failures to perform the terms of the Contract which the County may advise the Contractor of in writing. Contractor shall, within ten (10) days of the County's request, deliver a written cure plan which meets the requirements of the written plan deliverable under Subsection 1.13.F. 2 of these General Conditions. Failure of the Contractor to provide written assurances of performance and the required written plan will constitute a material breach of this Contract sufficient to invoke Subsection 1.13.F.3.b below.

- b. In event of termination for cause, the County shall immediately serve written notice thereof upon Surety and Contractor. Surety shall have the rights and obligations set forth in the Performance Bond. Subject to the Surety's rights under the Performance Bond (which rights are waived upon a default under the Performance Bond), the County may take over the Work and prosecute it to completion by contract or by any other methods it may deem advisable.
- c. In the event of termination by the County as provided in Subsection 1.13.F.1 of these General Conditions for cause,
 - 1) The County shall compensate Contractor for the value of the Work delivered to the County upon termination as determined in accordance with the Contract Documents, subject to all rights of offset and back charges, and provided that Contractor provides the County with updated as built and project record documents showing the work performed up to the date of termination. However, the County shall not compensate Contractor for its costs in terminating the Work or any cancellation charges owed to third parties;
 - 2) Contractor shall deliver to the County possession of the Work in its then condition, including but not limited to, all designs, engineering, project records, cost data of all types, Drawings and Specifications and contracts with vendors and Subcontractors, and all other documentation associated with the Project, and all construction supplies and aids dedicated solely to performing Work which, in the normal course of construction, would be consumed or only have salvage value at the end of the construction period. The Contractor shall remain fully liable for the failure of any Work completed and materials and equipment provided through the date of such termination to comply with the provisions of the Contract Documents. The provisions of this Subsection 1.13.F.2 shall not be interpreted to diminish any right which the County may have to claim and recover damages for any breach of this Contract, but rather, Contractor shall compensate the County for all loss, cost, damage, expense, and/or liability suffered by the County as a result of such termination and failure to comply with the Contract Documents.
 - 3) Except as otherwise provided in the Contract Documents, the County's rights under Subsection 1.13.F.2 shall be specifically enforceable to the greatest extent permitted by law. County shall, to the extent applicable, have all other rights and remedies set forth in any other Contract Document.
- d. County may terminate for cause portions or parts of the Work, provided these portions or parts (1) have separate geographic areas from parts or portions of the Work not terminated or (2) are limited to the work of one or more specific trades or Subcontractors. In such case, Contractor shall cooperate with a completing contractor as required under Section 1.06 of these General Conditions.
- e. In the event a termination for cause is later determined to have been made wrongfully or without cause, then the termination shall be treated as a termination for convenience, and Contractor shall have only the recovery rights specified in Subsection 1.13.G (Termination of Contract for Convenience.) Any Contractor claim arising out of a termination for cause, however, shall be made in accordance with Section 1.12 of these General Conditions. No other loss cost, damage, expense or liability may be claimed, requested or recovered by Contractor.

G. TERMINATION OF CONTRACT FOR CONVENIENCE

1. The County may terminate performance of the Work under the Contract Documents in accordance with this clause in whole, or from time to time in part, whenever the County shall determine that termination is in the County's best interest. Termination shall be effected by the County delivering to the Contractor notice of termination specifying the extent to which performance of the Work under the Contract Documents is terminated, and the effective date of the termination.
2. After receiving a notice of termination under Subsection 1.13.G.1 above, and except as otherwise directed by the County, the Contractor shall:
 - a. Stop Work under the Contract Documents on date and to extent specified in notice of termination;
 - b. Place no further orders or subcontracts for materials, services, or facilities except as necessary to complete portion of Work under the Contract Documents which is not terminated;
 - c. If not directed by the County to assign the same, terminate all orders and subcontractors, or assign to the County in manner, at times, and to extent directed by the County, all right, title, and interest of the Contractor under orders and subcontracts. The County shall have the right, in its sole discretion, to settle or pay any or all claims arising out of termination of orders and subcontracts;
 - d. Settle all outstanding liabilities and all claims arising out of any termination of orders and subcontracts, with approval or ratification of the County to extent the County may require. The County's approval or ratification shall be final for purposes of this Subsection 1.13.G of these General Conditions;
 - e. Transfer title to the County, and deliver in the manner, at the times, and to the extent, if any, directed by the County, all fabricated or unfabricated parts, Work in process, completed Work, supplies, and all other material produced as part of, or acquired in connection with performance of, Work terminated by the notice of termination, and completed or partially completed drawings, drawings, specifications, information, and other property which, if the Project had been completed, would have been required to be furnished to the County;
 - f. Use its best efforts to sell, in manner, at times, to extent, and at price or prices that the County directs or authorizes, any property of types referred to in Subsection 1.13.G.2.e above, but the Contractor shall not be required to extend credit to any purchaser, and may acquire any such property under conditions prescribed and at price or prices approved by the County. Proceeds of transfer or disposition shall be applied to reduce payments to be made by the County to the Contractor under the Contract Documents or shall otherwise be credited to the price or cost of Work covered by the Contract Documents or paid in such other manner as the County may direct;
 - g. Complete performance of the part of the Work which was not terminated by the notice of termination; and
 - h. Take such action as may be necessary, or as the County may direct, to protect and preserve all property related to the Contract Documents which is in the Contractor's possession and in which the County has or may acquire interest.
3. After receipt of a notice of termination under Subsection 1.13.G.1 of these General Conditions, the Contractor shall submit to the County its termination claim, in form and with all certifications required by the Contract Documents. The Contractor's termination claim shall be submitted promptly, but in no event later than 2 months from effective date of the termination. The Contractor and the County may agree upon the whole or part of the amount or amounts to be paid to the Contractor because of a total or partial termination of Work under this section. If the Contractor and the County fail to agree on the whole amount to be paid to the Contractor because of the termination of the Work

under this Subsection 1.13.G, County's total liability to Contractor by reason of the termination shall be the total (without duplication of any items) of:

- a. The reasonable cost to Contractor, including five percent (5%) profit, for all Work performed prior to the effective date of the termination, including Work done to secure the Project for termination. Reasonable cost may not exceed the applicable percentage completion values derived from the progress schedule and the schedule of values. Deductions shall be made for cost of materials to be retained by Contractor, cost of Work defectively performed, amounts realized by sale of materials, and for other appropriate credits against cost of Work. Reasonable cost will include reasonable allowance for Project overhead and general administrative overhead. When, in County's opinion, the cost of any item of Work is excessively high due to costs incurred to remedy or replace defective or rejected Work, reasonable cost to be allowed will be the estimated reasonable cost of performing the Work in compliance with requirements of Contract Documents and excessive actual cost shall be disallowed.
- b. When, in the County's opinion, the cost of any item of Work is excessively high due to costs incurred to remedy or replace defective or rejected Work, reasonable cost to be allowed will be the estimated reasonable cost of performing the Work in compliance with requirements of Contract Documents and excessive actual cost shall be disallowed.
- c. A reasonable allowance for profit on cost of Work performed as determined under Subsection 1.13.G.3.a of these General Conditions provided that the Contractor establishes to the County's satisfaction that the Contractor would have made a profit had the Project been completed, and provided further that the profit allowed shall not exceed five percent (5%) of cost.
- d. Reasonable costs to the Contractor of handling material returned to vendors, delivered to the County or otherwise disposed of as directed by the County.
- b. A reasonable allowance for the Contractor's internal administrative costs in preparing termination claim.
- c. The County shall have no obligation to pay the Contractor under this Subsection 1.13.G unless and until the Contractor provides the County with updated and acceptable as-builts and Project record documents for Work completed prior to termination.
- d. Reasonable demobilization costs and reasonable payments made to subcontractors or suppliers on account of termination.

In no event shall the County be liable for unreasonable costs incurred by the Contractor or subcontractors after receipt of a notice of termination. Such non-recoverable costs include, but are not limited to, anticipated profits on Work not performed as of the date of termination, post-termination employee salaries, unreasonable post-termination administrative expenses, post-termination overhead or unabsorbed overhead, surety costs of any type, costs of preparing and submitting the Contractor's Bid, attorney's fees of any type and all other costs relating to prosecution of claim or lawsuit.

4. In arriving at the amount due the Contractor under this clause there shall be deducted in whole or in the appropriate part(s) if the termination is partial:
 - a. all unliquidated advances or other payments on account previously made to the Contractor, including without limitation all payments which are applicable to the terminated portion of the Contract Documents,
 - b. any claim which the County may have against the Contractor in connection with the Contract Documents, and

- c. the agreed price for, or proceeds of sale of, any materials, supplies, or other things kept by the Contractor or sold under provisions of Subsection 1.13.G, and not otherwise recovered by or credited to the County.

H. CONTINGENT ASSIGNMENT OF SUBCONTRACTS

The Contractor hereby assigns to the County each Subcontract for a portion of the Work, provided that:

1. The assignment is effective only after the County's termination of the Contractor's right to proceed under the Contract Documents (or portion thereof relating to that Subcontract) pursuant to Subsections 1.13.F or 1.13.G above;
2. The Assignment is effective only for the Subcontracts which the County expressly accepts by notifying the Subcontractor in writing;
3. The assignment is subject to the prior rights, if any, of the Surety, obligated by the Performance Bond provided under the Contract Documents, where the Surety exercises its rights to complete the Contract;
4. After the effectiveness of an assignment, the Contractor shall, at its sole cost and expense (except as otherwise provided in Subsections 1.13.F or 1.13.G above), sign all instruments and take all actions reasonably requested by the County to evidence and confirm the effectiveness of the assignment in the County; and
5. Nothing in this Subsection 1.13.H shall modify or limit any of the Contractor's obligations to the County arising from acts or omissions occurring before the effectiveness of any Subcontract assignment, including but not limited to all defense, indemnity and hold harmless obligations arising from or related to the assigned Subcontract.

I. REMEDIES AND CONTRACT INTEGRATION

1. Subject to the Contract Document provisions regarding Contractor claims, claim review, and claim resolution, and subject to the limitations therein, the exclusive jurisdiction and venue for resolving all claims, counter-claims, disputes and other matters in question between County and Contractor arising out of or relating to Contract Documents, any breach thereof or the Project, shall be decided in the applicable court of competent jurisdiction located in the State of California, County of Nevada. All County remedies provided in the Contract Documents shall be taken and construed as cumulative and not exclusive; that is, in addition to each and every other remedy herein provided; and in all instances County and Contractor shall have any and all other equitable and legal rights and remedies which it would have according to law that are not inconsistent with the provisions of the Contract Documents.
2. The Contract Documents, any Contract Modifications and Change Orders shall represent the entire and integrated agreement between County and Contractor regarding the subject matters hereof and thereof and shall constitute the exclusive statement of the terms of the parties' agreement. The Contract Documents, and any Contract Modifications and Change Orders, shall supersede any and all prior negotiations, representations or agreements, written or oral, express or implied, that relate in any way to the subject matter of the Contract Documents or written modifications. County and Contractor represent and agree that, except as otherwise expressly provided in the Contract Documents, they are entering into the Contract

Documents and any subsequent written modification in sole reliance upon the information set forth or referenced in the Contract Documents or Contract Modifications and the parties are not and will not rely on any other information.

3. In any proceeding to enforce the Contract Documents, Contractor and County agree that the finder of fact shall receive detailed instructions on the meaning and operation of the Contract Documents, including their conditions, limitations of liability and remedies clauses, claims procedures and any other provisions impacting major defenses and theories of liability of the parties. Detailed findings of fact shall be requested, to verify Contract enforcement.
4. Either party's waiver of any breach or failure to enforce any of the terms, covenants, conditions or other provisions of the Contract Documents at any time shall not in any way affect, limit, modify or waive that party's right thereafter to enforce or compel strict compliance with every term, covenant, condition or other provision hereof, any course of dealing or custom of the trade or oral representations notwithstanding.

J. PATENTS AND INTELLECTUAL PROPERTY

Fees or claims for any patented invention, article or arrangement that may be used upon or in any manner connected with performance of the Work or any part thereof shall be included in the Bid price for doing the Work. Contractor shall defend, indemnify and hold harmless County and each of its officers, employees, consultants (including without limitation County consultants) and agents, including, but not limited to, the County Board of Supervisors, Project Manager, and each County's Representative, from all damages, claims for damages, costs or expenses in law or equity, including attorney's fees, arising from or relating to any claim that any article supplied or to be supplied under the Contract Documents infringes on the patent rights, copyright, trade name, trademark, service mark, trade secret or other intellectual property right of any person or persons or that the person or entity supplying the article does not have a lawful right to sell the same. Such costs or expenses for which Contractor agrees to indemnify and hold harmless the above indemnitees include but are not limited to any and all license fees, whether such fees are agreed by any indemnitee or ordered by a court or administrative body of any competent jurisdiction.

K. SUBSTITUTION FOR PATENTED AND SPECIFIED ARTICLES

Except as noted specifically in Specifications, whenever in Specifications, material or process is designated by patent or proprietary name or by name of manufacturer, such designation shall be deemed to be used for purpose of facilitating description of material and process desired, and shall be deemed to be followed by the words "or equal" and Contractor may offer any substitute material or process that Contractor considers equal in every respect to that so designated and if material or process offered by Contractor is, in opinion of County, equal in every respect to that so designated, its use will be approved and only if it is a true "equal" item in every aspect of its design and quality, including but not limited to its dimensions, weights, service requirements, durability, functioning, impact on contiguous construction elements, overall schedule and design.

L. INTEREST OF PUBLIC OFFICERS

No representative, officer, or employee of County, no member of the governing body of the locality in which the Project is situated, no member of the locality in which County was activated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the Project, during the tenure of the official or for one year

thereafter, shall, as principal, agent, attorney or otherwise, be directly or indirectly interested, in the Contract Documents or the proceeds thereof.

M. LIMIT OF LIABILITY

NEITHER THE COUNTY, COUNTY BOARD OF SUPERVISORS, NOR THEIR RESPECTIVE EMPLOYEES, OFFICERS, DIRECTORS, REPRESENTATIVES, CONSULTANTS OR AGENTS (INCLUDING WITHOUT LIMITATION COUNTY CONSULTANTS) SHALL HAVE ANY LIABILITY TO CONTRACTOR FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES, EXCEPT TO THE LIMITED EXTENT THAT THESE CONTRACT DOCUMENTS OR APPLICABLE PUBLIC CONTRACTING STATUTES MAY SPECIFY THEIR RECOVERY.

N. SEVERABILITY

Any provisions or portions thereof of these Contract Documents that are prohibited by, unlawful or unenforceable under any applicable law of any jurisdiction shall as to such jurisdiction be ineffective without affecting other provisions or portions thereof in this Contract. If the provisions of such applicable law may be waived, they are hereby waived to the end that this Contract may be deemed to be a valid and binding agreement enforceable in accordance with its terms. If any provisions or portions thereof of this Contract are prohibited by, unlawful, or unenforceable under any applicable law and are therefore stricken or deemed waived, the remainder of the provisions and this Contract shall be interpreted to achieve the goals or intent of the stricken or waived provisions or portions thereof to the extent such interpretation is consistent with applicable law. All provisions of PCC § 22300 are deemed incorporated into these Contract Documents.

O. CONTRACT DOCUMENTS AND EXERCISE OF CONTRACT RESPONSIBILITIES

1. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the County or its representatives and a Subcontractor of any tier (including, but not limited to, designers, architects and engineers) or (2) between any persons or entities other than the County and Contractor. Contractor is fully responsible for all acts, omissions or negligence of its Subcontractors of any tier, suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with Contractor just as Contractor is responsible for Contractor's own acts, omissions or negligence.
2. The County and its agents do not, in exercising their responsibilities and authorities under the Contract Documents, assume any duties or responsibilities to any Subcontractor or supplier, nor does the County or its agents assume any duty of care to Contractor, its Subcontractors, or suppliers.

P. TITLE TO WORK: NO LIENS

Legal title to all Work shall pass to and vest in County as Work is performed and payment made, and title to all materials and equipment shall pass to and vest in County when such materials and equipment are delivered to the Site and payment is made by County (or as soon as title passes from the vendor or supplier thereof). To the extent of payment by County, Contractor shall keep the Site and all materials and equipment free and clear of all liens, stop notices and charges arising out of performance of this Contract, and shall indemnify, defend and hold harmless those identified in Subsection 1.13.C.2 from the claims, suits, actions, losses and liabilities described therein, including those which are a result of any breach of this responsibility and shall defend any claim or suit brought against any party required to be indemnified hereunder based upon any such claim of title or lien. Contractor shall promptly pay each

Subcontractor the amount to which such Subcontractor is entitled, and shall, by an appropriate agreement with each Subcontractor, require each Subcontractor to make payments to its Sub-subcontractors in a similar manner.

Q. PROPRIETARY OR CONFIDENTIAL INFORMATION OF COUNTY

Contractor understands the Project involves a County facility and further agrees that, in the performance of the services under this Contract or in the contemplation thereof, Contractor may have access to private or confidential information, which may be owned or controlled by County, and that such information may contain proprietary or confidential details, the disclosure of which to third parties may be damaging to County. Contractor agrees that all information disclosed by County to Contractor shall be held in confidence and used only in performance of the Contract. Contractor shall exercise the same standard of care to protect such information, as a reasonably prudent consultant would use to protect its own proprietary data.

R. OWNERSHIP OF RESULTS/WORKS FOR HIRE

1. The engineering analysis, drawings and specifications for the Project that are prepared pursuant to this Contract are and shall remain the property of the County. Contractor hereby does and shall cause all Subcontractors and others who prepared such design documents for the Project to transfer, convey, and assign to the County all rights throughout the world in the nature of copyright and trademark in and to all versions of such design documents, including but not limited to the Contract Documents, but only to the extent such materials apply to County and/or to the Project. The County shall have the right to distribute, copy or to cause the distribution and copying of such drawings and specifications to third parties as may reasonably be necessary in connection with the Project.
2. Any and all artwork, copy, posters, billboards, photographs, videotapes, audiotapes, systems designs, software, reports, diagrams, surveys, source codes or any original works of authorship created by Contractor or its Subcontractors or designers in connection with services performed under this Contract shall be works for hire as defined under Title 17 of the United States Code, and all copyrights in such works are the property of the County. In the event that it is ever determined that any works created by Contractor or its Subcontractors or designers under this Contract are not works for hire under U.S. law, Contractor hereby assigns all copyrights to such works to the County. With the prior written approval of the County, Contractor may retain and use copies of such works for reference and as documentation of its experience and capabilities.

S. COMPLIANCE WITH AMERICANS WITH DISABILITIES ACT

Contractor acknowledges that, pursuant to the Americans with Disabilities Act (ADA), programs, services and other activities provided by a public entity to the public, whether directly or through a contractor, must be accessible to the disabled public. Contractor shall provide the services specified in this Contract in a manner that complies with the ADA and any and all other applicable federal, state and local disability rights legislation. Contractor agrees not to discriminate against disabled persons in the provision of services, benefits or activities provided under this Contract and further agrees that any violation of this prohibition on the part of Contractor, its Subcontractors, designers, employees, representatives, agents or assigns shall constitute a material breach of this Contract.

T. DISPUTES

Contractor shall continue its Work throughout the course of any and all disputes, except in the case of County's failure to pay undisputed amounts as due. Nothing in this section shall allow Contractor to discontinue the Work during the course of any other dispute and Contractor's failure to continue the Work during any and all disputes shall be considered a material breach of this Contract. Contractor agrees that the existence or continued existence of a dispute does not excuse performance under any provision of this Contract, including but not limited to, the time to complete the Work. Contractor also agrees that should Contractor discontinue the Work due to a dispute or disputes the County may terminate this Contract for cause. Contractor further agrees that should Contractor not properly perform the Work due to a dispute or disputes, any and all claims, whether in law or in equity, Contractor may have against the County and its officers, directors, agents, representatives, consultants and employees, whether such claims are pending, anticipated or otherwise, shall be deemed to have been waived and forever foreclosed.

U. STATUTE OF LIMITATIONS

As between the parties to this Contract: as to all acts or failures to act by either party to this Contract, any applicable statute of limitations shall commence to run on the date of issuance by County of the final Certificate for Payment, or the effective date of a termination of all of this Contract, whichever is earlier, except for Latent defects, in which case the cause of action shall accrue on discovery of the Latent defect and its cause. Nothing herein will modify any right or obligation under California Code of Civil Procedure Sections 337.1 and 337.15.

V. WAIVERS

Either party's waiver of any breach, or the omission or failure of either party, at any time, to enforce any right reserved to it, or to require performance of any of the terms, covenants, conditions or other provisions of this Contract, including the timing of any such performance, shall not be a waiver of any right to which any party is entitled, and shall not in any way affect, limit, modify or waive that party's right thereafter to enforce or compel strict compliance with every term, covenant, condition or other provision hereof, any course of dealing or custom of the trade or oral representations notwithstanding.

1.14 MODIFICATIONS OF THE CONTRACT DOCUMENTS

A. ALTERATIONS, MODIFICATIONS AND FORCE ACCOUNT WORK

1. No modification or deviation from the Contract Documents, including but not limited to the Drawings and Specifications will be permitted except by written Change Order or written Field Change, collectively referred to as a "Contract Modification."
2. The County may, without notice to the Sureties, make alterations, deviations, additions to, or deletions from the Contract Documents; increase or decrease the quantity of any item or portion of the work; expand, contract or otherwise change the Contract Time; delete any item or portion of the work; and require extra work. The Contractor shall perform such work under applicable provisions of the Contract Documents, unless specifically provided otherwise at the time the change is ordered. In the case of any ordered extra work, the County reserves the right to furnish all or portions of associated labor, material, and equipment, which the Contractor shall accept and use without payment for costs, markup, profit, or otherwise for such County-furnished labor, materials, and equipment.

3. Changes affecting the Contract Time or Contract Sum of the Work shall be set forth in a written Change Order that shall specify: (1) the work performed in connection with the change to be made; (2) the amount of the adjustment of the Contract Sum, if any, and the basis for compensation for the work ordered; and (3) the extent of the adjustment in the Contract time, if any. A Change Order will not become effective until signed by the County.
4. A Change Order will become effective when signed by County. If County exercises its right to decide disputed issues pertaining to changed Work as set forth in Sections 1.12 and 1.14 of these General Conditions, then the resulting Change Order shall be effective when signed by County, notwithstanding that Contractor has not signed it.
5. Changes not affecting the Contract Time or Contract Sum of the Work, in the County's discretion, may be set forth in a written RFI-Reply executed by the County. Execution of a RFI-Reply constitutes the Contractor's agreement to make the specified change without change to the Contract Sum or the Contract Times.
6. Changes or deviations from Contract Documents affecting the Contract Time or Contract Sum of the Work shall not be made without the authority of an effective Change Order or Construction Change Directive as provided in Section 00 90 00 (Revisions, Clarifications and Modifications), except in cases of emergency discussed in Section 1.16 of these General Conditions.
7. All Contract Modifications shall be diligently carried out by the Contractor in accordance with the Contract Documents. If changes ordered in design, workmanship or materials are of such a nature as to increase or decrease the cost of any part of the Work, the price fixed in the Contract Documents shall be increased or decreased by the amount that the Contractor and the County may agree upon as a reasonable and proper allowance for the cost increase or decrease. If an agreement cannot be reached, then the County shall reach a determination, which shall be final, subject to the Contractor's rights under Section 1.12 of these General Conditions. In all cases the Contractor shall perform the changed work as directed by the County subject to the Contractor's rights under Section 1.12 of these General Conditions. In cases where the County reaches such a determination, a Change Order shall be effective even if signed by the County only.
8. The Contractor shall, upon the County's request, permit inspection of the original unaltered Project Bid estimate, subcontract agreements, purchase orders relating to the change, and documents substantiating all costs associated with its cost proposal or claims arising from changes in the Work.
9. Changes in the Work made pursuant to this Section 1.14 and extensions of Contract Time necessary by reason thereof shall not in any way release the guarantees/warranties given by the Contractor pursuant to provisions of the Contract Documents, nor shall such changes in the Work relieve or release the Sureties of bonds executed pursuant to said provisions. The Sureties, in executing such bonds, shall be deemed to have expressly agreed to any such change in the Work and to any extension of time made by reason thereof.
10. Procedures for Modifications of Contract Documents and for calculating the cost of extra Work are given in Section 00 90 00 (Revisions, Clarifications and Modifications). Regarding delay and impact costs of any nature, Contractor may not seek delay compensation for on-Site or off-Site costs based on formulas, e.g., "Eichleay" or other formula. Rather, Contractor shall prove actual costs that were actually caused by

County caused delays. If Contractor requests compensation for delay to the construction, then Contractor shall prove and document actual costs plus markup per the cost categories and procedures in Section 00 90 00 (Revisions, Clarifications and Modifications) in order to request, claim or prove compensation for delay.

11. Change Orders in excess of County's approved limit must be approved by the County Board of Supervisors and a performance bond rider covering the changed Work executed before proceeding with the changed Work. Contractor is charged with knowledge of County's approved Change Order limits and procedures in effect at the applicable time.

B. ENTIRE AGREEMENT

1. The Contract Documents, and any Contract Modifications, shall represent the entire and integrated agreement between the County and Contractor regarding the subject matter of this agreement and shall constitute the exclusive statement of the terms of the parties' agreement.
2. The Contract Documents, and any Contract Modifications, shall supersede any and all prior negotiations, representations or agreements, either written or oral, express or implied, that relate in any way to the subject matter of this agreement or written modifications. The County and Contractor represent and agree that they are entering into this contract and any subsequent written modification in sole reliance upon the information set forth in the Contract Documents or Contract Modifications and the parties are not and will not rely on any other information.

C. MODIFICATIONS

The Contract Documents may be amended or modified only by a written amendment, Change Order, Field Change or directive issued in accord with the provisions of the Contract Documents, and particularly Section 1.14 of these General Conditions - General Conditions and Section 00 90 00 Revisions, Clarifications and Modifications. The Contract Documents may not be modified or supplemented orally or by implication. To be effective, any modification to the Contract Documents must be in writing and must be signed by an authorized representative of the County, and satisfy all other requirements of these General Conditions.

1.15 TIME ALLOWANCES

A. TIME ALLOWANCE FOR PERFORMANCE OF CONTRACT

1. When the Contract has been signed by Contractor and the County, and funds necessary to make payments as required under Contract are available, the County will serve a Notice to Proceed upon Contractor to that effect, either by depositing notice in a post office or post office box regularly maintained by United States Postal Service in a pre-paid wrapper directed to Contractor at its legal address, or (at the County's option) by delivery by other means at the Contractor's legal address.
2. The start date for Contract Time shall be on the date indicated in the applicable Notice to Proceed. If no date is indicated, then the start date for Contract Time shall be the 5th calendar day from date that Contractor receives, by hand delivery or by facsimile transmission, County's written Notice to Proceed, unless the Notice to Proceed is served by mail only, then the Start Date under the Contract shall be the tenth (10th) calendar

day following the date of mailing. Total number of calendar days for completion of Work on Contract shall be as provided in the Agreement.

B. ENTITLEMENT TO CHANGE OF CONTRACT TIME

1. The Contract Time may only be changed by Change Order or by Contract Modification and all time limits stated in the Contract Documents are of the essence of the Contract Documents.
2. The Contract Time will be adjusted in an amount equal to the time lost on the critical path of the Project due to the following:
 - a. Changes in the Work ordered by the County;
 - b. Acts or neglect by the County, or its agents, employees or consultants, acts or neglect of utility owners, acts or neglect of other Contractors performing other Work under contract with the County, provided Contractor has substantially performed its responsibilities under the Contract Documents, including but not limited to, its cooperation and coordination responsibilities required by the Contract Documents;
 - c. Fires, floods, epidemics, abnormal weather conditions, beyond the parameters otherwise set forth in this Subsection 1.15.B, earthquakes, civil or labor disturbances, strikes, or acts of God, provided damages resulting there from are not the result of Contractor's failure to properly protect the Work as required by the Contract Documents.
3. The Contract Time shall not be extended for any cause identified in Subsection 1.15.B.2 above, however, unless:
 - a. Contractor actually has been prevented from completing any part of the Work within the Contract Time due to delay that is beyond Contractor's control and due to reasons for which Contractor is not responsible. (In this regard, delays attributable to and within the control of a Subcontractor, or its subcontractors, or supplier shall be deemed to be delays within the control of Contractor);
 - b. A claim for delay is made as provided herein; and
 - c. Contractor submits a Time Impact Evaluation as required under Section 01 32 16 (Construction Progress Schedule) that demonstrates actual delay to critical Work activities that actually delay the progress of the Work in the amount of time requested.

C. WEATHER DELAYS

1. Delays due to abnormal or adverse weather conditions will not be allowed for weather conditions, which fall within parameters listed in this Subsection 1.15.B. Adverse weather delays may be allowed only if number of workdays of adverse weather exceeds these parameters on a monthly basis and Contractor proves that the adverse weather actually caused delays. Contractor shall give written notice of intent to claim an adverse weather day within one day of the adverse weather day occurring. Rain parameters are as follows, pro-rated in the individual month Contractor starts and finishes Work:

Rain days: January, [7]; February, [6]; March, [6]; April, [3]; May, [1]; June, [0]; July, [0]; August, [0]; September, [0]; October, [2]; November, [5]; December, [6].

In order to qualify as an adverse weather day with respect to the foregoing parameters, daily rainfall must exceed .10 of an inch or more at the Lincoln Regional Karl Harder Field (KLHM), California, weather station, as measured by the National Oceanic &

Atmospheric Administration, and Contractor must prove that the rain actually caused delay as set forth above.

2. Contractor shall include the foregoing rain parameters as a monthly activity in its progress schedule. As Work on the critical path is affected by rain, Contractor shall notify County and request that the days be moved to the affected activities. Any adverse weather days remaining shall be considered Project float.
3. Adverse weather delay for rain shall be recognized for the actual period of time Contractor proves it was delayed by rain exceeding the specified parameters. For example, and not by way of limitation, if rain exceeding the specified parameters does not in fact delay Contractor's progress on the critical path, then no time extension shall be recognized; and conversely, if Contractor proves that rain exceeding the specified parameters causes delay to Contractor for a period longer than the number of rain days incurred (e.g., if it rains during grading work), then Contractor shall be entitled to a time extension equal to the actual period of such delay.
4. Contractor shall take reasonable steps to mitigate potential weather delays, such as de-watering the Site, and covering Work and material that could be affected adversely by weather. Failure to do so shall be cause for County to not grant a time extension due to adverse weather, where Contractor could have avoided or mitigated the potential delay by exercising reasonable care.

D. NOTICE OF DELAY

Within seven (7) calendar days of the beginning of any delay or of becoming aware of any delay, whichever is later, Contractor shall notify the County, in writing by submitting a notice of delay that shall include a full statement of all anticipated delays resulting from the delay event in question.

1. The notice shall constitute application for an extension of time only if the notice requests an extension and sets forth the impact of the delay on the critical path and Contractor's estimate of additional time required together with a full recital of causes of unavoidable delays relied upon. Contractor shall comply with Section 01 32 16 Construction Progress Schedule.
2. After receipt of a request for a time extension, with verifiable documents and justifications included, the County will make a decision thereon, and will advise Contractor in writing.
3. No time extensions shall be considered without related documents and justifications necessary for the County to make a determination.
4. No time extensions shall be granted for delays for which Contractor fails to give timely and proper notice and Contractor hereby waives any and all damages or other remedies for delay for which timely and proper notice is not given.

Any request for extension of time shall be accompanied by Contractor's written statement that the adjustment claimed is the entire adjustment to which the claimant is entitled as a result of the occurrence of said event, and shall include a written schedule document that demonstrates delay to the critical path using a Time Impact Evaluation as specified in Section 01 32 16 (Construction Progress Schedule). County will determine all claims and adjustments in the Contract Time. No claim for an adjustment in the Contract Time will be valid and such claim will be waived if not submitted in accordance with the requirements of this Subsection 1.15.C.

E. NO DAMAGE FOR CONTRACTOR CAUSED DELAY

Contractor shall not be entitled to any time extension or compensation, including without limitation extended field or home office overhead, field supervision, costs of capital, interest, escalation charges, acceleration costs or other impacts for any Contractor caused delays.

F. TIME EXTENSION WITHOUT COMPENSATION

Contractor may receive a time extension without compensation for delays resulting from causes beyond the reasonable control of Contractor and County, for example, adverse weather conditions exceeding Contract Documents parameters, earthquakes, Acts of God and epidemics, or periods of delay caused jointly by County and Contractor. In such cases, a time extension without compensation shall constitute Contractor's sole and exclusive remedy for such delays.

G. COMPENSABLE DELAY

Contractor may receive time extension and be compensated for delays caused by the County, or by the County's contractors, except that Contractor shall not be entitled to damages for delay to the Work caused by the following reasons:

1. The County's enforcement of any government act or regulation, or the provisions of the Contract Documents, Contractor's failure to perform its cooperation and coordination responsibilities required by the Contract Documents, and the County's right to sequence the Work in a manner which would avoid disruption to the County's tenants and their contractors or other prime contractors and their respective subcontractors, exercised as a result of the Contractor's failure to perform its cooperation and coordination responsibilities required by the Contract Documents. .
2. Granting of extension of Contract Time for any reason shall in no way operate as a waiver on the part of the County, of its right to collect liquidated damages for other delays or of its right to collect other damages or other rights to which the County is entitled.

1.16 WORKING CONDITIONS AND PREVAILING WAGES

A. USE OF SITE/SANITARY RULES

1. All portions of Work shall be maintained at all times in neat, clean and sanitary condition.
2. Toilets shall be furnished by Contractor where needed and in numbers as required by applicable regulation, for use of the Contractor's and Subcontractors' employees on Site, and their use shall be strictly enforced. All toilets shall be properly secluded from public observation, and shall be located, constructed and maintained subject to approval of County and as further specified in Section 01 50 00 of the General Specifications.
3. Contractor shall confine construction equipment, the storage of materials and equipment and the operations of workers to the Site and other land or areas identified in and permitted by the Contract Documents and other land or areas permitted by applicable laws and regulations, rights of way, permits and easements, or as designated by the County, and shall not unreasonably encumber any of the foregoing premises with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or any improvement located thereon, or to the owner or occupant thereof or of any adjacent areas, resulting from the performance of the Work.
4. During the progress of the Work and as further referenced in Section 01 74 19 of the General Specifications, Contractor shall keep the Site and foregoing areas free from accumulations of waste materials, rubbish and other debris resulting from the Work. At

- the completion of the Work and as further specified in Section 01 50 00 of the General Specifications, Contractor shall remove from and about the Site and other areas all waste materials, rubbish and debris, as well as all tools, appliances, construction equipment and machinery and surplus materials. Contractor shall leave the Site clean and ready for occupancy by the County at Substantial Completion of Work. The Contractor shall restore to original and clean condition all structures or property not designated for alteration by Contract Documents.
5. Contractor shall not load nor permit any part of any structure or pavement to be loaded in any manner that will endanger the structure or pavement, nor shall Contractor subject any part of the Work structures or adjacent property to stresses or pressures that will endanger it. Contractor shall conduct all necessary existing conditions investigation regarding structural, mechanical, electrical or any other system existing, shall perform Work consistent with such existing conditions, and shall have full responsibility for insufficiencies or damage resulting from insufficiencies of existing systems, equipment or structures to accommodate performing the Work.

B. PROTECTION OF WORK, PERSONS AND PROPERTY

Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with Work. Contractor shall comply with all safety requirements specified in any safety program established by County, or required by state, federal or local laws and ordinances. Contractor shall be responsible for all damage to Work, property or structures, all injuries to persons, and all damage and interruptions to County's operations, arising from the performance of Work of the Contract Documents. Except as otherwise expressly approved by County in writing, Contractor shall at all times perform all Work in a manner which does not interrupt, damage or otherwise adversely impact any existing County facilities or operations.

1. Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property.
2. Contractor shall remedy all damage, injury or loss or interruption to any property or operations referred to in Subsection 1.16.B. of these General Conditions, caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, supplier, or any other person or organization directly or indirectly employed by any of them to perform or furnish any Work or anyone for whose acts any of them may be liable. Contractor's duties and responsibility for safety and for protection of Work shall continue until such time as all the Work is completed and Final Acceptance of the Work. The County and its agents do not assume any responsibility for collecting any indemnity from any person or persons causing damage to Contractor's work.
3. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.
4. The County may, at its option, retain such monies due under the Contract Documents as the County deems necessary until any and all suits or claims against Contractor for injury to persons or property or operations shall be settled and the County receives satisfactory evidence to that effect.

C. RESPONSIBILITY FOR SAFETY AND HEALTH

1. Contractor shall insure that Contractor's, and each tier of Subcontractors' employees, agents, invitees, subcontractors, designers and their employees, agents and invitees while at the Site comply with applicable health and safety laws including without limitation, Occupational Safety and Health Act of 1970 and rules and regulations issued pursuant thereto, and any of the County's safety regulations, as amended from time to time. Contractor shall further comply with any directions of the County regarding protective clothing, head covering, eye protection, etc. The County shall have no duty to issue such directions.
2. Safety of all persons employed by Contractor or Subcontractors or designers and their respective agents and invitees on the Site shall be the full responsibility of Contractor. Contractor shall notify the County, in writing, of the existence of hazardous conditions, property or equipment at the Site, which are not under Contractor's control. However, it shall be Contractor's responsibility to take necessary precautions against injury to persons or damage to property from recognized hazards until corrected by the responsible party.
3. Contractor shall confine all persons under Contractor's employ or employ of its Subcontractors, designers or any other person acting on behalf of Contractor or Subcontractors or designers to that portion of the Site where Work under the Contract Documents is to be performed, to routes to be designated by the County for ingress and egress thereto and to any other areas the County may expressly permit Contractor to use. Within such areas, except those routes for ingress and egress over which Contractor has no right of control, Contractor shall provide safe means of access to all places at which persons may at any time have occasion to be present.

D. EMERGENCIES

In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor, without special instruction or authorization from the County, is obligated to act to prevent threat and damage, injury or loss, until directed otherwise by the County. Contractor shall give the County prompt written notice if Contractor believes that any significant changes in the Work or variations from Contract Documents have been caused thereby. If the County determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Contract Modification, Change Order or Field Change will be issued to document the consequences of such action.

E. USE OF ROADWAYS AND WALKWAYS

Contractor shall not unnecessarily interfere with use of any roadway, walkway or other facility for vehicular or pedestrian traffic, by any party entitled to use it. Wherever interference becomes necessary for proper and convenient performance of Work, and no satisfactory detour route exists, Contractor shall, before beginning interference, and with County's prior concurrence, provide a satisfactory detour, temporary bridge, or other proper facility for traffic to pass around or over the interference and shall maintain it in satisfactory condition as long as the interference continues, all without additional compensation unless otherwise provided in Contract Documents. Contractor shall obtain any and all required approvals from the regulating agency(s) with jurisdiction for traffic controls necessary for work on public roads and highways.

F. NONDISCRIMINATION

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sexual preference, or gender of such persons, except as provided in Section 12940 of the Government Code, and every contractor for public works violating the provisions of Section 1735 of the Labor Code is subject to all the penalties imposed for a violation of Chapter 1, Part 7, Division 2 of the Labor Code.

G. PREVAILING WAGES

1. Contractor shall comply with all provisions of the California Labor Code including without limitation Labor Code Sections 1720 through 1815. Any or all progress payments requested by Contractor shall be withheld by the County for any failure by the Contractor to comply with applicable provisions of the California Labor Code.
2. Pursuant to Labor Code Sections 1770 et seq., Contractor shall pay to persons performing labor in and about the Work provided for in the Contract an amount equal to or more than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Work is performed, and not less than the general prevailing rate of per diem wages for legal holiday and overtime work in said locality, which per diem wages shall be equal to or more than the stipulated rates contained in a schedule thereof which has been ascertained and determined by the Director of the State Department of Industrial Relations to be the general prevailing rate of per diem wages for each craft or type of workman or mechanic needed to execute this contract. Contractor shall also cause a copy of this determination of the prevailing rate of per diem wages to be posted at each Site.
3. Contractor shall forfeit, as a penalty to the County, Fifty Dollars (\$50.00) for each laborer, workman, or mechanic employed in performing labor in and about the work provided in the Contract Documents for each calendar day, or portion thereof, on which such laborer, workman or mechanic is paid less than the said stipulated rates for any work done under these Contract Documents by him or her or by any Subcontractor or designer under him or her, in violation of Articles 1 and 2 of Chapter 1 of Part 7 of Division II of the California Labor Code. The sums and amounts which shall be forfeited pursuant to this Subsection 1.16.G.2 and the terms of the Labor Code shall be withheld and retained from payments due or to become due to Contractor under this Contract and the terms of the Labor Code, but no sum shall be so withheld, retained or forfeited except from the final payment without a full investigation by either the State Department of Industrial Relations or by the County. The final amount of forfeiture shall be determined by the Labor Commissioner pursuant to Labor Code Section 1775.
4. Contractor shall insert in every subcontract, design agreement or other arrangement which Contractor may make for performance of work or labor on the Work provided for in the Contract Documents, a provision that the Subcontractor or designer shall pay persons performing labor or rendering service under subcontract or other arrangement not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed as provided in the Labor Code.
5. Contractor stipulates that it shall comply with all applicable wage and hour laws, including without limitation Labor Code Section 1813.

