II. Project Management Section

This section generally describes the project lifecycle from initiation through closeout and certification. Each project is unique and differs in scope and size. The amount of resources assigned to a project are customized based on the size, scope and complexity of the project. Our intent in to identify major differentiation between project types and sizes appropriately so the overall level of Project Management described sets a minimum set of criteria for all bond-funded projects. We also use the term Project Manager, Design Manager or Construction Manager generally. Project Manager typically identifies the District employee or consultant assigned to oversee the entire Project from initiation through closeout. The Design Manager or Construction Manager identifies the consultant hired and assigned to oversee the Project in coordination with the District assigned Project Manager. Lastly, the Board approved the 2016 Facilities Master Plan which is updated annually and reflects the road map for the Project scope, sequence, schedule and budget. The District is beginning the process to update the 2016 Facilities Master Plan to reflect the current needs of the District including the recent passage Measure R. The 2016 Facilities Master Plan including historical and future updates, as well as, the Board approved Education Specifications, Material and Product Standards, and Sole Source Resolutions that guide our Project Management Process are available on the District website: https://www.wccusd.net/Page/6945

A. Design Management and Quality Assurance

1. Project Initiation

The initiation of a project is a deliberate and formal process, authorizing the expenditure of District resources in the consideration, review, and approval of a project. There are many steps through which a project proceeds to reach successful completion. Upon Project Initiation, the Project Manager (PM) advises the District on the feasibility of the project, preliminary scope of work, order of magnitude budget, and identifies key schedule milestone dates. The PM also analyzes the type of construction, site constraints, and other initial planning issues.

To provide adequate information so that the District can make informed decisions, the PM gathers existing Site documentation, meets with key stakeholders, and considers the specific needs of the project which may include:

- Project Budget
- Project Funding, including any grant funding and requirements
- Project Schedule
- Phasing (if necessary)
- Temporary Housing / Swing Space (if necessary)
- Facility Needs Assessments (existing or as needed)

- District Operational Requirements
- Division of the State Architect (DSA) Requirements
- Consultants and Consultant Scope of Services
- Community Outreach
- End User Needs
- Campus Impacts, Site Constraints, and Logistics
- Utility Requirements

2. Pre-Design Phase

a. Project Type

i. Renovation and Modernization including Site Improvements

The Project Manager assembles all available existing Site information for the Design Team to use during the design phases of the project which may include:

- As-built drawings of building(s), including original construction documents and documentation of subsequent renovations.
- Recent Facilities Conditions Assessment(s)
- Recent geotechnical, civil, hydrological, and other environmental investigations.
- Information concerning existing utility service; plans for new utilities or upsizing of existing services.

ii. New Construction (Additions and New Buildings)

In addition to assembling all available information that reflects existing conditions for the Site, there are additional considerations when planning for new construction additions to an existing campus or a complete campus replacement project.

Planning for new construction on an existing campus is a thoughtful, strategic, and deliberate process. It involves the input of key stakeholders and a thorough understanding of the project's purpose. Campus space is a valuable asset to the District, and careful campus planning provides the District with flexibility for future needs.

When reviewing the site, the PM and District stakeholders first perform an analysis of potential site issues. These can include looking at building access for students, staff and operations, adjacent academic programs, ADA access, fire and life safety

access, environmental considerations (e.g. noise impact on adjacent properties), and campus security concerns.

Other factors that are considered include issues that may be created by the new building or addition, for example:

1. Permanent or temporary changes to campus circulation.
2. The ability to isolate/separate construction from campus activities.
3. Construction site access, including material storage and construction worker parking.
4. Displacement of normal campus activities.

Consideration is given to desired adjacencies, safety (sight lines, proximity to other buildings, etc.), and changes to student drop-off and pick-up. If there is more than one site alternative, each alternative is evaluated. As a preferred alternative(s) is refined and revised, follow-up meetings may be required to earn consensus amongst the stakeholder group and/or for the District to make a final decision.

b. Consultant Scope and Selection

The District and PM review the Project and determine at which point in the Pre-Design phase consultants need to be brought on board. Depending on the Project Type, consultant scope can include:

- Programming (typically an Architect)
- Hazardous Materials Assessment
- ADA / Access Compliance
- Seismic / Structural Analysis
- Civil / Sitework Analysis
- Initial Design Studies (Architects and/or Engineers)

c. Scope and Programming

i. Project Scope

Based on the complexity and size of the project, a Programming Consultant (typically an Architect) may be retained to develop a project Space Planning Checklist. The Space Planning Checklist conveys the purpose of the project, the size and qualities of each space, the adjacencies of spaces to one another, the types of finishes, environmental characteristics, and other important project specifics. The checklist aligns with the Board approved

Education Specifications and ensures alignment throughout the design process.

ii. Programming

Depending on the project size and type, a Programming Consultant may be selected to perform programming services.

The Programming Consultant is typically required to perform pre-design investigations to establish the parameters governing the design of the project. This effort identifies design issues related to functional needs, requirements, and constraints imposed by regulatory codes and regulations pertaining to the project. The effort also identifies design issues relating to functional needs, requirements, and constraints imposed by Agencies Having Jurisdiction (AHJ).

The Space Planning Checklist defines the type, quantity, and size of spaces and outdoor elements required for each school level and is the place to start. In the Space Planning Checklist, review the general requirements of the design. These parameters contribute to definitions of size and quantity. Additional quantities and areas that are needed to complete the design are listed. There are site decisions needed on the selection of types of teaching stations, plus decisions that are based on the design of the buildings or code requirements. Based on the Space Planning Checklist, the Programming Consultant provides a high-level construction cost estimate for the project based on an analysis of current trends in construction cost.

Depending upon the complexity of the project, programming takes from a few weeks to a few months. Larger, more complex projects may take several months. Importantly, in addition to project scope, the programming phase includes the development of a project budget and a preliminary project schedule.

d. Budget

Initial project budgets are established based upon the Board approved Facilities Master Plan. Depending upon funding availability, it may be necessary to adjust the proposed size, features, and finishes of the project to bring the cost into alignment with the budget.

Upon engaging a Design Team for a project, the Project Manager (PM) and the Design Team validate the project scope, schedule, and budget.

Upon validation, the Design Team is responsible for designing the project within the approved construction budget.

e. Schedule

The project schedule is used as an analysis tool to anticipate project start, workload, design activities, construction activities, and impacts on campus operations.

As part of the Design Team's responsibilities, they prepare a detailed scope of work list and work plan in narrative form. This scope of work list and work plan identifies project tasks applicable to the Project which may include data collection and analysis, architectural programming, design phases, and construction cost estimates.

To ensure the success of the project schedule, the Project Manager includes typical durations taken by the District and regulatory agencies for review of project documentation. District priorities such as the start or end of the school year, testing, holidays, Board meeting calendars, and other District specific requirements and durations are accounted for in the schedule, and project milestones are identified.

f. Agencies Having Jurisdiction (AHJ)

The PM plans and coordinates agencies approval of each project. The following is a list of some of the government agencies and public utility providers that may have jurisdiction for the project:

- Division of State Architect (DSA)
- State Water Resources Control Board
- California Department of Education (CDE)
- Office of Public-School Construction (OPSC)
- PG&E
- East Bay Municipal Utility District
- City or County Fire Departments
- Water and Sanitary Districts
- City or County Public Works / Engineering (street, sidewalk, and sewer work coordination)

g. California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) was established to require public review of all major projects to ascertain a projects impact on the environment. Upon project initiation, the Project Manager

reviews environmental issues, and formulate a CEQA compliance strategy relevant to the project, which may include a Categorical Exemption.

h. District Design Standards

The Educational Specifications are District-wide design standards for the design of all school buildings in the District. The District-Wide Educational Specifications Documents are separated into three packages to specifically describe the places and spaces for Elementary, Middle School and High School. Future designs or modernizations are required to meet the guidelines set forth by these documents, creating equitable spaces that support the educational program throughout the District.