H. ENVIRONMENTAL CONTROLS

1. Contractor shall comply with all rules, regulations, ordinances and statutes that apply to any work performed under the Contract Documents including, without limitation, the storm water general permit, any toxic, water and soil pollution controls and air pollution controls specified in Government Code Section 11017 and as further referenced in the Request For Proposals, Section 01 41 00 and Section 01 35 43.13 of the General Specifications. Contractor shall be responsible for insuring that Contractor's employees, subcontractors and the public are protected from exposure to airborne hazards or contaminated water, soil or other toxic materials used during or generated by activities on the Site or associated with the Project.
2. Contractor shall perform required tasks and cooperate fully with County efforts to meet all requirements in the Initial Study & Mitigated Negative Declaration Mitigation Measures and the Minor Use Permit (PMPA 20130281) Conditions of Approval for this project.

I. SHORING SAFETY PLAN

1. At least five (5) days in advance of excavating any trench five feet or more in depth, Contractor shall submit to the County a detailed plan showing the shoring, bracing and sloping design and other provisions to be made for worker protection from the hazard of caving ground during the excavation, as required by Labor Code Section 6705. A civil or structural engineer registered in California shall prepare and sign any plan that varies from the shoring system standards established by the State Construction Safety Orders.
2. During the course of the Work, Contractor shall be responsible for determining where sloping, shoring and/or bracing is necessary and the adequacy of the design, installation, and maintenance of all shoring and bracing for all excavation, including any excavation less than five (5) feet in depth. Contractor will be solely responsible for any damage or injuries that may result from excavating or trenching. The County's acceptance of any drawings showing the shoring or bracing design or work schedule shall not relieve Contractor of its responsibilities under this Subsection 1.16.I.

END OF SECTION

SECTION 00 90 00
REVISIONS, CLARIFICATIONS AND MODIFICATIONS

PART 1 – GENERAL

1.01 GENERAL

- A. Only Contractor or the County may initiate changes in scope of Work or deviation from Contract Documents.
1. Contractor may initiate changes by submitting a Request for Information (RFI), Notice of Concealed or Unknown Conditions, or Notice of Hazardous Waste Conditions.
 - a. RFIs shall be submitted to seek clarification of or request changes in the Contract Documents.
 - b. Notices of Concealed or Unknown Conditions shall be submitted in accordance with General Conditions.
 - c. Notices of Hazardous Waste Conditions shall be submitted in accordance with General Conditions.
 2. The County may initiate changes by issuing a Supplemental Instruction, which may revise, add to or subtract from the Work.
 3. The County may initiate changes in the Work or Contract Time by issuing RFPs to Contractor. Such RFPs will detail all proposed changes in the Work and request a quotation of changes in Contract Sum and Contract Time from Contractor.
 4. The County may also, by Construction Change Directive ("CCD"), order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly. A CCD shall be used in the absence of total agreement on the terms of a Change Order and may, upon notice, consist of a Change Order executed by the County only.

1.02 PROCEDURES

- A. Cost Proposal and Procedures: Whenever Contractor is required in this Section 00 90 00 to prepare a Cost Proposal, and whenever Contractor is entitled to submit a Cost Proposal and elects to do so, Contractor shall prepare and submit to the County for consideration a Cost Proposal using the form attached to this Section 00 90 00. All Cost Proposals must contain a complete breakdown of actual, current costs of credits, deducts, and extras; and itemizing materials, labor, taxes, overhead and profit. All Subcontractor Work shall be so indicated. Individual entries on the Cost Proposal form shall be determined as provided in Subsections 1.03 and 1.04 of this Section 00 90 00. After receipt of a Cost Proposal with a detailed breakdown, the County will act promptly thereon.
1. If the County accepts a Cost Proposal, the County will prepare Change Order for the County and Contractor signatures.
 2. If Cost Proposal is not acceptable to the County because it does not agree with cost and/or time included in Cost Proposal, the County will submit in a response what it believes to be a reasonable cost and/or adjustment, if any. Except as otherwise provided in this Section 00 90 00, Contractor shall have seven (7) days in which to respond to the County with a revised Cost Proposal.
 3. When necessity to proceed with a change does not allow the County sufficient time to conduct a proper check of a Cost Proposal (or revised Cost Proposal), the County may order Contractor to proceed on basis to be determined at earliest practical date.

In this event, value of change, with corresponding equitable adjustment to Contract, shall not be more than increase or less than decrease proposed.

- B. Request for Information: Whenever information regarding the Project cannot be determined by the Contract Documents, the Contractor may prepare and deliver a Request for Information (RFI) to the County requesting further clarification. Contractor shall use RFI format provided by the County. Contractor must submit time critical RFIs at least thirty (30) days before scheduled start date of the affected Work activity. Contractor shall reference each RFI to an activity of Progress Schedule and shall note time criticality of the RFI, indicating time within which a response is required. Contractor's failure to reference RFI to an activity on the Progress Schedule and note time criticality on the RFI shall constitute Contractor's waiver of any claim for time delay or interruption to the Work resulting from any delay in responding to the RFI.
1. The County will respond within seven (7) days from receipt of RFI with a written response to Contractor. Contractor shall distribute response to all appropriate Subcontractors.
 2. If Contractor is satisfied with the response and does not request change in Contract Sum or Contract Time, then the response shall be executed without a change.
 3. If Contractor believes the response is incomplete, Contractor shall issue another RFI (with the same RFI number with the letter "A" indicating if it is a follow-up RFI) to the County clarifying original RFI. Additionally, the County may return RFI requesting additional information should original RFI be inadequate in describing condition.
 4. If Contractor believes that the response results in change in Contract Sum or Contract Time, Contractor shall notify the County in writing within seven (7) days after receiving the response, or within seven (7) days of becoming aware of such changes in Contract Sum or Contract Time. If the County disagrees with Contractor, then Contractor may give notice of intent to submit a Claim as described in Section 1.12 of General Conditions, and submit its Claim within thirty (30) days. If the County agrees with Contractor, then Contractor must submit a Cost Proposal within twenty-one (21) days of receiving the County's agreement. Contractor's failure to deliver either the foregoing notice and Claim or Cost Proposal by the respective deadlines stated in the foregoing sentences shall result in waiver of the right to file a Cost Proposal or Claim.
- C. Supplemental Instruction: the County may issue Supplemental Instruction to Contractor.
1. If Contractor is satisfied with Supplemental Instruction and does not request change in Contract Sum or Contract Time, then Supplemental Instruction shall be executed without a Change Order.
 2. If Contractor believes that Supplemental Instruction results in change in Contract Sum or Contract Time, then Contractor must submit a Cost Proposal to the County within twenty-one (21) days of receiving the Supplemental Instruction.
 3. Construction Change Directives (CCD): If at any time the County believes in good faith that a timely Change Order will not be agreed upon using the foregoing procedures, the County may issue a CCD with its recommended cost and/or time adjustment. Upon receipt of CCD, Contractor shall promptly proceed with the change of Work involved and concurrently respond to the County's CCD within ten (10) days.
 4. Contractor's response must be any one of following:
 - a) Return CCD signed, thereby accepting the County's response, time, and cost.
 - b) Submit a (revised if applicable) Cost Proposal with supporting documentation (if applicable, reference original Cost Proposal number followed by letter A, B, etc. for each revision), if the County so requests.

- c) Give notice of intent to submit a Claim as described in Section 1.12 of General Conditions, and submit its Claim within thirty (30) days.
5. If the CCD provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:
 - a) Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation.
 - b) Unit prices stated in the Contract Documents or subsequently agreed upon.
 - c) Cost to be determined in a manner agreed.
6. CCD signed by Contractor indicates the agreement of Contractor therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.
7. If Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the method and the adjustment shall be determined by the County on the basis of reasonable expenditures and savings of those performing the Work attributable to the change including, in case of an increase in the Contract Sum, a reasonable allowance for overhead and profit. If the parties still do not agree on the price for a CCD, Contractor may file a Claim per Section 1.12 of General Conditions. Contractor shall keep and present, in such form as the County may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Subsection shall be limited to those provided in Subsections 1.03 and 1.04 of this Section 00 90 00.
8. Pending final determination of cost to the County, amounts not in dispute may be included in Applications for Payment. The amount of credit to be allowed by Contractor to the County for a deletion or change those results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the County. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.
9. County Requested Cost Proposal: Contractor shall furnish a Cost Proposal within 21 Business Days of the County's request for Cost Proposal. Upon approval of Cost Proposal, the County will issue a Change Order directing Contractor to proceed with extra Work. If the parties do not agree on the price of the Cost Proposal, the County may either issue a CCD or decide the issue per Section 1.12 of General Conditions. Contractor shall perform the changed Work notwithstanding any claims or disagreements of any nature.
10. Differing Site Conditions: Contractor shall submit Notices of Differing Site Conditions to resolve problems regarding differing underground Site conditions encountered in the execution of the Work pursuant to Subsection 1.13C of General Conditions, which shall govern. If the County determines that a change in Contract Sum or Contract Time is justified, the County will issue a request for Cost Proposal or a CCD.
11. Hazardous Waste Conditions: Contractor shall submit Notices of Hazardous Waste Conditions to resolve problems regarding hazardous materials encountered in the execution of the Work pursuant to Subsection 1.13D of General Conditions, which shall govern. If the County determines that a change in Contract Sum or Contract Time is justified, the County will issue a request for Cost Proposal or a CCD.

1.04 COST DETERMINATION

- A. Total cost of extra Work or of Work omitted shall be the sum of labor costs, design costs, material costs, equipment rental costs, specialist costs, and all other direct and actual costs

as defined herein plus overhead and profit as allowed herein. This limit applies in all cases of claims for extra Work, whether calculating Cost Proposals, Change Orders or CCDs, or calculating contract claims of all types. Contractor may recover no other costs arising out of or connected with the performance of extra Work, of any nature. No special, incidental or consequential damages may be claimed or recovered against the County, its representatives or agents, whether arising from breach of Contract, negligence, or strict liability, unless specifically authorized in the Contract Documents.

B. Overhead and Profit: (Overhead shall be as defined in Subsection 1.07 of this Section 00 90 00)

- 1 Overhead and profit on labor for extra Work shall be 15 percent (15%).
- 2 Overhead and profit on materials for extra Work shall be 15 percent (15%).
- 3 Overhead and profit on equipment rental for extra Work shall be 10 percent (10%).
- 4 When extra Work is performed by a first tier Subcontractor, Contractor shall receive a 5 percent (5%) markup on Subcontractors' total costs of extra Work. First tier Subcontractor's markup on its Work shall not exceed 15 percent (15%).
- 5 When extra Work is performed by a lower tier Subcontractor, Contractor shall receive a total of 5 percent (5%) markup on the lower tier Subcontractors' total costs of extra Work. Contractor and first tier Subcontractors and lower tier Subcontractors shall divide the 10 percent (10%) markup as mutually agreed.
- 6 Notwithstanding the foregoing, in no case shall the total markup on any extra Work exceed 20 percent (20%) of the direct cost, notwithstanding the actual number of Contract tiers.
- 7 On proposals covering both increases and decreases in Contract Sum, overhead, profit, and commission shall be allowed on the net increase only as determined in this Subsection 1.03B. When the net difference is a deletion, no percentage for overhead profit and commission shall be allowed, but rather a deduction shall apply.
- 8 The markup shall include profit, small tools, cleanup, supervision, warranties, cost of preparing the cost proposal, jobsite overhead, and home office overhead. No markup will be allowed on taxes, insurance, and bonds.

C. Taxes:

1. All State sales tax, use tax, and Nevada County taxes shall be included.
2. Federal and Excise tax shall not be included.

D. Owner-Operated Equipment: When owner-operated equipment is used to perform extra Work, Contractor will be paid for operator as follows:

1. Payment for equipment will be made in accordance with Subsection 1.04C of this Section 00 90 00.
2. Payment for cost of labor will be made at no more than rates of such labor established by collective bargaining agreements for type of worker and location of Work, whether or not owner-operator is actually covered by such an agreement.

E. Accord and Satisfaction: Every Change Order and accepted CCD shall constitute a full accord and satisfaction, and release, of all Contractor (and if applicable, Subcontractor) claims for additional time, money or other relief arising from or relating to the subject matter of the change including, without limitation, impacts of all types, cumulative impacts, inefficiency, overtime, delay, and any other type of claim. Contractor may elect to reserve its rights to disputed claims arising from or relating to the changed Work at the time it signs a Change Order or approves a CCD, but must do so expressly in a writing delivered concurrently with the executed Change Order or approved CCD, and must also submit a

Claim for the reserved disputed items pursuant to Section 1.12 of General Conditions no later than thirty (30) Days of Contractor's first written notice of its intent to reserve rights.

1.04 COST BREAKDOWN

- A. Labor: Contractor will be paid cost of labor for workers (including forepersons when authorized by the County) used in actual and direct performance of extra Work. Labor rate, whether employer is Contractor, Subcontractor or other forces, will be sum of following:
1. Actual Wages: Actual wages paid shall include any employer payments to or on behalf of workers for health and welfare, pension, vacation, and similar purposes.
 2. Labor surcharge: Payments imposed by local, county, state, and federal laws and ordinances, and other payments made to, or on behalf of, workers, other than actual wages as defined in Section 1.04A.1 of this Section 00 90 00, such as taxes and insurance. Labor surcharge shall be and shall not exceed that set forth in California Department of Transportation official labor surcharges schedule which is in effect on date upon which extra Work is accomplished and which schedule is incorporated herein by reference as though fully set forth herein.
- B. Material: Only materials furnished by Contractor and necessarily used in performance of extra Work will be paid for. Cost of such materials will be cost, including sales tax and delivery charges, to purchaser (Contractor, Subcontractor or other forces) from supplier thereof, except as the following are applicable:
1. If cash or trade discount by actual supplier is offered or available to purchaser, it shall be credited to the County notwithstanding fact that such discount may not have been taken.
 2. For materials salvaged upon completion of extra Work, salvage value of materials shall be deducted from cost, less discounts, of materials.
 3. If cost of a material is excessive, then cost of material shall be deemed to be lowest reasonably available wholesale price at which material is available in quantities concerned delivered to Site, less any discounts as provided in Subsection 1.04B of this Section 00 90 00.
- C. Equipment Rental: For Contractor- or Subcontractor-owned equipment, payment will be made at rental rates listed for equipment in California Department of Transportation official equipment rental rate schedule which is in effect on date upon which extra Work is accomplished and which schedule is incorporated herein by reference as though fully set forth herein. If there is no applicable rate for an item of equipment, then payment shall be made for Contractor- or Subcontractor-owned equipment at rental rate listed in the most recent edition of the Association of Equipment Distributors (AED) book. For rented equipment, payment will be made based on actual rental invoices. Equipment used on extra Work shall be of proper size and type. If, however, equipment of unwarranted size or type and cost is used, cost of use of equipment shall be calculated at rental rate for equipment of proper size and type, as determined by the County. Rental rates paid shall be deemed to cover cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals. Unless otherwise specified, manufacturer's ratings, and manufacturer-approved modifications, shall be used to classify equipment for determination of applicable rental rates. Individual pieces of equipment or tools not listed in said publication and having a replacement value of \$100 or less, whether or not consumed by use, shall be considered to be small tools. Rental time will not be allowed while equipment is inoperative due to breakdowns.

1. For equipment on Site, rental time to be paid for equipment shall be time equipment is in operation on extra Work being performed or on standby as approved by the County. The following shall be used in computing rental time of equipment:
 - a. When hourly rates are listed, less than 30 minutes of operation shall be considered to be ½ hour of operation.
 - b. When daily rates are listed, less than four hours of operation shall be considered to be ½ Day of operation.
 2. For equipment that must be brought to Site to be used exclusively on extra Work, cost of transporting equipment to Site and its return to its original location shall be determined as follows:
 - a. The County will pay for costs of loading and unloading equipment.
 - b. Cost of transporting equipment in low bed trailers shall not exceed hourly rates charged by established haulers.
 - c. Cost of transporting equipment shall not exceed applicable minimum established rates of California Public Utilities Commission.
 - d. The County will not make any payment for transporting and loading and unloading equipment if equipment is used on Work in any other way than upon extra Work.
 3. Rental period may begin at time equipment is unloaded at Site of extra Work and terminate at end of the performance of the extra Work or Day on which the County directs Contractor to discontinue use of equipment, whichever first occurs. Excluding Saturdays, Sundays, and the County's legal holidays, unless equipment is used to perform extra Work on such Days, rental time to be paid per Day shall be four hours for zero hours of operation, six hours for four hours of operation and eight hours for eight hours of operation, time being prorated between these parameters. Hours to be paid for equipment that is operated less than eight hours due to breakdowns, shall not exceed eight (8) less number of hours equipment is inoperative due to breakdowns.
- D. Work Performed by Special Forces or Other Special Services: When the County and Contractor, by agreement, determine that special service or item of extra Work cannot be performed by forces of Contractor or those of any Subcontractors, service or extra Work item may be performed by specialist. Invoices for service or item of extra Work on basis of current market price thereof may be accepted without complete itemization of labor, material, and equipment rental costs when it is impracticable and not in accordance with established practice of special service industry to provide complete itemization. In those instances wherein Contractor is required to perform extra Work necessitating a fabrication or machining process in a fabrication or machine shop facility away from Site, charges for that portion of extra Work performed in such facility may, by agreement, be accepted as a specialist billing. The County must be notified in advance of all off-Site Work. In lieu of overhead and profit provided in Subsection 1.03B of this Section 00 90 00, 15 percent (15%) will be added to specialist invoice price, after deduction of any cash or trade discount offered or available, whether or not such discount may have been taken.

1.05 FORCE-ACCOUNT WORK

- A. If it is impracticable because of nature of Work, or for any other reason, to fix an increase or decrease in price definitely in advance, the Contractor may be directed to proceed at a not-to-exceed (NTE) maximum price. Subject to such limitation, such extra Work shall be paid for at actual necessary cost for Force-Account Work or at the negotiated cost, as determined by the County. The cost for Force-Account Work shall be determined pursuant to Subsections 1.03 and 1.04 of this Section 00 90 00.

- B. Force-Account Work shall be used when it is not possible or practical to price out the changed Work prior to the start of that Work. In these cases, Force-Account Work will be utilized during the pricing and negotiation phase of the change. Once negotiations have been concluded and a bilateral agreement has been reached, the tracking of the Work under Force-Account is no longer necessary. Force-Account Work shall also be used when negotiations between the County and Contractor have broken apart and a bilateral agreement on the value of the changed Work cannot be reached. The County may approve other uses of Force-Account Work.
- C. Whenever any Force-Account Work is in progress, definite price for which has not been agreed on in advance, Contractor shall report to the County each Business Day in writing in detail amount and cost of labor and material used, and any other expense incurred in Force-Account Work on preceding Day, by using the Cost Proposal form attached hereto. No claim for compensation for Force-Account Work will be allowed unless report shall have been made.
- D. Whenever Force-Account Work is in progress, definite price for which has not been agreed on in advance, Contractor shall report to the County when 75 percent (75%) of the NTE amount has been expended.
- E. Force-Account Work shall be paid as extra Work under this Section 00 90 00. Methods of determining payment for Work and materials provided in this Subsection 1.05 shall not apply to performance of Work or furnishings of material that, in judgment of the County, may properly be classified under items for which prices are otherwise established in Contract Documents.

1.06 COUNTY-FURNISHED MATERIALS

- A. The County reserves right to furnish materials as it deems advisable, and Contractor shall have no claims for costs and overhead and profit on such materials.

1.07 OVERHEAD DEFINED

- A. The following constitutes charges that are deemed included in overhead for all Contract Modifications, including Force-Account Work or CCD Work, whether incurred by Contractor, Subcontractors, or suppliers, and Contractor shall not invoice or receive payment for these costs separately:
 - 1. Drawings: field drawings, Shop Drawings, etc., including submissions of drawings
 - 2. Routine field inspection of Work proposed
 - 3. General Superintendence
 - 4. General administration and preparation of cost proposals, schedule analysis, Change Orders, and other supporting documentation as necessary
 - 5. Computer services
 - 6. Reproduction services
 - 7. Salaries of project engineer, superintendent, timekeeper, storekeeper, and secretaries
 - 8. Janitorial services
 - 9. Small tools, incidentals and consumables
 - 10. Temporary on-Site facilities:
 - 11. Offices

12. Telephones
13. Plumbing
14. Electrical: Power, lighting
15. Platforms
16. Fencing, barricades and other safety delineators
17. Water
18. Home office expenses
19. Insurance and Bond premiums
20. Procurement and use of vehicles and fuel used coincidentally in Work otherwise included in the Contract Documents
21. Surveying
22. Estimating
23. Protection of Work
24. Handling and disposal fees
25. Final cleanup
26. Other incidental Work
27. Related warranties

1.08 RECORDS AND CERTIFICATION

- A. Force-Account (cost reimbursement) charges shall be recorded daily and summarized in Cost Proposal form attached hereto. Contractor or authorized representative shall complete and sign form each Day. Contractor shall also provide with the form: the names and classifications of workers and hours worked by each; an itemization of all materials used; a list by size, type, and identification number of equipment and hours operated; and an indication of all Work performed by specialists.
- B. No payment for Force-Account Work shall be made until Contractor submits original invoices substantiating materials and specialists charges.
- C. The County shall have the right to audit all records in possession of Contractor relating to activities covered by Contractor's claims for Modification of Contract, including Force-Account Work and CCD Work.
- D. Further, the County will have right to audit, inspect, or copy all records maintained in connection with this Contract, including financial records, bidding records, in possession of Contractor relating to any transaction or activity occurring or arising out of, or by virtue of, the Contract. If Contractor is a joint venture, right of the County shall apply collaterally to same extent to records of joint venture sponsor, and of each individual joint venture member. This right shall be specifically enforceable, and any failure of Contractor to voluntarily comply shall be deemed an irrevocable waiver and release of all claims then pending that were or could have been subject to the Section 1.12 of General Conditions.

PART 2 PRODUCTS – Not Used

PART 3 EXECUTION – Not Used

COST PROPOSAL FORM FOLLOWS ON NEXT PAGE

COST PROPOSAL (CP)

[Full Project Name]
Contract Number [#_]

CP Number: _____
Date: _____
In Response To _____

RFP #, etc.

To: [_____]
Attention: Contract Administration/Inspection
[_____]

Phone: _____

Subject Ref. No: _____
(for Project Manager use only)

Fax: (____) ____ - ____

From: [Insert Contractor's Name/Address] _____

This Cost Proposal is in response to the above-referenced _____ [insert RFP, etc. as applicable].
Brief description of change(s): _____

ITEM DESCRIPTION	PRIME CONTR.	SUB 1	SUB 2	SUB 3	SUB 4	TOTAL
Material						
Direct Labor Cost						
Equipment						
Other (Specify) Extended Overhead						
Total Cost						
Subcontractor's Overhead & Profit 15 percent						
Contractor's Overhead & Profit 15 percent						
Overhead & Profit to Contractor for Subcontractor's Work 5 percent						
(percent of Total Cost above not including any Overhead & Profit)						
GRAND TOTAL						
REQUESTED CHANGE IN CONTRACT TIME (DAYS)						

By Contractor:

Signature:

Date:

END OF SECTION



**NEVADA
COUNTY**
CALIFORNIA

**PSYCHIATRIC HEALTH FACILITY
AND
MENTAL HEALTH REHABILITATION CENTER
SECTION 1
DIVISION 01**

DESIGN BUILD ENTITY

FOR

RFP No. 190141

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SECTION 01 11 00
SUMMARY OF WORK

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes summary of work including:
 - 1. Work covered by Contract Documents
 - 2. Work under other contracts
 - 3. Future work
 - 4. Work sequence
 - 5. Cooperation of contractor and coordination with other work
 - 6. Maintenance
 - 7. Occupancy requirements
 - 8. Reference Standards
 - 9. Products or services ordered in advance
 - 10. County furnished products
 - 12. Project Conditions of Approval

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work of Contract comprises, but is not limited to, the design and construction of the Psychiatric Health Facility and Mental Health Rehabilitation Center, to be located in Nevada City, California. The Contract requires Contractor to commission and turn over the Psychiatric Health Facility and Mental Health Rehabilitation Center project to County as a complete and fully functional project, all in accordance with the terms and conditions of the Contract Documents. The Project is more fully described in the Documents, Design Criteria, Drawings and Technical Specifications included with this Project Manual and the Best and Final Proposal.
- B. Unless provided otherwise in the Contract Documents, all risk of loss to Work covered by Contract Documents shall rest with Contractor until Final Completion and Acceptance of the Work or termination.

1.03 WORK UNDER OTHER CONTRACTS

None anticipated.

1.04 FUTURE WORK

None anticipated.

1.05 WORK SEQUENCE

- A. New construction, alteration, demolition, and other Work shall be performed to the following construction sequence. Deviations will not be permitted without approval from the Project Manager.
 - 1. Prior to the beginning of any work, a Construction Progress Schedule and Construction Site use plan shall be submitted for review by the Project Manager.

1.06 COOPERATION OF CONTRACTOR AND COORDINATION WITH OTHER WORK.

- A. Should construction work, or work of any other nature, be underway by other forces or by other contractors within or adjacent to the limits of the Work at the time of executing the Contract, or should work be performed under the contracts listed in Subsections 1.04 and 1.05 above, the Contractor shall cooperate with all such other contractors or forces to the end that any delay or hindrance to their work will be avoided. The cost of such cooperation will be considered as included in the contract price and no additional payment will be made therefore. Contractor shall coordinate with such other contractors and forces as required by General Conditions.
- B. County reserves the right to perform other or additional work, within or adjacent to the limits of the Work specified, at any time by the use of other forces. Contractor shall coordinate with County and any of County's forces, or other forces, engaged by County, as required by General Conditions. In the event that the performance of such other or additional work materially increases or decreases Contractor's costs, the work and the amount to be paid therefore will be appropriately adjusted as determined by County.
- C. Contractor shall limit use of premises for Work and for construction operations to allow for:
 - 1. County's operation
 - 2. Work by other contractors and tenants
- D. Contractor shall coordinate use of premises and access to site with other contractors, utilities, and County's forces, as required by General Conditions. County has final authority over coordination, use of premises, and access to site.
- E. Contractor shall cooperate with County and others who may occupy and begin work on site and inside building prior to completion of Work of this Contract.
- F. Contractor shall cooperate with other contractors for other area work, not included in Contract, but which may take place during construction period.
- G. Contractor, and all design consultants and major subcontractors shall participate in two (2) days of partnering sessions with County, at such time and date as shall be reasonably requested by County. Contractor shall pay for all labor costs, travel and related expenses incurred for Contractor's personnel, design consultants and subcontractors.

1.07 MAINTENANCE

- A. Cost of maintenance of systems and equipment prior to Final Acceptance will be considered as included in the Contract Price and no additional payment will be made therefore.

1.08 OCCUPANCY REQUIREMENTS

- A. Final Acceptance/Final Completion and Substantial Completion and the administration thereof will be as stipulated in Section 1.09 H Final Acceptance and Date of Completion of the General Conditions of the Agreement.

PART 2 - PRODUCTS

2.01 REFERENCE STANDARDS

For products specified by association or trade standards, comply with requirements of standards, except where more rigid requirements are specified or are required by applicable codes.

2.02 PRODUCTS OR SERVICES ORDERED IN ADVANCE

County furnished products will be procured under separate contracts and provided by County or vendor to Contractor for installation under the terms of Subsection 1.03.A above. Contractor to provide utility service and stub out connections as necessary for the installation of County furnished products.

PART 3 – EXECUTION - not used

END OF SECTION

SECTION 01 11 01
SUMMARY OF WORK – DESIGN SERVICES

PART 1 - GENERAL

1.01 SUMMARY

This section includes summary of work including:

1. Design Services
2. Schematic Design
3. Design Development Phase Submittal
4. Sixty Five Percent (65%) Construction Documents Phase
5. Ninety five Percent (95%) to One Hundred Percent (100%) Construction Documents Phase
6. Construction Phase
7. Operation/Project Close Out
8. Contractor's Obligation for finished construction

1.02 DESIGN SERVICES

A. Summary of Design and Technical Requirements

1. The Drawings and Specifications set forth the County's minimum design and construction requirements for the Project that the Contractor shall meet in preparing designs and construction of the Project. Contractor shall prepare designs to meet these requirements and submit deliverables as described in these requirements. The requirements of this Section 01 11 01 supplement but do not supersede the requirements of the Drawings and Specifications.
2. Contractor shall provide Schematic Design level documentation suitable for submission to the Nevada County Building Department for Design Review approval.
3. Contractor shall submit designs and deliverables meeting the requirements of the Drawings and Specifications at Design Development, 65% and 95% Construction Document completion, prior to release to the field or to subcontractors for bidding and construction, as required in this Section 01 11 01. Contractor may elect to create incremental packages of major building components or activities they deem advantageous towards scheduling or permitting efficiencies.
4. Contractor will be responsible for meeting all Authority Having Jurisdiction (AHJ) submission requirements at Schematic Design, Design Development and Construction Document phase for review and approvals as required.
5. In the event of any conflict between the Drawings and Specifications and any other provision of the Contract Documents, then the more stringent requirement providing the County with the greater scope of work shall control. Unless specifically and expressly limited, Contractor's scope of work shall include all engineering, procurement and construction necessary to complete the Project.

B. Summary of Work

1. Unless specifically excluded in this Contract, Contractor shall provide to County all professional architectural and engineering services necessary to perform Contractor's obligations under the Contract Documents and to complete the Project, including but not limited to, the requirements of the Drawings and Specifications (the "Services"). Services will include, but are not limited to, providing all necessary professional architectural and engineering services, including but not limited to, all architectural services and all civil, electrical, security hardware and electronics, fire protection, mechanical, and structural engineering,

landscape, and cost estimating services required to complete the Project and to perform Contractor's obligations under the Contract Documents. As per the prequalification submittals, the Architect of Record and Engineers of Record shall be currently licensed in the State of California.

2. Contractor shall perform the Services using the persons and subconsultants listed in Contractor's bid and may substitute personnel or subconsultants only upon the County's written consent, which is in County's discretion but will not be unreasonably withheld. Contractor represents that it and its subconsultants possess all necessary training, licenses and permits to perform the Services, and that its performance of the Services will conform to the standard of practice of a Professional that specializes in performing Professional services of like nature and complexity of the Services. Contractor's licensed subconsultants (architectural and engineering) shall owe a duty of care to the County in performing their architectural and engineering portions of the Services.
3. Contractor and its subconsultants shall make an independent assessment of the accuracy of the information provided by the County concerning existing conditions (including but not limited to existing utilities and structures and tie-ins to existing or contemplated facilities) and the adequacy of available design information/technical reports. Contractor shall rely on the results of its own independent investigations and not on information provided by County. Contractor shall conduct such further investigations of existing conditions as are necessary for Contractor to perform the Services and shall advise County of any further design or other services necessary to complete the Project.
4. Consultant's design shall provide that all surfaces, fixtures and equipment are readily accessible for maintenance, repair or replacement by ladders, power lifts, cat walks, and the like without exceeding the design loads of the floors, roofs, ceilings, and that such access is in conformance with Cal OSHA. All drawings, specifications, structural and electrical design calculations, site data, cost estimates and any other deliverable required by State or Federal law shall comply with State and Federal standards. Contractor shall comply with any other requirements of public or private authorities with jurisdiction over the Project, the drawings and specifications, or tie-ins to the Project. Contractor shall comply with the applicable standard of care of a specialist when preparing drawings and specifications to comply with applicable building codes, ordinances, statutes, laws, standards, governmental regulations and private restrictions, including necessary tie-ins, applicable to the Project and the Services, including, but not limited to, those listed in this Contract, all environmental, energy conservation, energy tie-in, and disabled access requirements, regulations and standards of the Fire Marshal or other authorities having jurisdiction over the Project.
5. County at all times shall have the right (but not the duty) to review Contractor's design work, whether performed by Contractor or a subconsultant of any tier, and whether in a final or preliminary form, to determine progress and conformance to the requirements of the Contract Documents. In the event the County should ever dispute the conformance of any design work (at any stage) with the intent of the Contract Documents, then the County's determination shall control and the Contractor and/or its subconsultants shall perform the disputed design services and/or work to completion in accord with the County's determination. The Contractor shall, however, retain its rights under the procedure in General Conditions Section 1.12 for claims and disputes, and Contractor may under that procedure in its name advance any claim of any subconsultant of any tier.

C. Coordination of Architectural and Engineering Subconsultants/Other Contractors

1. Contractor shall fully coordinate all architectural and engineering disciplines and subconsultants involved in completing the Work, including but not limited to, all subconsultants employed by subcontractors or suppliers. Contractor's subconsultants of all tiers shall fully coordinate with Contractor and all architectural and engineering disciplines and subconsultants involved in completing the Work.
 - a. Contractor shall require its subconsultants to agree in their subcontracts to coordinate with Contractor and other subconsultants.
 - b. See Section 01 31 19 Project Meetings for minimum meeting requirements.

D. Coordination with Master Scheduling

1. Contractor shall complete or cause to be completed all services required under this Agreement in accordance within Contract Time as defined in Article III of Agreement as well as all approved project schedules and updates thereto as further defined in Section 01 32 16 Construction Progress Schedule.
2. Contractor shall provide County with a design and construction schedule that outlines dates and time periods for the delivery of Contractor's services and requirements for information from the County for the performance of its services.
3. The schedule shall be updated monthly, and shall meet the following requirements:
 - a. The schedule shall fit within and coordinate with the overall Milestone Schedule, including any and all design interfaces referenced in the Master Schedule and all updates to the Master Schedule.
4. Contractor shall adjust and cause its retained subconsultants and subcontractors to adjust activities, personnel levels, and the sequence, duration and relationship of services to be performed in a manner that will comply with the approved schedules.
5. Contractor has no restraints on when it may bid or assign work to subcontractors.

E. Deliverables Required Under This Agreement – Generally

1. All deliverables required under this Agreement shall be submitted in full compliance with the Contract Documents, shall be submitted in at least triplicate (or such greater number as the County may reasonably request) and, when contained on electronic media, shall be submitted in printed form as well as on electronic media when requested by the County.
2. Deficiencies in deliverables and modifications to conform to program requirements and modifications to achieve acceptability of deliverables to County, shall be promptly performed, and the cost thereof included in the Contract Price.

1.03 SCHEMATIC PHASE

- A. The Schematic Design as incorporated in Contractor's Proposal is subject to review and approval by County. At the sole discretion of the County, various elements, concepts, designs and/or solutions as were included within the other two unselected Contractor proposals may be incorporated by the awarded Design-Build Contractor into their Schematic Design of the facility.
- B. Process the required Design Review submittal, including the preparation of all necessary site plans, building elevations, colors/materials, lighting, and required information for the County "Design Review Committee" (DRC) requirements. Attend required meetings as a part of the DRC process. Accomplish all necessary design review elements, including any changes which may arise as a part of the process, to successfully achieve Design Review Approval of this overall project. Note: The required Design Review Approval

process, including formal application and submittal to the Nevada County Community Development Agency will begin with the Schematic Design phase of this project.

1.04 DESIGN DEVELOPMENT PHASE

A. Period of Service

1. County reserves the right to request Contractor to incorporate comments resulting from the Proposal review process into the Design.
2. After acceptance by the County of Contractor's revised Schematic Design, and upon written authorization from the County, Contractor shall proceed with the performance of the services called for in the Design Development Phase. The intent of the Contractor's Design Development Phase submittal is to obtain County approval for design revisions, refinements, and concept elaborations produced by the Contractor during Design Development of the Schematic Design Documents prior to Construction Document Production. Contractor may elect to submit Design Development Drawings and Specifications incrementally by major building phases, components, or areas to facilitate economy of schedule provided overall design concept is clear and adhered to.
3. Contractor shall submit the deliverables required by the Design Development Phase including preliminary design documents and a revised detailed estimate and cost breakdown of Total Project Costs, within the stipulated period required in the Project Master Schedule.
4. Contractor shall at the outset of this Phase make full written disclosure to County, and obtain County's express written approval of, any proposed innovative, unique, proprietary or sole source design features. County retains full discretion to disapprove such features.

B. Lifecycle and Alternates

1. See Section 01 80 10 Energy Performance Modeling and Verification

C. General Scope of Project and Final Design Criteria

1. After consultation with County and on the basis of Criteria Documents, determine the general scope, extent and character of the Project and establish final design criteria. Participate in or initiate periodic reviews or workshops as necessary with Project Manager, County departmental stakeholders, and their consultants during the Design Development Phase. See Section 01 31 19 Project Meetings for minimum meeting requirements.

D. Design Development Documents

1. Prepare Design documents consisting of final design criteria, preliminary drawings, outline specifications and written descriptions of the Project, and as appropriate with renderings and models. These Design Development documents shall include, but are not limited to:
 - a. Site plans, architectural, structural, mechanical and electrical floor plans, elevations; cross sections and other mutually agreed upon drawings deemed necessary to describe the developed design; and
 - b. Outline specifications describing the size, character and quality of the entire Project in its essentials as to kinds and locations of materials; type of structural, mechanical and electrical systems and equipment; and
 - c. A tabulation of both gross and assignable floor areas as proposed by the Design/Build Contractor showing a comparison to the program area requirements established in the Regional Law Enforcement Indoor Shooting Range Design Criteria Documents. Such tabulation shall be submitted in

both written and electronic format. Room Data Files shall be submitted electronically in Microsoft Excel spreadsheets files. It is encouraged that floor area tabulation files be linked to AutoCAD drawing files to ensure accuracy through final design stages.

- d. Prepare itemized lists of all equipment, and all fixtures and furnishings including product catalog cutsheets, model numbers, utility connections, accessories, materials, colors and finishes.
 - e. Prepare drawings and specifications necessary for submission to additional County and local fire authorities having jurisdiction on this project for their review and approval. Submittal package shall include narrative response to all prior comments on Schematic Design.
- E. Additional Data or Services. Advise County in writing if additional data or services of the following types are necessary and obtain such data and services as directed in writing by County:
- 1. Borings, probing and subsurface explorations, hydrographic surveys, laboratory tests and inspections of samples, materials and equipment;
 - 2. Property, boundary, easement, right-of-way, topographic and utility surveys;
 - 3. Property descriptions;
 - 4. Zoning, deed and other land use restriction; and
 - 5. Other special data or consultations necessary or useful in completion of the Project.
- F. Report on Additional Permits or Reports. Advise in writing if any of the following are required:
- 1. Governmental permits of any type;
 - 2. Reports of any type to governmental agencies;
- G. Review with County. Prepare for approval by County written design criteria for mechanical, electrical, fire suppression/notification and security electronics systems.
- H. Process the required Design Review submittal, including the preparation of all necessary site plans, building elevations, materials, lighting and required information for the County "Design Review Committee" requirements. Attend Required Meetings. Attend meetings with the community, representatives of the County and its designated consultants, the tenants and appropriate governmental agencies and provide information and diagrams to fully describe the project. Accomplish all necessary design review elements, including any changes which may arise as a part of the process, to successfully achieve Design Review Approval of this overall project. Note: The required Design Review Approval process, including formal application and submittal to the Nevada County Community Development Agency may begin with the Schematic Design phase of this project.
- I. Permits. Contractor shall assist County in securing all necessary permits and approvals, by identifying all necessary permits and approvals, securing necessary forms, and either applying for such permits and approvals in Contractor's name or by providing County with signature ready completed forms for the County's review and execution. This duty includes, but is not limited to, providing technical criteria, written descriptions and design data for use in filing applications for permits with or obtaining approvals of such governmental authorities as have jurisdiction to approve the design of the Project, and engage in consultations with appropriate authorities. Per Section 1.13(B) of the General Specifications, County will pay application, permit, mitigation and connection fees for building construction and operation.

- J. Review of the Final Design by County. Submit final design to County. Participate and cooperate fully in a review of the Final Design by County and any consultants engaged by it. Make full written disclosure to County, and obtain County's express written approval of, any proposed innovative, unique, proprietary or sole source design features.