The District Material and Product Standards provide additional information on the specific attributes and performance expected from the finishes listed. The Design Team or Consultant is at liberty to pursue alternative products but must bring the material or products to the District for approval before proceeding with inclusion into the design. The Design Team or Consultant evidence to show why the District should change, which must include a cost-benefit analysis.

i. Sole-Source Products

There is a Board-approved list of Sole-Source products, which are designated as NO SUBSTITUTION. The Board of Education has approved these items as "Sole Source" (West Contra Costa Unified School District Resolution 69-1617).

i. Project Delivery Method

Project Delivery Method is a critical project decision that is made during the Project Initiation phase. A Design and Construction Project Delivery Method is a comprehensive process including planning, design, construction and other services, necessary for organizing, executing and completing a project. The Project Delivery Method establishes when the parties become engaged, influences the contractual relationships among the parties, influences ownership and impact of changes and modifications of project cost.

There are two primary Project Delivery Methods in use at WCCUSD:

- Design-Bid-Build (D-B-B), sometimes called Traditional Project Delivery, and
- Design-Build (D-B)

i. Design-Bid-Build

This is the most commonly used delivery method, which is easily understood by stakeholders and has a deep body of case law governing its use.

D-B-B Features Include:

- Three linear phases: Design, Bid and Build
- Three prime players: District, Design Team, Contractor
- Two separate contracts: District to Design Team, District to Contractor

Responsibilities:

- District: Program, finance, management
- Design Team: Architectural/ Engineering services
- Contractor: Prime and Subcontractor Construction

Reasons for selecting Design-Bid-Build:

- District has control over the entire process
- Multiple and alternative designs can be developed and reviewed
- A/E works directly for District
- Contractor works directly for District

ii. Design-Build

Used increasingly by school districts in California, Design-Build is the fastest-growing delivery method in the US for public agencies. Some believe that it is a good system for transferring some project risk to the Design Build Entity (DBE) from the District, and to speed up the delivery of projects.

Characteristics of Design-Build include:

- Project value at least one million dollars
- Integrated process; overlapped design and construction
- Often fast-tracked
- Two prime players: District and Design Build Entity
- One contract - District to Design Build Entity
- Involvement of the builder in the design phase

Responsibilities:

- District: Program, performance requirements, and finance
- Design Build Entity: Design and construction

Reasons for selecting Design-Build:

- Single point of responsibility for District
- Professional relationship with Contractor and Design Team
- A/E and Contractor on the same team providing unified recommendations to District
- Early Contractor involvement
- Transfer of Risk from District to DBE
- Faster project delivery

3. Design Phase (Design-Bid-Build)

a. Design Team Selection and Procurement

During the Pre-Design Phase, the type of Design Team appropriate to the scope and type of project is determined and the District selects the Design Team through a fair and competitive process. Each Design Team is led by a Designer of Record (Designer), typically an Architect, although certain projects (for example Mechanical, Electrical, and Plumbing systems upgrades) are led by an Engineer.

b. Schematic Design Phase

The PM's primary role in this phase is to assist the Design Team in reviewing project alternatives and developing a project configuration that meets the site's needs and the District's parameters. The PM coordinates development of the project so that it is within the budget and time constraints established by the District.

i. Architectural

As required for the scope of the project, the Architect may prepare illustrative drawings and a written report (Basis of Design) describing critical design factors, with outline descriptions of proposed engineering systems, construction types, finish materials, and other work to be included in the project.

The Architect may prepare site plans, floor plans, elevations, sections, and other drawings, sketches, and graphic materials as needed to illustrate the design.

ii. Specifications

The Design Team prepares outline specifications for proposed architectural, structural, mechanical and electrical materials, systems and equipment, and their Basis or Design and quality standards.

iii. Construction Cost Estimate

The Design Team submits the Schematic Design Construction Cost Estimate, which indicates compliance with budget requirements, and includes breakdowns based on types of materials and systems.

iv. Value Engineering (126, 150)

Value Engineering is a systematic approach to achieving the basic functions of a building or a project, while minimizing cost and not compromising performance.

The Design Team considers Value Engineering opportunities during the early phase of design.

The Value Engineering considerations include:

- Identification of needs and definition of function.
- Creative solutions to meet the basic need or function.
- Developing the costs for the various alternative solutions.
- Evaluation and ranking of the various solutions based on project criteria, feasibility of implementation and cost.
- Selection of the optimal solution and implementation.

v. Schematic Design Phase Deliverables

As required for the scope of the project, the Design Team may provide the following deliverables:

- The construction cost estimate is in alignment with the Preliminary Cost Estimate of the Work as approved by the District.
- The Schematic Design fulfills the requirements of the Program Document.
- The location on the site and the scope of site work to be included in the project.

- The general size, shape, massing, plan, and sectional relationships of project components, and layout of the spaces of the new building.
- The selection of the primary exterior and interior materials to be used in the new building.
- The proposed structural materials and systems.
- The proposed mechanical, plumbing, and electrical systems.

c. Design Development Phase

In the Design Development Phase, the Design Team further defines the design from the Schematic Design Phase. The Design Team provides a graphic schedule with written narrative to explain the sequence of tasks needed to achieve project completion. The schedule includes milestones for all required District actions and agency approvals.

i. Design Development Documents

The Design Team furnishes all design and engineering information required to prepare and process applications for service to utilities. The Design Development documents include the site plans, floor plans, elevations, sections, and other drawings needed to describe the Project's architectural, structural, mechanical, plumbing, and electrical systems. Outline specifications describe all major systems and products, along with type and quality of materials and equipment.

ii. Construction Cost Estimate

The Design Team uses the Schematic Design cost estimate as a basis for developing an updated estimate of probable construction costs, containing detail consistent with the Design Development Documents and containing a breakdown based on types of materials and systems.

iii. Design Development Phase Deliverables

As required for the scope of the project, the Design Team may provide the following deliverables:

- Design Development Drawings
- Outline Specifications
- Design Development Phase Construction Cost Estimate

- DSA file, including all correspondence with and meeting notes for preliminary meetings with DSA, or notification in writing that the Design Team has not met or corresponded with DSA.

d. Construction Documents Phase

The Construction Documents include all drawings, specifications, and calculations required to obtain all permits and approvals from all federal, state, regional, and local agencies having jurisdiction. The Architect is responsible for furnishing any and all of these documents, and all such documents shall be subject to the approval of the District.

i. 50% Construction Documents

When the Design Team and Project Manager (PM) agree that the Construction Documents are 50% complete, the District and PM conducts a review of the documents. This is typically an informal review that produces written comments from the PM and the District. These comments are incorporated into the 100% Construction Documents and technical specifications, which are submitted to the Division of the State Architect (DSA).

ii. Constructability Review

A Constructability Review is a review of documents to maximize the opportunity for the project to be buildable, cost-effective, and maintainable. An effective Constructability Review process accomplishes several goals:

- The project, as detailed in the plans and specifications, can be constructed using standard construction methods, materials, and techniques.
- The plans and specifications provide the contractor with clear, concise information that can be utilized to prepare a competitive, cost-effective bid, and avoid future change orders.
- The work, when constructed in accordance with the plans and specifications, results in a project that the District can maintain in a cost-effective manner.

The District may hire an independent designer or other consultant to conduct a Constructability Review. It is the Project Manager's responsibility to manage this process, schedule and coordinate all

the various reviews, consolidate all written review comments, and transmit these to the Design Team. The Design Team makes all agreed-upon changes to the Construction Documents that result from any Constructability Review.

iv. Construction Cost Estimate

The Design Team shall prepare the final Construction Cost Estimate and submits it to the Project Manager for review and approval.

4. Design Phase (Design-Build)

In Design-Build the phases of design remain the same, but the procurement of the Design Team and contractual relationship with the Architect/Engineer differs. For a Design-Build project, the procurement of the DBE is completed through a two-step RFQ and RFP process.

a. Request for Qualifications

The first step is the Request for Qualifications (RFQ), which describes the services to be performed and the minimum qualifications that a Design-Build Entity (DBE) must have to be prequalified for the project. Each DBE interested in participating prepares and submits a Statement of Qualifications (SOQ) and prequalification questionnaire. District staff evaluates submittals using a set of uniform criteria to determine the firms that are pre-qualified for the project.

b. Request for Proposals (Selection of Design Build Entity)

The second step is a Request for Proposals (RFP) that is only provided to the prequalified DBEs. The RFP review process allows for a comprehensive and competitive analysis of each qualified DBE based on their proposal.

i. Design-Build Agreement

The District provides the pre-approved form of DBE Agreement from District's Counsel in the RFP. The DBE Agreement includes contract terms specifically tailored for the D-B project. Proposers are required to complete a Conflict of Interest Certification and provide any comment regarding the contract form in their proposal.

ii. Design Criteria Documents (Bridging Documents)

Design Criteria documents and existing Site conditions accompany the RFP and set the scope of work that the DBE is to deliver to the District.