1.05 CONSTRUCTION DOCUMENTS PHASE

- A. Period of Service
 - 1. After acceptance by the County of the required deliverables in the Design Development Phase, and upon written authorization from the County, Contractor shall proceed with the performance of the services called for in the Construction Documents Phase.
 - 2. Contractor shall submit the deliverables required by the Construction Documents Phase including preliminary design documents, within the stipulated period required in the Project Master Schedule.
- B. Final Drawings and Specifications. On the basis of the accepted Design Development Documents, Contractor shall prepare for incorporation in the Contract Documents final drawings (hereinafter called "Drawings") and Specifications to show the work to be furnished and performed by Contractor. Drawings and Specifications shall set forth in detail the requirement for construction of all work to be performed by Contractor. Drawings and Specifications shall not supersede the Contract Documents where the Contract Documents contain a more stringent requirement.
- C. Final Drawings shall be prepared in accordance with industry standards. Final Technical Specifications shall be prepared in conformance with the Construction Specification Institute (CSI). Contractor shall have complete responsibility to secure timely review by all authorities having jurisdiction, including but not limited to, the County of Nevada and the local fire authority.
- D. Prepare drawings and specifications necessary for submission to additional County and local fire authorities having jurisdiction on this project for their review and approval. Submittal package shall include narrative response to prior comments on Design Development review.
- E. Contractor shall provide to County's Project Manager for County approval a color schedule or material board, samples of types and size acceptable to the Project Manager of textures and finishes of all materials in the Work at the Project.
- F. The same architectural and engineering team (and team personnel) that prepared the design deliverables to authorities with jurisdiction shall complete the Drawings and Specifications.
- G. Compliance with Codes, Regulations and Requirements. Prepare Drawings and Technical Specifications in full compliance with the Contract Documents, applicable building codes, ordinances, standards, governmental regulations and private restrictions, applicable to the Work.
- H. Make full written disclosure to County, and obtain County's express written approval of, any proposed innovative, unique, proprietary or sole source design features.
- I. Warranty. Contractor warrants to County that the Final Design, as expressed in the final Drawings and Technical Specifications:
 - 1. Will be constructible, workable, serviceable and within the Contractor's detailed estimate of costs and schedule;
 - 2. Will comply in all respects with the requirements of the Contract Documents.
 - 3. Will not call for the use of hazardous or banned materials.

4. Will fully comply with applicable building codes, ordinances, standards, governmental regulations and private restrictions, applicable to the Work.

1.06 CONSTRUCTION PHASE

- A. Upon County's acceptance of Contractor's drawings and specifications for technical divisions or other portions of the Work as Contractor and County may agree, contractor may commence construction of the Work shown. County acknowledges that the Project may be prosecuted as a "fast-track" project and that phased approvals and permitting may be required to achieve the construction schedule.
- B. General Administration of Construction. Contractor's architectural, design, and engineering sub-consultants shall make regular visits to the site at intervals appropriate to the various stages of construction as necessary to assure that construction conforms to the final design as approved.
- C. Quality Control and Reporting. Contractor's architectural, design and engineering sub-consultants shall participate fully in Contractor's required quality control program and shall have a duty to advise Contractor and County in writing of any observations of defective work, work not in conformance with Drawings and Technical Specifications, and lack of progress consistent with the schedule of work in areas associated with their services. See Section 01 45 00 Contractor's Quality Control Program.
- D. Contractor's architectural, design, and engineering sub-consultants shall establish and maintain to the satisfaction of County, a computer database compatible with databases maintained by County. The Contractor's database shall maintain complete and accurate records regarding its activities related to fulfilling the requirements of Section 01 45 00 Contractor's Quality Control Program. Contractor shall make such database available to County at all reasonable times and turn over the database in both hard and electronic form to County upon completion or termination of this Agreement.
- E. Together with County, Contractor and Contractor's architectural, design, and engineering sub-consultants shall visit the Project to observe any apparent defects in the construction, correct such deficiencies, and supply information as needed regarding replacement, correction, or diminished value of defective work.

1.07 OPERATION/PROJECT CLOSE-OUT PHASE

- A. Operation/Close Out. During the Operation/Project Close-Out Phase, Contractor and Contractor's architectural, design, and engineering sub-consultants shall, when requested by County, provide all necessary architectural, design and engineering services, including services of its architectural, design and engineering sub-consultants, for:
 1. Refining, adjusting and correcting of any equipment or systems.
 2. Start-up, testing and placing in operation all equipment and systems. See Section 01 91 00 General Commissioning
 3. Completion of punchlist work and observation of any apparent defects in the completed construction, correction of such deficiencies, and supply information as needed regarding replacement, correction, or diminished value of defective work.
 4. Training County's staff to operate and maintain all equipment and systems.
 5. Assisting County in developing systems and procedures for control of the operation and maintenance of and record keeping for the Project.

6. Preparation of electronic record sets and sets of reproducible record prints or Drawings showing those changes made during the construction process, based on the marked-up prints, Drawings and other data.

1.08 CONTRACTOR'S OBLIGATION FOR FINISHED CONSTRUCTION

- A. County's right to review Contractor's design including, but not limited to, drawings, specifications, shop drawings, samples and submittals, as specified in the Contract Documents, shall not relieve Contractor of its responsibility for a complete design and construction complying with the requirements of the Contract Documents; but rather, such review shall be in furtherance of the County's monitoring and accepting the design as developed and issued by the Contractor, consistent with these Contract Documents. Contractor's responsibility to design and construct the Project in conformance with the Contract Documents including, but not limited to, the applicable performance standard and any fully executed change orders, shall be absolute. Such duty may not be altered or diminished by any action other than a signed change order.
- B. Provide Revit model and AutoCAD files, in most current release version, of all Drawings including as-bid, as-built, and all record Drawings, on digitally recorded media as may be approved by the County. Prepare electronic record sets and sets of reproducible record prints or Drawings showing those changes made during the construction process. Electronic data shall conform to County requirements for compatibility with County equipment and software.

1.10 REQUIREMENTS FOR ESCROW BID DOCUMENTS

- A. Contractor shall submit, within the time period established in Notice of Award, a set of all then existing Escrow Bid Documents, and shall subsequently submit within fifteen (15) business days.

END OF SECTION

SECTION 01 14 00
WORK RESTRICTIONS

PART 1- GENERAL

SUMMARY

General

This Section specifies coordination tasks and requirements, including work sequence, work restrictions, and coordination with others.

Definitions

For the work rules and other items specified in this Section, the following definitions shall apply.

“Sites”: All locations where work under this Contract is required.

“Active construction work”: All work at sites except for initial visits, site investigations, and final system-wide tests. Any work that impacts or poses a risk of impact to the existing Jail Facility, Superior Court, and adjacent sites and building operations shall be considered Active Construction Work.

“Required for Contractor’s work”: A situation where an accommodation by County is clearly necessary for Contractor to perform an item of work, and other practical means of construction are not available. This term is used to signify the limited availability of operational accommodations by County which are costly, time consuming or involve risk of operational failures. The determination of accommodations by County that are required for Contractor’s work will be made by County at its sole discretion.

Related Work Specified Elsewhere

Section 01 11 00 – Summary of Work

Inspection – General Conditions Subsection 1.08.B

Time of Completion – General Conditions Section 1.15 and Agreement

Control of the Work – General Conditions Section 1.08

Construction by County and by Separate Contractor – General Conditions
Section 1.06

Section 01 50 00 – Temporary Facilities and Controls

Section 01 32 16 – Construction Progress Schedule

Existing Utilities – Existing Conditions reports and General Conditions
Subsections 1.08 D and E

SUBMITTALS

Site Work Plans

Contractor shall prepare and submit for review a Site Work Plan for activity that may disrupt or otherwise impact normal operations of the adjacent Sheriff’s Operation Regional Training Facility (SORTF). A reviewed Site Work Plan for the site shall be received by Contractor marked "No Exceptions Taken" or "Make Corrections Noted" at least (14) days prior to starting any active construction work.

The purposes of the Site Work Plan include:

- Provides a written narrative of the complete work planned at the Site (as opposed to CPM schedules specified elsewhere) to facilitate understanding and discussion by all affected groups.

- Provides a means for County to confirm that Contractor has adequately planned the work at the Site, prior to starting active construction.
- Provides a convenient document for County operations supervisors to be informed concerning site work, as well as a convenient document for communicating site work activities to operations staff.

The Site Work Plan shall include, as a minimum, the following:

- Site name and number.
- Dates active construction work will be performed.
- General description of the work to be performed at the site, including active or invasive inspection, conduit installation, selective demolition or modification, etc.
- Description of the general work sequence for the site.
- Description of any coordination required or restrictions that apply concerning work at other sites.

WORK COORDINATION ACTIVITIES

CPM Schedule: A detailed, comprehensive CPM schedule shall be maintained throughout the time of the Contract as specified in Section 01 32 16. Contractor shall include the milestones and sequences of work specified herein as part of the CPM Progress Schedule.

Weekly Meetings: A weekly Schedule Monitoring and Progress Reporting (Construction Coordination) Meeting shall be held. The purpose of the meeting shall be to discuss and resolve issues pertaining to construction coordination (as the term is used in this Section). The time, duration, and location shall be determined by County. Contractor's on-site Superintendent shall attend, at a minimum.

Notification of Work Plans: In addition to the scheduling of weekly activities, Contractor shall notify County in writing five (5) working days in advance of the work activities scheduled for subsequent days that may impact existing operations.

Site Work Plan: The Site Work Plan shall be followed for all work at the Site. The Site Work Plan shall be updated, submitted to County and approved fourteen (14) days, minimum, prior to performing any site work not in accordance with a previously approved Plan.

Area of Work Access and Work Request Form: Contractor shall formally coordinate all site visits and work, including any pre-installation site visits, with County using an Area of Work Access and Work Request Form. The form shall be completely filled out and submitted to County a minimum of five (5) working days prior to the requested visit or start of work.

General Site Access Roads: If required, this access road may, with an approved Site Access and Work Request Form, be reduced to one way traffic with Contractor's dedicated flagmen posted at each end of work area at all times during the Contractor's work for directing traffic.

Coordination with Other Entities

County will assist the Contractor in coordinating work with the following entities:

- County of Nevada Department of Public Works
- County of Nevada Community Development Agency
- County of Nevada Facilities Management which includes Capital Improvements and Building Maintenance
- County Departmental Personnel with related Sheriff's Office responsibilities.
- Contractor shall be solely responsible for coordinating inspections by other authorities having jurisdiction over the project.

FIELD WORK SEQUENCE

Contractor's Site Work Plan shall be detailed and fully documented with drawings, flow charts, and other means to clearly communicate to all parties the detailed work schedule, restrictions, procedures and work tasks. Contractor shall include in the price for the work meetings and resubmittals as necessary to satisfy County that the proposed plan will not disrupt the existing operations of the County and adjacent sites and buildings at the Bill Santucci Justice Center.

WORK RESTRICTIONS

County will endeavor to notify Contractor of significant other construction work.

Contractor shall be responsible for scheduling and performing the work in such a manner as to prevent interference or impact on other construction projects.

General Work Rules: The following work coordination rules and restrictions are the minimum requirements that shall apply to work at this site. Other restrictive requirements may apply at any related individual sites, as specified elsewhere.

Site Access

Contractor will not be allowed unscheduled or unapproved access to County facilities. Contractor shall formally coordinate all site access with County. See Subsection 1.03 of this Section 01 14 00.

Working Hours:

Work at County sites shall generally be performed during normal working hours.

Normal working hours are defined as 7:00 a.m. to 5:00 p.m., Monday through Friday, excluding holidays, unless otherwise approved by County.

County inspectors will generally be available only 7:30 a.m. to 4:30 p.m.

Work outside of these hours requiring inspection or County assistance will be charged as specified below.

Contractor shall be responsible for any inspection and additional administration costs incurred by County for work by Contractor after the hours defined above on weekdays, or any work on weekends or holidays. Contractor shall reimburse County for the costs of inspectors and other personnel needed for site access, equipment operation, and general inspection for all times outside of Normal Working Hours. Such costs shall be withheld from the

succeeding monthly progress payment. Any work specifically requested or required by County to be performed outside the normal working hours shall not be subject to reimbursement of County costs described in this subsection.

Holidays recognized by County are as follows:

- 1) New Year's Day, January 1;
- 2) Martin Luther King Jr.'s Birthday, third Monday in January;
- 3) Lincoln's Birthday, February 12;
- 4) Presidents' Day, third Monday in February;
- 5) Memorial Day, last Monday in May;
- 6) Independence Day, July 4;
- 7) Labor Day, first Monday in September;
- 8) Veterans' Day, November 11;
- 9) Thanksgiving Day, as designated by the President;
- 10) The Day following Thanksgiving Day;
- 11) Christmas Day, December 25; and
- 12) Each day appointed by the Governor of California and formally recognized by the County as a day of mourning, thanksgiving, or special observance.
- 13) Mandatory Time Off (as may be defined from time to time by the Board of Supervisors)

If any work outside of normal working hours or on weekends or holidays is required, Contractor shall schedule the work in advance. Contractor shall notify the Construction Administrator in writing at least 48 hours prior to any work outside the normal working hours defined above, on weekends or holidays.

Equipment Operation: Contractor shall not operate any County equipment or facilities without the express written permission of County.

Electrical Power

Contractor shall provide its own power as specified in Section 01 50 00 Temporary Facilities and Controls.

Work in Streets and Right-of-Ways

All work in streets and rights-of-ways shall comply with the requirements of Subsection 1.14, Section 01 50 00 Temporary Facilities and Controls. Contractor shall obtain and bear the cost of all such permits and shall comply with all applicable rules and regulations.

EXAMPLE OF AREA OF WORK ACCESS AND WORK REQUEST FORM ON NEXT PAGE

[illegible]

Contract for Crestwood – Design Build **Nevada County Psychiatric Health Facility**

SECTION 01 29 00
MEASUREMENT AND PAYMENT PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. This section describes requirements and procedures for determining amount of work done and for obtaining payment for work done.
- B. Related Sections.
 - 1. Section 00 90 00 – Revisions, Clarifications and Modifications
 - 2. Section 01 11 00 – Summary of Work
 - 3. Section 01 11 01 – Summary of Work - Design Services
 - 4. Section 01 32 00 – Construction Progress Schedule
 - 5. Section 01 33 00 – Submittal Procedures
 - 6. Section 01 77 00 – Closeout Procedures

1.02 REFERENCES

California Public Contract Code

1.03 SCOPE OF WORK

- A. Work under the Contract Documents, or under any Bid item, allowance or alternate, shall include all design services, labor, materials, transport, handling, storage, supervision, administration and all other items necessary for the satisfactory completion of Work, whether or not expressly specified or shown.

1.04 DETERMINATION OF QUANTITIES

- A. Quantity of work to be paid for under any item for which a unit price is fixed in the Contract Documents shall be the number, as determined by County, of units of work satisfactorily completed in accordance with Plans and Specifications and as directed pursuant to Plans and Specifications. Unless otherwise provided, determination of number of units of work so completed will be based, so far as practicable, on actual measurement or count within prescribed or ordered limits, and no payment will be made for work done outside of limits. Measurements and computations will be made by methods as County may consider appropriate for class of work measured.

1.05 SCOPE OF PAYMENT

- A. Except as otherwise expressly stipulated in Section 01 11 00 Summary of Work, payment to Contractor at the unit price or other price fixed in the Contract for performing the work required under any item, or (if the Contract is on a lump sum price basis) at the lump sum price fixed in the Contract for performing all work required under the Contract, and as either may be adjusted pursuant to any approved change order, shall be full compensation for completing, in accordance with the Contract Documents, all design services and work required under the item or under the Contract, and for all expense incurred by Contractor for any purpose

in connection with the performance and completion of said work, including all incidental work necessary for completion of the Work.

- B. The Contract Sum, whether lump sum, unit price or otherwise, shall be deemed to include all costs necessary to complete required Work
- C. Whenever it is specified herein that Contractor is to do work or furnish materials of any class for which no price is fixed in the Contract Documents, it shall be understood that Contractor is to do such work or furnish such materials without extra charge or allowance or direct payment of any sort, and that cost of doing work or furnishing materials is to be included in price bid, unless it is expressly specified herein, in particular cases, that work or material is to be paid for as extra work.
- D. For the materials and equipment referenced in Section 01 11 00 as subject to payment prior to incorporation into the work, where Contractor requests payment on the basis of such materials and equipment not incorporated in the Work, Contractor must satisfy the following conditions:
 - 1. The materials and/or equipment shall be delivered and suitably stored at the Site or at another local location agreed to in writing, for example, a mutually acceptable warehouse;
 - 2. Full title to the materials and/or equipment shall vest in County at the time of delivery to the Site, warehouse or other storage location;
 - 3. Contractor shall obtain a negotiable warehouse receipt, endorsed over to County for materials and/or equipment stored in an off-site warehouse. No payment shall be made until such endorsed receipts are delivered to County;
 - 4. Stockpiled materials and/or equipment shall be available for County's inspection, but County shall have no obligation to inspect them and its inspection or failure to inspect shall not relieve Contractor of any obligations under the Contract Documents. Materials and/or equipment shall be segregated and labeled or tagged to specifically identify these specific Contract Documents;
 - 5. After delivery of materials and/or equipment, if any inherent or acquired defects are discovered, defective materials and/or equipment shall be removed and replaced with suitable materials and/or equipment at Contractor's expense;
 - 6. At its expense, Contractor shall insure the materials and/or equipment against theft, fire, vandalism, and malicious mischief, as well as any other coverages required under the Contract Documents;
 - 7. Contractor's application for payment shall be accompanied by a bill of sale, invoice or other documentation warranting that County has received the materials and equipment free and clear of all liens and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect County's interest therein, all of which must be satisfactory to County. This documentation shall include, but not be limited to, conditional releases of mechanics' liens and stop notices from all those providing materials and equipment as to which the application for payment relates, as well as unconditional releases of the same from the same as to the previous applications for payment for which they have not already been provided.

1.06 BASIS OF PAYMENT

- A. Lump Sum: When estimated quantity for specific portion of Work is not indicated and unit is designated as Lump Sum, payment will be on a Lump Sum basis for Work satisfactorily completed in accordance with Plans and Specifications.

1.07 PROGRESS PAYMENTS

- A. If requested by Contractor, progress payments will be made monthly.
- B. Schedule of Values.
 - 1. Within the time frame set in General Conditions, Section 1.11, Contractor shall submit a detailed breakdown of its Bid by scheduled Work items and/or activities, including coordination responsibilities and project record document responsibilities. Where more than one subcontract comprises the work of a work item or activity, the Schedule of Values shall show a separate line item for each subcontract. Contractor shall furnish such breakdown, of the total Contract Sum, by assigning dollar values (cost estimates) to each applicable Progress Schedule network activity (per Section 01 32 16), which cumulative sum equals the total Contract Sum. The format and detail of the breakdown shall be as directed by County to facilitate and clarify future progress payments to Contractor for direct Work under the Contract Documents. This breakdown shall be referred to as the Schedule of Values.
 - 2. Contractor's overhead, profit, insurance, and/or other financing, as well as "general conditions costs," (e.g., Site cleanup and maintenance, temporary facilities, lighting, security and the like), shall be prorated through Project duration.
 - 3. County will review the breakdown in conjunction with the Progress Schedule to ensure that the dollar amounts of this Schedule of Values are, in fact, fair market cost allocations for the Work items listed. Upon favorable review by County, this Schedule of Values will be accepted for use by County. County shall be the sole judges of fair market cost allocations.
 - 4. Any attempt to increase the cost of early activities, i.e., "front loading," will be rejected by County, resulting in a complete reallocation of monies until such "front loading" is corrected.
- C. Payment Requests
 - 1. Unless otherwise agreed, Contractor shall submit to County, on or before the tenth (10th) day of each month, an updated Schedule digital copy of a request for payment for the cost of the Work put in place during the period from the 10th day of the previous month to the 30th day of the previous month. Such requests for progress payments shall be based upon Schedule of Values prices of all labor and materials incorporated in the Work up until midnight of the last day of that one month period, less the aggregate of previous payments. If Contractor is late submitting its payment request, that payment request may be processed at any time during the succeeding one month period, resulting in processing of Contractor's payment request being delayed for more than a day for day basis.
 - 2. Payment requests may include, but are not necessarily limited to the following:

- a. Material, equipment and labor incorporated into the Work, less any previous payments for the same;
 - b. Up to seventy-five percent (75%) of the cost of major equipment identified in Subsection 1.05.D above, if purchased and delivered to the Site or stored off site, as may be approved by County.
 - c. Up to seventy-five percent (75%) of the cost of materials identified in Subsection 1.05.D above specifically fabricated for the Project that are not yet incorporated into the Work.
3. Contractor shall, at the time any payment request is submitted, certify in writing the accuracy of the payment request and that Contractor has fulfilled all scheduling requirements of General Conditions and Section 01 29 00 Measurement and Payment Procedures, including updates and revisions. The certification shall be executed by a responsible officer of Contractor.
4. No progress payment will be processed prior to County receiving all requested, acceptable schedule update information.
5. Each payment request shall list each Change Order executed prior to date of submission, including the Change Order Number, and a description of the work activities, consistent with the descriptions of original work activities. Contractor shall submit a monthly Change Order status log to County.
6. If County requires substantiating data, Contractor shall submit information requested by County, with cover letter identifying Project, payment request number and date, and detailed list of enclosures. Contractor shall submit one copy of substantiating data and cover letter for each copy Payment request submitted.
7. Monthly progress payments shall be made, based on total value of activities completed or partially completed, as determined by County with participation of Contractor, and based upon approved activity costs. Accumulated retainage will be shown as separate item in payment summary. If Contractor fails or refuses to participate in construction progress evaluation with County, Contractor shall not receive current payment until Contractor has participated fully in providing construction progress information and schedule update information for County.
8. Legal title to all Work shall pass to and vest in County as Work is performed, and title to all materials and equipment shall pass to and vest in County when such materials and equipment are delivered to the Site or as soon as title passes from the vendor or supplier thereof. Contractor shall keep the Site and all materials and equipment free and clear of all liens, stop notices and charges arising out of performance of the Contract Documents, and shall indemnify, defend and hold harmless all those indemnified pursuant to Subsection 1.13.C of General Conditions from the claims, suits, actions, losses and liabilities described therein, including those which are a result of any breach of this responsibility and shall defend any claim or suit brought against any party required to be indemnified hereunder based upon any such claim of title or lien.
9. Contractor shall promptly pay each Subcontractor the amount to which such Subcontractor is entitled, and shall, by an appropriate agreement with each Subcontractor, require each Subcontractor to make payments to its sub-Subcontractors and material suppliers in a similar manner. Contractor shall submit on its behalf and on behalf of each Subcontractor or consultant for which payment is being requested a conditional release of mechanics' lien in statutory form for the Work which is the subject of each progress

payment request and an unconditional release of mechanics' lien in statutory form for the immediately preceding progress payment as to the Work of each. If the unconditional release of mechanics' lien for the amount paid for the immediately preceding month is not reasonably available, it shall be submitted with the next progress payment request, such that it is submitted no more than two months after the date on which the conditional release of mechanics' lien was submitted for the amount paid.

D. Progress Payments

1. Upon receiving Contractor's payment request, County will review the payment request and make necessary adjustments to percent of completion of each activity. Edits will be returned to Contractor with description of adjustments made. All parties will update percentage of completion values in the same manner, i.e., express value of an accumulated percentage of completion to date.
2. The payment request may be reviewed by County for the purpose of determining that the payment request is a proper payment request, and shall be rejected, revised or approved by County pursuant to the cost breakdown prepared in accordance with this Section 01 29 00.
3. If it is determined that the payment request is not a proper payment request suitable for payment, County shall return it to Contractor as soon as practicable, but no later than ten (10) days after receipt, together with a document setting forth in writing the reasons why the payment request is not proper. If County determines that portions of the payment request is not proper or not due under the Contract Documents, then County may approve the other portions of the payment request, and in the case of disputed items or defective work not remedied, may withhold up to 125% of the disputed amount from the progress payment.
4. Pursuant to Public Contract Code Section 20104.50, if County fails to make any progress payment within thirty (30) days after receipt of an undisputed and properly submitted payment request from a contractor, County shall pay interest to Contractor equivalent to the legal rates set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure. The thirty (30) day period shall be reduced by the number of days by which County exceeds the seven (7) day return requirement set forth herein.
5. As soon as practicable after approval of each request for progress payment, County will pay to Contractor in manner provided by law, an amount equal to ninety percent (90%) of County's estimate, or a lesser amount if so provided in Contract Documents and County shall retain the amount so withheld as retention. Provided that payments may at any time be withheld if Work is not proceeding in accordance with the Contract Documents, or Contractor is not complying with requirements of the Contract Documents, or to comply with stop notices or to offset liquidated damages accruing or expected.
6. Retention will not be reduced if Contractor is behind schedule. If retention is reduced at any point during performance of the Work and Contractor subsequently falls behind schedule, retention may be raised back to original percentage specified in Subsection 1.07.D.5.
7. Before any progress payment or final payment is made, Contractor may be required to submit satisfactory evidence that Contractor is not delinquent in payments to employees, Subcontractors, suppliers, or creditors for labor and materials incorporated into Work.

8. County reserves and shall have the right to withhold payment for any equipment and/or specifically fabricated materials that, in the sole judgment of County, is not adequately and properly protected against weather and/or damage, prior to or following incorporation into the Work.
9. Granting of progress payment or payments by County, or receipt thereof by Contractor, shall not be understood as constituting in any sense acceptance of Work or of any portion thereof, and shall in no way lessen liability of Contractor to replace unsatisfactory work or material, though unsatisfactory character of work or material may have been apparent or detected at time payment was made.
10. When County shall charge a sum of money against Contractor under any provision of the Contract Documents, amount of charge shall be deducted and retained by County from amount of next succeeding progress payment or from any other moneys due or that may become due Contractor under the Contract Documents. If, on completion or termination of the Contract Documents, such moneys due Contractor are found insufficient to cover County's charges against it, County shall have right to recover balance from Contractor or Sureties.

1.08 SUBSTITUTION OF SECURITIES IN LIEU OF RETENTION

- A. Pursuant to provisions of Public Contract Code Section 22300, incorporated herein by reference, substitution of securities for any monies withheld under the Contract Documents to insure performance is permitted under following conditions:
 1. At request and expense of Contractor, securities listed in Section 16430 of the Government Code, bank or savings and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by Contractor and County which are equivalent to the amount withheld under retention provisions of the Contract Documents shall be deposited with County or with a state or federally chartered bank in California, as the escrow agent, who shall then pay such monies to Contractor. Upon satisfactory completion of the Contract Documents, securities shall be returned to Contractor.
 2. Alternatively, Contractor may request and County shall make payment of retentions earned directly to the escrow agent at the expense of Contractor. At the expense of Contractor, Contractor may direct the investment of the payments into securities and Contractor shall receive the interest earned on the investments upon the same terms provided for in this section for securities deposited by Contractor. Upon satisfactory completion of the Contract Documents, Contractor shall receive from escrow agent all securities, interest, and payments received by the escrow agent from County, pursuant to the terms of this section. Contractor shall pay to each Subcontractor, not later than twenty (20) days after receipt of the payment, the respective amount of interest earned, net of costs attributed to retention withheld from each Subcontractor, on the amount of retention withheld to insure the performance of Contractor.
 3. Contractor shall be beneficial owner of securities substituted for monies withheld and shall receive any interest thereon. Contractor shall submit any form W-9 or other required tax form.
 4. Contractor shall enter into escrow agreement according to Section 00 40 20 Escrow Bid Documents, as authorized under Public Contract Code Section 22300, specifying amount of securities to be deposited, terms and

conditions of conversion to cash in case of default of Contractor, and termination of escrow upon completion of the Contract Documents.

1.09 FINAL PAYMENT

- A. As soon as practicable after all required Work is completed in accordance with the Contract Documents, including Contractor's maintenance after Final Acceptance, County will pay to Contractor, in manner provided by law, unpaid balance of Contract price of Work, or whole Contract price of Work if no progress payment has been made, determined in accordance with terms of the Contract Documents, less sums as may be lawfully retained under any provisions of the Contract Documents or by law.
- B. Prior progress payments shall be subject to correction in the final payment. County's determination of amount due as final payment shall be final and conclusive evidence of amount of Work performed by Contractor under the Contract Documents and shall be full measure of compensation to be received by Contractor.
- C. Contractor and each assignee under an assignment in effect at time of final payment shall execute and deliver at time of final payment and as a condition precedent to final payment, Agreement and Release of Any and All Claims, discharging County, its officers, agents, employees and consultants of and from liabilities, obligations, and claims arising under the Contract Documents.

1.10 EFFECT OF PAYMENT

- A. Payment will be made by County, based on County's observations at the Site and the data comprising the application for payment. Payment will not be a representation that County has:
 - 1. Made exhaustive or continuous on-site inspections to check the quality or quantity of Work;
 - 2. Reviewed construction means, methods, techniques, sequences or procedures;
 - 3. Reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by County to substantiate Contractor's right to payment; or
 - 4. Made examination to ascertain how or for what purpose Contractor has used money previously paid on account of the Contract Sum.

PART 2 – PRODUCTS - Not applicable to this section.

PART 3 – EXECUTION - Not applicable to this section.

END OF SECTION

SECTION 01 30 10

DESIGN SOFTWARE REQUIREMENTS- AutoCAD or Revit

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings, General Conditions of the Agreement and other Divisions of the Specifications apply to and are impacted by, the work of this Section.

1.02 SUMMARY

- A. The requirements of this Section provide the frame work for the Owner, the Contractor, and Criteria Architect to utilize Design Software technology, AutoCAD or Revit and its best practices on the Project.
- B. The preferred Native Model software is listed in the following matrix. The selection of software other than the preferred listed shall be reviewed and approved by the Owner and the Owner's representative.

Preferred Native Model Software Matrix		
Discipline	Native Model Software	Comments
Architectural	Revit Architecture	
Fixtures, Furniture and Equipment (FF&E)	Revit Architecture	All major FF&E items shall be included.
Structural	Revit Structure	
HVAC Mechanical	Revit MEP AutoCAD MEP CAD-Duct	
Plumbing	Revit MEP AutoCAD MEP CAD-Pipe	
Fire Protection	AutoSPRINK v 7	
Electrical, Telecom/Data/Security	Revit MEP AutoCAD MEP	
Civil	AutoCAD Civil 3D	
Landscape	Revit Architecture	

2.02 OBJECT IDENTIFICATION – NOMENCLATURE / QR CODING

- A. Every Object in the Model shall have a Unique Identification (UID) parameter and a Common Name parameter attached to it in the Native Model.

- B. The UID shall be readable in the form of alpha, numeric, or alpha-numeric.
 - 1. If the UID form is alpha-numeric, it shall be a consistent string format for all Objects, within its discipline, and shall be readable by any commonly available database. The UID is an “Instance” parameter.
 - 2. If the Native Model software is not a full object-based, parametric, database platform, such as some of the 3D CAD programs, the UID shall be attached to the Object manually, if necessary, so that it can be read by the user without additional software applications.
 - 3. The UID can be automatically generated or manually assigned and shall adhere to pre-established nomenclature.
- C. A “Common Name” naming convention shall be a parameter in the Native Models. The Common Name shall be pre-approved by the Owner’s representative prior to modeling. Examples of a Common Name include such as: door, window, toilet, VAV Box, etc. Typically the Common Name will be generated automatically by the software, but if not, it shall be input manually in the Native Model. The Common Name is an Object “Type” parameter.
- D. Specific Objects in the Model shall be identified to interface with QR graphic code labels to allow the Owner to easily access pertinent building systems information in the future. The QR coding application shall be developed by the D-B early in the project and implemented at construction completion. Mobile readers shall be allowed to read the QR codes and access pertinent data provided in the Model. D-B is responsible for developing and implementing this feature in coordination with the Owner.

2.03 OBJECT PARAMETRIC ATTRIBUTES – MINIMUM REQUIREMENTS

- A. The following attributes shall be attached to each Object: If a required attribute is not automatically generated by Native Model software, it shall be manually input in the Native Model, or provided in an Excel or Access document that includes the UID.
 - 1. Unique Identification (Instance parameter)
 - 2. Common Name (Type parameter)
 - 3. Unifomat II Classification Code Levels 1, 2, and 3 (Type parameter)
 - 4. Omni Code Classification (Type parameter)
 - 5. Manufacturer (where applicable) (Instance parameter)
 - 6. Model Number (where applicable) (Instance parameter)

2.04 OBJECT ASSOCIATION

- A. Every Object in the Model shall be associated with either a Room or a Floor and shall have an association “Instance” parameter attached to it in the Native Model.
 - 1. **Room Association:** Any object that will be visible in a Room of the completed facility shall be associated with that specific Room. This includes all Objects regardless of responsible discipline; examples include without limitation: electrical switches and outlets, electrical switch gear and panel boards, plumbing equipment and fixtures, access panels to concealed Objects, cabinets, doors and frames, wainscot, light fixtures, HVAC supply and return grilles, fire sprinkler heads and valves, etc.
 - 2. **Floor association:** Any Object that will be concealed in a wall or interstitial space (but would be visible if the finish surface or item was non-existent) shall be associated with the specific Floor level that it is within. This includes all Objects regardless of responsible discipline;

examples include without limitation: electrical conduit, plumbing piping and valves, HVAC supply and return ducts, HVAC equipment, fire sprinkler lines and valves, etc.

3. **Objects extending beyond Room boundaries:** Floors, walls, and/or ceilings are sometimes modeled as objects that extend beyond individual Room boundaries. Where this occurs, the architectural discipline Native Model shall be modeled as follows:
 - a. Floors: Structural floor Objects may extend beyond Room boundaries, however, finish flooring such as carpet, resilient flooring, etc., shall be modeled as Objects, with extents contained within the Room boundaries, and with appropriate Room association.
 - b. Walls: Structural wall and non-structural partition Objects may extend beyond Room limits, however, the surface material such as gypsum wallboard, wall covering, etc., shall be modeled as Objects, or scheduled in the Room Finish Schedule, with extents contained within the Room boundaries, and with appropriate Room association.
 - c. Ceilings: Structural ceiling Objects may extend beyond Room limits; however, finish surface material such as gypsum wallboard, acoustical ceiling tiles, etc., shall be modeled as Objects, with extents contained within the Room boundaries, and with appropriate Room association.

2.05 SYSTEM DISCIPLINE MODELS

- A. **Civil and Landscape Systems:** The Civil and Landscape Systems Model shall be a sub-system model linked to the Architectural System Model. The Systems Model shall serve as the basis for project shared coordinates through which the position of building elements on the site will be coordinated. Verify all final systems model elements with Owner prior to incorporation. Object modeling to include but not limited to:
 1. Topography:
 - a. Existing natural and/or graded contours
 - b. New grades and finish contours.
 2. Surface Improvements:
 - a. Roads, driveways, access ways and parking lots including necessary intelligence to produce accurate plans, profiles and cross-sections
 - b. Pavements
 - c. Curbs and gutters
 3. Existing Elements:
 - a. All buildings, fences, streets and roads adjacent to and within the project area intended to remain
 - b. All existing elements may be modeled exterior surface only; interior elements are not required.
 4. Storm Water and Sanitary Sewers:
 - a. Existing lines (over 3" diameter), boxes and structures within project area
 - b. All new lines, boxes and structures
 - c. Existing public lines, boxes and structures beyond the project area but serving as points of connection for the project.
 5. Utilities:

- a. Existing domestic and fire water main and branch lines (2" and larger diameter) within project area
 - b. All new domestic and fire water lines and fire hydrants
 - c. Existing electrical overhead and underground lines within project area and all new electrical lines outside buildings
 - d. Existing telephone and data lines within project area
 - e. All new telephone and data lines outside buildings
 - f. Existing gas lines within project area
 - g. All new gas lines outside buildings
 - 6. Other Requirements:
 - a. Quantities: Data to reflect accurate quantities of the above elements
 - b. Schedules: Data for installation of the above elements
- B. Architectural Systems:** The Architectural Systems Model shall be the primary model to which others are linked. Verify all final Architectural Systems model elements with Owner prior to incorporation. Object modeling to include but not limited to:
- 1. Spaces:
 - a. Net square footage of all occupied spaces
 - b. Gross constructed floor area
 - c. Room names and numbers
 - d. Floor, base, wall, and ceiling finishes. NOTE: Model room names and numbers shall match the Owner's Architectural Program space names and numbers.
 - 2. Exterior Walls and Curtain Walls:
 - a. Type and composition
 - b. Height, length, and width
 - c. Thermal, acoustic, fire, and security ratings
 - 3. Partitions:
 - a. Type and composition
 - b. Height, length, and width
 - c. Thermal, acoustic, fire, and security ratings.
 - 4. Floors:
 - a. Type and material
 - b. Thickness
 - c. Finishes with manufacturer's name and product numbers. Link floor structure to the Structural Systems Model.
 - 5. Ceilings:
 - a. Type and composition
 - b. Height, length, and width
 - c. Thermal, acoustic, fire, and security ratings
 - 6. Roof Coverings and Openings:
 - a. Configuration
 - b. Drainage system
 - c. Penetrations for modeled building components.
 - 7. Exterior Doors, Windows, and Louvers:
 - a. Type and material
 - b. Height, width, and thickness
 - c. Thermal, acoustic, fire, and security rating
 - d. Location
 - e. Hardware elements of each door and window hardware group
 - 8. Interior Doors, Windows, and Louvers:

- a. Type and material
- b. Height, width, and thickness
- c. Thermal, acoustic, fire, and security rating
- d. Location
- e. Hardware elements of each door and window hardware group
- 9. Stairs and Ramps:
 - a. Stairs and railings
 - b. Ramps and railings
 - c. Handrails and guardrails
- 10. Casework and Counters:
 - a. Type and material
 - b. Height, width, and depth
 - c. Location
 - d. Hardware including hinges, handles, knobs, locks and grommets
- 11. Plumbing Fixtures:
 - a. Type and material
 - b. Location
 - c. Trim
 - d. Finishes
 - e. Link fixtures and trim to the Mechanical Systems Model
- 12. HVAC Grills and Registers:
 - a. Type and material
 - b. Location
 - c. Trim
 - d. Finishes
 - e. Link grills and registers and trim to the Mechanical Systems Model
- 13. Electrical Fixtures and Equipment:
 - a. Type and material
 - b. Bulb type and wattage
 - c. Location
 - d. Trim
 - e. Finishes
 - f. Link fixtures and equipment to the Electrical Systems Model
- 14. Miscellaneous Fittings:
 - a. Toilet partitions
 - b. Toilet room accessories
 - c. Grab bars
 - d. Personal storage lockers
 - e. Display cases
 - f. Other surface applied items such as mirrors, hooks, hangers, curtain rods, etc.
- 15. Other Requirements:
 - a. Quantities: Data to reflect accurate quantities of the above elements.
 - b. Schedules: Data for installation of the above elements.