Design Criteria documents are tailored to the specific needs of the project, including scope that the District wants to remain fixed, and scope that the DBE is to design based on District Design Standards.

c. Design Management

Following selection of the Design Build Entity (DBE), the District and DBE acknowledge the significant level of effort required to manage the development and review of the design.

The District ensures that the DBEs design advancement and changes to the contract documents are clearly, thoroughly, and contemporaneously documented, and that there is a clear understanding defining when the District is integrated into the decision-making process and notified of such advancement and changes.

5. DSA Permitting Process

On all projects for WCCUSD, the Division of the State Architect (DSA) is the building code Authority Having Jurisdiction over K-12 construction. Managing the relationship with DSA requires collaboration between all relevant players (District, Design Team/DBE, and Project Manager). This effort begins during the initial planning stages and continues through DSA approval of the design, construction management, and project certification.

At all stages of the project, the Project Manager (PM) monitors the Design Team's progress on the design documents, confirming that they are ready for each scheduled DSA review. The PM also monitors the design documents to ensure that DSA comments are being incorporated. During the DSA review of the Construction Documents, the PM ensures that there is regular communication between the designated DSA project reviewers and the Design Team.

DSA approval takes place after submittal of completed Construction Documents and comment revision (as required by DSA). Upon completion of the back-check and approval meetings, when DSA is satisfied that all concerns and comments have been adequately addressed, DSA stamps the plans and issue a letter to

indicate approval. The AOR/EOR provide a digital copy of the approved DSA-stamped set to the District.

B. Construction Management and Quality Assurance

1. Pre-Construction

a. Design-Bid-Build Pre-Construction

i. Preconstruction Meeting

The Construction Manager conducts a Preconstruction Meeting with all of the key stakeholders of the Project. At the meeting, the CM highlights the logistics and protocols for the Project pursuant to the Contract Document. Attendees typically include the Project Manager, Construction Manager, Inspector of Record (IOR), AOR/EOR, and the Contractor's Team.

ii. Contractor Initial Submittals

The Contract Time commences on the date specified in the Notice to Proceed. The Contractor prepares and submit to the District for review the initial submittals listed below:

- Preliminary Construction Schedule: Contractor provides a preliminary schedule of construction to the Construction Manager that indicates the start and completion dates of the various stages of the Work. This schedule includes and identify all tasks that are on the Project's critical path with start and completion dates, all contract milestones with completion date(s) as may be required by the District, and the date of Project Completion.
- Schedule of Values: Contractor prepares a preliminary Schedule of Values for all component parts of the work for the Construction Manager (CM) to review. The CM reviews the preliminary Schedule of Values to ensure that the Contractor does not front-load the Schedule of Values by submitting values greater than the percentages allowable by the contract.

Once the CM approves the preliminary Schedule of Values, it becomes the project Schedule of Values and is not modified or amended by the Contractor without the prior written consent and approval of the Project Manager.

- Completed Subcontractor List: The Contractor submits a list of all Subcontractors plus suppliers of major components or equipment.
- Preliminary Schedule of Submittals: The Contractor provides to the Construction Manager a preliminary Schedule of Submittals, including Shop Drawings, Product Data, and Samples.

iv. Pre-Job Meeting (Mark Up Meeting)

The District has a Project Labor Agreement (PLA) that extends to all bond-funded construction projects with an original construction contract greater than one million dollars. All PLA projects hold a Pre-Job Meeting at the beginning of the Project. At the meeting, the Contractor and Subcontractors meet with the Building Trades representatives to review the provisions of the District's PLA. Depending on the duration and needs of the Project, there may be more than one Pre-Job Meeting. The meeting is coordinated by the District's Labor Coordinator and the Construction Manager. The District's Labor Coordinator is Construction Employers Advocates, and they act as a liaison between the Building Trades, Contractor/DBE and District to help support any issues that may develop during the course of construction.

b. Design-Build Differentiation

The primary difference between the Design-Build and traditional Design-Bid-Build project delivery methods during construction is the issuance of change orders. Since the Design Team is part of the Design-Build Entity (DBE) and therefore "on the same team" as the Contractor/DBE, any coordination or constructability issues that arise during construction are the responsibility of the DBE.