C. **Structural Systems:** The Structural Systems Model shall be a sub-system model. Verify all final Structural Systems model elements with Owner prior to incorporation. Object modeling to include but not limited to:

- 1. Foundations and footings:
 - a. Type and configuration
 - b. Depth, length, and width
- 2. Slab(s) on-grade:

- a. Type and configuration
 - b. Under-slab base and waterproofing
 - c. Recesses, curbs, pads, closure pours
 - d. Major penetrations
 - 3. Elevated Floors:
 - a. Columns and beams
 - b. Primary and secondary framing members
 - c. Bracing
 - d. Connections
 - e. Framed, composite, and/or slab decks
 - 4. Roofs:
 - a. Columns and beams
 - b. Primary and secondary framing members
 - c. Bracing
 - d. Connections
 - e. Framed, composite, and/or slab decks
 - 5. Joints:
 - a. Expansion and/or contraction
 - b. Seismic
 - 6. Stairs and Ramps:
 - a. Openings and framing
 - b. Railing supports
 - 7. Shafts and Pits:
 - a. Openings, hatches and framing
 - b. Railing supports
 - 8. Other requirements:
 - a. Quantities: Include data to reflect accurate quantities of the above elements
 - b. Schedules: Data for installation of the above elements
 - c. Fireproofing: Fireproofing is not to be included in the AutoCAD but clash detection studies shall include definition of tolerances for conflict detection.
 - d. Color Code: color code structural steel from other elements.
- D. **Mechanical:** The Mechanical Systems Model shall be a sub-system model. Verify all final systems model elements with Owner prior to incorporation. Object modeling to include but not limited to:
- 1. Heating, Ventilating, and Air Conditioning:
 - a. All heating, ventilating, air-conditioning, exhaust fans, and specialty equipment
 - b. Air supply, return, ventilation and exhaust ducts, including space-consuming elbows and transitions
 - c. Fire dampers with ratings
 - d. Mechanical piping
 - e. Registers, diffusers, grills and hydronic baseboards
 - f. Coordinate and link fixtures and trim to the Architectural Systems Model.
 - 2. Plumbing:
 - a. All domestic plumbing piping and fixtures
 - b. Floor drains, area drains, trench drains and flushing valves
 - c. Floor sinks
 - d. Valves (regardless of pipe size)
 - e. Piping of 1.5" diameter and larger

- f. Shelter cleaning pressure wash system piping, pumps and connection locations
 - g. Related equipment
 - 3. Roof Drainage:
 - a. All piping and fixtures
 - b. Piping of 1.5" diameter and larger
 - c. Related equipment
 - 4. Other requirements:
 - a. Quantities: Include data to reflect accurate quantities of the above elements
 - b. Schedules: Data for installation of the above elements
 - c. Equipment Clearances: Clearances for major equipment and all M/E/P Equipment and Architecturally Significant Specialty Equipment, as model objects for conflict detection and maintenance access requirements.
 - d. Color Code: separate color code for each type element
- E. **Electrical:** The Electrical Systems Model shall be a sub-system model. Verify all final systems model elements with Owner prior to incorporation. Object modeling to include but not limited to:
 - 1. Interior Electrical Power and Lighting:
 - a. All interior electrical components
 - b. Lighting, receptacles, special and general purpose power receptacles
 - c. Lighting fixtures
 - d. Panel-boards and control systems
 - e. Conduit and cable trays and related supporting elements
 - f. Individual conduit larger than 1 .5" diameter shall be modeled
 - g. Groups or clusters runs, and cable trays of conduit of all sizes shall be modeled
 - 2. Exterior Electrical Power Systems:
 - a. All electrical service and power distribution, meter(s), vaults, etc.
 - b. Generator including fuel tank, mounting pad, grounding, cat walk platforms, etc.
 - c. Generator functions remote annunciation/control panel
 - d. Automatic Transfer Switch (interior location included)
 - e. Panelboards, Bypass Units and any other provided items
 - 3. Exterior Building Lighting:
 - a. All exterior electrical components
 - b. Lighting, receptacles, special and general purpose power receptacles
 - c. Lighting fixtures
 - d. Panel-boards and control systems, and transformers
 - e. Utility connection and equipment
 - f. Individual conduit larger than 1 .5" diameter shall be modeled
 - g. Grouped or clustered runs of conduit of all sizes shall be modeled.
 - 4. Telecom, Telephone, Data, Television, Security, and Other Low Voltage:
 - a. All interior low voltage components
 - b. Outlets, receptacles, special and controls
 - c. Fixtures
 - d. Panel-boards, equipment racks, and control systems
 - e. Conduit and cable trays and related supporting elements
 - f. Individual conduit larger than 1 .5" diameter shall be modeled

- g. Groups or clusters runs of conduit of all sizes shall be modeled
- 5. Other requirements:
 - a. Quantities: Data to reflect accurate quantities of the above elements
 - b. Schedules: Schedule data for installation of the above elements
 - c. Equipment Clearances: Clearances for major as model objects for conflict detection and maintenance access requirements
 - d. Color Code: separate color code for each type element
- F. **Fire Protection:** The Fire Protection Systems Model shall be a sub-system model. Verify all final systems model elements with Owner prior to incorporation. Object modeling to include not limited to:
 - 1. Fire Protection System:
 - a. Valves and risers, riser room, Fire Dept. Connections and Backflow Prevention
 - b. All main, branch, and drains lines including inspection points
 - c. Sprinkler heads, and fittings
 - d. Pumps, tanks, reservoirs and related piping
 - 2. Fire Alarms:
 - a. Alarm and notification devices
 - b. Detection systems and devices
 - c. Main FACP panel and annunciator panels
 - 3. Other requirements:
 - a. Quantities: Data to reflect accurate quantities of the above elements
 - b. Schedules: Schedule data for installation of the above elements
 - c. Equipment Clearances: Clearances for major equipment as model objects for conflict detection and maintenance access requirements
 - d. Color Code: separate color code for each type element
- G. **Fixtures & Equipment:** The Fixtures and Equipment Model shall be a sub-system model and provide per the criteria documents.
- H. **Furnishings:** The Furnishings Model shall be a sub-system model and provide per the criteria documents and the following:
 - 1. Communications Equipment:
 - a. Telecom Server Room Equipment Racks, layout, spacing, and clearances
 - b. Cabling routes, cable runways, parallel racks, installation accessories
 - c. Rack grounding routing and locations
 - 2. Audio Visual Equipment:
 - a. Owner Furnished Projectors (location and approximate sizes)
 - b. Owner Furnished Television Monitors (location, mounting and approximate sizes)
 - c. Speakers (location, mounting and approximate sizes)
 - d. Points of Connection for audio visual equipment power and signal
 - 3. Radio Equipment:
 - a. Radio console (location and approximate size)
 - b. Antenna mounting and cable routing (locations including exterior penetration)
 - 4. Other requirements:

- a. Quantities: Data to reflect accurate quantities of the above elements
- b. Schedules: Schedule data for installation of the above elements including Owner Furnished items
- c. Equipment Clearances: Clearances for major equipment as model objects for conflict detection and maintenance access requirements

PART 3 – EXECUTION

3.01 AutoCAD EXECUTION PLAN (AEP)

- A. The Contractor shall develop a AutoCAD Execution Plan (AEP) as part of the required AutoCAD services.
- B. Draft BEP: The Draft BEP shall include the following:
 - 1. Proposed AutoCAD staff for the Contractor's design team and the designated subcontractors.
 - 2. Software selections as defined in this section.
 - 3. Schedule of all AUTOCAD activities including a proposed schedule for all Owner meetings.
 - 4. Schedule of submittal milestones during design and construction to be reviewed and mutually agreed to by the Owner and D-B.
 - 5. File Folder structure.
 - 6. File Naming system.
 - 7. QR coding criteria.
 - 8. Define the responsibilities of Contractor's AUTOCAD staff.
 - 9. Methodology for ensuring validation of in-field installation utilizing coordinated AUTOCAD.
 - 10. Methodology for validating As-Built Models.
 - 11. The origin point for the Project. All models shall be in the correct location in 3D Space (x,y, and z coordinates). This includes correct floor elevation(s).
 - 12. Modeling minimum Level of Development (LOD) as required by this section.

NOTE: The Draft AEP may be required to be submitted as part of the RFP requirements. If not, the Draft BEP shall be developed and submitted within 20 days of the Notice to Proceed.

- C. Final AEP: Based on acceptance of the Draft BEP, the D-B shall develop its Final AutoCAD Execution Plan (Final AEP) and submit it to the Owner for review and acceptance.

3.02 DEVELOPMENT AND SUBMITTAL OF THE MODELS DURING Contractor's DESIGN PHASE

- A. The Contractor shall develop the Model and its discipline systems Native Models in compliance with the Contract Documents and the following:
 - 1. The Contractor shall meet on a regular basis with the Owner to develop and finalize the design of the project. The meetings shall be working sessions optimizing AutoCAD collaboration, visualization and information technology through "Live" model utilization. Develop and submit all of the discipline systems Native Models concurrently.

2. The Contractor shall provide and submit all of the discipline systems Native Models concurrently with the Model to be submitted to Owner for review and acceptance at specified schedule completion milestones as follows:
 - a. 100% complete Schematic Design (SD)
 - b. 100% complete Design Development (DD) phase AutoCAD or Revit
 - c. 65% and 95% Construction Documents (CD) phase AutoCAD or Revit
 - d. 100% complete finalized Construction Documents (CD) phase AutoCAD or Revit to include pickups and corrections of all building permit review items, back-check resolution and issues clarifications and the incorporation of all of the Owner's review comments and constructability reviews.
3. Submit updated discipline systems Native Models containing and complying with final approved shop drawing submittals, include all fabrication, assembly, and details AutoCAD or Revit.

3.03 UPDATING THE MODELS DURING CONSTRUCTION

- A. The Model and all of its Native Models shall be routinely updated/revised to keep current with construction activity as follows:
 1. Routine updates resultant from subcontractor and trade approved changes shall be incorporated into the Native Models and be presented to the County at the next regularly scheduled meeting with the update or revision.
 2. Construction updates for Owner reviews shall occur on weekly basis and discussed with the County.
- B. The Model and coordinated subcontractor and trade Native Models shall be used as the basis of weekly project meetings for scheduling and coordinating Work means and methods and shall be used for manufacturing and prefabrication.
 1. The Contractor shall coordinate the Work with installer and representatives of manufacturers and fabricators who are involved in or affected by such Work prior to installation.
 2. The Contractor shall fully review the coordinated Native Models for progress of other Work and preparation for particular Work under consideration.
- C. The Contractor shall continuously update the various models to record all as-built conditions. The fully updated Model and Native Models shall be provided to the County on a CD as part of the Project close-out.

3.04 SUBMITTAL OF FINAL AS-BUILT MODELS

- A. The final updated, revised and approved AutoCAD Model and all its discipline systems Native Models shall be submitted to the Owner as part of the close-out submittals. The models shall be:
 1. The latest as-built versions.
 2. In the agreed organized file folder structure.
 3. Linked to all the appropriate Native Models that make up the Fed Model.

3.05 OPERATIONS AND MAINTENANCE (O&M) DOCUMENTS / QR CODING

- A. General: The Submittal Section elsewhere in these specifications govern work of this Section, with additional requirements contained herein.
- B. Electronic O&M Documents: In addition to the submission of hard copy (paper) documents, the D-B shall provide all required O&M documents in individual Portable Document Format (PDF) files. The O&M documents shall include at a minimum:
 - 1. Object Identification: Unique ID number, and Common Name.
 - 2. Manual: Product data, installation, maintenance, and operating instructions.
 - 3. Shop Drawings: Item data, installation, and maintenance instructions.
 - 4. Warranty: Manufacturer's warranty, Sub-Contractor's warranty.
 - 5. Training: special instructions for maintenance work.
- C. Organization of O&M Documents: The documents shall be organized to match the As-Built Fed Model Objects.
 - 1. Common Name: Each O&M document shall be assigned a PDF file name that corresponds to the Object's Common Name.
 - 2. Individual Documents: O&M documents shall be organized and submitted as individual documents, not as parts of a larger group document. For example: each Object with a "type" parameter Common Name of "Toilet" and its related elements and components shall be a stand-alone PDF, not as a part of the whole group of "plumbing" nor shall it be grouped together as "plumbing fixtures."
 - 3. Quality PDFs: All PDF documents shall be high quality, clean, straight, high contrast documents. Documents shall be created directly from the origin software or document. Copies of copies are not acceptable.
- D. QR Codes: For facility equipment and systems established early in the project and in coordination with the Owner, QR codes shall be created and applied that, when read, allow access to pertinent as-built data stored as a part of the as-built models.

END OF SECTION

SECTION 01 31 00
PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.01 SUMMARY

- A. This section describes requirements for job site administration, including:
 - 1. County's Project Manager
 - 2. Contractor's Project Management Team.
- B. Related Sections.
 - 1. Section 01 11 00 – Summary of Work
 - 2. Section 01 32 16 – Construction Progress Schedule
 - 3. Section 01 33 00 – Submittal Procedures
 - 4. Section 01 78 39 – Project Record Documents

1.02 COUNTY'S MANAGEMENT TEAM

- A. County has designated a representative(s) to serve as County's Project Manager, who will act personally or through designated representatives. The Project Manager(s) shall represent County in carrying out the duties of County for the duration of the project. County may delegate all or a portion of the Project Manager's duties to its Construction Management consultant, (or such other entity as the County may direct) which shall then perform all or a portion of the Project Manager's duties specified herein.
- B. Functions of the Project Manager include, but are not limited to, the following:
 - 1. The Project Manager functions as the primary County representative with the Contractor in all matters concerning the Contract, monitoring the Contractor's performance in all respects to ascertain that the Work is performed in accordance with all the requirements of the Contract.
 - 2. The Project Manager is the focal point of contact with the Contractor regarding clarification of discrepancies and resolution of questions of fact that arise during performance of the Work under the Contract. The Project Manager also performs this role with regard to all agency and utility construction interfaces with the Work under this Contract.
 - 3. The Contractor is required by the Contract to provide formal notice of any and all potential claims arising during the performance of the Work. The Project Manager will administer the processing and resolution of any such claims in accordance with the requirements of the Contract.
 - 4. All contractual correspondence, including submittals, shall be directed and processed through the Project Manager unless otherwise specifically directed in the Contract. Any required or requested interface between the Contractor and County, the Project Manager, or any other representative of County, will be coordinated by the Project Manager.

1.03 CONTRACTOR'S PROJECT MANAGEMENT TEAM

- A. The Contractor shall staff the Project with a management team qualified and experienced in construction of a public works project of this value, nature and

complexity. This team shall possess the competency, skills and authority specified in Section 1.10 of General Conditions.

1. The Contractor shall submit to County prior to Notice to Proceed the names, detailed project experience, references, contact information, and proposed project position for each team member. Key team members shall have appropriate experience in the proposed position.
 2. If, during the course of the Project, the Contractor finds it necessary to replace a member of the Project Management Team, the name, qualifications, contact information, and experience of the proposed replacement shall be submitted to County for approval.
- B. The Project Management Team shall be composed of members with the necessary skills and be sufficient in number to handle all duties normal to a project of this scale and complexity. Special attention shall be given to the responsibility for coordination and scheduling.

PART 2 – PRODUCTS - Not applicable to this section.

PART 3 – EXECUTION - Not applicable to this section.

END OF SECTION

SECTION 01 31 19
PROJECT MEETINGS

PART 1 - GENERAL

1.01 SUMMARY

- A. This section describes the required project meetings for this work. These meetings include:
 - 1. Predesign and Preconstruction Conferences.
 - 2. Coordination Meetings
 - 3. Progress Meetings
 - 4. Scheduling Meetings.
 - 5. Quality Control Meetings
 - 6. Public Meetings and/or AHJ Review Meetings
 - 7. Special Meetings.
- B. Related Sections
 - 1. Section 01 11 00 – Summary of Work
 - 2. Section 01 11 01 – Summary of Work - Design Services
 - 3. Section 01 29 00 – Measurement and Payment Procedures
 - 4. Section 01 32 26 – Construction Progress Schedule
 - 5. Section 01 33 00 – Submittals Procedures

1.02 PREDESIGN AND PRECONSTRUCTION CONFERENCE

- A. County will call for and administer Predesign and Preconstruction Conferences at time and place to be announced. A Predesign Conference will occur as soon after Notice to Proceed with Design as can be reasonably scheduled. A Preconstruction Conference will occur as soon after Notice to Proceed with Construction as can be reasonably scheduled.
- B. Contractor and its Design-Build Architect shall participate in a predesign meeting with County and Authorities Having Jurisdiction (AHJ) to present concept drawings, discuss Title 15/24 requirements and plan review protocol.
- C. Contractor, all Subconsultants and major suppliers shall attend Predesign Conference. Agenda will include, without limitation, the following items.
 - 1. Contractor & County Coordination and Meeting Procedures
 - 2. Contractor's Design Coordination Plan with Subconsultants
 - 3. Contractor's Initial CPM Schedule for Design and Construction
 - 4. Contractor's Schedule of Values (including design activities)
 - 5. Contractor's Schedule of Deliverables and Agency Submittals
- D. Contractor, all Subcontractors and major suppliers shall attend Preconstruction Conference. A typical agenda will include, without limitation, the following items.
 - 1. Schedules
 - 2. Personnel and vehicle permit procedures
 - 3. Use of premises
 - 4. Location of the Contractor's on-site facilities
 - 5. Site Security
 - 6. Housekeeping

7. Contractor's Quality Control Program and Submittals
 8. Inspection and testing procedures, on-site and off-site
 9. Utility shutdown procedures
 10. Control and reference point survey procedures
 11. Injury and Illness Prevention Program
 12. Contractor's Updated CPM Schedule
 13. Contractor's Schedule of Values
 14. Contractor's Schedule of Submittals
 15. Regulatory Agencies
- E. County will distribute copies of minutes to attendees. Attendees shall have 5 working days to submit comments or additions to minutes. Minutes will constitute final memorialization of results of conference.

1.03 COORDINATION MEETINGS

- A. Design Phase Coordination
1. County will be available as necessary to participate in Design Development Coordination meetings or workshops as deemed necessary by Contractor.
 2. Contractor shall conduct at least monthly design coordination meetings with all subconsultants employed by Contractor. Contractor shall invite County or its representative to participate in these meetings.
- B. Construction Phase Coordination
1. County will be available as necessary to participate in Construction Phase Coordination Meetings.
 2. Contractor Construction Phase Coordination shall be integrated with the Contractor's Quality Control Program. See Section 01 45 00.
 3. Contractor shall conduct at least monthly Construction Phase Coordination Meetings with all subcontractors employed by Contractor. Contractor shall invite County or its representative to participate in these meetings. At a minimum, County will attend Contractor's Quality Control Meetings. County may elect to attend subcontractor coordination meetings as necessary.

1.04 PROGRESS MEETINGS

- A. County will schedule and administer Progress Meetings throughout duration of Design and Construction Work. Progress meetings will be held weekly unless otherwise directed by County.
1. Design Phase Progress Meetings shall be held at Design Build Architects office or County Offices as mutually agreed by Contractor and County to be best advantageous for progressing the work.
 2. Construction Phase Meetings shall be held at the Contractor's on-site office unless otherwise agreed or necessary.
 3. County will prepare agenda and distribute to the Contractor and Inspector 4 working days in advance of meeting.
 4. County will preside at meeting.
 5. County will record and distribute minutes to the Contractor, Inspectors, all other participants, and those affected by decisions made at meeting, within 3 working days after meeting. Attendees shall have 5 working days to submit comments or additions to minutes. Minutes will constitute final memorialization of results of meeting.

1.05 SCHEDULING MEETINGS

- A. Contractor shall meet with County prior to Start Date of the Work under the Contract Documents and conduct initial review of the Contractor's draft Design Schedule, Design Deliverables Schedule, draft Shop Drawing and Sample Submittal Schedule, and draft Schedule of Values, and Progress Schedule.
- B. Authorized representative in the Contractor's organization, designated in writing, who will be responsible for working and coordinating with County relative to preparation and maintenance of Progress Schedule shall attend initial review meeting.
- C. County will administer scheduling meetings and shall distribute minutes of scheduling meetings to attendees. Attendees shall have (5) working days to submit comments or additions to minutes. Minutes will constitute final memorialization of results of conference.
- D. A meeting will be held weekly to review the Schedule update submittal and progress payment application.
 - 1. At this meeting, at a minimum, the following items will be reviewed: Percent complete of each activity; Time Impact Evaluation's (TIEs) for Change Orders and Time Extension Request; actual and anticipated activity sequence changes; actual and anticipated duration changes; and actual and anticipated Contractor delays.
 - 2. These meetings are considered a critical component of overall monthly schedule update submittal; Contractor shall have appropriate personnel attend. At a minimum, Contractor's General Superintendent and Scheduler shall attend these meetings. Plan on the meeting taking no less than four hours

1.06 QUALITY CONTROL MEETINGS

- A. Contractor shall conduct a minimum of weekly Quality Control Meetings as part of the Contractor's Quality Control Program, see Section 01 45 00.
- B. Contractor's attendees at Quality Control Meetings shall at a minimum include:
 - 1. Contractor's Quality Control Manager
 - 2. Contractor's Commissioning Coordinator; as required
 - 3. Contractor's Safety Officer
 - 4. Subcontractors actively working on Site or soon to mobilize.
 - 5. Design-Build Architect
 - 6. Subconsultant Engineers as activities dictate.
- C. County's attendees at Quality Control Meetings shall at a minimum include:
 - 1. County's Project Manager(s)
 - 2. County's Construction Manager
 - 3. Inspector of Record
- D. Quality Control Meetings agenda shall include at a minimum:
 - 1. Submittal Review, including approval status and schedule
 - a. Product Data and MSDS

- b. Shop Drawings & Coordination Documents
- c. Substitutions and Modifications Request
- d. Manufacture's Installation Requirements & Instructions
- e. Manufacture's Operating Requirements & Instructions
- 2. Distribution of Testing and Inspection Reports
- 3. Review of In-progress Activities for compliance and timeliness.
- 4. Coordination of Upcoming Test and Inspection Procedures & Requirements
- 5. Summary of activity successes, deficiencies, and corrective measures

1.07 SPECIAL MEETINGS

- A. Contractor Safety Meetings per approved Safety Plan.
 - 1. In the event County embarks on Owner Controlled Insurance Program (OCIP), County's OCIP representative shall attend regularly scheduled Safety Meetings.
- B. Preparatory Meetings as activities dictate for Test & Inspections
- C. Commissioning Meetings per approved Commissioning Plan and Schedule.
 - 1. Pre-Commissioning Planning
 - 2. Commissioning Plan Review
 - 3. Commissioning Scheduling and Procedures

PART 2 – PRODUCTS - Not applicable to this section.

PART 3 – EXECUTION - Not applicable to this section.

END OF SECTION

SECTION 01 32 16
CONSTRUCTION PROGRESS SCHEDULE

PART 1 - GENERAL

1.01 SUMMARY

- A. Contractor shall perform scheduling of Work under these Contract Documents in accordance with requirements of this Section 01 32 16.
 - 1. Development of schedule, cost and resource loading of the Progress Schedule, monthly payment requests and project status reporting requirements of the Contract Documents shall employ scheduling as required in this Section 01 32 16.
 - 2. The Schedule shall be cost loaded based on Schedule of Values as approved by County.
 - 3. Submit schedules and reports as specified in General Conditions.
- B. Upon Award of Contract, Contractor shall immediately commence development of Initial Schedule to ensure compliance with schedule submittal requirements.
- C. Contractor's obligations under this Section 01 32 16 are hereby deemed material obligations justifying County's remedies for default if Contractor fails to perform. Nothing in this Subsection 1.01.C of this Section 01 32 16 or the lack of an express statement that any other Contract Documents provision is or is not material shall be considered in determining whether any such other provision is material.
- D. Contractor shall employ competent scheduling personnel or a schedule consultant with experience performing scheduling required herein on at least two (2) prior projects of similar scope and complexity.
- E. Contractor shall transmit each item under form approved by County or following Section 01 33 00 Submittal Procedures.
 - 1. Identify Project with the County Contract number, and name of Contractor.
 - 2. Provide space for Contractor's approval stamp and County's review stamps.
 - 3. Submittals received from sources other than Contractor will be returned to Contractor without County's review.

1.02 GENERAL

- A. The Progress Schedule shall be based on and incorporate milestone and completion dates specified in the Contract Documents.
- B. Overall time of completion and time of completion for each milestone shown on Progress Schedule shall adhere to times in Agreement, unless an earlier (advanced) time of completion is requested by Contractor and agreed to by County. Any such agreement shall be formalized by a Change Order.
 - 1. County is not required to accept an earlier (advanced) schedule, i.e., one that shows early completion dates for the Contract Times.

2. Contractor shall not be entitled to extra compensation in event agreement is reached on an earlier (advanced) schedule and Contractor completes its Work, for whatever reason, beyond completion date shown in earlier (advanced) schedule but within the Contract Times.
 3. A schedule showing the work completed in less than the Contract Times that has been accepted by County shall be considered to have Project Float. The Project Float is the time between the scheduled completion of the work and Substantial Completion. Project Float is a resource available to both County and Contractor.
- C. Float Ownership: Neither County nor Contractor owns float. The Project owns the float. As such, liability for delay of the Substantial Completion Date rests with the party whose unexcused delay, last in time, actually causes delay to the Substantial Completion Date.
1. For example, if Party A incurs unexcused delay and uses some, but not all of the float and Party B later incurs unexcused delay and uses the remainder of the float as well as additional time beyond the float, Party B shall be liable for the delay that represents a delay to the Substantial Completion Date.
 2. Party A would not be responsible for the delay since it did not consume all of the float and additional float remained; therefore, the Substantial Completion Date was unaffected by Party A.
- D. The Progress Schedule shall be the basis for evaluating job progress, payment requests, and time extension requests. Responsibility for developing Contract schedules and monitoring actual progress as compared to Progress Schedule rests with Contractor.
- E. Failure of the Progress Schedule to include any element of the Work or any inaccuracy in Progress Schedule will not relieve Contractor from responsibility for accomplishing the Work in accordance with the Contract Documents. County's acceptance of the Progress Schedule shall be for its use in monitoring and evaluating job progress, payment requests, and time extension requests, and shall not, in any manner, impose a duty of care upon County, or act to relieve Contractor of its responsibility for means and methods of construction.

1.03 INITIAL AND ORIGINAL PROGRESS SCHEDULE

- A. Initial Schedule submitted for review at the Preconstruction Conference shall serve as Contractor's schedule for up to thirty (30) Days after the Notice to Proceed.
- B. Initial Schedule must indicate detailed plan for the Work to be completed in first thirty (30) Days of the Contract; details of planned mobilization of plant and equipment; sequence of early operations; and procurement of materials and equipment. Show Work beyond thirty (30) Days in summary form.
- C. Contractor shall submit its Original Schedule for review no later than first progress payment. Original Schedule and all updates shall comply with all standards herein.
- D. All Schedules shall be time-scaled.

- E. All Schedules shall be cost and resource loaded. Accepted cost and resource loaded Schedule will be used as basis for monthly progress payments. Use of Initial Schedule for progress payments shall not exceed thirty (30) Days.
- F. Except as otherwise expressly provided in this Section 01 32 16, meet with County to review and discuss each Schedule (i.e., Initial, Original and monthly updates) within seven Days after each Schedule has been submitted to County.
 - 1. County's review and comment on any Schedule shall be limited to Contract conformance (with sequencing, coordination, and milestone requirements).
 - 2. Contractor shall make corrections to Schedule necessary to comply with Contract requirements and shall adjust Schedule to incorporate any missing information requested by County. Resubmit Initial Schedule if requested by County.
- G. If Contractor is of the opinion that any of the Work included on its Schedule has been impacted, submit to County a written a Time Impact Evaluation (TIE) in accordance with Subsection 1.08 of this Section 01 32 26. The TIE shall be based on the most current update of the Initial Schedule.

1.04 SCHEDULE FORMAT AND LEVEL OF DETAIL

- A. Each Schedule (Initial, Original and updates) shall indicate all separate fabrication, procurement and field construction activities required for completion of the Work, including but not limited to the following:
 - 1. All Contractor, Subcontractor, and assigned Contractor work (including engineering and other professional services) shall be shown in a logical work sequence that demonstrates a coordinated plan of work for all contractors. The intent is to provide a common basis of acceptance, understanding, and communication, as well as interface with other contractors.
 - 2. Activities related to the delivery of Contractor and County-furnished equipment to be Contractor-installed per Contract shall be shown.
 - 3. All activities shall be identified through codes or other identification to indicate the building (i.e. buildings, Site work) and Contractor/Subcontractor responsibility to which they pertain.
 - 4. Break up the Work schedule into activities of durations of approximately twenty-one (21) Days or less each, except for non-field design and construction activities or as otherwise deemed acceptable by County.
 - 5. Show the critical path in red. For each activity, show early start, late start, early finish, late finish, durations measured in Days, total and available float, resources, predecessor and successor activities, planned workday/week for the activity and scheduled/actual progress payments. "Critical path" shall mean all activities with zero float; if a path exists with less than three (3) days float, show the path in a lighter shade of red.
- B. Seasonal weather conditions (which do not constitute a delay as defined herein) shall be considered in the planning and scheduling of all work influenced by high or low ambient temperatures or presence of high moisture for the completion of the Work within the allotted Contract Time.

- C. Failure by Contractor to include any element of Work required for performance of the Work on the detailed construction schedule shall not excuse Contractor from completing all Work required within the Contract Time.
- D. A three-week "look ahead," detailed daily bar chart schedule shall be updated and issued weekly.
- E. Utilize suitably appropriate computer-scheduling software, as specified in subsection 2.10 of this Section 01 32 16, for all schedule computations including schedule updates.

1.05 MONTHLY SCHEDULE UPDATE SUBMITTALS

- A. Following acceptance of Contractor's Initial Schedule, monitor progress of Work and adjust Schedule each month to reflect actual progress on each activity and any anticipated changes to planned activities.
 - 1. Each Schedule update submitted shall be complete, including all information requested for the Initial Schedule and Original Schedule submittal.
 - 2. Each update shall continue to show all Work activities including those already completed. These completed activities shall accurately reflect "as built" information by indicating when activities were actually started and completed, and Contractor warrants the accuracy of as-built information as shown.
- B. A meeting will be held on weekly to review the Schedule update submittal and progress payment application.
 - 1. At this meeting, at a minimum, the following items will be reviewed: Percent complete of each activity; TIEs for Change Orders and Time Extension Request; actual and anticipated activity sequence changes; actual and anticipated duration changes; and actual and anticipated Contractor delays.
 - 2. These meetings are considered a critical component of overall monthly schedule update submittal; Contractor shall have appropriate personnel attend. At a minimum, Contractor's General Superintendent and Scheduler shall attend these meetings.
 - 3. Plan on the meeting taking no less than four hours.
 - 4. Within five (5) days after monthly Schedule update meeting, submit the updated Schedule both electronically and in hardcopy
- C. Within five (5) days of receipt of above-noted revised submittals, County will either accept or reject monthly schedule update submittal.
 - 1. If accepted, percent complete shown in monthly update will be basis for Application for Payment by Contractor. The schedule update shall be submitted as part of Contractor's Application for Payment.
 - 2. If rejected, update shall be corrected and resubmitted by Contractor before the Application for Payment is submitted.
- D. Updating, changing or revising of any report, curve, schedule or narrative submitted to County by Contractor under this Contract, nor County's review or acceptance of any such report, curve, schedule or narrative shall not have the effect of amending or modifying, in any way, the Contract Substantial Completion

date or milestone dates or of modifying or limiting, in any way, Contractor's obligations under this Contract.

1.06 SCHEDULE REVISIONS

- A. Updating the Schedule (Initial and Original) to reflect actual progress shall not be considered revisions to the Schedule. Since scheduling is a dynamic process, however, revisions to activity durations and sequences are expected on a monthly basis.
- B. To reflect revisions to the Schedule, provide County with a written narrative with a full description and reasons for each Work activity revised. For revisions affecting the sequence of Work, provide a schedule diagram that compares the original sequence to the revised sequence of Work. Provide the written narrative and schedule diagram for revisions three Days in advance of the monthly schedule update meeting. Clearly show and discuss any changes in the critical path.
- C. Schedule revisions shall not be incorporated into any schedule update until County has reviewed the revisions. County may request further information and justification for schedule revisions and, within three Days, provide County with a complete written narrative response to County's request.
- D. If County does not accept Contractor's revision, and Contractor disagrees with County's position, Contractor has seven Days from receipt of County's letter rejecting the revision, to provide a written narrative providing full justification and explanation for the revision. Contractor's failure to respond in writing within seven Days of County's written rejection of a schedule revision shall be contractually interpreted as acceptance of County's position, and Contractor waives its rights to subsequently dispute or file a claim regarding County's position. If Contractor files a timely response as provided in this Subsection, and the parties are still unable to agree, Contractor's sole right shall be to file a claim as provided in General Conditions, Section 1.12.
- E. At County's discretion, Contractor can be required to provide Subcontractor certifications of performance regarding proposed schedule revisions affecting said Subcontractors.

1.07 RECOVERY SCHEDULE

- A. If the Schedule Update shows a substantial completion date twenty-one (21) calendar days beyond the Contract Substantial Completion date, or a delay of individual milestone completion dates, Contractor shall within twenty-one (21) calendar days, submit to County the proposed revisions to recover the lost time. As part of this submittal, Contractor shall provide a written narrative for each revision made to recapture the lost time. If the revisions include sequence changes, Contractor shall provide a schedule diagram comparing the original sequence to the revised sequence of the Work. If County requests, show the intended critical path; secure appropriate Subcontractor and supplier consent to the recovery Schedule; submit a narrative explaining trade flow and construction flow changes, duration changes, added/deleted activities, critical path changes and identify all near critical paths and man hour loading assumptions for major Subcontractors.

- B. The revisions shall not be incorporated into any Schedule update until County has reviewed the revisions.
- C. If County does not accept Contractor's revisions, County and Contractor shall follow the procedures in Subsections 1.06C, 1.06D, and 1.06E of this Section 01 32 16.
- D. At County's discretion, Contractor can be required to provide Subcontractor certifications for revisions affecting said Subcontractors.
- E. Contractor shall provide supervision, labor, equipment and materials, as necessary, to recover the lost time
- F. If Contractor believes that any portion of the delay addressed in the recovery schedule is due to circumstances entitling Contractor to additional time or money, it may seek a modification of the contract documents under Section 1.14 of General Conditions, or make a claim for the same pursuant to Section 1.12 of General Conditions, and other applicable provisions of the Contract Documents.

1.08 TIME IMPACT EVALUATION FOR CHANGE ORDERS, AND OTHER DELAYS

- A. When Contractor is directed to proceed with changed work, Contractor shall prepare and submit, within fourteen (14) calendar days from the direction to proceed, a TIE which includes both a written narrative and a schedule diagram depicting how the changed work affects other schedule activities. The schedule diagram shall show how Contractor proposes to incorporate the changed work in the schedule, and how it impacts the current schedule update critical path. Contractor is also responsible for requesting time extensions based on the TIEs impact on the critical path. The diagram must be tied to the main sequence of schedule activities to enable County to evaluate the impact of changed work to the scheduled critical path.
- B. Contractor shall, in addition, comply with the requirements of Subsection 1.08.A for all types of delays such as, but not limited to, Contractor/Subcontractor delays, asserted County or third party caused delays, adverse weather delays, strikes, procurement delays, fabrication delays, etc.
- C. Contractor shall be responsible for all costs associated with the preparation of TIEs, and the process of incorporating them into the current schedule update. Contractor shall provide County with an electronic pdf copy and one (1) hardcopy of each TIE. Contractor's TIEs must be based on the as-built critical path. County may request the TIE also to show the as planned critical path.
- D. Once agreement has been reached on a TIE, the Contract Time will be adjusted accordingly. If agreement is not reached on a TIE, the Contract Time may be extended in an amount County allows, and Contractor may submit a claim for additional time claimed by Contractor as provided in General Conditions.

1.09 TIME EXTENSIONS

- A. Contractor is responsible for requesting time extensions for time impacts that, in the opinion of Contractor, impact the critical path of the current schedule update. Notice of time impacts shall be given in accord with General Conditions.

- B. Where an event for which either Contractor or County is responsible impacts the projected Substantial Completion date, Contractor shall provide a written mitigation plan, including a schedule diagram, which explains how (e.g., increase crew size, overtime, etc.) the impact can be mitigated. Contractor shall also include a detailed cost breakdown of the labor, equipment and material Contractor would expend to mitigate County caused time impact. Contractor shall submit its mitigation plan to County within fourteen (14) calendar days from the date of discovery of said impact. Contractor is responsible for the cost to prepare the mitigation plan.
- C. Contractor's failure to request time, provide TIE, or provide the required mitigation plan will result in Contractor waiving its right to a time extension and cost to mitigate the delay.
- D. No time will be granted under the Contract Documents for cumulative effect of changes.
- E. County will not be obligated to consider any time extension request unless requirements of Contract Documents are complied with.
- F. Failure of Contractor to perform in accordance with the current schedule update shall not be excused by submittal of time extension requests.

1.10 PROJECT STATUS REPORTING

- A. In addition to submittal requirements for scheduling identified in this Section 01 32 16, provide a monthly project status report (i.e., written narrative report) to be submitted in conjunction with each Schedule as specified herein. Status reporting shall be in form specified in this Subsection 1.10B below.
- B. Prepare monthly written narrative reports of status of Project for submission to County. Written status reports shall include:
 - 1. Status of major Project components (percent complete, amount of time ahead or behind schedule) and an explanation of how Project will be brought back on schedule if delays have occurred.
 - 2. Progress made on critical activities indicated on each Schedule, including inspections.
 - 3. Explanations for any lack of work on critical path activities planned to be performed during last month.
 - 4. Explanations for any schedule changes, including changes to logic or to activity durations.
 - 5. List of critical activities scheduled to be performed during the next month.
 - 6. Status of major material and equipment procurement.
 - 7. Any delays encountered during reporting period.
 - 8. Provide printed report indicating actual versus planned resource loading for each trade and each activity. This report shall be provided on a monthly basis.
 - a. Actual resource shall be accumulated in field by Contractor, and shall be as noted on Contractor's daily reports. These reports will be basis for information provided in monthly printed reports.
 - b. Explain all variances and mitigation measures.

9. Contractor may include any other information pertinent to status of Project. Include additional status information requested by County at no additional cost.
10. Status reports, and the information contained therein, shall not be construed as claims, notice of claims, notice of delay, or requests for changes or compensation.

C. At the close of each workday provide County with report (on County approved forms of Contractor) of Contractor and its Subcontractors' work activities for that day, including trades, equipment, work activities worked on, staff levels, and equipment deliveries.

PART 2 – PRODUCTS - Not applicable to this section.

PART 3 – EXECUTION - Not applicable to this section.

END OF SECTION

SECTION 01 33 00
SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

Due to the design/build nature of the Project, Contractor and County will jointly develop a list of submittals and shop drawings that are to be submitted to the County. Upon completion of the list, Contractor will provide County with a preliminary schedule of shop drawings and submittals, which will list each submittal in order by specification section and the times for submitting, reviewing, and processing such submittal. All Submittals, including those that are being reviewed specifically by the Design-Build Firm shall be submitted and coordinated using the Internet communication software as stipulated in Section 01 31 26.

- A. This section describes general requirements for submittals for the Construction Phase of the Work
1. Submittal Justifications; 1.02
 2. Procedures; 1.03
 3. Schedule of Shop Drawing and Sample Submittals; 1.04
 4. Safety Plan; 1.05
 5. Progress Schedule; 1.06
 6. Product Data; 1.07
 7. Shop drawings; 1.08
 8. Samples; 1.09
 9. Quality Control Submittals; 1.10
 - a. Engineering Data
 - b. Test Report
 - c. Certificates
 - d. Manufacturers' Instructions
 10. Machine Inventory Sheets; 1.11
 11. Operations and Maintenance Manuals; 1.12
 12. Computer Programs; 1.13
 13. Project Record Documents; 1.14
 14. Delay of Submittals; 1.15
- B. Related Sections
1. Section 00 90 00 – Revisions, Clarifications and Modifications
 2. Section 01 11 00 – Summary of Work
 3. Section 01 11 01 – Summary of Work – Design Services
 4. Section 01 29 00 – Measurement and Payment Procedures
 5. Section 01 30 10 – Design software Requirements- AutoCAD or Revit
 6. Section 01 32 16 – Construction Progress Schedule
 7. Section 01 45 01 – Contractor's Quality Control Program
 8. Section 01 77 00 – Closeout Procedures
 9. Section 01 78 39 – Project Record Documents
 10. Section 01 91 00 – General Commissioning

- C. For Design Phase Deliverable Requirements, See Section 01 11 01: Summary of Work – Design Services. Submittals as described in this Document refer only to the Construction Phase of Work with the exception of Progress Schedules and Reports which is applicable through both Design and Construction Phases.

1.02 SUBMITTAL JUSTIFICATIONS

- A. All product and materials submittals shall provide informational justification describing and defining specifically how each individual submittal item meets or exceeds the Program and Design Performance Criteria requirements of the project using a minimum of the following three methods:
 - 1. Substantiation: Provide evidence confirming that the proposed submittal will comply with the requirements of the project and that the construction based on the design will and/or does comply with the requirements.
 - 2. Proven-In-Use: Proven to comply by having actually been built to the same or very similar design using the same materials as proposed and functioning as specified.
 - 3. Proven-by-Mock-Up: Proven to comply as reasonably predictable by having been tested in full-scale mock-up using the same materials and design as proposed and functioning as specified.

1.03 PROCEDURES

- A. Submit the requested sets in addition to required quantities for Design Build Design Team members, Schedule of Shop Drawing and Sample Submittals, Safety Plans, Progress Schedule, Product Data, Shop Drawings, Samples, Quality Control Data, Machine Inventory Sheets, Operations and Maintenance Manuals, Computer Programs, and Project Record Documents required by the Contract Documents.
- B. Transmit each item with a standard electronic letter of transmittal in form approved by County. Address to County's Project Manager for Project Files and distribution to the County and Inspector of Record. Transmit each physical sample or submittal, with both electronic and hard copies of the letter of transmittal. Hard copy the letter of transmittal shall be affixed to the sample or submittal.
- C. Identify Contractor, subcontractor, subconsultant, major supplier, pertinent drawing sheet and detail number, and specification section number as appropriate. Provide space for County review stamps.
- D. Where manufacturers' standard drawings or data sheets are used, they shall be marked clearly to show those portions of the data which are applicable to this Project.
- E. Submit Shop Drawings, Samples, Product Data and other submittals (collectively, "Submittals") to County for review and action in accordance with accepted Schedule of Submittals. Also see Section 01 45 00 Contractor's Quality Control Program. It is the intent that during the construction phase routing of Submittals to the County is informational for purposes of coordination and communication to the County's Project Manager and Inspector of Record and other County representatives, except where such submittals represent deviations or substitutions from the approved construction documents then requiring County's review and approval.

- F. The data shown on all Submittals shall be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to show County the materials and equipment Contractor proposes to provide and to enable County to review the information for the limited purposes specified below. Samples shall be identified clearly as to material, supplier, pertinent data such as catalog numbers and the use for which it is intended and otherwise as County may require to enable County to review the submittal. The number of each Sample to be submitted will be as specified in the Specifications.
- G. At the time of each submission, Contractor shall give County specific written notice of all variations, if any, that the Submittal may have from the requirements of the County Approved Design Build Contract Documents, and the reasons therefore. This written notice shall be in a written communication separate from the Submittal. In addition, Contractor shall cause a specific notation to be made on each Submittal submitted to County for review and approval of each such variation.
1. If County accepts deviation, County shall issue an appropriate Contract Modification with return to Contractor of a reviewed set of the Submittal.
- H. At the time of each submission, Contractor shall identify all specific manufacturer's stipulations for every element being submitted and shall give County specific written notice of all conditions of use pertaining to code requirements, product item requirements, material specifications, equipment requirements for use, servicing, maintenance, monitoring observations, inspections and record keeping.
1. County shall reserve the right to reject submissions which will in the opinion of the County create an unacceptable condition of use, added cost or increased maintenance or inspections.
 - a. An item requiring that the County add special staffing will be rejected.
 - b. An item requiring staff certifications beyond the County staff's normal and acceptable training levels and/or certifications will be rejected.
- I. Submittal coordination and verification is the responsibility of Contractor and its Subcontractors. Before submitting each Submittal, Contractor/Subcontractor shall have determined and verified:
1. All field measurements (where possible), quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar information with respect thereto;
 2. All materials with respect to intended use, fabrication, shipping, handling, storage, assembly and installation pertaining to the performance of the Work; and
 3. All information relative to Contractor's sole responsibilities and of design and means, methods, techniques, sequences and procedures of construction and safety precautions and programs incident thereto.
- J. Contractor shall also have reviewed and coordinated each Submittal with other Submittals and with the requirements of the Work and the Contract Documents.
- K. Contractor's submission to County of a Submittal will constitute Contractor's representation that it has satisfied its obligations under the Contract Documents, and as set forth immediately above, with respect to Contractor's review and approval of that Submittal.