The RFI process occurs within the DBE's control and responsibility, including submission and review of DSA-required Construction Change Documents. However, District review is still required to ensure that the DBE is producing plans and specifications in compliance with the Contract terms.

d. Contractor/DBE's Safety Plan

The Contractor/DBE provides a Safety Plan specifically adapted for the project. The Construction Manager is responsible for ensuring the Contractor/DBE's Safety Plan aligns with the contract requirements.

The Construction Manager makes sure that the Contractor/DBE complies with the contract safety requirements. They do this by discussing project safety at the Preconstruction Conference and making safety a regular agenda item for Progress Meetings.

COVID-19: In 2020, a series of Federal, State, County, and District safety requirements were enacted that required job-site specific safety protocols. Contractors will be responsible to adapt and comply with safety protocols that may emerge during the course of construction.

2. Construction Management

a. Project Progress Meetings

The Construction Manager schedules and administers Project Progress Meetings to be held at the Project site, typically once a week.

- Required meeting attendees typically include the Project Manager, the Construction Manager, Contractor/DBE, IOR, and AOR/EOR of Record.
- Subcontractors, suppliers, or others involved in planning, coordinating, or performing Work in the period covered by the Schedule Update may be requested to attend.

i. Pre-Installation Meetings

The purpose of pre-installation meetings is to review Contract Documents, conditions of installation, preparation and installation procedures, coordination with related work, and manufacturer's recommendations. The Construction Manager ensures that the Contractor/DBE coordinates and conducts pre-installation meetings at the project site per the Contract Documents.

b. Schedule

All projects require the submission and maintenance of a Construction Schedule. Construction Schedules enable the Construction Manager (CM) to gauge progress of the Project and validate Contractor/DBE pay applications, so it is critical to ensure that the schedule always reflects actual progress.

The CM verifies that the schedule:

- Is in the form required by the contract
- Includes all Milestones required by the contract
- Includes milestone completion dates that support the overall Project Schedule
- Is based upon approved, site-specific work hours and work rules
- Is coordinated with other work at the Project Site, if applicable.

Schedules for projects which have multiple trades providing equipment, materials and other supplies includes activities for procurement, delivery, storing, rigging, installation, and startup including:

- Time for submittals
- Time for fabrication and delivery
- Interdependence of procurement and construction activities
- Dates and durations for Mobilization, Start-Up of Equipment, Test and Balance, Substantial Completion, and Administrative Closeout

The CM forwards all review comments to the Contractor/DBE, who incorporates the revisions, updates the Baseline Construction Schedule, and submits it to the CM for further review, comment, and/or approval.

Look-Ahead Schedule. The CM reviews the Contractor/ Look-Ahead Schedule based on the most recent District Accepted Construction Schedule or Update. It includes weekly updates to all construction, submittal, fabrication/procurement, and Separate Work Contract activities. The Contractor/DBE ensures that the Look-Ahead Schedule accurately reflects the current progress of the Work.

Schedule Updates and Reviews. The CM may conduct monthly schedule review meetings with Contractor/DBE. This meeting is held to establish agreement on percentages of completion, and actual start and finish dates to be used in the pending Monthly Progress Schedule update.

c. Inspections

The Project Inspector of Record (IOR) is employed by the District, certified by DSA, and specifically approved by DSA and applicable project design professionals to provide inspections for the specific project. The IOR provides competent and continuous construction inspections for the full duration of the project. The District and CM follow the guidelines set forth in DSA 13-01, Construction Oversight Process, to manage and oversee the IOR and inspection program.

d. Testing and Special Inspections

Successful construction inspections and material testing are an integral part of Project Quality Assurance. Depending on the Project, testing and construction inspections may be conducted by:

- District's Testing Laboratory
- Architect or Engineer of Record and their consulting engineers
- Certified Special Inspectors (Welding)
- Geotechnical Engineer of Record
- Independent testing and inspection agencies
- Manufacturer's representatives
- Owner consultants and representatives

In order to identify conditions that are not compliant with the DSA-approved Construction Documents in a timely manner, and prevent work from being covered up by subsequent construction activities, the CM will ensure timely documentation and communication of the results for inspections and tests to all relevant parties and ensure that those parties understand the status.

e. Maintaining As-Built Drawings

The Contractor/DBE is responsible for maintaining a set of As-Built Drawings throughout the course of the project that reflect the changes made during the performance of the work and record any differences between the original design and the work as built.