- L. Designation of work "by others", if shown in Submittals prepared by a subcontractor, subconsultant or supplier, shall mean that work will be responsibility of Contractor or another subcontractor rather than the subcontractor, subconsultant or supplier who has prepared submittals.
- M. Prior to submitting to County, each of Contractor's Submittals will have been reviewed by Design-Build Architect and marked with actions defined as follows:
 - 1. NO EXCEPTIONS TAKEN - Accepted subject to its compatibility with future Submittals and additional partial Submittals for portions of the Work not covered in this Submittal. Does not constitute approval or deletion of specified or required items not shown on the Submittal.
 - 2. MAKE CORRECTIONS NOTED (NO RESUBMISSIONS REQUIRED) - Same as 1. above, except that minor corrections as noted shall be made by Contractor.
 - 3. REJECTED - RESUBMIT - Submitted material does not conform to Drawings and Specifications in major respect, i.e.: wrong size, model, capacity, or material.
 - 4. NOT REVIEWED - Submitted material has not been reviewed and is being returned to be acted upon by Contractor without review by County.
 - 5. COUNTY REVIEW & ACCEPTANCE REQUIRED – Submitted material meets Design-Build Design Teams general acceptance ; however, constitutes a variation from the Approved Contract Documents requiring County specific review and acceptance. County's reviewed submittal will be returned to Contractor with actions as defined in 1 through 5 above.
- N. It shall be Contractor's responsibility to copy, conform and distribute reviewed Submittals in sufficient numbers for Contractor's files, Subcontractors and vendors.
- O. After County's review of a Submittal, revise and resubmit as required. Identify changes made since previous Submittal.
 - 1. Begin no fabrication or work which requires Submittals until return of Submittals not requiring resubmittal.
 - 2. Normally, Submittals will be processed and returned to Contractor within fifteen (15) working days of receipt and shall be processed by County so as not to delay Contractor's performance.

1.04 SCHEDULE OF SHOP DRAWING AND SAMPLE SUBMITTALS

- A. Submit preliminary Schedule of Shop Drawing and Sample Submittals as required by General Conditions. Submit an electronic PDF copy of the final and accepted Schedule of Submittals of Shop Drawings and samples as required by General Conditions, and in no event later than sixty (60) days following Notice to Proceed.
- B. The Schedule of Shop Drawing and Sample Submittals will be used by County to schedule activities relating to review of submittals that may need County approval. County will need to review any shop drawing or submittal that constitutes substitution of products, systems or other deviation from approved Construction Documents. Schedule of Submittals shall indicate a spreading out of Submittals and early Submittals of long lead-time items and of items which require extensive review.
- C. Schedule of Shop Drawing and Sample Submittals shall be reviewed by County and shall be revised and resubmitted until accepted by County.

1.05 SAFETY PLAN

- A. Submit an electronic copy of a Safety Plan specific to this Contract to County no later than thirty (30) calendar days after County's approval of completed Construction Documents for either entire Project or first accepted phase of work as may be defined by Contractor. County to confirm accepted safety plan.
- B. No on-site work shall be started until Safety Plan has been reviewed and accepted by County. Acceptance of the Safety Plan shall not affect Contractor's responsibility for maintaining a safe working place and instituting safety programs in connection with project. Neither County nor County assumes any responsibility for Contractor's safety related obligations. Contractor shall have sole responsibility for safety on and off the Site.
- C. In the event that County institutes an OCIP Program, Safety Plan must meet approval of County's OCIP Administrator.

1.06 PROGRESS SCHEDULE

- A. See Section 01 32 16 Construction Progress Schedule, for schedule and report requirements.
- B. Submit an electronic PDF of the schedule at each of the following times:
 - 1. Initial CPM Schedule at the Predesign Conference.
 - 2. Original CPM Schedule within sixty (60) days of Notice to Proceed with Design.
 - 3. Adjustments to the CPM Schedule as required.
 - 4. CPM Schedule updates monthly, submitted with each Pay Application.
- C. Submit an electronic PDF copy of the reports listed in Section 01 32 16 Construction Progress Schedule, with:
 - 1. Initial CPM Schedule
 - 2. Original CPM Schedule
 - 3. Each monthly Schedule update
- D. Progress Schedules and Reports shall be submitted in electronic format in addition to hard copies specified above.

1.07 PRODUCT DATA

- A. Within sixty (60) calendar days after County's approval of completed Construction Documents for either entire Project or each accepted phase of work as maybe defined by Contractor submit an electronic PDF copy of the complete list of major products proposed for use, with name of the manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.
- C. Tabulate products by specification section number.
- D. Supplemental Data:

1. One (1) Electronic Copy.
 2. Identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to the Project.
- E. Provide copies for Project Record Documents described in Section 01 77 00 Closeout Procedures.

1.08 SHOP DRAWINGS

- A. Submit one (1) electronic copy through the approved project management software.
- B. Identify applicable products, models, options, and other data; supplement manufacturers' standard data to provide information unique to the Work.
- C. Include manufacturers' installation instructions when required by Specification section.

1.09 SAMPLES

- A. Submit full range of manufacturers' standard colors, textures, and patterns when County's selection is required as outlined in Subsection 1.02 above.
- B. Submit samples to illustrate functional and aesthetic characteristics of each product, with integral parts and attachment devices. Coordinate Submittal of different categories for interfacing work.
- C. Include identification on each sample, giving full information.
- D. Submit three (3) samples unless otherwise specified.
- E. Sizes: Unless otherwise specified, provide the following:
 1. Paint Chips: Manufacturers' standard
 2. Flat or Sheet Products: Minimum 6 inches square, maximum 12 inches square
 3. Linear Products: Minimum 6 inches, maximum 12 inches long
 4. Bulk Products: Minimum 1 pint, maximum 1 gallon
- F. Full size samples may be used in the Work upon approval.
- G. Mock-ups:
 1. Erect field samples and mock-ups at the Project Site in accordance with the requirements of Construction Specification sections.
 2. Modify or make additional field samples and mock-ups as required to provide appearance and finishes approved by County.
 3. Approved field samples and mock-ups may be used in the Work upon approval.

1.10 QUALITY CONTROL SUBMITTALS

- A. Design Data: One (1) electronic copy will be marked with County's review comments and returned to Contractor when required as outlined in Subsection 1.02 above.

1. Indicate that the design data conforms to or exceeds the requirements of the Contract Documents.
 2. Submit supporting reference data, affidavits, and certifications as appropriate.
 3. Identify conflicts with test reports, certificates, manufacturer's instructions or specific aspect(s) of the Contract Documents.
- B. Test Reports: One (1) electronic copy will be marked with County's review comments and returned to Contractor when required as outlined in Subsection 1.02 above.
1. Indicate that the material or product conforms to or exceeds specified requirements.
 2. Reports may be from recent or previous tests on material or product, but must be acceptable to County. Comply with requirements of each individual Specification.
- C. Certificates: One (1) electronic copy will be marked with County's review comments and returned to Contractor when required as outlined in Subsection 1.02 above.
1. Indicate that the material or product conforms to or exceeds specified requirements.
 2. Submit supporting reference data, affidavits, and certifications as appropriate.
 3. Certificates may be recent or from previous test results on material or product but must be acceptable to County.
- D. Manufacturers' Instructions: One (1) electronic copy will be marked with County's review comments and returned to Contractor when required as outlined in Subsection 1.02 above.
1. Include manufacturers' printed instructions for delivery, storage, assembly, installation, startup, adjusting, and finishing.
 2. Identify conflicts between manufacturers' instructions and Contract Documents.

1.11 OPERATIONS AND MAINTENANCE MANUALS

- A. Submit three (3) copies of manufacturers' operations and maintenance manuals, and one (1) electronic copy. If necessary, copies will be marked with County's review comments and returned to Contractor for correction until satisfactory information is provided. County will retain satisfactorily corrected manuals for its own use. See Section 01 91 00: General Commissioning for additional requirements.
- B. Operations and maintenance manuals shall include the following as appropriate:
1. Operating instructions
 2. Preventive maintenance instructions
 3. Cleaning instructions
 4. Safety precautions
 5. Trouble shooting procedures
 6. Theory of operation to discrete component level
 7. Schematic diagrams, flow diagrams, wiring diagrams, logic diagrams, etc. to discrete component level

8. Parts lists showing all discrete components with part number, current prices and availability
 9. List of replaceable supplies; paper, ink, ribbon, etc. with part numbers, current prices and availability
 10. Recommended levels of spare parts and supplies to keep on hand
 11. Manufacturers' service and maintenance technical manuals
 12. Names, addresses and telephone numbers of service and repair firms for the equipment
- C. Manuals shall be the same as are used by manufacturers' authorized technicians to completely service and repair the equipment.

1.13 COMPUTER PROGRAMS

When any equipment requires operation by computer programs, submit a copy of the program on appropriate compact disk plus all user manuals and guides for operating the programs and making changes in the programs for upgrading and expanding the databases. Programs must be the latest most current version of Windows, or in a form otherwise acceptable to County. Provide required licenses to County at no additional cost.

1.14 PROJECT RECORD DOCUMENTS

Submit one copy of each of the Project Record Documents listed in Section 01 77 00 Closeout Procedures and Section 01 78 39 Project Record Documents.

1.15 DELAY OF SUBMITTALS

Delay of Submittals by Contractor is considered avoidable delay. Liquidated damages incurred because of late Submittals will be assessed to Contractor.

PART 2 - PRODUCTS - Not applicable to this section.

PART 3 - EXECUTION - Not applicable to this section.

END OF SECTION

SECTION 01 35 43.13

ENVIRONMENTAL PROCEDURES FOR HAZARDOUS MATERIALS

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes regulatory requirements applicable to Work in connection with hazardous waste abatement and disposal, including, but not limited to, asbestos and asbestos containing materials, lead based paint, polychlorinated biphenyls, petroleum contaminated soils and materials, construction and demolition debris and any other hazardous substance or hazardous waste.
- B. This section supplements Section 01 41 00 Regulatory Requirements and the work specific listings of applicable regulatory requirements elsewhere in the specifications.
- C. Related Sections.
 - 1. Section 01 41 00 – Regulatory Requirements.

1.02 REFERENCES TO REGULATORY REQUIREMENTS

- A. Codes, laws, ordinances, rules and regulations applicable to the Work shall have full force and effect as though printed in full in the Contract Documents. Codes, laws, ordinances, rules and regulations are not furnished to Contractor, since Contractor is assumed to be familiar with their requirements. The listing herein of applicable codes, laws and regulations for hazardous waste abatement work is supplied to Contractor as a courtesy and shall not limit Contractor's responsibility for complying with all applicable laws, regulations or ordinances having application to the Work. Where conflict among the requirements or with these specifications exists, the most stringent requirements shall be used.
- B. Contractor's work shall conform to all applicable codes, laws, ordinances, rules and regulations which are in effect on date of contracting.

1.03 LAWS, ORDINANCES, RULES AND REGULATIONS

- A. During prosecution of Work under Contract Documents, Contractor shall comply with applicable laws, ordinances, rules and regulations, including, but not limited to, those listed below.
- B. Federal:
 - 1. Statutory Requirements:
 - a. Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 et seq.
 - b. Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. §§ 9601 et seq.
 - c. Toxic Substances Control Act of 1976, 15 U.S.C. §§ 2601 et seq.
 - d. Hazardous Materials Transportation Act of 1975, 49 U.S.C. §§ 1801 et seq.
 - e. Clean Water Act, 33 U.S.C. §§ 1251 et seq.

- f. Safe Drinking Water Act, 42 U.S.C. §§3001 et seq.
- g. Clean Air Act, section 112, 42 U.S.C. §7412
- h. Occupational Safety and Health Act of 1970, 29 U.S.C. §§ 651 et seq.
- i. Underground Storage Tank Law, 42 U.S.C. §§6991 et seq.
- j. The Emergency Planning and Community Right to Know Act of 1986, 42 U.S.C. §§ 11001 et seq.
- 2. Environmental Protection Agency (EPA):
 - a. 40 C.F.R. Parts. 260, 264, 265, 268, 270
 - b. 40 C.F.R. Parts 258 et seq.
 - c. 40 C.F.R. Part 761
 - d. 40 C.F.R. Parts 122-124
- 3. Occupational Safety and Health Administration (OSHA):
 - a. OSHA Worker Protection Standards, Title 29 CFR Part 1926.58, Construction Standards and 29 CFR 1910.1001 General Industry Standard
 - b. OSHA, 29 C.F.R. Part 1926.1101, Construction Standards for Asbestos
 - c. OSHA, Lead Exposure in Construction: Interim Final Rule, 29 C.F.R. 1926.62
 - d. National Emission Standard for Hazardous Air Pollutants, Title 40 CFR Part 61
 - e. Asbestos Hazardous Emergency Response Act, Title 40 C.F.R. 763
- 4. Department of Transportation:
 - a. Title 49 C.F.R. 173.1090
 - b. Title 49 C.F.R. 172
 - c. Title 49 C.F.R. 173
 - d. DOT, HM 181 and MH126f

C. State of California Requirements:

- 1. Statutory Law:
 - a. The Carpenter-Presley-Tanner Hazardous Substance Account Act, Cal. Health & Saf. Code §§25300 et seq.
 - b. Health and Safety Code § 25359.4
 - c. Hazardous Waste Control Law, Health & Safety Code §§25100 et seq.
 - d. Porter Cologne Water Quality Control Act, Cal. Water Code §§13000 et seq.
 - e. Health and Safety Code §§25915-25924
 - f. Cal. Labor Code Chapter 6, including, without limitation, §§ 6382, 6501.5-6501.9, 6503.5, 9021.5, 9080
 - g. Cal. Bus. and Prof. Code, including without limitation, §§7058.5, 7065.01, 7118.5.
 - h. Underground Storage of Hazardous Substance Act, Cal. Health & Saf. Code §§25280 et seq.
 - i. Petroleum Underground Storage Tank Cleanup, Health and Safety Code §§25299.10 et seq.
 - j. Safe Drinking Water and Toxic Enforcement Act of 1986, Health & Saf. Code §§25249.5 et seq. (Proposition 65)
 - k. Above Ground Petroleum Storage Act, Health and Safety Code §§ 25270 et seq.
 - l. Hazardous Materials Release Response Plans and Inventory, California Health and Safety Code Chapter 6.95.

2. Administrative Code and Regulations:
 - a. Title 22 C.C.R. Division 4.5, Environmental Health Standards for the Management of Hazardous Waste § 6600 et seq.
 - b. Cal OSHA Worker Protection Standards, Title 8 C.C.R. §§1529, 5208
 - c. Title 8 C.C.R. §1532.1, Lead in Construction
 - d. Title 23 C.C.R. §2610 et seq.
3. Local Agency Requirements:
 - a. Nevada City Ordinances
4. County and County Requirements:
 - a. County of Nevada Ordinances
 - b. Nevada County Consolidated Fire

1.04 PERMITS

Contractor shall comply with, implement and acknowledge effectiveness of all the permits applicable to the Work, and initiate and cooperate in securing all required notifications or approvals therefore, including but not limited to permits affecting environmental work.

PART 2 – PRODUCTS - Not applicable to this section.

PART 3 – EXECUTION - Not applicable to this section.

END OF SECTION

SECTION 01 41 00
REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes regulatory requirements applicable to the Contract Documents.
- B. Specific reference in the specifications to codes and regulations or requirements of regulatory agencies shall mean the latest printed edition of each adopted by the regulatory agency in effect at the time of the opening of bids, except as may be otherwise specifically stated in the Contract Documents.
- C. Should any conditions develop not covered by the Contract Documents wherein the finished work will not comply with current codes, a change order detailing and specifying the required work shall be submitted to and approved by the County before proceeding with the Work.

1.02 REFERENCES TO REGULATORY REQUIREMENTS

- A. Codes, laws, ordinances, rules and regulations referred to shall have full force and effect as though printed in full in these specifications. Codes, laws, ordinances, rules and regulations are not furnished to the Contractor, since the Contractor is assumed to be familiar with their requirements. The listing herein of applicable codes, laws and regulations for hazardous waste abatement work in the Contract Documents is supplied to the Contractor as a courtesy and shall not limit the Contractor's responsibility for complying with all applicable laws, regulations or ordinances having application to the Work. Where conflict among the requirements or with these specifications exists, the most stringent requirements shall be used.
- B. Conform to applicable codes, laws, ordinances, guidelines, rules and regulations.
- C. 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, Plans 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, Plans and Specifications shall take precedence so long as such increase is legal.
 - 3. Where no requirements are identified in the Drawings, Plans or Specifications, comply with all requirements of applicable codes, ordinances and standards of governing authorities having jurisdiction.

1.03 CODES

- A. Codes which apply to the Contract Documents include, but are not limited to, the following:
 - 1. Cal. Building Code (Part 2 of Title 24, C.C.R.)
 - 2. Cal. Electrical Code (Part 3 of Title 24, C.C.R.)
 - 3. Cal. Mechanical Code (Part 4 of Title 24, C.C.R.)
 - 4. Cal. Plumbing Code (Part 5 of Title 24, C.C.R.)
 - 5. Cal. Energy Code (Part 6 of Title 24, C.C.R.)
 - 6. Cal. Fire Code (Part 9 of Title 24, C.C.R.)
 - 7. Cal. Green Building Standards Code (Part 11 of Title 24, C.C.R.)

1.04 LAWS, ORDINANCES, GUIDELINES, RULES AND REGULATIONS

- A. During prosecution of Work to be done under the Contract Documents, comply with applicable laws, ordinances, rules and regulations, including, but not limited to, the following:
- B. Federal
 - 1. 2010 ADA Standards for Accessible Design revising the Americans With Disabilities Act of 1990 CADAI, 1991 & 1994 standards
 - 2. 29 CFR, Section 1910.1001, Asbestos
 - 3. 40 CFR, Subpart M, National Emission Standards for Asbestos
 - 4. Executive Order 11246
 - 5. Federal Endangered Species Act
 - 6. Clean Water Act
- C. State of California
 - 1. California Code of Regulations, Titles 5, 8, 15, 19, 21, 22, 24 and 25
 - 2. California Public Contract Code
 - 3. California Health and Safety Code
 - 4. California Government Code
 - 5. California Labor Code
 - 6. California Civil Code
 - 7. California Code of Civil Procedure
 - 8. CPUC General Order 95, Rules for Overhead Electric Line Construction
 - 9. CPUC General Order 128, Rules for Construction of Underground Electric Supply and Communications Systems
 - 10. California Occupational Safety and Health Administration (Cal OSHA)
 - 11. Occupational Safety and Health Administration (OSHA): Hazard Communications Standards
 - 12. California Endangered Species Act
 - 13. Water Code
 - 14. Fish and Game Code
- D. State of California Agencies
 - 1. State and Consumer Services Agency
 - 2. Office of the State Fire Marshal
 - 3. CalTrans
 - 4. Department of Fish and Game
 - 5. Board of State and Community Corrections

- E. Local Agencies:
 - 1. Nevada County Community Development Agency
 - 2. Nevada County Department of Public Works
 - 3. Nevada Irrigation District (NID)
 - 4. Nevada County Consolidated Fire
- F. Other Requirements:
 - 1. National Fire Protection Association (NFPA): Pamphlet 101, Life Safety.
 - 2. References on the Drawings, Plans or in the Specifications to "code" or "building code" not otherwise identified shall mean the codes specified in this Section 01 41 00, together with all additions, amendments, changes, and interpretations adopted by code authorities of the jurisdiction.
- G. Have access to all of the foregoing within 24 hours and maintain a copy of each of the above documents in the Contractor's field office.
- H. Other Applicable Laws, Ordinances and Regulations:
 - 1. Work shall be accomplished in conformance with all applicable laws, ordinances, rules and regulations of Federal, State and local governmental agencies and jurisdictions having authority over the Project.
 - 2. Work shall be accomplished in conformance with all rules and regulations of public utilities and utility districts.
 - 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 time of opening of the bids.

1.05 COMPLIANCE WITH AMERICANS WITH DISABILITIES ACT

- A. The Contractor acknowledges that, pursuant to the Americans with Disabilities Act (ADA), programs, services and other activities provided by a public entity to the public, whether directly or through a contractor, must be accessible to the disabled public. The Contractor shall provide the services specified in this Agreement in a manner that complies with the ADA and any and all other applicable federal, state and local disability rights legislation. The Contractor shall not discriminate against disabled persons in the provision of services, benefits or activities provided under this Agreement and further agrees that any violation of this prohibition on the part of the Contractor, its employees, agents or assigns shall constitute a material breach of this Agreement.

PART 2 - PRODUCTS - Not applicable to this section.

PART 3 - EXECUTION - Not applicable to this section.

END OF SECTION

SECTION 01 42 00
REFERENCES AND DEFINITIONS

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes reference standards, abbreviations, symbols and definitions used in the Contract Documents.
- B. Material and workmanship specified by reference to number, symbol, or title of specific standard such as state standard, commercial standard, federal specifications, technical society, or trade association standard, or other similar standard shall comply with requirements of standards except when more rigid requirements are specified or required by applicable codes.
- C. Standards referred to, except as modified herein, shall have full force and effect as though printed in the Contract Documents. Standards are not furnished to the Contractor, since manufacturers and trades involved are assumed to be familiar with their requirements.

1.02 REFERENCE TO STANDARDS AND SPECIFICATIONS OF TECHNICAL SOCIETIES; REPORTING AND RESOLVING DISCREPANCIES

- A. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard, specification, manual, code, or laws or regulations in effect at the time of opening of Proposals, except as may be otherwise specifically stated in the Contract Documents.
- B. If during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such law or regulation applicable to the performance of the Work or of any such standard, specification, manual, or code or of any instruction of any supplier, report it in writing at once by submitting a RFI to County, and do not proceed with the Work affected thereby until consent to do so is given by County.
- C. Except as otherwise specifically stated in the Contract Documents or as may be provided by Change Order, CCD, or Supplemental Instruction, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - 1. The provisions of any such standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or
 - 2. The provisions of any such laws or regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such law or regulation).

- D. No provision of any such standard, specification, manual, code, or instruction shall be effective to change the duties and responsibilities of County, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents, nor shall it be effective to assign to County, Engineer, or any of their consultants, agents, representatives or employees any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.
- E. Comply with the applicable portions of standards and specifications published by the technical societies, institutions, associations, and governmental agencies referred to in Specifications.
 - 1. Comply with referenced standards and specifications; latest revision in effect at the time of opening of Proposals, unless otherwise identified by date.
 - a. Exception: Comply with issues in effect as listed in governing legal requirements.
- F. 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 in Drawings or in Specifications, provide the highest, best, and greatest of the alternatives or options for the intended use and prevailing conditions.
- G. Jobsite Copies:
 - 1. Obtain and maintain at the Site copies of reference standards identified on Drawings and in Specifications in order to properly execute the Work.
 - 2. At a minimum, the following shall be readily available at the Site:
 - a. Safety Codes: State of California, Division of Industrial Safety regulations.
- H. 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 opening Proposals.
 - 2. All amendments, changes, errata and supplements as of the effective date shall be included.
- I. 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 Contractor is familiar with and has access to these nationally- and industry-recognized specifications and standards.

1.03 ABBREVIATIONS

- A. Listed hereinafter are the various organizations or references which may appear in the Contract Documents, along with their respective acronyms and/or abbreviations:

AA	Aluminum Association
AABC	Associated Air Balance Council
AAMA	Architectural Aluminum Manufacturers Association
AAP	Affirmative Action Program

AASHTO	American Association of State Highway and Transportation Officials
ABMA	American Boiler Manufacturers Association
ABPA	American Board Products Association
ACI	American Concrete Institute
ADA	Americans with Disabilities Act
AED	Association of Equipment Distributors
AGA	American Gas Association
AHJ	Authority Having Jurisdiction
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Moving and Conditioning Association, Inc.
ANSI	American National Standards Institute (formerly American Standards Association)
APA	American Plywood Association
ARI	Air-Conditioning and Refrigeration Institute
ASHRAE	American Society of Heating, Refrigeration, and Air-Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWCI	Association of the Wall and Ceiling Industries
AWPA	American Wood- Preservers Association
AWPB	American Wood Preservers Bureau
AWS	American Welding Society
AWWA	American Water Works Association
BIL	Basic Insulation Level
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	State of California, Department of Transportation
CBC	California Building Code
CCD	Construction Change Directive
CCR	California Code of Regulations
CEC	California Electric Code
CFR	Code of Federal Regulations
CISPI	Cast Iron Soil Pipe Institute
CLMFI	Chain Link Fence Manufacturers Institute
CMC	California Mechanical Code
CO	Change Order
CPC	California Plumbing Code
CPM	Critical Path Method
CPUC	California Public Utilities Commission
CRA	California Redwood Association
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standards, U.S. Department of Commerce
CSA	Canadian Standards Association
CTI	Ceramic Tile Institute
DHI	Door and Hardware Institute
DSA	Division of State Architect (formerly known as the Office of the State Architect)
EPA	Environmental Protection Agency
FGMA	Flat Glass Marketing Association
FM	Factory Mutual
FS	Federal Specifications
GA	Gypsum Association

HPMA	Hardwood Plywood Manufacturers Association
HVAC	Heating, Ventilating and Air Conditioning
I.D.	Identification
IACS	International Annealed Copper Standards
IAPMO	International Association of Plumbing and Mechanical Officials
ICBO	International Conference of Building Officials
ICEA	Insulated Cable Engineers Association
IEEE	Institute of Electrical and Electronic Engineers, Inc.
IES	Illuminating Engineering Society
ISA	Instrumentation Society of America
JATC	Joint Apprenticeship Training Committee
JV	Joint Venture
LBE	Local Business Enterprise
M.I.	Middle Initial
M/WBE	Minority and/or Woman-Owned Business Enterprise
MBE	Minority Business Enterprise
MIA	Masonry Institute of America
MIA	Marble Institute of America
MLSFA	Metal Lath/Steel Framing Association
MS	Military Specifications
MSDS	Material Safety Data Sheet
MSS	Manufacturers Standardization Society of the Valve & Fitting Industry
NAAMM	National Association of Architectural Metal Manufacturers
NACE	National Association of Corrosion Engineers
NBS	National Bureau of Standards
NEC	National Electric Code
NEMA	National Electric Manufacturers Association
NESC	National Electrical Safety Code
NFPA	National Fire Protection Association
NFPA	National Forest Products Association
NIOSH	National Institute for Occupational Safety and Health
NIST	National Institute of Science and Technology (formerly the National Bureau of Standards)
NOFMA	National Oak Flooring Manufacturers Association
NSF	National Sanitation Foundation
NTMA	National Terrazzo & Mosaic Association
NWWDA	National Wood Windows and Doors Association
OSHA	Occupational Safety and Health Administration
OSHPD	Office of Statewide Health Planning and Department
PCA	Portland Cement Association
PCI	Prestressed Concrete Institute
PDI	Plumbing and Drainage Institute
PG&E	Pacific Gas and Electric Company
PM	Preventive Maintenance
PR	Proposal Request
PS	Product Standard, U. S. Department of Commerce
RFI	Request for Information
RFP	Request for Proposals
RFS	Request for Substitution
RIS	Redwood Inspection Service
SDI	Steel Deck Institute
SFM	State of California, Office of State Fire Marshal
SIGMA	Sealed Insulating Glass Manufacturers Association

SJI	Steel Joint Institute
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
SPIB	Southern Pine Inspection Bureau
SSPC	Steel Structures Painting Council
SWI	Steel Window Institute
TCA	Tile Council of America
TIE	Time Impact Evaluation
UBC	Uniform Building Code
UFC	Uniform Fire Code
UL	Underwriters' Laboratories, Inc.
UMC	Uniform Mechanical Code
UPC	Uniform Plumbing Code
USA	Underground Service Alert
USC	United States Code
WCLIB	West Coast Lumber Inspection Bureau
WHI	Warnock Hersey International – a testing lab
WI	Woodwork Institute – http://www.wicnet.org
WWPA	Western Wood Products Association

Note: For additional Abbreviations see Criteria Documents Section 1.3.

B. Abbreviations in Specifications:

AWG	American Wire Gauge
accord	Accordance
Co.	Company
Corp.	Corporation
cm.	centimeter (centimeters)
cu.	Cubic
Div.	Division
dia.	Diameter
ft.	foot (feet)
g./gr.	gram (grams)
gal.	gallon (gallons)
gpd	gallons per day
gpm	gallons per minute
hr.	Hour
kg.	kilogram (kilograms)
in.	inch (inches)
Inc.	Incorporated
km.	kilometer (kilometers)
Kw	Kilowatt
l.	liter (liters)
lbs.	Pounds
m	meter (meters)
Mfg.	Manufacturing
Mg.	milligram (milligrams)
ml./mls.	milliliter (milliliters)
mm.	millimeter (millimeters)
No.	Number
o.c.	on centers
O.D.	outside diameter
psi	pounds per square inch

psf	pounds per square foot
sq.	Square
T & G	tongue and groove
U.S.	United States
yd.	yard (yards)

- C. Abbreviations on Drawings:
Additional abbreviations, used only on drawings, are indicated thereon.

1.04 SYMBOLS

- A. Symbols in Specifications:
- | | |
|----|---|
| : | "shall be" or "shall" - where used within sentences or paragraphs |
| #1 | Number |
| 1# | Pound |
| & | And |
| % | Percent |
| C | Centigrade |
| F | Fahrenheit |
| ° | Degree |
| / | per, except where used to combine words; example: power/fuel, and in that case it means and |
| " | inch (inches) |
| ' | foot (feet) |
| @ | At |
- B. Symbols on Drawings:
Symbols, used only on Drawings, are indicated thereon.

1.05 DEFINITIONS

- A. Wherever any of the words or phrases defined below, or a pronoun used in place thereof, is used in any part of the Contract Documents, it shall have the meaning here set forth:
1. **ADDENDA:** Written or graphic instruments issued prior to the opening of Bids, which clarify, correct or change the bidding requirements or the Contract Documents. Addenda shall not include the minutes of the Pre-bid Conference and Site Visit.
 2. **AGREEMENT:** Agreement is the basic contract document that binds the parties to construction Work. Agreement defines relationships and obligations between County and the Contractor and by reference incorporates Conditions of Contract, Drawings, Specifications and contains Addenda and all Modifications subsequent to execution of Contract.
 3. **ALTERNATE:** Work added to or deducted from the Base Bid, if accepted by County.
 4. **APPROVED EQUAL:** Approved in writing by County as being of equivalent quality, utility and appearance.
 5. **ATTORNEY:** The County Attorney.
 6. **AutoCAD:** AutoCAD software *Architecture 2009* or later.
 7. **BID or PROPOSAL:** The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 8. **BIDDER:** Person, firm, entity or association who submits a Bid.

9. BIDDING or PROPOSAL DOCUMENTS: All documents comprising the Project Manual (including all documents and specification sections listed on Table of Contents, including documents supplied for bidding purposes only and Contract Documents.
10. BOARD: The County's Board of Supervisors.
11. BUSINESS DAY: Any Day other than Saturday, Sunday, and the County holidays listed in Section 01 14 00 1.05.C, that have been designated as holidays by County, or Mandatory Time Off (MTO) days as may be specified from time to time by the Board of Supervisors. If a holiday falls on a Saturday, the preceding Friday will be the holiday. If a holiday falls on a Sunday, the following Monday will be the holiday.
12. BY COUNTY: Work that will be performed by County or its agents at the County's expense.
13. BY OTHERS: Work that is outside scope of Work to be performed by the Contractor under the Contract Documents, which will be performed by County, other contractors, or other means.
14. CHANGE ORDER: A written instrument prepared by County and signed by County and the Contractor, stating their agreement upon all of the following:
 - a. a change in the Work,
 - b. the amount of the adjustment in the Contract Sum, if any, and
 - c. the amount of the adjustment in the Contract Time, if any.
15. CHECKOUT: When used in General Conditions, Section 1.02, "Checkout" means the process of final setup, alignment, cleaning, operation, calibration and testing of individual components, subsystems, or systems within the Facility and tie-in to the Interconnection Facilities, all prior to Startup.
16. CONCEALED: Work not exposed to view in the finished Work, including within or behind various construction elements.
17. CONTRACT CONDITIONS: Conditions of Contract define basic rights, responsibilities and relationships of the Contractor and County and consists of General Conditions included in this Request For Proposal.
18. CONTRACT DOCUMENTS or CONTRACT: Contract Documents shall consist of the documents identified as the Contract Documents in Agreement, plus all changes, addenda and modifications thereto.
19. CONTRACT MODIFICATION: As defined in General Conditions.
20. CONTRACT SUM: The sum stated in the Agreement and, including authorized adjustments, the total amount payable by County to the Contractor for performance of the Work and the Contract Documents. The Contract Sum is also referred to as the Contract Price or the Contract Amount.
21. CONTRACT TIMES: The number or numbers of calendar days or the dates stated in the Agreement (i) to achieve Substantial Completion of the Work and other designated milestones and/or (ii) to complete the Work so that it is ready for final payment and is accepted.
22. CONTRACTOR: The person or entity identified as such in the Agreement and referred to throughout the Contract Documents as if singular in number and neuter in gender. The term "Contractor" means the Contractor or its authorized representative.
23. CONTRACTOR'S EMPLOYEES: Persons engaged in execution of Work under the Contract Documents as direct employees of the Contractor, as Subcontractors, or as employees of Subcontractors.

24. COUNTY: The County of Nevada, a political subdivision of the State of California.
25. COUNTY-FURNISHED, CONTRACTOR-INSTALLED: Items furnished by the County at its cost for installation by the Contractor at its cost under the Contract Documents.
26. COUNTY REPRESENTATIVE(S): The person or persons assigned by the County to be the County's agent(s) at the Site.
27. DATE OF SUBSTANTIAL COMPLETION: Date of Substantial Completion of Work or designated portion thereof is date certified by the County when construction is sufficiently complete in accordance with Contract Documents for County to occupy Work or designated portion thereof and have beneficial use of it for the purposes intended and as further defined in the General Conditions.
28. DAY: One calendar day, unless the word "day" is specifically modified to the contrary.
29. DEFECTIVE: An adjective which, when modifying the word "Work", refers to Work that is unsatisfactory or unsuited for the use intended, faulty, or deficient, that it does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents (including but not limited to approval of samples and "or equal" items), or has been damaged prior to final payment (unless responsibility for the protection thereof has been assumed by County). The County is the judge of whether Work is defective.
30. DRAWINGS: The graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.
31. ENGINEER: A person designated by the County authorizing such person to act as the Engineer on its behalf.
32. EQUAL: Equal in the opinion of the County. Burden of proof of equality is responsibility of the Contractor.
33. EXPOSED: Work exposed to view in the finished Work, including behind louvers, grilles, registers and various other construction elements.
34. FACILITY: Same as Project.
35. FIELD DIRECTIVE: A written work change directive to the Contractor from the County, ordering alterations or modifications, which do not result in change in Contract Sum or Contract Times, and do not substantially change the Contract Documents.
36. FINAL ACCEPTANCE or FINAL COMPLETION: The County's acceptance of the Work as satisfactorily completed in accordance with the Contract Documents. Requirements for Final Acceptance/Final Completion include, but are not limited to:
 - a. All systems having been tested and accepted as having met requirements of the Contract Documents.
 - b. All required instructions and training sessions having been given by the Contractor.
 - c. All as-built drawings and operations and maintenance manuals and Machine Inventory Sheets having been submitted by the Contractor, reviewed by and accepted by the County.
 - d. All punch list work, as directed by the County, having been completed by the Contractor.

- e. Generally all Work, except Contractor maintenance after Final Acceptance, having been completed to satisfaction of the County.
37. **FORCE ACCOUNT:** Work directed to be performed without prior agreement as to lump sum or unit price cost thereof, and which is to be billed at cost for labor, materials, equipment, taxes, and other costs, plus a specified percentage for overhead and profit, as described in Section 00 72 00 General Conditions, 1.14 A.
38. **FURNISH:** Supply only, do not install.
39. **INDICATED:** Shown or noted on the Drawings.
40. **INSPECTOR:** The person engaged by the County to inspect the workmanship, materials, or manner of construction of buildings or portions of buildings, to determine if such construction complies with the Contract Documents.
41. **INSTALL:** Install or apply only, do not furnish.
42. **INTERCONNECTION FACILITIES:** When used in General Conditions, Subsection 1.02, "Interconnection Facilities" means those protection devices, substation, metering, and other facilities that are required to permit an electrical interface to be established between the Facility and the interconnected electric grid system owned and operated by the utility service provider.
43. **LATENT:** Not apparent by reasonable inspection, including but not limited to, the inspections and research required as a condition to bidding under the General Conditions.
44. **LEGAL REQUIREMENTS:** When used in General Conditions, Section 1.02, "Legal Requirements" means laws, ordinances, rules, codes, regulations, permits, licenses and Legal Requirements of any kind, issued by governmental Authorities or private authorities with jurisdiction (including utilities), to the extent they apply to the Facility, the Interconnection Facilities or the Work.
45. **MANDATORY TIME OFF (MTO):** County staff furlough days as may be stipulated from time to time by the Nevada County Board of Supervisors.
46. **MATERIAL OR MATERIALS:** These words shall be construed to embrace machinery, manufactured articles, materials of construction (fabricated or otherwise), and any other classes of material to be furnished in connection with Contract, except where a more limited meaning is indicated by context.
47. **MATERIALS AND EQUIPMENT:** When used in General Conditions, Section 1.02, "Materials and Equipment" means all materials, supplies, apparatus, equipment, machinery, and parts required for the Facility and tie-in to the Interconnection Facilities (including, spare parts consumed before substantial completion, or required for Checkout, Startup or Testing, or required by the terms of supplier contractors or warranties to be at the Facility prior to the substantial completion date). Materials and Equipment does not include construction equipment, special testing apparatus, other spare parts, or other items that do not form a part of the permanent Facility or Interconnection Facilities.
48. **MILESTONE:** A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all Work.
49. **MODIFICATION:** Same as Contract Modification.
50. **NOT IN CONTRACT:** Work that is outside the scope of work to be performed by the Contractor under the Contract Documents.

51. NOTICE OF AWARD: A written notice given by the County to lowest responsive, responsible bidder advising that Bidder's bid and other qualifying information is acceptable to the County, requiring Bidder to fulfill the requirements of Section 1.04 of General Conditions.
52. NOTICE TO PROCEED: A written notice given by the County to the Contractor fixing the date on which the Contract Time will commence to run and on which contractor shall start to perform the Contractor's obligations under the Contract Documents.
53. OFFICE OF THE COUNTY: Nevada County Sheriff's Office, 950 Maidu Ave., Nevada City, CA, or such other office as the County may have after notice of such change of office is provided by the County.
54. OFF SITE: Outside geographical location of the Project.
55. PERFORMANCE GUARANTEE: When used in General Conditions, Section 1.02, "Performance Guarantee" means the performance criteria established by the Contract Documents.
56. PLANS: Same as Drawings.
57. PROGRESS REPORT: a periodic report submitted by the Contractor to the County with progress payment invoices accompanying actual work accomplished to the Program Schedule. See Section 01320 - Progress Schedules.
58. PROJECT: "Project" or "project" means the Project as further described in the Contract Documents, including but not limited to, Section 01100, Section 01101, and the Drawings, Plans, and Specifications. The Project will be constructed of new Materials and Equipment, and is the end result of performing the Work..
59. PROJECT MANUAL: Project Manual consists of Bidding Requirements, Agreement, Bonds, Certificates, Contract Conditions, and Specifications.
60. PROVIDE: Furnish and install.
61. REQUEST FOR INFORMATION ("RFI"): A document prepared by the Contractor requesting information regarding the Project or Contract Documents. The RFI system is also a means for the County to submit Contract Document clarifications or supplements to the Contractor.
62. REQUEST FOR SUBSTITUTION ("RFS"): A document prepared by the Contractor requesting substitution of any unlisted materials in lieu of materials named in the Specifications or approved for use in Addenda.
63. RFI-REPLY: A document consisting of supplementary details, instructions or information issued by the County which clarifies or supplements Contract Documents, and with which the Contractor shall comply. RFI-Replies do not constitute changes in Contract Sum or Contract Times except as otherwise agreed in writing by the County. RFI-Replies will be issued through the RFI administrative system.
64. SAMPLES: Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
65. SCHEDULE OF VALUES: A detailed listing of all individual Work items with assigned dollar values for each of the Work items that when added together equal the total Contract Sum.
66. SERVICES: When used in General Conditions, Section 1.02, "Services" means all planning, design, detailed engineering, procurement, permitting for construction or otherwise required for the project, project management and reporting, support services, construction, landscaping, cleanup, Checkout, Startup, and Testing, construction supervision, training, provision of all necessary personnel, and all other related services, all as

necessary to fulfill Contractor's obligations hereunder, whether such services and personnel are provided by Contractor or its subcontractors or suppliers.

- 67. SHOP DRAWINGS: All drawings, diagrams, illustrations, schedules and other data or information which are specifically prepared or assembled by or for the Contractor and submitted by the Contractor to illustrate some portion of the work.
- 68. SHOWN: As indicated on Drawings.
- 69. SITE: The particular geographical location of Work performed pursuant to the Contract Documents. Also referred to as the Facility Site.
- 70. SPECIFICATIONS: Specifications are the written portion of the Contract Documents consisting of requirements for materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services.
- 71. SPECIFIED: As written in Specifications.
- 72. START DATE: The date specified by the County, in the Notice to proceed or otherwise, for commencement of performing Work under the Contract Documents.
- 73. STARTUP: When used in General Conditions, Section 1.02, "Startup" means the process of starting and conducting initial operations of the aggregate of systems, subsystems and components of the Facility. A necessary prerequisite of Startup of the Facility is that Checkout on individual systems, subsystems, components, and auxiliaries of the Facility, and on the Interconnection Facilities or other facility components with which it is connected has been completed.
- 74. SUBCONTRACTOR: A person or entity who has a direct contract with the Contractor to perform a portion of the Work (and includes a consultant or subconsultant). Where the context requires, the term "subcontractor" also includes lower-tier subcontractors. The term "subcontractor" is referred to throughout the Contract Documents as if singular in number and neuter in gender and means a subcontractor or an authorized representative of the subcontractor. The term "subcontractor" does not include a separate contractor or subcontractors of a separate contractor.
- 75. SUBSTANTIAL COMPLETION: The Work (or a specified part thereof) has progressed to the point where, in the opinion of the County as evidenced by a Certificate of Substantial Completion, the Work is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if no such certificate is issued, when the Work is complete and ready for final payment is evidenced by written recommendation of the County for final payment. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof. Substantial Completion will not occur until after successful completion of all reliability testing. As further defined in Section 1.09 of the General Conditions.
- 76. TEST OR TESTING: When used in General Conditions, Section 1.02, "Test" or "Testing" means the execution of all activities required for the performance tests.
- 77. UNDERGROUND FACILITIES: All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: Electric, gas, steam, liquid petroleum products, telephone or other

communications, cable television, sewage and drainage removal, traffic or other control systems or water.

78. WORK: The entire completed design and construction of the Work or of the various separately identifiable parts thereof required to be furnished under the Contract Documents within the Contract Time. Work includes and is the result of performing or furnishing administrative services, labor and professional services, furnishing and incorporating materials and equipment into the construction, and performing or furnishing design and construction services and furnishing documents, all as required by the Contract Documents including the Plans and Specifications. Wherever the word "work" is used, rather than the word "Work", it shall be understood to have its ordinary and customary meaning. See AGREEMENT.

- B. Wherever words "as directed", "as required", "as permitted", or words of like effect are used, it shall be understood that direction, requirements, or permission of the County is intended. Words "sufficient", "necessary", "proper", determined and the like shall mean sufficient, necessary or proper in judgment of the County. Words "approved", "acceptable", "satisfactory", "favorably reviewed" or words of like import, shall mean approved by, or acceptable to, or satisfactory to, or favorably reviewed by the County.
- C. Wherever the word "may" is used, the action to which it refers is discretionary. Wherever the word "shall" is used, the action to which it refers is mandatory.

PART 2 - PRODUCTS - Not applicable to this section.

PART 3 - EXECUTION - Not applicable to this section.

END OF SECTION

SECTION 01 45 00
CONTRACTOR'S QUALITY CONTROL PROGRAM

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. All drawings, Contract Conditions, Special Conditions, Supplementary Conditions, and other Specification Sections of the Contract Documents apply to this section.
- B. Related Sections
 - 1. Section 01 11 00 – Summary of Work
 - 2. Section 01 30 10 – Design Software Requirements – AutoCAD or Revit
 - 3. Section 01 33 00 – Submittal Procedures
 - 4. Section 01 50 00 – Temporary Facilities and Controls
 - 5. Section 01 41 00 – Regulatory Requirements
 - 6. Section 01 35 43.13 – Environmental Procedures for Hazardous Materials
- C. Although Title 24 is exempt for this project, all Work is governed by requirements of Title 24, California Code of Regulations (“CCR”), and the Contractor shall keep an electronic copy of these available at the job Site for ready reference during construction.

1.02 SUMMARY

- A. This section specifies administrative and procedural requirements for Contractor to provide and maintain an effective Quality Control Program including, but not limited to: administration, management, supervision, reports, record-keeping, use of independent testing agencies and labs or other services related to testing and inspection as required in the Contract Documents to be performed by Contractor.
- B. Quality Control is the sole responsibility of Contractor.
- C. Quality Control services do not include Quality Assurance, Contract enforcement or code inspection activities performed by the County.
- D. Quality Control services are required to verify compliance with requirements specified or indicated and do not relieve the Contractor of responsibility for compliance with the Contract Documents.
- E. Specific Quality Control requirements for individual construction, fabrication and procurement activities shall be addressed in Contractor's Quality Control Program.
- F. The Quality Control services described herein are not intended to limit the Contractor's Quality Control activities which may be necessary to achieve full compliance with the Contract Documents.
- G. A Contractor Quality Control Manager shall be employed by the Contractor with the responsibility to implement the Construction Quality Control (CQC) Program. Other active members of the CQC Program shall include a minimum of an architectural and engineering coordinator, and Contractor's Commissioning Coordinator as defined in Section 01 91 00. The CQC Manager and supporting members'

responsibility is to ensure compliance with Contract Documents and is a requirement of the Contractor Quality Control Program.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Contractor shall provide full and complete documentation of all Quality Control activities including a Contractor Quality Control Program and Plan, detailing quality control procedures and related documentation.
- B. Within thirty (30) days of County's issuing a Notice to Proceed, Contractor shall submit to County a complete written summary of Contractor's Quality Control Program that complies with the requirements of this section.
- C. Contractor's Quality Control Program shall outline the specific timeframes or periods during construction during which the Contractor's design team and Contractor's consultants will be on site to review the work and the progress of construction activities for conformity with the plans and specifications of the Project design team. Include all related disciplines to be on site during each of these reviews and inspections.
- D. The Quality Control Program shall include specific steps to be taken by the Contractor to control construction quality and ensure conformance with the plans and specifications of the Project design team. Include specific steps to be taken to correct deficiencies in the quality of all work under the Contract.
- E. The Quality Control Program shall identify the continuing role of the Contractor's design team throughout all design and construction phases of the Project. The program shall also include a plan for review and concurrence of all required construction phase submittals by the architect of record and engineer of record, as appropriate.
- F. In performing their roles under the Quality Control Program, the Contractor's design team shall owe a duty directly to the County as the owner of the Project, to perform their obligations herein in a satisfactory and contract compliant manner.

2.02 DESCRIPTION OF PROGRAM

- A. Contractor shall establish a Quality Control Program (Program) which shall establish an organization and methodology to perform quality control with regard to the Contractor's scope of work including that of its subcontractors. The Program shall ensure conformance to applicable performance criteria in the Contract Documents with respect to the materials, codes, workmanship, standards, storage, installation, construction, finishes, functional performance, and identification. The Program shall be established for all Work performed under this Contract, including contract work to be assigned. The Program shall specifically include surveillance and tests required in the technical provisions of the Contract Documents to be provided by the Contractor.
- B. Contractor shall describe its Program in a detailed Quality Control Plan (see Subsection 3.03 below) that must be accepted by the Project Manager prior to the start of any construction or offsite fabrication.

- C. Contractor's Quality Control Program shall include the following activities for all definable features of work:
1. Preparatory Inspection Meeting: Contractor shall attend a preparatory meeting to review testing procedures at least one week prior to beginning work on any element of Work which has been identified in the Contract Documents requiring testing and inspection by the Contractor, if any, testing and inspection by the County or which has code-required inspections.
 2. In-Progress Review of the Work: Contractor shall perform in-progress review of the work as it progresses on a particular feature of work which shall include:
 - a. Examination of the quality of workmanship
 - b. A review of the means by which the work will be reviewed for compliance with Contract requirements
 - c. Review of the work for defective or damaged materials, omissions and dimensional requirements.
 - d. Review of timeliness and scheduling requirements for all tests, retests and eventual approvals.
 - e. Contractor Deficiency Reports and punch lists as appropriate to the level of completion of the Work.
 3. Pre-Final Review of the Work: Contractor shall determine portions of the Work believed to be 100% complete as to which, in Contractor's judgment, all deficiencies and punch list items have been corrected. The County's representatives and Contractor will then review the Work and record any remaining elements of the Work which may require further correction or completion.
 4. Final Review of the Work: Contractor shall review the Work with the representatives of the County to confirm that the work is 100% complete according to the Contract Documents.
 5. Cooperation with Code Required Inspection by the County: Contractor shall cooperate with the County's inspections, tests and other activities required by codes and regulations and as specified.

PART 3 – EXECUTION

3.01 RECORD KEEPING

- A. Contractor shall maintain current Quality Control records, on forms approved by the Project Manager, of all quality control activities performed. The records shall include factual evidence that the required quality control activities have been performed, including but not limited to, the following information: Specification reference, date and type of quality control activities involved; results of the quality control reviews; the nature of defect, causes for rejection, proposed remedial action; corrective action(s) taken and similar information related to any follow up quality control activities.
- B. Contractor shall maintain and submit the following Quality Control records and reports:
1. Daily Reports: Contractor shall maintain a daily log of all quality control activities performed for both Contractor and Subcontractor operations. The Daily Reports shall include compliance with Submittals and shop drawings, identification by Specification section and schedule activity of quality control

activities conducted, results of those activities, location and nature of defects found, causes for rejection, proposed remedial action and remedial or corrective actions taken or proposed. Daily Reports shall be submitted to the County's Inspector of Record by 5 P.M. of the next business day.

2. Deficiency Report: Contractor shall submit a weekly deficiency report to the Project Manager identifying all failed or unacceptable quality control reviews performed during the week including identification by specification section and schedule activity of the quality control activity, location and nature of defects, causes for rejection and remedial actions taken or proposed. The deficiency report shall also identify corrective actions taken or proposed for any open items on prior deficiency reports including a scheduled date for resolution of each item.
3. Immediate Notification: Contractor shall provide immediate notification to the Project Manager whenever a failed or unacceptable quality control review occurs. Follow up this immediate notification with the required written reports.

3.02 ORGANIZATION

- A. The Contractor's Quality Control Program (Program) shall be implemented by the establishment of a Quality Control Organization. It is recommended that the organization consist of the following:
 1. Quality Control Manager: The Quality Control Manager shall have the following qualifications: Construction Engineer or Architect with a minimum of 10 years' experience in a supervisory position with significant Quality Control whose primary responsibility is to ensure compliance with the Contract Documents. This person shall be employed on this Project only, shall be physically on the Project Site during performance of all Contract Work, and shall be in charge of Contractor's Quality Control Organization. The Quality Control Manager shall report directly to the responsible officer of Contractor.
 2. Quality Control Reviewers: The Reviewers shall be qualified, certified or licensed as necessary and appropriately experienced and report directly to the Quality Control Manager. Quality Control Reviewers shall be provided as required to meet the requirements of the Contract Documents for Contractor quality control activities.
 3. Manufacturers' Representatives: Provide review and/or inspection by qualified manufacturers' representatives for specific Work as appropriate, including but not limited to, roofing, waterproofing, skylights, window wall and building systems, security and building controls.
- B. Staffing Levels: The Contractor shall provide sufficient qualified personnel to monitor the Work quality at all times. The scheduling and cooperation with regard to all inspection and testing must match the type and pace of work activity.
 1. In cases where multiple trades, disciplines or subcontractors are on Site at the same time, each quality control activity shall be performed by personnel appropriate to each portion of the Work.
 2. In cases where multiple shifts are employed, the Quality Control staff shall be increased as required to monitor the Work on each shift, as necessary.

3.03 QUALITY CONTROL PLAN

- A. The Contractor shall furnish a Quality Control Plan to the County's Project Manager as soon as practicable, and in no event later than thirty (30) days after Notice to Proceed. The plan shall be updated as required by the "Detailed Quality Control Procedures" below, and accepted by the Project Manager prior to construction.
- B. Quality Control Plan Contents: The Quality Control Plan shall include the personnel, procedures, instructions and records to be used.
1. Organization: A description of Contractor's Quality Control Organization, including:
 - a. An organization chart showing lines of responsibility and relationships of the quality control organization to other Contractor management and project personnel
 - b. Names and qualifications of all personnel in the quality control organization.
 - c. Area of responsibility of each individual in the quality control organization
 2. Quality Control Activities:
 - a. Methods of performing quality control activities including those for each subcontractor's work.
 - b. Detailed lists of quality control activities for each Specification section. See "Detailed Quality Control Procedures" below.
 3. Documentation: Method of documenting Quality Control operation.
 4. Administration: Methods of administering Quality Control operations.
 5. Letter of County: A copy of a Letter of County to the Contractor's Quality Control Manager responsible for quality control outlining that person's duties and responsibilities and signed by a responsible officer of the Contractor. This letter shall include the Contractor's Quality Control Manager's authority to stop work and direct removal and replacement of work not in compliance with the Contract.
 6. Forms: Sample copies of all forms and reports to be used, a flow chart describing their distribution, and identification of those documents to be retained by Contractor.
 7. Schedule: A schedule of tests and inspections to be performed by County's Inspector of Record or Testing and Inspection Agency organized sequentially by technical specification section and keyed to the Project Schedule.
 8. Submittals: Submit the following to the Project Manager as part of the Quality Control Plan:
 - a. The procedures to be used for scheduling, managing and reviewing all Submittals (shop drawings, calculations, samples, catalogue cuts, certificates, manuals, etc.) including, but not limited to: those of Subcontractors, offsite fabricators, suppliers and purchasing agents.
 - b. A matrix defining distribution requirements for all Submittals required by the Contract Documents
 - c. A submittal status log listing all Submittals required by the Contract including the scheduled submittal date and the person and/or organization for each Submittal, approvals, resubmittal, etc.
 9. Subcontractor's Quality Control: Contractor shall include, as part of its Quality Control Plan, specific methods of performing quality control activities of onsite and offsite Subcontractors.
 10. Detailed Quality Control Procedures: Detailed descriptions of quality control activities for work under each section of the specifications. Include list of all

activities and frequencies, personnel, and instructions prior to starting such work.

C. Quality Control Plan Acceptance

1. Before Contractor's Quality Control Plan is submitted, Contractor shall meet with the County's Project Manager and discuss the Contractor's Quality Control Plan. Contractor and the Project Manager shall jointly develop a mutual understanding of the details of the plan, including the forms to be used for recording the quality control operations, administration of the plan for both onsite and offsite work, and the interrelationship of Contractor and County inspection. Contractor shall prepare minutes of the meeting which shall be incorporated in the Contractor's Quality Control Plan.
2. If the Project Manager determines that the Quality Control Plan, personnel, activities, or records are not adequate, corrective actions shall be immediately taken as directed prior to payment of the next monthly Contractor's requisition.
3. Contractor shall notify the County's Project Manager in writing of any proposed change to the Contractor's Quality Control Plan. No such change shall be implemented prior to acceptance in writing by the Project Manager.

- D. Quality Control Plan Implementation: Implementation of the Quality Control Plan is the responsibility of Contractor. This implementation will be closely monitored by the Project Manager and deficiencies therein shall be corrected at the sole expense of the Contractor.

3.04 QUALITY ASSURANCE BY THE COUNTY

- A. All items of material and equipment shall be subject to surveillance testing and inspection by the County at the point of production, manufacture or shipment to determine if the producer, manufacturer or shipper maintains an adequate inspection system which insures conformance to the applicable specifications and drawings with respect to materials, workmanship, construction, finish, functional performance and identification. In addition, all items or materials and work in place shall be subject to surveillance testing and inspection by the County at the site for the same purposes. Surveillance by the County does not relieve Contractor of performing Quality Control inspections of either onsite or offsite Contractor's or subcontractors' workplace or manufacturing assembly plant.

END OF SECTION

SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 Summary

- A. This section generally pertains to temporary facilities, equipment, and controls placed in service to support prosecution of the Work and that will generally be removed upon project completion. Temporary facilities that will be incorporated into the Work will be expected to be placed in service in as new condition and carry warranties as such.
- B. This section Includes:
 - 1. Temporary Electric Service
 - 2. Temporary Gas Service
 - 3. Temporary Communications and Internet Access
 - 4. Temporary Water
 - 5. Fences
 - 6. Protection of Public and Private Property
 - 7. Temporary Site Access and Parking
 - 8. Temporary County Office Facilities and Equipment
 - 9. Temporary Sanitary Facilities
 - 10. Temporary Barriers and Enclosures
 - 11. Water Control
 - 12. Stormwater Pollution Prevention
 - 13. Construction Aids
 - 14. Noise Control
 - 15. Traffic Control
 - 16. Removal of Temporary Facilities and Controls

1.02 TEMPORARY ELECTRIC SERVICE

- A. Contractor shall provide, install, and maintain electrical power at the Site for construction purposes and for Contractor's and County/Construction Manager's office trailers. Contractor shall coordinate with Auburn Electric for service. Contractor will pay for consumption costs.

1.03 TEMPORARY GAS SERVICE

- A. Contractor shall provide, install and maintain natural gas at the Site for permanent installation and temporary operation of gas fired equipment. Contractor shall coordinate with PG&E for service. Contractor will pay for consumption costs.

1.04 TEMPORARY COMMUNICATIONS and INTERNET ACCESS

- A. Contractor shall provide, install and maintain all applicable communications and data service connections (including without limitation telephone, facsimile, email and internet connection as necessary to support the Project Management Internet Communications Requirements) to field office commencing at time of Project mobilization, including all installation and connection charges. The

installation will consist of providing conduits and cabling connections to County infrastructure located in Justice Center Drive, in front of Building B or nearest adjacent pathway. Monthly phone and Internet charges are the Contractor's responsibility, not the County's.

1.05 TEMPORARY WATER

- A. Provide, maintain, and pay for suitable quality water service required for construction operations.
 - 1. All water required for and in connection with the Work, including without limitation for dust control, shall be furnished by and at the expense of Contractor. Contractor shall furnish necessary pipe, hose, nozzles, meter, and tools and perform all necessary labor. Unnecessary waste of water will not be permitted. Special hydrant wrenches shall be used for opening and closing fire hydrants; in no case shall pipe wrenches be used for this purpose. Contractor shall coordinate with County of Nevada for service.

1.06 FENCES

- A. All existing fences affected by the Work shall be maintained by Contractor until Final Completion. Fences which interfere with construction operations shall not be relocated or dismantled until County gives written permission to do so, and the period the fence or portions of fence may be left relocated or dismantled has been agreed upon. Where fences must be maintained across the construction access, adequate gates shall be installed. Gates shall be kept closed and locked at all times when not in use.
- B. On completion of the Work across any tract of land, Contractor shall restore all fences to their original condition, specification and to their original locations.

1.07 PROTECTION OF PUBLIC AND PRIVATE PROPERTY

- A. Contractor shall protect, shore, brace, support, and maintain all underground pipes, conduits, drains, and other underground construction uncovered or otherwise affected by its construction operations. All pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences, and other surface structures affected by construction operations, together with all sod and shrubs in yards, parkways, and medians, shall be restored to their original condition, whether within or outside the easement. All replacements shall be made with new materials.
- B. Contractor shall be responsible for all damage to streets, roads, highways, shoulders, ditches, embankments, culverts, bridges, and other public or private property, regardless of location or character, which may be caused by transporting equipment, materials, or workers to or from the Work, Site or any part thereof, whether by Contractor or

Subcontractors. Contractor shall make satisfactory and acceptable arrangements with the County, or the agency or authority having jurisdiction over the damaged property, concerning its repair or replacement or payment of costs incurred in connection with the damage.

- C. All fire hydrants and water control valves shall be kept free from obstruction and available for use at all times.

1.08 TEMPORARY SITE ACCESS AND PARKING

- A. Contractor shall install and maintain all weather access to the construction site from the designated entry and access road. Contractor shall install such necessary structures to prevent trespass of construction mud and debris onto adjacent roads and all driveways to the Sheriff's Office Regional Training Facility (SORTF).
- B. Contractor shall install and maintain all weather parking for construction vehicles on and about the site as necessary to support the prosecution of the Work. Included in this shall be a minimum of one (1) space, proximate to the temporary offices, dedicated for the County's exclusive use.

1.09 TEMPORARY COUNTY OFFICES AND EQUIPMENT

- A. Contractor shall provide County with field office and other facilities required for the use of the County's designated staff and representatives. Such field office shall be available at the commencement of Contractor's mobilization at the Site to and including final completion and shall be suited for use by such personnel and shall be suitably space conditioned and ADA accessible and include interior sanitary facilities, janitorial services, and all utility services, including adequate power/telephone/data lines and connections, excluding monthly service charges. Contractor shall also provide from time to time, upon request of County, reasonable temporary facilities at Contractor's onsite offices to allow County to review the Work in accordance with the Contract Documents.
- B. Field office facilities for the County's use; shall be fully and suitably furnished and consist of one (1) office space of 10' x 10' in size. Provide at a minimum a desk, a chair and layout space for 30x42 plan sets. Contractor shall provide meeting space as needed.
- C. Contractor shall provide temporary utility facilities for the County's field office, including a separate internet service connection and data jack.
- D. See Section 01 31 26 for hardware/software requirements for County use in temporary County offices.

1.10 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required temporary buildings with sanitary toilets for use of all workers. At a minimum, sanitary facilities shall be located at trailer site, staging area, and adjacent to work areas.
- B. Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least one toilet will be furnished for each 20 persons or as stipulated by other governing authorities. Contractor shall enforce the use of such sanitary facilities by all personnel at the Site.
- C. Comply with all minimum requirements of the Health Department or other public agency having jurisdiction; maintain in a sanitary condition at all times.

1.11 TEMPORARY BARRIERS AND ENCLOSURES

- A. Provide barriers to prevent unauthorized entry to construction areas, to allow for County's use of Site, and to protect existing facilities and adjacent properties from damage from construction operations.
- B. Provide barricades required by governing authorities for public access to existing buildings.
- C. Protect vehicular traffic, stored materials, Site, and structures from damage.

1.12 WATER CONTROL

- A. Generally and in furtherance of the requirements stipulated in this Section 1.12 and the following Section 1.13, Contractor shall:
 - 1. Grade Site to drain.
 - 2. Maintain excavations free of water.
 - 3. Protect Site from puddling or running water.
 - 4. Provide water barriers as required to protect Site from soil erosion.
 - 5. Provide for drainage of storm water and such water as may be applied or retained on the Site in performance of the Work. Drainage facilities shall be adequate to prevent damage to the Work, the Site, and adjacent property.
 - 6. Clean, enlarge and/or supplement existing drainage channels and conduit as necessary to accommodate all increased runoff attributable to Contractor's operations.
 - 7. Construct dikes as necessary to divert increased runoff from entering adjacent property (except in natural channels), to protect County's facilities and the Work, and to direct water to drainage channels or conduits.
 - 8. Provide retention basins, swales and other appropriate methods as necessary to prevent downstream drainage impacts.

1.13 STORMWATER POLLUTION PREVENTION

- A. Contractor shall prepare and submit for approval a Stormwater Pollution Prevention Plan (SWPPP) to the County of Nevada as the Owner. Contractor shall upload the final approved SWPPP

document to the State and shall administer the SWPPP and coordinate the enforcement thereof in conformance with State Water Resources Control Board, Central Valley Region Inspectors, the County and other agencies having jurisdiction to include Risk Level Assessment, Qualified SWPPP Developer (QSD) and Qualified SWPPP Practitioner (QSP) services on-site and off-site as necessary for project storm water regulatory compliance. The County's Approved Signatory will preview and authorize each SWPPP document report upload, as created by the QSD and QSP, to the State's Stormwater Multiple Application Reporting and Tracking System (SMARTS). The County's Approved Signatory will also issue authorization for each of the Contractor's QSD and QSP person to serve as a Data Submitter to SMARTS.

- B. Contractor shall prepare and coordinate with the County for the uploading filing of the Notice of Intent (NOI) with State Water Quality Control Board prior to initiating grading work and shall file the Notice of Completion (NOC) with same upon completion of project. County will pay all standard and normal routine, filing fees and permit fees that are associated with a fully compliant project site. This shall not be construed to include the payment of possible fines or other costs that could arise as the result of a non-compliant project site.
- C. Contractor shall prevent soil erosion on the Site and adjacent property resulting from its construction activities consistent with the approved SWPPP. Effective measures shall be initiated prior to the commencement of clearing, grading, excavation, or other operations that will disturb the natural protection.
- D. Work shall be scheduled to expose areas subject to erosion for the shortest possible time, and natural vegetation shall be preserved to the greatest extent practicable. Temporary storage and construction buildings shall be located, and construction traffic routed, to minimize erosion. Temporary fast-growing vegetation or other suitable ground cover shall be provided as necessary to control runoff.
- E. Contractor shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris, and other substances resulting from construction activities. No sanitary wastes shall be permitted to enter any drain or watercourse other than sanitary sewers. No sediment, debris, or other substance shall be permitted to enter sanitary sewers without authorization of the receiving sanitary sewer service, and all possible Best Management Practices (BMPs) shall be taken to prevent such materials from entering any drain to watercourse.
- F. Contractor shall implement BMPs during construction activities as specified in the California Storm Water Best Management Practices Handbook (Stormwater Quality Task Force, current edition) and/or the Manual of Standards for Erosion and Sediment Control Measures (ABAG, current edition). Erosion and sedimentation control practices shall include installation of silt fences, straw wattle,

soil stabilization, revegetation, and runoff control to limit increases in sediment in stormwater runoff, including but not limited to, detention basins, retention basins, straw bales, silt fences, check dams, geofabrics, drainage swales, drainage inlet filters, and gravel bag dikes.

- G. In the event that dewatering of excavations is required, Contractor shall obtain the necessary permits for discharge of the dewatering effluent from the AHJ. Contractor shall be responsible for assuring that water quality of such discharge meets the appropriate permit requirements prior to any discharge.

1.14 CONSTRUCTION AIDS

- A. Contractor and/or its Subcontractors shall furnish, install, maintain, and operate all construction aids required by it and its Subcontractors in the performance of the Work, except as otherwise provided herein. Such construction aids shall include elevators and hoists, cranes, temporary enclosures, swing staging, scaffolding and temporary stairs. In the event of conflict, Contractor furnishing the equipment shall determine priorities in the best interest of the Project.
- B. When sandblasting, spray painting, spraying of insulation, or other activities inconveniencing or dangerous to property or the health of employees or the public are in progress, the area of activity shall be enclosed adequately to contain the dust, over-spray, or other hazard. In the event there are no permanent enclosures of the area, or such enclosures are incomplete or inadequate, Contractor shall provide suitable temporary enclosures.

1.15 NOISE CONTROL

- A. When required by OSHA Standards, construction workers shall be provided with ear protection to operate equipment.
- B. Contractor shall take reasonable measures to avoid unnecessary noise. Such measures shall be appropriate for the normal ambient sound levels in the area during working hours. All construction machinery and vehicles shall be equipped with practical sound-muffling devices and operated in a manner to cause the least noise consistent with efficient performance of the Work. During construction activities on or adjacent to occupied buildings, and when appropriate, Contractor shall erect screens or barriers effective in reducing noise in the building and shall conduct its operations to avoid unnecessary noise which might interfere with the activities of building occupants.
- C. Ensure and provide certification to County that all construction equipment and vehicles used for the Work are:
 - 1. Maintained in good mechanical condition
 - 2. Equipped with properly installed engine mufflers

1.16 TRAFFIC CONTROLS

- A. All traffic associated with the construction, including without limitation delivery and mail trucks, shall enter Contractor's access gate and road. Contractor shall provide signs directing construction and delivery traffic to this gate.

- B. Contractor shall take all necessary steps to minimize inconvenience to the general public throughout all work under this Contract. No driveways or private roads shall be blocked without notifying the property owner, and access must be restored during all non-working hours. Safe access must be maintained for pedestrian traffic throughout any public work area at all times.
- C. At least one lane of traffic in each direction on all roads used on the Project must be kept open at all times unless prior approval is provided by the County and any affected agency. No roads shall be blocked or made inaccessible, due to Contractor's work, without prior written approval of the County and the affected agencies in the form of an encroachment permit. Contractor shall not block or obstruct fire lanes at any time.
- D. Traffic control shall be in accordance with the California Department of Transportation Traffic Manual. Contractor shall submit its traffic control plans to the appropriate agency for approval prior to work on public streets. Traffic control shall include signs, warning lights, reflectors, barriers, and other necessary safety devices and measures, including sufficient flaggers to direct vehicular traffic through the construction areas. No material or equipment shall be stored/parked where it will interfere with the free and safe passage of public traffic, and at the end of each day's work, and at other times when construction operations are suspended for any reason, Contractor shall remove all equipment and other obstructions from the public right-of-way.

1.17 REMOVAL OF TEMPORARY FACILITIES AND CONTROLS

- A. Unless noted otherwise, remove temporary utilities, equipment, facilities, and materials prior to final inspection.
- B. Remove underground installations.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

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 SUMMARY

- A. This section describes field engineering services to be done by Contractor and by County, and procedures to accomplish these services.
- B. Related Documents
 - 1. Geotechnical Data and Existing Conditions
- C. Related Sections.
 - 1. Section 01 11 00 – Summary of Work.
 - 2. Section 01 11 01 – Summary of Work – Design Services.
 - 3. Section 01 31 19 – Project Meetings.

1.02 RESPONSIBILITIES

- A. Contractor shall provide field engineering services; establish grades, lines, and levels for Work by use of recognized engineering survey practices.
- B. Contractor shall employ California licensed civil engineer or land surveyor for horizontal and vertical control.
- C. County will provide reference points for horizontal and vertical control and shall provide starting points for the Work.
- D. Contractor shall submit floor elevation certification letter to County and AHJ as required and per Section 01770.

1.03 PROCEDURES

- A. Contractor shall request assistance from County two (2) working days prior to date assistance is required.

PART 2 - PRODUCTS - Not applicable to this section.

PART 3 - EXECUTION - Not applicable to this section.

END OF SECTION

SECTION 01 74 19
CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 – GENERAL

1.01 SUMMARY

- A. This section generally pertains to managing waste and debris generated in the course of demolition and construction of the Work. The intent is to insure compliance with regulatory requirements, including but not limited to recycling and waste diversion, and the general housekeeping of the site and insure the general safety of the site by reducing the accumulation of construction waste, trash and debris.
- B. Related requirements specified elsewhere include:
 - 1. Requirements for waste management and diversion of waste as addressed in Section 2.1 of the Criteria Documents.
 - 2. Section 01 50 00 Temporary Facilities and Controls.
- C. The requirements of the California Green Building Standards Code (CAL Green) shall be met by the Contractor including the Nonresidential Mandatory Measures that are defined in Chapter 5.
 - 1. Division 5.4 – Material Conservation And Resource Efficiency
 - 2. Shall include construction waste reduction, disposal and recycling with all required documentation including the following items with fully completed forms submitted to the Nevada County Building Service and Code Enforcement Division:
 - a. Construction Waste Management (CWM) Plan
 - b. Exhibit A Self Haul Construction Waste Management (CWM) Plan

PART 2 - PRODUCTS

2.01 MATERIALS, EQUIPMENT AND FACILITIES

- A. Furnish all materials, tools, equipment, devices, appurtenances, facilities, and services required for performing waste management of debris covered under this section's scope of work.

PART 3 - EXECUTION

3.01 DISPOSAL OF DEBRIS

- A. Dispose of waste, trash and debris in a safe, acceptable manner, in accordance with applicable laws and ordinances and as prescribed by authorities having jurisdiction. Burying or burning of trash and debris on the site will not be permitted.
- B. Remove demolished materials from site as work progresses. Remove debris from the site so that its presence will not delay the progress of the work, create a hazard or nuisance or present an unsightly appearance of the project site.
- C. Debris shall be the property of the Contractor and shall be removed and disposed of in a legal manner off the County's property in accordance with the approved Waste Management Plan described herein. Location of recycling facility or dump and length of haul shall be the Contractor's responsibility.

END OF SECTION

SECTION 01 75 00
STARTING AND ADJUSTING

PART 1 – GENERAL

1.01 DESCRIPTION

- A. This Section defines the responsibilities of the Contractor to perform and document start-up testing of all systems and equipment installed including installation checklists and verification. This Section supplements but does not supersede specific testing requirements found elsewhere in the Contract Documents.

1.02 DEFINITIONS AND ABBREVIATIONS

- A. Action Item: Any issue that requires an action, response, work, etc. It can be a Request for Information (RFI), a work directive, a clarification, a task to accomplish an identified deficiency, or similar item.
- B. Action List: This list is maintained by the Quality Assurance Manager and includes all action items that relate to Commissioning activities. These are categorized as appropriate.
- C. ASHRAE: American Society of Heating, Refrigerating, and Air Conditioning Engineers.
- D. Commissioning (Cx): The process of ensuring that all building systems are installed and perform interactively according to the contract documents.
- E. Quality Assurance Manager: This is an individual selected by the Contractor to coordinate commissioning activities.
- F. Commissioning Team: The group of individuals who will collaborate to ensure the facility is fully and completely commissioned. This will include the County's Representative, the TAB contractor, and a Quality Assurance Manager provided by the Contractor. Generally the installing contractor, subcontractor, and manufacturer will be integral members of the team for any given system or equipment.
- G. Deficiency: An installation or condition that is not in conformance with the Construction Documents.
- H. Equipment Performance Testing (EPT): Testing designed to prove the satisfactory operation of system components under operating conditions.
- I. Field Test: This test represents field testing on installed equipment at the project site.
- J. Functional Completion: A milestone that marks the successful completion of the Functional Performance Testing (FPT).

- K. Functional Performance Testing (FPT): Testing designed to prove the satisfactory operation of equipment as a complete system under operating conditions. Testing of some systems may require the concomitant proper functioning of other systems (i.e., the testing of proper performance of air handlers will require the proper operation of chilled water and hot water systems, and thus these water systems must be tested before the air handlers, and they must be in satisfactory operation during the air handler testing.)
- L. Operational Test (OT): Testing designed to demonstrate 1) satisfactory system performance over a period of time under different and expected operating conditions, 2) satisfactory recovery of systems from failure conditions (such as a power outage) to normal and satisfactory operating performance, and 3) the correct response of systems to an emergency mode, such as is triggered by the Fire Alarm System.
- M. Start-up: The process whereby the contractor verifies the proper installation of a system, device, or equipment item, executes the manufacturer's start-up and check out procedures, completes the start-up checklist, energizes the device, and verifies it is in proper working order.
- N. Start Up Checklist Item: Requires a Yes, No, OK, or Non Response. This is one component of the equipment start up documentation (start up tests being the other).
- O. Start up Test: This test verifies equipment start-up. It is a measurement or a sequence of events that must be documented.
- P. System: A system shall include all items of equipment, devices and appurtenances connected in such a fashion as their operation or function complements, protects or controls the operation or function of the others. Contractor shall coordinate all the activities to implement the requirements of the Section.
- Q. TAB: Testing, Adjusting, and Balancing.
- R. Trending: Monitoring and recording a history of performance and parameters using the facility management system.

1.03 CONTRACTOR RESPONSIBILITIES

- A. Remedy any deficiencies identified throughout construction.
- B. Documentation Plan for Review: Prepare and submit draft equipment installation checklist, equipment and system pre-start-up and start-up checklists along with the manufacturer's start-up instructions, as defined below, for all installed systems and equipment. Checklist general format shall be similar to sample checklist forms as shown in the samples following this section.
- C. Inspection of the Installation: Complete and inspect installation of systems and equipment as detailed throughout Contract Documents, as required by reference, industry standards, manufacturer recommendation and requirement, and as specifically indicated in this Section.

- D. Submit a Schedule: Provide County's Representative with a schedule establishing the expected time period (using calendar days) when the Contractor plans to start specific systems, along with a description of any temporary systems or installations planned to allow start-up and testing to take place. In addition to system start-ups, this schedule must show delivery dates of the various Operation and Maintenance manuals required by this project.
- E. Start-up, Test, Adjust and Balance: Start-up, test, adjust, and balance equipment and system as applicable. Start-up procedures shall be in accordance with Contract Documents, individual related specification sections as outlined above, manufacturer requirement, reference or industry standards, and Part 3 Execution of this Section.
- F. Complete Approved Checklists: Complete the approved start-up checklists and submit along with other installation certification. Each checklist form shall be signed and dated by the individual responsible for the start-up or test and initialed by County's Representative witnessing the test.
- G. Provide the services of a Factory authorized Service Representative to perform equipment/device start-up. System testing and adjustment shall be performed by a qualified Factory authorized Service Representative or where required, certified Independent Testing Agency.

1.04 PRESTART / START-UP CHECKLISTS AND MANUFACTURER'S START-UP INSTRUCTIONS

- A. Checklists for each type of equipment and system shall be submitted to the County's Representative for approval prior to start-up. Contractor shall have appropriate subcontractors and vendors design the forms meeting the requirements of the Contract Documents. Forms shall be developed for the systems and equipment being installed for this project.
- B. All checklists shall identify:
 - 1. Project name and location.
 - 2. All pertinent nameplate data including equipment or device serial number, horsepower rating, and related electrical data.
 - 3. Name of party performing the test.
 - 4. Place for signature of the technician performing the work along with the date.
 - 5. Clear explanation of the inspection, test, measurement and the like with a pass or fail indication, and a record of measured parameters.
 - 6. Checklist format shall be similar to sample form Pre-Start-Up/Start-Up Checklist Air Handler Unit and adapted for each piece of pertinent equipment
- C. Prestart portion of the checklist shall:
 - 1. Identify electrical and maintenance clearance requirements.
 - 2. Identify equipment location (i.e. room and floor number in building).
 - 3. Include installation requirements identified in the equipment operation and maintenance manual. A copy of the Operation & Maintenance manual is not acceptable. Contractor shall extract installation information from the manual and include requirements in a checklist format in this form.

4. Include the equipment installation requirement identified in contract requirements in a checklist format including supports, flashing, electrical, piping and other associated accessories.
- D. Start up portion of the checklists shall include:
1. Start-up procedures shall be in accordance with the Contract Documents, reference or industry standards, manufacture requirement. Contractor shall compile the start-up and check out procedures indicated in the manufacturer's documentation prior to designing the forms. As applicable, include acceptance criteria specified therein. The manufacturer's start-up and check out procedures shall be submitted to the County's Representative along with the draft start-up checklists.
 2. A checklist item indicating that all installation requirements defined in this article have been completed.
 3. A checklist item indicating that required prerequisite equipment and systems were successfully started.
 4. Actual field measured electrical start-up data.
 5. Instrumentation calibration.
 6. Motor information and all control device settings.
 7. Manufacturer start-up requirements, if applicable.
- E. Approved documentation forms for all systems and items of equipment shall be produced for review by the County's Representative as a condition precedent to progress payments in excess of 50 percent of the Contract Sum. Once the County's Representative has reviewed and taken no exception to the forms proposed by the Design Builder, the Contractor shall produce sufficient forms to provide documentation of all testing work to be conducted as a part of this contract. Tests shall be witnessed by County's Representative.

1.05 QUALITY ASSURANCE

- A. Quality Assurance Manager:
1. The Contractor shall appoint an on-site Quality Assurance Manager to manage, coordinate, and supervise the installation, start-up, testing, commissioning and Contractor's quality assurance program. Refer to Section 01 45 00 Contractors Construction Quality Control Program qualification requirements.
- B. Quality Assurance program shall include:
1. A testing plan setting forth the sequence in which all testing work required under the Contract Documents will be implemented.
 2. A documentation plan to record the results of all equipment and system tests.
 3. An installed performance testing plan for all mechanical, electrical, instrumentation, and related equipment. A calibration plan for all building instruments, meters, monitors, gauges, and thermometers installed.
 4. A testing schedule conforming to the requirements specified in Section 01 32 16 Construction Progress Schedule.
- C. Calibration:
1. All test equipment (gauges, meters, thermometers, analysis instruments, and other equipment) used for calibrating or verifying the performance of equipment installed shall be calibrated to within plus or minus 2 percent of

actual value at full scale. Test equipment employed for individual test runs shall be selected so that expected values as indicated by the respective section shall fall between 60 and 85 percent of full scale. Pressure gauges shall be calibrated in accordance with ANSI/ASME B40.1. Thermometers shall be calibrated in accordance with ASTM E77 and shall be furnished with a certified calibration curve.

2. If instrumentation calibration was performed at the factory by Manufacturer, Contractor shall provide factory calibration certification specific for that instrument. Factory calibration sheet shall identify device serial number on the certification.
 - a. Field calibration procedure shall be submitted by contractor and accepted by County's Representative prior to proceeding.

1.06 SUBMITTALS

- A. Submit in accordance with Section 01 33 00 Submittal Procedures, Shop Drawings, Product Data and Samples, the following:
 1. The credentials and certification of the testing laboratory proposed by the Design Builder for calibration of all test equipment per this section.
 2. Manufacturer's pre-operational checkout procedures per this section.
 3. Detailed testing plans per this section.
 4. A schedule per this section. Quality Assurance Manager's qualifications per this section and Section 01 45 00 Contractors Quality Control Program.
 5. Submit documentation in accordance with Section 01 91 00 General Commissioning.

PART 2 – PRODUCTS

2.01 INSTRUMENTATION AND METERS

- A. Contractor shall provide instrumentation required to complete start-up testing.
- B. All equipment used for testing and calibration shall be National Institute of Standards and Technology/National Bureau of Standards (NIST/NBS) traceable and calibrated within the current 12-month period. Current certificates of calibration shall be made available for verification by County's Representative during test.

2.02 TEST KITS FOR METERS AND GAUGES

- A. Test kits for meters and gauges shall be provided to the County new or with proof of calibrated within the last year. and in good condition.. Kits included shall be as a minimum:
 1. Digital indication of pressure and temperature (PT) with associated probes to work with the test ports.
 2. Companion readout kit (with fittings and hoses) for calibrated balancing valve with ranges as required by all devices.

PART 3 – EXECUTION

3.01 GENERAL

- A. All pieces of equipment that act, either by themselves or in conjunction with other devices, as systems are subject to the requirements of start-up and commissioning as described above and in Section 01 91 00 General Commissioning. These requirements, along with those specified in the respective sections, provide a minimum requirement and guideline for development of start-up checklists. In some cases, testing requirements are described in those sections that deal with specific systems or general trades. Contractor providing such equipment shall use the same requirements and provide start-up and testing requirements for all systems and equipment.
- B. These procedures and their assembly into a common document are the direct responsibility of the Contractor as a basic element to determine and validate that the installations of equipment are correct. The Contractor shall use these requirements along with applicable Specification Sections, the manufacturer's requirements, and applicable codes and standards to develop specific and itemized start-up procedures specific to the equipment, as defined above.
- C. For all electrical equipment, components and systems, in addition to Division 1 General Requirements and Division 16 Electrical requirements, comply with the requirements of the latest version of Acceptance Testing Specification by the International Electrical Testing Association, Inc. (NETA). Include NETA requirements in the checklist.

END OF SECTION

SECTION 01 77 00
CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. This section describes contract closeout procedures including:
 - 1. Removal of temporary construction facilities; 1.02
 - 2. Substantial completion, 1.03
 - 3. Final completion; 1.04
 - 4. Final cleaning; 1.05
 - 5. Material, equipment and finish data; 1.06
 - 6. Miscellaneous project record submittals; 1.07
 - 7. Project guarantee; 1.08
 - 8. Warranties; 1.09
 - 9. Turn-in; 1.10
 - 10. Release of claims; 1.11

1.02 REMOVAL OF TEMPORARY CONSTRUCTION FACILITIES

- A. Remove temporary materials, equipment, services, and construction prior to Substantial Completion inspection. Temporary construction facilities to be removed upon Final Completion.
- B. Clean and repair damage caused by installation or use of temporary facilities.
- C. Restore permanent facilities used during construction to specified condition.

1.03 SUBSTANTIAL COMPLETION

- A. Section 1.09(I) of the General Conditions stipulates the process of determining Substantial Completion.

1.04 FINAL ACCEPTANCE

- A. Section 1.09(H) & (I) of the General Conditions stipulates the process of achieving Final Acceptance.

1.05 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean interior and exterior surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
 - 1. Clean equipment and fixtures to a sanitary condition, clean or replace filters of mechanical equipment operated during construction, clean ducts, blowers and coils of units operated without filters during construction.
 - 2. Employ skilled workers for final cleaning.

- C. Clean Site; mechanically sweep paved areas.
- D. Remove waste and surplus materials, rubbish, and construction facilities from Site.

1.06 MATERIAL, EQUIPMENT AND FINISH DATA

Submit three (3) sets of data for primary materials, equipment and finishes as required under each specification section prior to final inspection, bound in 8-1/2 inches by 11 inches three-ring binders with durable plastic covers to County for its records.

1.07 MISCELLANEOUS PROJECT RECORD SUBMITTALS

Refer to Section 01 78 39 and other General Specification Sections and Design Performance Criteria for miscellaneous record keeping requirements and submittals in connection with various construction activities. Immediately prior to Substantial Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for use and reference. Submit to County for its records.

1.08 PROJECT GUARANTEE

- A. Requirements for Contractor's guarantee of completed Work are included in General Conditions, Section 1.09. Contractor shall guarantee Work done under Contract against failures, leaks or breaks or other unsatisfactory conditions due to defective equipment, materials or workmanship, and perform repair work or replacement required, at Contractor's sole expense, for period of one year from date of Final Acceptance.
- B. Neither recordation of final acceptance nor final certificate for payment nor provision of the Contract nor partial or entire use or occupancy of premises by County shall constitute acceptance of Work not done in accordance with Contract Documents nor relieve Contractor of liability in respect to express warranties or responsibility for faulty materials or workmanship.
- C. County may make repairs to defective Work as set forth in Subsection 1.09.D of General Conditions, if, within five (5) working days after mailing of written notice of defective work to Contractor or authorized agent, Contractor shall neglect to make or undertake repair with due diligence; provided, however, that in case of leak or emergency where, in opinion of County, delay would cause hazard to health or serious loss or damage, repairs may be made without notice being sent to Contractor, and Contractor shall pay the cost thereof.
- D. If, after installation, operation or use of materials or equipment to be furnished under the Contract Documents proves to be unsatisfactory to County, County shall have right to operate and use materials or equipment until it can, without damage to County, be taken out of service for correction or replacement. Period of use of defective materials or equipment pending correction or replacement shall in no way decrease guarantee period required for acceptable corrected or replaced items of materials or equipment.
- E. Nothing in this section shall be construed to limit, relieve or release Contractor's, subcontractors' and equipment suppliers' liability to County for damages sustained as result of latent defects in equipment caused by negligence of suppliers' agents, employees or subcontractors. Warranty contained in the

Contract Documents shall not amount to, nor shall it be deemed to be, waiver by County of any rights or remedies (or time limits in which to enforce such rights or remedies) it may have for defective workmanship or defective materials under laws of this State pertaining to acts of negligence.

1.09 WARRANTIES

- A. Execute Contractor's submittals and assemble warranty documents, and operations and maintenance manuals, executed or supplied by subcontractors, suppliers, and manufacturers.
 - 1. Provide table of contents and assemble in 8-1/2 inches by 11 inches three-ring binder with durable plastic cover, appropriately separated and organized.
 - 2. Assemble in Specification order.
 - 3. Provide three (3) copies of completed warranty binders.
- B. Submit material prior to final application for payment.
 - 1. For equipment put into use with County's permission during construction, submit within twenty (20) working days after first operation.
 - 2. For items of Work delayed materially beyond Date of Substantial Completion, provide updated submittal within ten (10) working days after acceptance, and list date of acceptance as start of warranty period.
- C. Warranties are intended to protect County against failure of work and against deficient, defective and faulty materials and workmanship, regardless of sources.
- D. Limitations: Warranties are not intended to cover failures that result from the following:
 - 1. Unusual or abnormal phenomena of the elements
 - 2. Vandalism after substantial completion
 - 3. Insurrection or acts of aggression including war
- E. Related Damages and Losses: Remove and replace Work which is damaged as result of defective Work, or which must be removed and replaced to provide access for correction of warranted Work.
- F. Warranty Reinstatement: After correction of warranted Work, where the correction requires replacement of a major component of equipment or more than ten percent (10%) of work area, reinstate warranty for corrected Work to date of original warranty expiration or to a date not less than 365 days after corrected Work was done, whichever is later for the effected equipment or area.
- G. Replacement Cost: Replace or restore failing warranted items without regard to anticipated useful service lives.
- H. Warranty Forms: Submit drafts to County for approval prior to execution. Forms shall not detract from or confuse requirements or interpretations of the Contract Documents.
 - 1. Warranty shall be countersigned by manufacturers.
 - 2. Where specified, warranty shall be countersigned by subcontractors and installers.

- I. Rejection of Warranties: County reserves right to reject unsolicited and coincidental product warranties which detract from or confuse requirements or interpretations of Contract Documents.
- J. Term of Warranties: For materials, equipment, systems and workmanship warranty period shall be one (1) year minimum from date of final completion of entire Work except where:
 - 1. Detailed specifications for certain materials, equipment or systems require longer warranty periods.
 - 2. Materials, equipment or systems are put into beneficial use of County prior to Final Completion as agreed to in writing by County.
- K. Warranty of Title: No material, supplies, or equipment for Work under the Contract Documents shall be purchased subject to any chattel mortgage, security agreement, or under a conditional sale or other agreement by which an interest therein or any part thereof is retained by seller or supplier. Contractor warrants good title to all material, supplies, and equipment installed or incorporated in Work and agrees upon completion of all work to deliver premises, together with improvements and appurtenances constructed or placed thereon by Contractor, to County free from any claim, liens, security interest, or charges, and further agrees that neither Contractor nor any person, firm, or corporation furnishing any materials or labor for any Work covered by the Contract Documents shall have right to lien upon premises or improvement or appurtenances thereon. Nothing contained in this subsection, however, shall defeat or impair right of persons furnishing materials or labor under bond given by Contractor for their protection or any rights under law permitting persons to look to funds due Contractor in hands of County.

1.10 TURN-IN

- A. The Contract Documents will not be closed out and final payment will not be made until all personnel Identification Media, vehicle permits and keys issued to Contractor during prosecution of Work are turned in to County.
- B. Provide all extra stock items, materials, including pumps and related mechanical system pieces and parts to the Project Representative and Project Manager with a complete and detailed listing inventory of all such items.

1.11 RELEASE OF CLAIMS

The Contract Documents will not be closed out and final payment will not be made until Agreement and Release of Any and All Claims, is completed and executed by Contractor and County.

PART 2 PRODUCTS - Not applicable to this section.

PART 3 EXECUTION - Not applicable to this section.

END OF SECTION

SECTION 01 78 39
PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 SUMMARY

- A. This section specifies general, administrative and procedural requirements for Project Record Documents. Contractor shall have complete responsibility for preparation of marked-up and final Record Documents and the submittal of the required Design Software AutoCAD or Revit Final As-built Model.
- B. Project Record Documents required include:
 - 1. Marked-up copies of Contract Plans
 - 2. Marked-up copies of Shop Drawings, including Contractor's design documents and drawings
 - 3. Newly prepared Drawings
 - 4. Marked-up copies of Specifications, Addenda and Change Orders
 - 5. Marked-up Project Data submittals
 - 6. Record Samples
 - 7. Field records for variable and concealed conditions
 - 8. Record information on Work that is recorded only schematically
 - 9. Final, complete, edited and drafted versions of the above documents.
 - 10. Mock-ups and Construction Samples
- C. Specific Project Record Documents requirements that expand requirements of this section are included in the individual sections of the Technical Specifications.
- D. General Project closeout requirements are included in Section 01 77 00 Closeout Procedures.
- E. Maintenance of Documents and Samples:
Contractor shall:
 - 1. Store Project Record Documents and samples in the field office apart from Contract Documents used for construction
 - 2. Not permit Project Record Documents to be used for construction purposes
 - 3. Maintain Project Record Documents in good order, and in a clean, dry, legible condition
 - 4. Make documents and samples available at all times for inspection by County

1.02 PROJECT RECORD DRAWINGS

Contractor shall:

- A. Mark-up Procedure: During the construction period, maintain a set of blueline or blackline prints of Contract Plans and Shop Drawings for Project Record Document purposes. Label each document (on first sheet or page) "PROJECT RECORD" in 2 in. high printed letters. Keep record documents current. Note: A reference by number to a Change Order, RFI, RFQ, Field Order or other such document is not acceptable as sufficient record information on any record

document. Do not permanently conceal any Work until required information has been recorded.

1. Mark these Drawings to indicate the actual installation where the installation varies from the installation shown originally. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later. Items required to be marked include but are not limited to:
 - a. Dimensional changes to the Drawings
 - b. Revisions to details shown on the Drawings
 - c. Depths of various elements of foundation in relation to main floor level or survey datum.
 - d. Horizontal and vertical location of underground duct banks, utilities and appurtenances referenced to permanent surface improvements.
 - e. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
 - f. Establish locations of underground work, points of connection with existing utilities, changes in direction, valves, manholes, catch basins, capped stubouts, invert elevations, and similar items.
 - g. Provide actual numbering of each electrical circuit.
 - h. Field changes of dimension and detail.
 - i. Revisions to routing of piping and conduits
 - j. Revisions to electrical circuitry
 - k. Actual equipment locations
 - l. Duct size and routing
 - m. Changes made by Change Order
 - n. Details not on original Contract Plans
2. Mark completely and accurately Project Record Drawing prints of Contract Plans or Shop Drawings, whichever is the most capable of showing actual physical conditions. Where Shop Drawings are marked, show cross-reference on Contract Plans location.
3. Mark Project Record Drawing sets with red erasable colored pencil; use other colors to distinguish between changes for different categories of the Work at the same location.
4. Mark important additional information that was either shown schematically or omitted from original Drawings.
5. Note Construction Change Directive numbers; alternate numbers; Change Order numbers and similar identification.
6. Responsibility for Mark-up: Where feasible, the individual or entity who obtained Project Record Drawing data, whether the individual or entity is the installer, subcontractor, or similar entity, is required to prepare the mark-up on Project Record Drawings.
 - a. Accurately record information in an understandable and legible drawing technique.
 - b. Record data as soon as possible after it has been obtained. In the case of concealed installations, record and check the mark-up prior to concealment.
7. Contractor shall color code printed plan sets according to the following scheme:
 - a. Bidding and Permitting-white paper
 - b. Construction sets after corrections-green paper
 - c. As-Built-blue paper

B. Preliminary Record Documents

1. Upon completion of the site underground utilities work, the Contractor shall submit on disc a digital color scanned copy of the up to date Civil Drawings in pdf format to the County.
2. The submitted Drawings shall delineate all utility infrastructure incorporated into the Work to date. The Contractor shall be responsible for insuring accuracy of the represented information.

C. Preparation of final Record Drawings: Immediately prior to inspection for Certification of Substantial Completion, review completed marked-up Project Record Drawings with the County. When authorized, prepare a full set of corrected AutoCAD files and prints of Contract Plans and Shop Drawings.

1. Incorporate changes and additional information previously marked on print sets. Delete, cloud, redraw, and add details and notations where applicable. Identify and date each Drawing; include the printed designation "PROJECT RECORD DRAWINGS" in a prominent location on each Drawing. Submit AutoCAD files and two sets of prints for review.
2. Refer instances of uncertainty to County for resolution.
3. Distribution: Whether or not changes and additional information were recorded, organize and bind original marked-up set of prints that were maintained during the construction period into manageable sets. Bind the set with durable paper cover sheets, with appropriate identification, including titles, dates and other information on cover sheets. Submit the marked-up Project Record Drawings set to County.

D. Shop Drawings and Samples: Maintain as record documents; legibly annotate Shop Drawings and Samples to record changes made after review.

1.03 PROJECT RECORD SPECIFICATIONS

A. During the construction period, Contractor shall maintain one copy of the Project Specifications, including addenda and modifications issued, for Project Record Document purposes. Contractor shall also:

1. Mark the Project Record Specifications to indicate the actual installation where the installation varies substantially from that indicated in Specifications and Modifications issued. Note related Project Record Drawing information, where applicable. Give particular attention to substitutions, selection of product options, change order work, and information on concealed installation that would be difficult to identify or measure and record later.
2. In each Specification Section where products, materials or units of equipment are specified or scheduled, mark the copy with the proprietary name and model number of the product furnished.
3. Record the name of the manufacturer, catalog number, supplier and installer, and other information necessary to provide a record of selections made and to document coordination with Project Record Product Data submittals and maintenance manuals.
4. Note related Project Record Product Data, where applicable, for each principal product specified, indicate whether Project Record Product Data has been submitted in maintenance manual instead of submitted as Project Record Product Data.

5. Digital Record Set: on USB stick(s) format, provide record drawing information outlined above in hardcopy, scan all drawing sheets in construction sets individually using latest version of Adobe Acrobat Professional. Link all revision areas on scanned sheets to associated RFI, CO, CCO, PCO, ASI and other relevant construction documentation. These supporting documents, whether text, spreadsheet, drawing, picture, or other files, shall also be scanned in order to be linked to the scanned drawing file.

- B. Upon completion of mark-up, submit Project Record Specifications to County for County's records.

1.04 PROJECT RECORD PRODUCT DATA

A. OPERATION AND MAINTENANCE MANUALS

Contractor shall:

1. Provide data for primary materials, equipment and finishes as required under each specification section.
2. Submit three (3) sets prior to final inspection, bound in 8-1/2 inches by 11 inches three-ring binders with durable plastic covers; provide typewritten table of contents for each volume.
3. Instruct County's personnel in the maintenance and operation of equipment and systems.
4. Content of Manual
 - a. Table of Contents: Include in each volume, neatly typewritten.
 - b. Identify Contractor, name of responsible principal, address, and phone number.
 - c. List each product included, indexed to the content of the volume.
 - d. List, with each product, the name, address, and telephone number of:
 - (1) Subcontractor or installer.
 - (2) Maintenance contractor, as appropriate.
 - (3) Identify area of responsibility of each of the previously mentioned parties.
 - (4) Nearest source of supply for parts and replacement.
 - e. Identify each product-by-product name and other identifying symbols as set forth in the Contract Documents.
5. Product Data
 - a. Include only those sheets that are pertinent to the specific product.
 - b. Annotate each sheet to:
 - (1) Clearly identify the specific product or part installed. Include part nomenclature as indicated in the Design, model number, serial number, operating data and options provided.
 - (2) Clearly identify the data applicable to the installation.
 - (3) Delete references to inapplicable information.
6. Drawings
 - a. Supplement Product Data with Drawings as necessary to clearly illustrate:
 - (1) Relations of component parts of equipment and systems.
 - (2) Control and flow diagrams.

- b. Coordinate Drawings with information in Project record documents to assure correct illustration of completed installation.
- 7. Written text: As required to supplement Product Data for the particular installation.
 - a. Organize in a consistent format under separate headings for different procedures.
 - b. Provide a logical sequence of instructions for each procedure.
- 8. Copy of each warranty, bond, and service contract issued.
 - a. Provide information sheet to the County's personnel.
 - (1) Proper procedures in the event of failure.
 - (2) Circumstances that might affect the validity of warranties or bonds.

B. Manual for Equipment and Systems

Contractor shall:

- 1. Submit three (3) copies of the complete manual in its final form.
 - a. Submit (2) copies of the draft of the proposed format and table of contents prior to preparation of the data and a minimum of (45) days prior to the date of Substantial Completion or the scheduled training (whichever occurs first).
 - b. Submit 1 copy of the complete data in final draft form a minimum of 30 days prior to the scheduled training or inspections scheduled to establish Substantial Completion.
 - c. Submit the specified number of copies of the approved data in final form a minimum of 7 days prior to the scheduled training or the inspections scheduled to establish Substantial Completion (whichever occurs first).
 - d. Submittal and acceptance of the operations and maintenance data is a prerequisite for issuance of the Certificate of Substantial Completion.
- 2. For each unit of mechanical equipment and each mechanical system include the following:
 - a. Description of unit or system, and component parts
 - (1) Function, normal operating characteristics, and limiting conditions.
 - (2) Performance curves, engineering data, and tests.
 - (3) Complete nomenclature and commercial numbers of replaceable parts.
 - (4) Include with the Manual the Submittal for the equipment. Update to reflect actual installed equipment.
 - b. Operating procedures
 - (1) Start-up, break-in, and normal operating instructions.
 - (2) Regulation, control, stopping, shutdown, and emergency instructions.
 - (3) Summer and winter operating instructions.
 - (4) Special operating instructions.
 - c. Systems Demonstration
 - (1) Prior to final inspection, demonstrate operation of each system to County's Representative and County personnel. All work, required for each system to be fully functional, shall be complete and the system shall be fully operational prior to the demonstration.

- (2) Instruct designated personnel in operation, adjustment, and maintenance of equipment and systems, using operation and maintenance data as basis of instruction.
 - d. Maintenance procedures
 - (1) Routine operations.
 - (2) Guide to "trouble-shooting".
 - (3) Disassembly, repair, and reassembly.
 - (4) Aligning, adjusting, and checking.
 - e. Preventative Maintenance (PM) Schedule
 - (1) A tabular listing of all systems and equipment within the facility which require preventative maintenance, to include:
 - (a) System or equipment name.
 - (b) System or equipment number.
 - (c) PM activity to be performed on that system or piece of equipment.
 - (d) Consumable materials required for performance of the PM activity, such as lubricants, including the specification and quantity needed.
 - (e) Frequency of performance of PM activity.
 - (f) Date of performance of first round of each PM activity relative to facility commissioning and acceptance by the County.
 - (2) The requirements of this section cannot be met merely by the supply of O&M manuals from equipment vendors. The extraction of recommended preventative maintenance activities from vendor manuals for all equipment and incorporation onto a summary table as described above is required.
 - f. Servicing and lubricating schedule, with list of lubricants required.
 - g. Manufacturer's printed operating and maintenance instructions.
 - h. Description of sequence of operation by control manufacturer.
 - i. Original manufacturer's parts list, illustrations, current prices, recommended quantities to be maintained in storage, assembly drawings, and diagrams required for maintenance.
 - (1) Predicted life of parts subject to wear.
 - (2) Items recommended to be stocked as spare parts.
 - j. As-installed control diagrams by controls manufacturer.
 - k. Contractor's and Subcontractors' coordination drawings and as-built color-coded piping diagrams.
 - l. Charts of valve tag numbers, with the location and function of each valve.
 - m. Other data as required in the various Specification Sections.
- 3. For each electrical and electronic system, include the following:
 - a. Description of system and component parts.
 - (1) Function, normal operating characteristics, and limiting conditions.
 - (2) Performance curves, engineering data, and tests.
 - (3) Complete nomenclature and commercial numbers of replaceable parts.
 - b. Circuit directories of panelboards.
 - (1) Electrical service.
 - (2) Controls.
 - (3) Communications.

- c. As-built color-coded wiring diagrams.
 - d. Operating procedures
 - (1) Routine and normal operating instructions.
 - (2) Sequences required.
 - (3) Special operating instructions.
 - e. Maintenance procedures
 - (1) Routine operations.
 - (2) Guide to "trouble-shooting".
 - (3) Disassembly, repair, and reassembly.
 - (4) Adjustment and checking.
 - f. Manufacturer's printed operating and maintenance instructions.
 - g. Original manufacturer's parts list, illustrations, current prices, recommended quantities to be maintained in storage, assembly drawings, and diagrams required for maintenance.
 - (1) Predicted life of parts subject to wear.
 - (2) Items recommended to be stocked as spare parts.
 - h. Other data as required in the individual Specification Sections.
- 4. Prepare and include additional data as may be required for instruction of the County's personnel.
 - 5. Additional requirements for operating and maintenance data as specified in the individual Specification Sections.
 - 6. Provide complete information for products specified in the individual Specification Sections.

C. OPERATIONS AND MAINTENANCE INSTRUCTION

- 1. Work requiring instruction of the County's personnel is specified in the individual Specification Sections.
- 2. Schedule the instructional meeting or meetings after submittal and acceptance of the operations and maintenance data and prior to the date of Substantial Completion. Completion of instructional meetings is a prerequisite for issuance of the Certificate of Substantial Completion.
- 3. Upon the County's taking beneficial occupancy or after final acceptance (whichever is earlier), fully qualified representatives of the manufacturers shall fully instruct the County's Representative and County personnel in the operation, adjustment, and maintenance of all equipment and systems.
- 4. Basis of Instruction: Operating and maintenance manual. Review contents of manual with County personnel in full detail to explain all aspects of operations and maintenance.

D. MATERIAL, EQUIPMENT AND FINISH DATA

Contractor shall:

- 1. Provide data for primary materials, equipment and finishes as required under each specification section.
- 2. Submit three (3) sets prior to final inspection, bound in 8-1/2 inches by 11 inches three-ring binders with durable plastic covers; provide typewritten table of contents for each volume.
- 3. Arrange by Specification division and give names, addresses, and telephone numbers of subcontractors and suppliers. List:
 - a. Trade names.
 - b. Model or type numbers.
 - c. Assembly diagrams.

- d. Operating instructions.
 - e. Cleaning instructions.
 - f. Maintenance instructions.
 - g. Recommended spare parts.
 - h. Product data.
4. Provide manufacturer name, model number, series number, pattern, color, and any other relevant identifying data as necessary to facilitate ordering of replacement finish materials. Provide a schedule showing interior room number and name, floor, wall and ceiling finishes including data listed above. Provide a schedule of exterior materials by material type, elevation and finish data listed above.

1.05 MISCELLANEOUS PROJECT RECORD SUBMITTALS

- A. Contractor shall: Refer to other Specification Sections for miscellaneous record keeping requirements and submittals in connection with various construction activities. Immediately prior to Substantial Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for use and reference. Submit to County for County's records. Categories of requirements resulting in miscellaneous records include, but are not limited to the following:
- 1. Field records on excavations and foundations
 - 2. Field records on underground construction and similar work
 - 3. Survey showing locations and elevations of underground lines
 - 4. Invert elevations of drainage piping
 - 5. Surveys establishing coordinates benchmark(s), building lines and levels
 - 6. Authorized measurements utilizing unit prices or allowances
 - 7. Records of plant treatment
 - 8. Ambient and substrate condition tests
 - 9. Certifications received in lieu of labels on bulk products
 - 10. Batch mixing and bulk delivery records
 - 11. Testing and qualification of tradespersons
 - 12. Documented qualification of installation firms
 - 13. Load and performance testing
 - 14. Inspections and certifications by governing authorities
 - 15. Leakage and water-penetration tests
 - 16. Fire resistance and flame spread test results
 - 17. Final inspection and correction procedures

PART 2 – PRODUCTS - Not applicable to this section.

PART 3 - EXECUTION

3.01 RECORDING

Contractor shall:

- A. Post changes and modifications to the Documents as they occur; and shall not wait until the end of the Project. County may periodically review Project Record Documents to assure compliance with this requirement.

3.02 SUBMITTAL

Contractor shall:

- A. At completion of Project, deliver record documents to County.
- B. Accompany submittal with transmittal letter containing:
 - 1. Date
 - 2. Project title and number
 - 3. Contractor's name and address
 - 4. Number and title of each record documents
 - 5. Certification that each document as submitted is complete and accurate, and signature of Contractor or Contractor's authorized representative.

END OF SECTION

SECTION 01 79 00
DEMONSTRATION AND TRAINING

PART 1 – GENERAL

1.01 DESCRIPTION

- A. This Section contains requirements for training the County's personnel and other County-designated persons (collectively "County's Personnel"), by persons retained by the Contractor specifically for the purpose, in the proper operation and maintenance of the equipment and systems installed.

1.02 RELATED WORK AND DOCUMENTS

- A. Section 01 33 00 – Submittal Procedures
- B. Section 01 78 39 – Project Record Documents
- C. Section 01 75 00 – Starting and Adjusting
- D. Section 01 91 00 – General Commissioning

1.03 QUALITY ASSURANCE

- A. Where required by the Contract Documents, the Contractor shall provide on-the-job training of the County's Personnel. The training sessions shall be conducted by qualified, experienced, factory-trained representatives of the equipment manufacturers. Training shall include instruction in both operation and maintenance of the subject equipment.

1.04 SUBMITTALS

- A. The following information shall be submitted to the County's Representative in accordance with the provisions of Section 01 33 00 Submittal Procedures including Shop Drawings, Product Data and Samples. The material shall be reviewed and accepted by the County's Representative not less than 21 days prior to the provision of training.
 - 1. Lesson plans for each training session to be conducted by the manufacturer's representatives. In addition, training manuals, handouts, visual aids, and other reference materials shall be included.
 - 2. Subject of each training session, identity and qualifications of individuals to be conducting the training, and tentative date and time of each training session.
 - 3. Video digital Audio-Visual video files that record all of the training sessions and field instructions conducted for this project. Video files shall be submitted to the County at conclusion of training.

PART 2 – PRODUCTS

2.01 GENERAL

- A. Contractor shall conduct training sessions for the County's Personnel to instruct the staff on the proper operation, care, and maintenance of the equipment and systems installed. Training shall take place at the Project Site and under the conditions specified in the following paragraphs. Approved operation and maintenance manuals shall be available at least 30 days prior to the date scheduled for the individual training session.

2.02 LESSON PLANS

- A. Formal written lesson plans shall be prepared for each training session. Lesson plans shall contain an outline of the material to be presented along with a description of visual aids to be utilized during the session. Each plan shall contain a time allocation for each subject.
- B. One complete set of originals of the lesson plans, training manuals, handouts, visual aids, and reference material shall be the property of the County and shall be suitably bound for proper organization and easy reproduction. The Contractor shall furnish 10 copies of necessary training manuals, handouts, visual aids and reference materials at least 7 days prior to each training session.

2.03 FORMAT AND CONTENT

- A. Each training session shall be comprised of time spent both in the classroom and at the specific location of the subject equipment or system. As a minimum, training session shall cover the following subjects for each item of equipment or system:
 - 1. Familiarization:
 - a. Review catalog, parts lists, drawings, etc., which have been previously provided for the plant files and operation and maintenance manuals.
 - b. Check out the installation of the specific equipment items.
 - c. Demonstrate the unit and indicate how all parts of the specifications are met.
 - d. Answer questions.
 - 2. Safety:
 - a. Using material previously provided, review safety references.
 - b. Discuss proper precautions around equipment.
 - 3. Operation:
 - a. Using material previously provided, review reference literature.
 - b. Explain all modes of operation (including emergency).
 - c. Check out County's Personnel on proper use of the equipment.
 - 4. Preventive Maintenance:
 - a. Using material previously provided, review preventive maintenance (PM) lists including:
 - (1) Reference material.
 - (2) Daily, weekly, monthly, quarterly, semiannual, and annual jobs.
 - (a) Show how to perform PM jobs.
 - (b) Show County's Personnel what to look for as indicators of equipment problems.
 - (3) Corrective Maintenance.
 - (a) List possible problems.
 - (b) Discuss repairs-point out special problems.
 - (c) Open up equipment and demonstrate procedures, where practical.
 - (4) Parts.
 - (a) Show how to use previously provided parts list and order parts.

- (b) Check over spare parts on hand. Make recommendations regarding additional parts that should be available.
 - (5) Local Representatives.
 - (a) Where to order parts: Name, address, telephone.
 - (b) Service problems.
 - (c) Who to call.
 - (d) How to get emergency help.
- 5. Operation and Maintenance Manuals:
 - a. Review any other material submitted.
 - b. Update material, as required.

PART 3 – EXECUTION

3.01 TRAINING

- A. Training shall be conducted in conjunction with the operational testing and commissioning periods. Classes shall be scheduled such that classroom sessions are interspersed with field instruction in logical sequence. The Contractor shall arrange to have the training conducted on consecutive days, with no more than 6 hours of classes scheduled for any 1 day. Concurrent classes shall not be allowed. Training shall be certified by listing attendees and subjects covered.
- B. Acceptable operation and maintenance manuals for the specific equipment shall be provided to the County prior to the start of any training. Videotaping shall take place concurrently with all training sessions. All training sessions and field instruction shall be videotaped by the Contractor and tapes of all classes submitted to the County.
- C. The following services shall be provided for each item of equipment or system as required in individual Specification Sections. Additional services shall be provided, where specifically required in individual Specification Sections.
 - 1. As a minimum classroom systems and equipment training for County's Personnel will include:
 - a. Using slides and drawings, discuss the equipment's specific location in the facility and an operational overview.
 - b. Purpose and facility function of the system equipment.
 - c. A working knowledge of the operating theory of the system equipment.
 - d. Startup, shutdown, normal operation, and emergency operating procedures, including a discussion on system integration and electrical interlocks, if any.
 - e. Identify and discuss safety items and procedures.
 - f. Routine preventative maintenance, including specific details on lubrication and maintenance of corrosion protection of the equipment and ancillary components.
 - g. Operator detection, without test instruments, of specific equipment trouble symptoms.
 - h. Required equipment exercise procedures and intervals.
 - i. Routine disassembly and assembly of equipment if applicable (as judged by the County on a case-by-case basis) for purposes such as operator inspection of equipment.

2. As a minimum, hands-on equipment training for County's Personnel shall include:
 - a. Identify location of equipment and review the purpose.
 - b. Identifying piping and flow options.
 - c. Identifying valves and their purpose.
 - d. Identifying instrumentation.
 - e. Location of primary element.
 - f. Location of instrument readout.
 - g. Discuss purpose, basic operation, and information interpretation.
 - h. Discuss, demonstrate, and perform standard operating procedures and round checks.
 - i. Discuss and perform the preventative maintenance activities.
 - j. Discuss and perform startup and shutdown procedures.
 - k. Perform the required equipment exercise procedures.
 - l. Perform routine disassembly and assembly of equipment if applicable.
 - m. Identify and review safety items and perform safety procedures, if feasible.
3. Classroom equipment training for the maintenance and repair personnel will include:
 - a. Theory of operation.
 - b. Description and function of equipment.
 - c. Startup and shutdown procedures.
 - d. Normal and major repair procedures.
 - e. Equipment inspection and troubleshooting procedures including the use of applicable test instruments and the "pass" and "no pass" test instrument readings.
 - f. Routine and long-term calibration procedures.
 - g. Safety procedures.
 - h. Preventative maintenance such as lubrication; normal maintenance such as belt, seal, and bearing replacement; and up to major repairs such as replacement of major equipment part(s) with the use of special tools, bridge cranes, welding jigs, etc.
4. Hands-on equipment training for maintenance and repair personnel shall include:
 - a. Locate and identify equipment components.
 - b. Review the equipment function and theory of operation.
 - c. Review normal repair procedures.
 - d. Perform startup and shutdown procedures.
 - e. Review and perform the safety procedures.
 - f. Perform County approved practice maintenance and repair job(s), including mechanical and electrical adjustments and calibration and troubleshooting equipment problems.

END OF SECTION

SECTION 01 80 10
ENERGY PERFORMANCE MODELING AND VERIFICATION

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Introduction.
 - 2. General modeling guidelines.
 - 3. Modeling rules and restrictions.
 - 4. Modeling of energy efficiency measures.
 - 5. Sample model.
- B. Related Documents
 - 1. The Contract Documents, as defined in Section 01 11 00 Summary of Work, apply to the Work of this section. Additional requirements and information necessary to complete the Work of this section may be found in other documents.

1.02 INTRODUCTION

- A. This section describes the submission requirements and modeling procedures related to the minimum building energy performance.

1.03 GENERAL MODELING GUIDELINES

- A. California Code of Regulations Title 24 Standards are exempt for this project as for this type of Building defined by the State of California.
- B. Submission Requirements
 - 1. The Contractor will be required to model the project initially during the detailed design phase and will be required to update the model for energy performance verification during the construction phase. Initial model and updates shall be submitted for timely review and approval by the County.
 - 2. During the proposal stage, the Contractor is expected to demonstrate consideration of the capital cost implications of design decisions with respect to the minimum energy performance requirement and shall prepare models that test the proposed design and design alternates against the requirement.
 - 3. The Contractor will be required to document project energy use during the detailed design and construction phases by modeling building performance using an approved computer program. Along with the required model, the Contractor will submit all backup calculations, equipment cut sheets, design data, and other pertinent information documenting key inputs in the model, in a manner consistent with the approval process as determined by the County. This information will be assembled in a three-ring binder, organized by section and with a table of contents. The binder shall contain a CD with the most current model in generated by the compliance program.
 - 4. The following schedule of deliverables will be part of the requirements of the contract. At a minimum, four iterations of the energy model(s) will be submitted.

C. Required Milestone Submissions to County

1. Detailed Design Phase
 - a. Preliminary Model: 65% Intermediate Submission, upon completion of preliminary mechanical plus detailed lighting equipment layouts. Additionally, a Microsoft Excel spreadsheet that details the proposed installed ambient and task lighting power density on a room-by-room basis must be submitted that accurately reflects the drawings and specifications.
 - b. Final Detailed Design Phase Model: 95% Pre-Final Submission. Additionally, an Excel spreadsheet that details the proposed installed ambient and task lighting power density on a room-by-room basis must be submitted that accurately reflects the drawings and specifications.
1. Final Record Model: at Substantial Completion. The Final Record Model shall indisputably demonstrate modeled building energy performance that is equal to or superior to the requirement stated in the Introduction to this section.
2. Construction Phase
 - a. Verification Models (max. 2): (10) days following request by County.

D. County Review of Required Model Submissions

1. The County or County's agent will review the model submitted by the Contractor at each milestone. Written review comments, along with any request for clarifications or additional information, will be prepared by the County within (14) days from the receipt of the Contractor's milestone submissions. The Contractor will have (10) days to adequately respond to requests for additional information.
2. Once the review and response period has been completed, the County will issue a brief report, accepting or rejecting the model, with specific reason(s) for non-compliance. If the County rejects the models, the Contractor will have the opportunity to provide additional data and/or to submit a revised model within (10) days of notification by the County upon appeal.

E. Non-Compliance Resolution

1. In the event that the County and Contractor fail to reach a consensus regarding the interim model submissions, a Non-Compliance report will be forwarded by the County to the California Energy Commission (CEC), who will be responsible for resolving outstanding modeling issues. The CEC, as author of the Energy Standards and the performance compliance method, shall make recommendations to the County or County's agent regarding final interpretation of performance method compliance modeling issues.

1.04 MODELING OF ENERGY EFFICIENCY BUILDING FEATURES

- A. Construction Assemblies: Construction assemblies, particularly with respect to proposed insulation materials, shall accurately reflect the proposed assembly, provided that all other requirements of the contract documents are met.

- B. Glazing: Proposed glazing shall accurately reflect the proposed assembly, provided that all other requirements of the contract documents are met. Overall window assembly U-Factor and Solar Heat Gain Coefficient (SHGC) shall be input per proposed design.
- C. Interior shading: Fixed interior shading elements shall accurately reflect the proposed assembly, provided that all other requirements of the contract documents are met.
- D. Exterior shading: Exterior shading, including overhangs, fins and other self-shading elements may be modeled if consistent with the proposed design features.
- E. Lighting Power Density (LPD): The LPD should reflect lamp and ballast wattage per manufacturer's specifications.
 - 1. Lighting may alternatively be input as one LPD value representing the entire building. In that case, the LPD value should exactly match the summary of lighting power on a room-by-room basis submitted in an Excel spreadsheet and as shown on lighting plans.
- F. Task lighting will be provided as part of the furniture procured for the project or at specific locations as provided in the facility design.
- G. Lighting Control Credits: Lighting control credits for occupancy sensors and dimming systems may be used per the proposed design but only for the ambient lighting component. Daylighting control credits may be used in daylit zones only.
- H. HVAC Air Systems: Modeling of air systems must be consistent with the overall integrated design of fans, motors, controls, ductwork, and terminal units, as appropriate for the design solution. Modeled inputs of system and individual equipment efficiencies used in the models must be adequately documented by technical submittals and shall represent the installed equipment as shown on the construction documents and schedules. Modeled supply and return air minimum volumes, volume controls, along with outside air ventilation, shall represent the installed equipment as shown on the construction documents and schedules and must be consistent with the other requirements of the contract documents.
- I. HVAC Water/Fluid Systems for Heating/Cooling: Modeling of water/fluid systems must be consistent with the overall integrated design of pumps, motors, controls, pipe-work, and coils, as appropriate for the design solution. Modeled inputs of system and individual equipment efficiencies used in the models must be adequately documented by technical submittals and shall represent the installed equipment as shown on the construction documents and schedules. Modeled fluid flows, system minimum capacities, temperatures and ranges must be consistent with the other requirements of the contract documents.

PART 2 - PRODUCTS - Not applicable to this section.

PART 3 - EXECUTION - Not applicable to this section.

END OF SECTION

SECTION 01 91 00
GENERAL COMMISSIONING

PART 1 - GENERAL

1.01 SUMMARY

C. Section Includes:

1. Building Systems Commissioning.
2. Commissioning responsibilities.
3. Commissioning phases.
4. Systems to be commissioned.
5. Minimum qualifications of Commissioning Coordinator.
6. References and additional resources.

D. Related Documents

1. The Contract Documents, as defined in Section 01 11 00 - Summary of Work, apply to the Work of this section. Additional requirements and information necessary to complete the Work of this section may be found in other documents.
2. Title 24 Part 6 Energy Code, Commissioning Requirements.

1.02 BUILDING SYSTEMS COMMISSIONING

- A. The processes and procedures defined as "Building Systems Commissioning" will be completed for the project. Building Systems Commissioning is the process of verifying that building systems are properly installed and operate interactively, consistent with the design intent and the ultimate user's comfort, operational, energy efficiency and security requirements.
- B. Minimum Requirements: Commissioning undertaken for this project shall meet the required Energy Code for this type of Building defined by the State of California, Commissioning Requirements.
- C. The Contractor shall appropriately prepare and completely plan for coordination of activities with and provide adequate time and technical resources to complete the commissioning tasks to the satisfaction of the County. The commissioning process will be executed in order to:
1. Meet and sustain the County's "Owner's Project Requirements (OPR)" building program requirements and the "Basis of Design (BOD)".
 2. Meet and sustain the needs of the tenants and building operations staff.
 3. Meet and sustain comfort and ventilation requirements during all occupied hours.
 4. Meet and sustain optimum energy performance.
 5. Meet and sustain optimum operational efficiency.
 6. Meet and sustain security plan.
- D. The Commissioning process and activities shall be included within both the design and the construction processes of this project for verification that the systems and components meet the County's project requirements. As an outline of the more detailed Commissioning Phases, the following steps are listed:
1. County's/Owner's Project Requirements (OPR)

2. Basis of Design (BOD)
3. Commissioning measures included in the Construction Documents
4. Written Commissioning Plan
5. Written Plan of Procedures for testing and adjusting all systems
6. Functional Performance Testing, Adjusting and Balancing
7. Adjusting and Additional Performance Testing (required for compliance)
8. Submittal of all Operation and Maintenance Manuals (O&M)
9. Documentation and Training using Operation and Maintenance Manuals
10. Commissioning Report to also include all inspection reports and verifications, signed test reports, and final report.
11. Post Occupancy and Warranty requirements

1.03 COMMISSIONING RESPONSIBILITIES

- A. The Contractor shall name a responsible Commissioning Coordinator (CxC) who will be the County's point of contact for all commissioning activities, including planning, scheduling, coordinating, documenting and reporting, beginning with detailed design through the post-occupancy phase. The CxC shall be sufficiently experienced in coordinating commissioning activities for similar large construction projects. Refer to Minimum Qualifications of CxC in this section for additional information.
- B. The CxC will carefully schedule and coordinate commissioning tasks with the CxA. The CxA, as agent of the County, will develop a Commissioning Plan, will approve the commissioning schedule, will witness commissioning tests, and will approve commissioning documentation throughout the detailed design, construction and post-occupancy phases.
- C. The Contractor will be responsible for executing and documenting all commissioning procedures and tests and will direct the commissioning activities of its sub-contractors. Commissioning activities must be scheduled at an optimum time, to avoid unnecessary uncovering of Work, to avoid retesting due to inadequate preparation, and to avoid duplication of effort. The CxA will be available to witness tests based on a pre-approved schedule of activities.

1.04 COMMISSIONING PHASES

A. Detailed Design Phase

1. The Contractor will submit a schedule of design phase commissioning activities to CxA: 30 days following Notice to Proceed.
2. Submit draft list of equipment to be commissioned to CxA: at completion of 35% detailed design documents.
3. Submit draft list of building automation system (BAS) points controlling equipment to be commissioned to CxA: at completion of 35% detailed design documents.
4. Submit draft Basis of Design Narrative (report) to CxA: at completion of 35% detailed design documents. Design Narrative shall include full sequences of equipment operation, including start-up, lead-lag operation, restart procedures following power outage, resets, seasonal change-over, shutdown, etc.
5. Submit comments on the Draft Construction and Post-Occupancy Phase Commissioning Plans prepared by the CxA: within ten (10) days following receipt of draft documents.
6. Submit draft Construction Phase Commissioning Schedule to CxA: at completion of 95% detailed design documents.

7. Following incorporation of CxA and County comments, accept for implementation the final Basis of Design Narrative, final drafts of Construction and Post-Occupancy Phase Commissioning Plans and final draft of Construction Phase Commissioning Schedule. Note that Commissioning Plans and Commissioning Schedule are living documents and are expected to be modified during the Construction Phase as circumstances dictate.

B. Construction Phase

1. Submit comments on minutes from Construction Phase Commissioning Kickoff Meeting prepared by CxA: five (5) days following meeting.
2. Submit comments on minutes from Construction Phase Commissioning Progress Meetings prepared by CxA: five (5) days following meetings.
3. Submit proposed revisions to schedule for Construction Phase Commissioning activities for approval by CxA: as required.
4. Submit complete technical data (submittals) for all equipment to be commissioned: (120) days prior to initiation of start-up and pre-functional tests
5. Respond to RFIs from CxA relating to equipment submittals: five (5) days following receipt of RFIs
6. Submit completed pre-functional tests reports: fifteen (15) days following completion of pre-functional tests. All commissioning test reports (pre-functional, startup, integrated, IAQ) shall include:
 - a. Identification of activity, including element/system involved, date/time.
 - b. Entity performing activity; other persons present.
 - c. Prerequisites required and accomplished.
 - d. Job condition and related concurrent activities at time of test.
 - e. Procedures or methods of testing and test duration.
 - f. Results required and results achieved.
7. Submit completed systems startup and checkout reports: fifteen (15) days following completion of systems startup and checkout.
8. Submit completed Testing, Adjusting and Balancing (TAB) report: ten (10) days following completion of TAB.
9. Submit completed full (integrated) systems functional test report: fifteen (15) days following completion of systems functional tests.
10. Submit completed indoor air quality (IAQ) functional test report: fifteen (15) days following completion of IAQ functional tests. IAQ testing will be limited to verification of required ventilation and confirmation of ventilation controls and will not be based on field testing of VOCs against established thresholds.
11. Submit completed equipment sequences of operation report, (daily, seasonal and year-round sequences): fifteen (15) days following completion of all commissioning test procedures.
12. Review and take all necessary and timely action to correct items within Deficiency Reports prepared by CxA: as required to maintain schedule continuity; all corrections to be performed prior to completion and acceptance of commissioning reports by CxA.
13. Submit draft Operations and Maintenance (O&M) Manuals to CxA: 30 days following successful completion of all commissioning test procedures.
14. Provide comment on draft Systems Manual to be prepared by CxA: ten (10) days following receipt of draft Systems Manual.
15. Submit draft O&M Facility Staff Training Plan to CxA: ten (10) days following successful completion of all commissioning test procedures.

16. Submit completion Report of O&M Facility Staff Training Plan to CxA: thirty (30) days following successful completion of all commissioning test procedures. Training plan shall cover:
 - a. Operation, maintenance and troubleshooting of all HVAC, electrical, and plumbing included in the Commissioning Plan.
 - b. Operation, maintenance and troubleshooting of all conveying, security, card access, fire alarm, television/AV/surveillance, and integrated communication systems.
 - c. Operation, maintenance and troubleshooting of BAS, including GUI software interface and control devices, including initiating trends, developing trend logs and trend charts. See also Chapter D36 and D91.
 - d. Presentation, maintaining and updating procedures for O&M Manual.
 - e. Presentation, maintaining and updating procedures for Systems Manual.
17. Following incorporation of CxA comments, submit final O&M Manuals and Training Report to CxA: prior to acceptance by CxA and building occupancy
18. Following written acceptance by CxA of construction phase commissioning activities, submit Final Construction Phase Commissioning Report to CxA. Report shall include Manufacturer's Test Reports, Piping Pressure Test Reports, TAB Report, Pre-Functional Test Reports, Full Functional Test Reports and Training Manuals: ten (10) working days prior to building occupancy.
19. Submit BAS point trend logs and charts reflecting continuous building operation to CxA: ten (10) working days prior to building occupancy.
20. Submit proposed Post-Occupancy Phase Commissioning Schedule to CxA: ten (10) working days prior to building occupancy

C. Post-Occupancy (Near-Warranty End) Phase

1. Submit proposed revisions to Systems Manual and O&M Manuals to CxA: (120) prior to expiration of warranty period.
2. Review and take all necessary and timely action to correct items within Post-occupancy Phase Deficiency Reports prepared by CxA: prior to final acceptance of commissioning report by CxA.
3. Submit final record of BAS point trend logs and charts (min. 30 days continuous monitoring duration for winter and summer at a minimum): following correction of Post-occupancy Phase Deficiency Report items..
4. Submit final revised O&M Manuals: thirty (30) prior to expiration of warranty period.
5. Submit final Post-Occupancy Phase Commissioning Report: thirty (30) prior to expiration of warranty period.

1.05 SYSTEMS TO BE COMMISSIONED

- A. This section identifies the building systems that are expected to be commissioned. Generally, these include all mechanical, electrical, plumbing, BAS, IAQ, conveying, security, card access, fire alarm, television/AV/surveillance, and integrated communication systems.
- B. The following list of systems to be commissioned should be considered only as applicable for the accepted design.
 1. Envelope Commissioning: As required by Title 24.
 2. Mechanical Systems:
 - a. Air Handlers (Supply and return/relief fans and ventilation fans)

- b. Exhaust Fans
- c. Gas and/or Electric Chillers
- d. Gas Boilers for Space Heating and Domestic Hot Water
- e. Cooling Towers and Fluid Coolers
- f. Chilled Water, Hot Water and Condenser Water Pumps
- g. Compressed Air Systems
- h. Water Treatment Systems
- i. Fan-coil Units, Terminal (VAV) Boxes, and Unitary Cooling/Heating Equipment
- j. Terminal Units
- k. Outside Air Systems, Economizer Controls and Evaporative Coolers
- l. Variable Speed Drives
- m. Piping and Ducting
- n. Control Valves and Actuators
- o. Chilled Water and Heating Water Coils
- p. Fluid Oil Pumping and Piping Systems
- q. Heat Exchangers
- r. Flow Meters
- 2. Electrical Systems:
 - a. Building Interior and Exterior Lighting
 - b. Lighting Control Systems
 - c. Power Distribution
 - d. Emergency Generators and ATS
 - e. Elevators
 - f. Distributed Generation Systems
 - g. Photovoltaics
 - h. UPS
 - i. Door Controls and related Security Electronic Equipment
- 3. Plumbing Systems:
 - a. Domestic Hot Water and Drinking Water Systems
 - b. Plumbing Fixtures
 - c. Grey Water System (if used)
- 4. Building Automation Systems (BAS):
 - a. Field Panels, Relays, Sensors.
 - b. Equipment Interface Panels and Hardware Gateways.
 - c. Remote Monitoring Devices.
 - d. Central Computer Server and Distributed Operator Computer Workstations.
 - e. WAN and LAN Wiring Interconnects, Protocols and Software Interface.
- 5. Indoor Air Quality:
 - a. IAQ Monitoring and CO² Sensors.
 - b. OA Ventilation Systems.
 - c. IAQ Materials Certification.
- 6. Communications:
 - a. Closed Circuit Television System.
 - b. Card Access Control System.
 - c. Personal Duress System.
 - d. Integrated Communications System.
 - e. Intercom System.
 - f. Exterior Telephone and paging.
 - g. Fire Alarm System.
 - h. Uninterruptible Power Supply (UPS).
 - i. Radio

1.06 MINIMUM QUALIFICATIONS OF COMMISSIONING COORDINATOR (CxC)

- A. The Contractor shall ensure that proposed CxC fully understands, a) the commissioning process, including the tools, procedures and techniques for equipment functional commissioning knowledgeable in applicable codes and construction standards; and, d) has successful experience, is well organized and has good communication skills necessary to provide the required service. The Contractor shall submit the qualifications of the proposed CxC using the following criteria:
1. Minimum of two (2) project detailed descriptions where CxC was responsible for coordinating and/or executing whole building commissioning of a new construction project that is commensurate with the scale, complexity and use type of the HHSC Facility
 2. Client references including phone numbers for projects listed above.
 3. Example commissioning plans and commissioning reports prepared by CxC.
 4. Curriculum Vitae.

1.07 REFERENCES AND ADDITIONAL RESOURCES

- A. The level of commissioning activity and documentation that will be required on this project is extensive. Examples of procedures, processes, tests, test reports and forms, and documentation templates can be found among the following resources.
1. Model Commissioning Plan and Guide Specifications, USDOE/PECI, version 2.05 (February, 1998) NTIS: # DE 97004564.
 2. Building Commissioning Guide, U.S. General Services Administration and USDOE, 1995, revised in 1997.
 3. ASHRAE Guideline 1-1996, The HVAC Commissioning Process, ASHRAE.
 4. 2013 California Green Building Standards Code (CAL Green).
 5. Engineering and Design Systems Commissioning Procedures, U.S. Army Corps of Engineers, 1995 (ER 1110-345-723). Washington, DC 20314-10.
 6. Commissioning Specifications, C-2000 Program, Canada, 1995. C-2000 Program, Energy Mines & Resources, Energy Efficiency Division, 7th Floor, 580 Booth St., Ottawa, Ontario, Canada K1A 0E4.
 7. Procedural Standards for Building Systems Commissioning, National Environmental Balancing Bureau (NEBB), 1993. NEBB, 1385 Piccard Drive, Rockville, MD 20850.
 8. Commissioning Guide Specification, Facility Management Office, Univ. of Washington, 1993-96.
 9. ASHRAE Guideline 4-1993, Preparation of Operating and Maintenance Documentation for Building Systems, ASHRAE.
 10. Commissioning Manual for Mechanical Systems in Federal Buildings, U.S. Dept. of Commerce, National Institute of Standards and Technology, Gaithersburg, MD.
 11. ASHRAE Standard 62-2001, Ventilation for Acceptable Indoor Air Quality (ANSI Approved).
 12. SMACNA – HVAC Systems Commissioning Manual
 13. SMACNA – HVAC Systems Testing, Adjusting and Balancing

1.08 CONTRACTOR RESPONSIBILITIES

- A. Construction
1. Schedule and coordinate Commissioning efforts required by appropriate subcontractors and vendors.

2. Certify that systems have been correctly installed and are operating per Contract Documents.
 3. Prepare and submit draft Equipment Performance Tests (EPT), Functional Performance Tests (FPT) and Operational Tests (OT), as defined below, for all installed systems.
- B. Testing
1. Conduct Equipment Performance Testing, System Functional Performance Testing, and System Operational Testing with County's Representative present:
 - a. Simulate design conditions, measure and record equipment and system performances.
 - b. Provide all necessary metering and instrumentation to perform Equipment and System FPT.
 - c. Manipulate control systems to facilitate verification and performance testing.
 - d. Simulate various modes of operation including failure mode simulations, make corrections to meet contract requirement and record the result.
 2. Correct any work found not in accordance with Contract Documents.
- C. Documentation to be Submitted for Review and Approval Prior to Testing
1. Documentation Plans:
 - a. The Contractor shall develop a record keeping system to document compliance with the requirements of this Section.
 2. Equipment and system documentation shall include:
 - a. Date of test.
 - b. Equipment number or system name.
 - c. Test objectives.
 - d. Test results.
 - e. Test instruments employed for the test.
 - f. Signature spaces for the County's Representative and the Design Builder. A separate section in the commissioning documents shall be established for testing each system and item of equipment. These files shall include the following information as a minimum:
 - (1) Factory performance tests.
 - (2) Field calibration tests: Each of these tests is required even though not specifically noted in detailed specification section.
 - (3) Field pressure tests: Each of these tests is required even though not specifically noted in detailed specification section.
 - (4) Equipment Performance Tests, Functional Performance Tests, and Operational Tests for project equipment and systems.
 3. On-site Commissioning Information Catalog Rack:
 - a. The Contractor shall supply and maintain on the construction site a sectional catalog rack whose ringed removable sections contain the approved commissioning testing requirements for individual systems. Each section will have its own 3-ring locking mechanism which can be removed independently so that it may be taken into the field for reference and for recording progress and test results. Sections may hold such information for several systems, but an index on the rack must list the systems in each section. Each system with the section must have the testing procedures of the EPT, FPT, and OT of that system. This binder will serve as the official repository for recording the commissioning progress on each system, and, as tests are performed, the

results of these tests will be noted and signed off if satisfactory. This rack is to remain on site for the duration of the project, and sections are to be returned to the rack so that, at the end of each day, the rack has all of its sections intact.

1.09 EQUIPMENT TESTS, FUNCTIONAL PERFORMANCE TESTS AND OPERATIONAL TEST

- A. Procedures for the Equipment Performance Test, Functional Performance Test and Operational Test for each piece of equipment and system shall be submitted to the County's Representative for approval prior to execution of the tests. Contractor shall design these tests to include all criteria needed to ensure satisfactory equipment and system performance.
- B. Tests shall be developed in a step-by-step format with space provisions for recording pertinent data and test results.
- C. Approved Test Procedures for all systems shall be produced for review by the County's Representative as a condition precedent to progress payments in excess of 75 percent of the Contract Sum.
- D. FPT Checklists shall be formatted and developed similar to the sample checklist.
- E. Refer to DC D4 HVAC Heating, Ventilating, and Air Conditioning and DC D6 Electrical.

PART 2 – PRODUCTS

2.01 INSTRUMENTATION

- A. Contractor shall provide all instrumentation required to verify performance of systems.
- B. All equipment used for testing and calibration shall be National Institute of Standards and Technology/National Bureau of Standards (NIST/NBS) traceable and calibrated within the current 12 month period. Certificates of calibration shall be made available for verification by County's Representative during testing.

PART 3 – EXECUTION

3.01 GENERAL

- A. Tests indicated herein are general functional testing requirements that apply to typical equipment, systems and sub-systems. Contractor shall prepare itemized testing plans and procedures for each system that will:
 - 1. Incorporate the tests and procedures that meet the general requirements of Contract Documents.
 - 2. Serve to document and record the testing procedures and the results of the tests.
 - 3. Refer to the sample functional performance test following this section for formatting.
 - 4. In addition to items identified below, refer to Divisions 15 Mechanical and 16 Electrical for additional testing and commissioning requirements.

3.02 COORDINATION BETWEEN TESTING PARTIES

- A. Factory Start Ups: For many systems and equipment, factory start-ups are specified for testing during functional performance testing. Contractor shall notify the County's Representative when factory start-ups are scheduled aspects of Equipment Performance Testing and Functional Performance Testing accomplished during the factory start-up may be accomplished and approved if they meet the intent of the EPT and FPT.
- B. Independent Testing Agencies: For systems where independent testing agencies are specified, much of the testing performed by these independent agencies will cover aspects required in the Start-ups and Functional Performance Tests.

3.03 PREREQUISITES

- A. All equipment, components and devices requiring an EPT, FPT and OT must be started, and this start-up must be documented. This includes completion of the checklists, pressure testing of equipment, duct, pipe, etc., flushing and cleaning of applicable systems, completed labeling and identification, completed insulation of applicable systems.
- B. Unless specifically agreed to in writing by the County's Representative, all support systems shall be complete prior to FPT. An air handler for instance will require that:
 - 1. The electrical system serving it is completed and tested.
 - 2. The hydronic systems serving it have been balanced and functionally tested.
 - 3. Balancing has been accomplished for both air and water.
 - 4. The control systems have been started and calibrated.

3.04 COMMON ELEMENTS FOR ALL SYSTEMS

- A. Record test results and testing progress in the job site Commissioning Information Rack. Validate that all required documentation within this rack has been submitted and approved in conformance with project requirements.
- B. Contractor shall submit the start-up documentation prior to testing.
- C. Contractor shall demonstrate that access is sufficient to perform required maintenance.
- D. Trends on each control system are to be created, and be actively recording and storing data at the latest after the FPT has been completed successfully.
- E. As part of the Operational Testing, all dynamic systems powered by the emergency generator shall be tested to simulate a power outage to ensure proper sequencing. Those systems on emergency power shall be tested on all sources. Recovery from power outage conditions will also be observed for proper return to regular system operation.
- F. Sequencing Verification: All modes of operation and actions shall be verified for equipment and system samples.
- G. All adjusted, balanced, controlled systems shall be assessed to determine the optimal setting for the system as applicable. The optimal settings shall be determined to establish reliable, efficient, safe and stable operation. Electrical settings shall conform to Power System Study.

- H. Comply with the requirements of the latest version of Acceptance Testing Specification by the International Electrical Testing Association, Inc. (NETA). Include NETA requirements in the checklist.

3.05 HEATING VENTILATION AIR CONDITIONING (HVAC) PUMPS

- A. Contractor shall demonstrate that strainers are clean.
- B. Pumps shall be manually started individually. Pressure differential, kilo-watt (KW) (or slip on the motor), and flow shall be checked at shut-off, wide open, and balanced (or controlled) condition. Contractor shall simulate design condition and record pump performance. Identify the operating parameters on system curve (similar to test and balance). The reading from the instrumentation provided with the pump (thermometers and pressure gages and flow meters as applicable) can be used to validate the pump performance. Pump functional test can be obtained from Balancing Contractor.
- C. For pumps designed with automatic starting of back up pump on primary pump failure, enable automatic controls, stop primary pump and validate that standby is operating. Perform this test on both pumps.
- D. For variable speed pumps, manipulate control valves to change flow conditions and observe control response. Ensure stable control response to step change in flow conditions. Check for the applicable acceleration and deceleration of the pumps. Manually ramp pump speed from minimum and maximum to ensure stable operation of pumps and record any critical frequencies. Record representative part load output from the drive (using Variable Frequency Drive (VFD) read out). Check calibration of control input. Check drive bypass operation if applicable.
- E. Check, verify and record all interface points with building energy management system, including all alarms.
- F. Verify and record location of end of line differential pressure and final setting.

3.06 HYDRONIC SYSTEMS

- A. Check system make up and pressurization. Record optimal settings. Ensure air is removed by bleeding the sample rate of coils or high points. Ensure expansion tanks are properly charged (if any).
- B. Blow off selected strainers to ensure the system is flushed and clean.
- C. Refer to Testing and Balancing verification.

3.07 BUILDING CHW LOOP

- A. Open building control valve, measure and record flow to the building and the pressure differential.
- B. Command the building valve to close and ensure adequate shut off.

- C. In both the coupled and decoupled modes, Enable automatic control of the building loop and trend performance. Make at least one step change in the loop setpoint during the trend period.
- D. Refer to HVAC Systems Pumps for pump testing. Additionally, with a fixed setpoint on the building valve control loop, establish a trend on the pump control loop. Observe normal control function. Introduce 1 setpoint step change and observe response.
- E. Change setpoint to cause a change between coupled mode and decoupled mode and back. Observe system performance. Trend all values and print trend for documentation
- F. Check and verify all interface points with building energy management system.

3.08 COOLING TOWER WATER SYSTEM

- A. Verify the tower enable and disable sequences.
- B. Verify proper stage up and stage down of the towers by the control system as load is varied. Load can be varied by manipulating valves, starting and stopping hot water terminals and changing the staging control parameters.
- C. Verify proof and enunciation of individual towers upon failure. Verify that tower requests are removed appropriately and the next tower in rotation is energized.
- D. Check and record the Net Positive Suction Head (NPSH) on the pumps throughout various modes of operation.
- E. Check the sump level control to ensure air is not drawn into the system and that no air pockets exist in the suction piping.
- F. Check fan vibration, confirm vibration switches operation.
- G. Refer to HVAC pump FPT and OT for additional testing.
- H. Check and verify all interface points with building energy management system.

3.09 STEAM TO HOT WATER HEAT EXCHANGER

- A. Contractor shall start and warm-up the converter.
- B. Record Hot water system pressurization and ensure that the air has been removed and the system is under positive pressure at all points in the system.
- C. Verify proper steam pressure upstream of valve and proper water flow through converter.
- D. Verify that steam valve(s) modulates and stages to maintain water temperature. Verify proper sequencing of valves where applicable. Observe control response to varying loads and ensure stable response. Loads shall be verified by Contractor by starting and stopping air handling units or by other suitable means.
- E. Set valves and flow for full heating and verify maximum heating capacity.

- F. Verify location of trap meets manufacturer requirements and traps operating properly.
- G. Verify proper operation of makeup water system, including chemical treatment.

3.10 FAN COIL UNIT

- A. Verify automatic start and stop of fan.
- B. Start heating and cooling system, manipulate control device to obtain maximum cooling and heating. Measure air and water inlets and outlet temperatures to determine capacity.
- C. Cause all applicable modes of operation using false loading where practical. Check proper sequence for switching modes and proper operation within a mode.
- D. Check calibration of control devices and for stable control response.
- E. Test and verify all interface control points with building energy management system (EMS).

3.11 AIR HANDLING UNIT (AHU)

- A. Verify automatic start and stop of fan and open and close of outdoor air damper utilizing building EMS.
- B. Start heating and cooling system, manipulate control device to obtain maximum cooling and heating. Measure air and water inlet and outlet temperatures and pressures to determine capacity.
- C. Simulate design condition and record AHU performance (air and water), identify operating parameters on system curve (similar to test and balancing).
- D. Cause all applicable modes of operation using false loading where practical. Check proper sequence for switching modes and proper operation within a mode.
- E. Check calibration of control devices for stable control response and component performance including chilled water coils, hot water coils, humidifiers, economizer cycles, etc. Ensure proper coordination of control and tune the control loops to stabilize control and avoid energy wastes.
- F. Check for free and adequate flow of AHU condensate. Check that condensate line is piped to a suitable drain.
- G. For variable speed fans, manipulate air terminal units to change flow conditions and observe control response. Ensure stable control response to step change in flow conditions. Manually ramp fan speed from minimum to maximum to ensure stable operation of fans. Record representative part load output from the drive. Check calibration of control input.
- H. Ensure minimum required ventilation rates are maintained across the full range of control where applicable.
- I. Test all interfaces with the fire alarm system and all smoke control sequences.

- J. Verify interlocks with exhaust fans where applicable.
- K. Test proof alarming where applicable.
- L. Test operation of applicable safeties including freeze stats, high and low static devices, smoke detection, etc. Check AHU component status in each event.
- M. Check system status and operation in the Off, Unoccupied, and Occupied Mode of operation. Validate proper start up and shut down sequences.
- N. Test and verify all interfaces with building EMS.
- O. For AHU with multiple supply motors or lead/lag standby AHUs, fail each motor or unit in sequence, ensure proper start-up of the secondary unit. Record results including alarms. Correct deficiencies and identify operational strategies.
- P. After 24-hour operation, recheck belt tension and alignment.

3.13 FAN AND AIR SYSTEM

- A. Verify start and stop control sequences.
- B. Simulate design condition and record AHU performance (air and water), identify operating parameters on system curve (similar to test and balancing).
- C. Cause all applicable modes of operation using false loading where practical. Check proper sequence for switching modes and proper operation within a mode.
- D. For variable speed fans, manipulate air terminal units to change flow conditions and observe control response. Ensure stable control response to step change in flow conditions. Manually ramp fan speed from minimum and maximum to ensure stable operation of fans. Record representative part load output from the drive. Check calibration of control input.
- E. Verify interlocks with other exhaust fans where applicable.
- F. Test all interfaces with the fire alarm system and all smoke control sequences.
- G. Test proof alarming where applicable. Simulate failures of fans and ensure proper start up of back up fans. Record results, correct deficiencies and develop operational strategies.
- H. Test operation of applicable safeties including freeze stats, high and low static devices, smoke detection.
- I. Test and verify all interface points with building EMS.
- J. Verify start/stop control sequences at motor control.
- K. Simulate design condition and record fan performance. Identify operating parameters on system curve (similar to test and balancing).

- L. After 24-hour operation, recheck belt tension and alignment.

3.14 HVAC VARIABLE AIR VOLUME (VAV) AIR TERMINAL

- A. Check the calibration of zone temperature sensors.
- B. Set boxes for both minimum and maximum flow (typically by setting the space temperature setpoint up and down) and check the calibration of the flow settings.
- C. Check the stability of the zone temperature control loop for the damper and any associated heating devices by changing the space setpoints and observing the response.
- D. Cause all applicable modes of operation using false loading where practical. Check proper sequence for switching modes and proper operation within a mode.
- E. Determine the optimal settings for the control parameters.
- F. Simulate and test the unoccupied and emergency mode response of the box where applicable.
- G. Check the capacity of the heating device including inlet and outlet water temperature where applicable.

3.15 AUTOMATIC TEMPERATURE CONTROLS

- A. Refer to Section 6.2 Mechanical Systems of the Criteria Document, Division 23 Heating, Ventilating, and Air Conditioning for DCC, EMS and Airflow Control commissioning requirements.

3.16 SWITCHGEAR

- A. Test the operation of the protective relaying and validate the digital metering.
- B. Test the mechanical (key) interlocks for generator and service switchgear as applicable.
- C. Adjust all operating mechanisms for free mechanical movement.
- D. Touch-up scratched or marred surfaces to match original finish to the satisfaction of the County's Representative or replace with new.
- E. Check and verify all accessories are functioning. Correct deficiencies.
- F. Test local ground fault. Correct deficiencies and record results.
- G. Conduct operational and functional tests of digital metering.
- H. Perform electrical and mechanical (key) interlock system operational tests on service switchgear.

3.17 MOTOR CONTROL CENTERS (MCC)

- A. Test the operation of the starters under load in Hand and Off. Correct deficiencies, retest and record results. Automatic control shall be tested with the FPT of the device.
- B. Check and verify all accessories are functioning. Correct deficiencies.
- C. Check and verify each motor starter to ensure that heaters and overloads are the correct size for each load.

3.18 DISTRIBUTION PANELBOARDS AND ASSOCIATED LOADS

- A. Spot check phase balance. Measure steady state load at each panel board feeder. Should the difference at any panel board between phases exceed 20 percent, rearrange circuits in the panel board to balance the phase loads within 20 percent. Take care to maintain proper balancing for multi-wire branch circuits. Ensure proper, thorough and accurate identification of load. Open all breakers and validate loads identified. Test Ground Fault Interrupter (GFI) breakers.
- B. Receptacle Polarity Test: Spot check receptacles installed or reconnected with a receptacle circuit tester. Tester shall test for open ground, reverse polarity, open hot, open neutral, hot and ground reversed, hot or neutral and hot open.
- C. Ground-Fault Receptacle Circuit Interrupter Tests: Test each receptacle or branch circuit breaker having ground-fault circuit protection to assure that the ground-fault circuit interrupter will not operate when subjected to a ground-fault current of less than 4 milliamperes and will operate when subjected to a ground-fault current exceeding 6 milliamperes. Perform testing using an instrument specifically designed and manufactured for testing ground-fault circuit interrupters. "TEST" button operation on face of device will not be acceptable as a substitute for this test. Replace receptacles that do not shutoff power with 5/1000 of an ampere within 1/40th of a second and retest. Correct deficiencies and submit test report.

3.19 DISTRIBUTION TRANSFORMERS

- A. Simulate design conditions, measure and record temperature at all bolted connections. Check all gauges to confirm compliance. Verify all accessories are functioning. Correct deficiencies and record results.
- B. Refer to Division 26 Electrical Section(s) for additional commissioning requirements related to Distribution Transformers.

3.20 DRY TYPE TRANSFORMERS

- A. Simulate design conditions, check and record ambient temperature. Check for excessive noise level. Correct deficiencies and record results.
- B. Refer to Electrical Criteria for additional commissioning requirements related to Dry Type Transformers.

3.21 LIGHTING AND LIGHTING CONTROL SYSTEM AND DAYLIGHT CONTROLS

- A. Spot check the lighting and day lighting systems start up and ensure that the all lamps, fixtures, louvers, and control elements are operational and clean.
- B. Spot check occupancy sensor placement and test reliability of activation and deactivation.
- C. Test photocells for functionality and accuracy.
- D. Spot check switches to ensure proper operation, circuiting and zoning.
- E. Spot check lighting schedules to ensure they are programmed as requested by the County's Representative.
- F. Spot check lighting and day lighting levels to ensure compliance with Illuminating Engineering Society of North America (IES) for the respective occupancy.
- G. Automatic Lighting Control Start-up: After the system has been installed, provide the services of a factory-trained representative of the manufacturer on-site to verify correct operation of all system components.
- H. Sweeps. 50 percent of the zones with a minimum of 2 zones per controller or relay must be verified by turning on at least 25 percent of the lights in the zone and witnessing an actual sweep. The remainder of the zones must have the programming of their schedules verified.
- I. Overrides. 25 percent of the local override switches with a minimum of 4 overrides must be verified by turning the override switches on after a sweep and seeing the lights turn back on. 100 percent of the remainder of the switches should be sight verified to be in place. For each Zone, enter the number of override switches where functionality was actually witnessed. Verify that the local override only controls the specified zone.
- J. Test operation of circuits by changing system Date and Time to cause various circuits to switch modes. For rooms with occupancy sensors, validate the circuit energizes with occupancy in the space after the lights have been swept off.
- K. For exterior fixtures, simulate night mode to validate function. Measure and record light level to ensure they meet the requirements and provide adequate security. Check for excessive light level fluctuations or dark spots.
- L. Verify programming instructions are included in the control panel.

3.22 FIRE ALARM SYSTEM

- A. Comply with National Fire Protection Association (NFPA) 70, 72 and other applicable codes. Submit Fire Alarm in accordance with Electrical.
- B. Local Pre-Test:
 - 1. Contractor shall test all fire alarm devices, record test result and correct any deficiencies prior to requesting County's Representative to witness pre-test.

2. Upon completion of the above, contractor shall coordinate and schedule Fire Alarm pre-test with County's Representative. Contractor shall pre-test all Fire Alarm components in accordance with NFPA 72 and the standard pre-test procedures required by County. Pre-test shall be witnessed and approved by County's Representative. Correct deficiencies and record results.
- C. Additional tests:
1. Spot-check location of sensors and switches to ensure conformance with requirements.
 2. Verify interfaces with all other inter-related systems or equipment including EMS, HVAC systems, etc.
 3. Validate output devices (speakers and strobes) meet the NFPA 72 code criteria.
 4. Test all functions and sequences associated with the elevator recall system.
 5. Activate high temperature detectors in the elevator machine room. Verify all sequences including elevator shunt off, elevator recall including alternate floors when main floor is in alarm.
 6. Upon completion of air balance, verify and test differential pressure across the duct detector. Ensure differential pressure meets manufacturer's requirements. Test shall be performed by a qualified technician using calibrated instrumentation. Correct deficiencies, re-test and record results. A copy of test result required during final test.
 7. Upon completion of duct detector differential pressure test with air handler unit in automatic operation operating under design condition, activate smoke detector and verify all smoke control sequences and ensure fire and smoke dampers actuate as required.
 8. Activate a sample of sprinkler flow switches. Validate that appropriate zone enunciates and alarms sound.
 9. Verify audio aspects of the system function as required. Verify paging messages can be heard throughout the building.
 10. Testing of the HVAC response is included with the associated equipment. Coordinate testing of the fire alarm system with the testing of the individual HVAC systems including shaft pressurization systems.
 11. Ensure that the system functions while using all sources of power including normal, emergency, and battery.
- D. Remote Central Station Pre-Test:
1. Two separate remote stations Pre-Tests are required.
 - a. Remote Station Pre-Test #1 through Facility Fire Alarm System:
 - (1) Contractor shall coordinate and schedule fire alarm pre-test with County's Representative. Contractor shall pre-test 100 percent of the fire alarm devices in accordance with NFPA 72. County's Representative will review the remote signals and programming addresses. A correction list will be developed. Contractor shall correct all deficiencies prior to scheduling the Pre-Test #2.
 - b. Remote Station Pre-Test #2 through Campus Fire Department System:
 - (1) Contractor shall coordinate and schedule fire alarm pre-test with County's Representative. Contractor shall pre-test 100 percent of the fire alarm devices in accordance with NFPA 72. County's Representative will review the remote signals and programming addresses. A correction list will be developed. Contractor shall correct all deficiencies prior to scheduling the final test.

- E. Final Test:
 - 1. Once all pre-test are successfully completed, Contractor shall coordinate with County's Representative to schedule final fire alarm test. Test shall be witnessed and approved by Campus Fire Department.
 - 2. Submit As Built Drawings and complete and sign the NFPA 72 forms in accordance with Section 017800 Close-Out Submittals.
 - 3. Refer to DC D8 Electronic Safety and Security for additional requirements.

3.23 CARD ACCESS CONTROL AND DOOR and GATE MONITORING SYSTEM

- A. Proposed acceptance test procedure shall include the following:
 - 1. Spot check installation and device placement for conformance with the Contract Documents.
 - 2. Issue 3 access cards with varying access levels and spot check access devices (card readers). One of the access cards shall be assigned total access. One shall be assigned moderate access, and the third minimal. Ensure that access is granted and denied appropriately. Ensure record of entry is received appropriately.

3.24 TELECOMMUNICATIONS

- A. Refer to Communications for additional commissioning requirements related to Telephone and Data Cabling General Requirements.

3.25 MEDIUM VOLTAGE CABLES

- A. Refer to Electrical Section(s) for additional commissioning requirements related to Medium Voltage Cable.

3.26 SECURITY ELECTRONICS (CCTV CAMERAS)

- A. Verify all cameras are correct type.
- B. All cameras are installed in the locations shown on the security electronic shop drawings.
- C. All camera wiring is properly labeled.
- D. All cameras are mounted at correct elevation.
- E. All cameras are properly wired per the security electronics wiring details.
- F. All cameras are pointed in correct direction.
- G. All cameras are securely fastened to ceiling, wall, or pole.
- H. All camera IP addresses are correct.
- I. All camera wiring has been tested for signal strength.
- J. Camera cabling matches that required in the security electronic shop drawings.

3.27 SECURITY ELECTRONICS ON EMERGENCY POWER

- A. Visually inspect Security Electronics System and supporting Electrical Systems are operating normally without alarm condition.
- B. Simulate a loss in utility power resulting in start of the emergency generators and transfer of power. Breakers will be turned off while teams are standing by at the ATS' and all control stations to witness real-time power transfer.

- C. Visually inspect Security Electronics Power at all racks in the Secure Electronics Rooms.
- D. Test card reader operation by swapping fob at a few doors in each area of building.
- E. Test Security Electronic Paging System by sampling two areas of the building. From Central Control activate paging speakers in test areas and speak through microphone.
- F. Test intercoms/nurse call operation.
- G. View all CCTV cameras from the Central control Station.
- H. Test each orange receptacle at all locations with a plug tester (all not being utilized – don't unplug equipment).
- I. Test Duress button from Central Control – Utilize alarm test sheet for exact locations and record results.
- J. Test proper detention lock operation by unlocking a few from their corresponding control station TS.
- K. Test Chemical Purge sequences are operational by activating fan sequences from a corresponding touch screen.
- L. Verify a few Lighting Control Panels located in electrical rooms are operating.
- M. Spot check/test red receptacles anywhere in building and record samples taken.
- N. Priority 1 Electrical Load Shed Test – (All emergency power shed) Visually inspect all equipment is turned off with the exception of UPS powered equipment when the 3rd generator is turned off. Generator is turned off – no emergency power present.
- O. Verify all Security Electronics UPS' are operating on battery power properly. Check each 10 minutes for a total of 30 minutes and record results.
- P. Verify all equipment in security racks are ON.
- Q. Test UPS powered intercoms/nurse call stations from their corresponding control station.
- R. Test Security Electronics Paging System on UPS power by sampling two areas of building. From Central control activate paging speakers in test areas and speak through microphone.
- S. Test each orange receptacle at all control stations with a plug tester on UPS power (all not being utilized – don't unplug equipment).
- T. Visually inspect that detention doors are fail secure – utilize door test sheet for sample of doors.
- U. View all CCTV cameras from the Central control Station while on UPS power.
- V. Test Duress buttons while on UPS power and verify from Central Control – Utilize alarm test sheet for exact locations and record results.

- W. Restore generator and Restore Utility Power. Visually inspect each Security Electronic UPS has returned to normal operation.

3.28 ADDITIONAL OPERATIONAL TESTS

- A. Simulate complete building power outage at medium voltage switch or at main transformer and perform the following:
1. Verify all and every equipment/device connected to emergency backup power are activated.
- B. Restore power and perform the following:
1. Ensure orderly and automatic restart.
 2. Record test result.
 3. Correct deficiencies and re-test. Re-test may occur at main branch circuit if approved by County's Representative.
- C. Contractor shall review Contract Drawings, flow diagrams, single line drawings and sequence of operations to develop a variable system operational testing matrix. The testing matrix shall include various scenarios reflecting actual operating conditions such as equipment failure, temperature control changes, "what if" scenarios and other alarm conditions. Develop and document an operational strategy plan for County's use during occupancy.
- D. After completion of all performance testing and certification by the County's Representative that all equipment complies with the requirements of the specifications, the Contractor shall operate the building in automatic mode for 48 hours, develop trends and record any failures, alarms and deficiencies using building automatic control system (mechanical and electrical). Adjust all set points to meet day to day operational needs.
- E. Upon completion of the above, the Contractor shall operate the building for 7 continuous days, during which all parts of the system shall be operated as a complete facility at various loading conditions, as directed by the County's Representative. The operational testing period shall commence after the initial period of variable operational tests. The operational testing period shall be a continuous period of not less than 5 days. Should the operational testing period be halted for any reason related to the facilities constructed or the equipment furnished under this contract, or the Contractor's temporary testing systems, the operational testing program shall be repeated until the specified continuous period has been accomplished without interruption. All systems shall be brought to full operating conditions, including power, controls, temperature, pressure, flow, etc.
- F. Develop an operational strategy spread sheet reflecting test results for future County use during occupancy.

END OF SECTION