The Contractor/DBE indicates on drawings all deviations from the original scope of work on the contract drawings (e.g. pipe and conduit locations) and deviations caused by Construction Directives, RFI's, Change Orders, and Addenda.

In addition, the Contractor/DBE is responsible for a final set of As-Built Drawings, which show all of the work as actually constructed and are submitted to the CM upon Project Completion.

f. Submittals

Submittals are an integral part of the work performed by the Contractor/DBE in the execution of the contract. Submittals are reviewed by the AOR/EOR, Construction Manager (CM), and other parties as required by the Contract Documents, District policies, DSA, and statutes of other governmental agencies having jurisdiction. Most submittals relate to the technical requirements of the work which may

include products, assemblies, and samples that are reviewed, at minimum, by the AOR/EOR and CM. Others relate to administrative requirements such as the project schedules, Schedule of Values, and similar documents, and are reviewed by the CM and District team. In all cases, the CM ensures that all submittals, are properly received, reviewed, and tracked.

i. Shop Drawings

Shop drawings conform to the requirements outlined in the Contract Documents. The Contractor/DBE creates shop drawings and does not reproduce Contract Documents or copy standard information as the basis for shop drawings, or submit standard information prepared and submitted without specific reference to the project. The Construction Manager (CM) ensures that the Contractor/DBE does not use or allow others to use Shop Drawings which have been submitted but not approved.

ii. Material Substitutions

Substitutions may be allowed when the Contractor/DBE proposes to provide a contractually required item that is different than identified in the specifications. <u>All substitutions require the review and approval of the District.</u>

In the Specifications and District Standards, when any material, process, or article is indicated or named by grade, patent, proprietary name, or name of manufacturer, the Contractor/DBE may assume that name or indication is followed by the words “or equal.” The Contractor/DBE may, unless otherwise stated, offer any material, process, or article that is substantially equal or better in every respect to that so named or indicated.

No substitutions are made until approved, in writing, by the District. The burden of proof as to the quality of any material, process, or article rests with the Contractor/DBE. The Contractor/DBE warrants that if substitutes are approved:

- The proposed substitute is equal or superior in all respects to that specified.
- The Contractor/DBE provides the same warranties and guarantees for the substitute that would be provided for that specified.
- The Contractor/DBE is fully responsible for the installation

of the substitute.

- The Contractor/DBE is responsible for any re-design costs occasioned by District's acceptance of any substitute.

If the Contractor/DBE proposes to furnish a material, process, or article that is more expensive than the one specified, the Contractor/DBE bears the difference in cost.

g. Requests for Information

A Request for Information (RFI) is a written request submitted during the bid process or after award of contract, prepared by the Contractor/DBE, which asks the AOR/EOR/CM to provide additional information to clarify or resolve any issues that may arise from the Bid/Contract Documents, or to address issues that have arisen due to field conditions. The CM reviews a list of all outstanding RFI's at each Progress Meeting.

h. DSA CCD Submittal Process

i. Construction Change Documents, Category A and B

Changes to the DSA-Approved Construction Documents that impact Structural, Access Compliance, and Fire and Life Safety related portions of the project is made by means of a DSA Construction Change Document (CCD).

Changes that impact the Structural Safety, Access Compliance, or Fire and Life Safety portions of the project are classified as CCD Category A and are required to be submitted to and approved by DSA prior to commencement of the relevant work.

Changes that do not impact the Structural Safety, Access Compliance, or Fire and Life Safety portions of the project are classified as CCD Category B and are not required to be submitted to DSA unless specifically required, in writing, by DSA.

<u>DSA Review and Approval:</u>

DSA reviews a CCD Category A for minimum compliance with the codes regulating the Structural, Accessibility, and Fire and Life Safety portions of the project. DSA reviews a CCD Category B to provide concurrence that the changes do not affect the Structural, Accessibility, or Fire & Life Safety portions of the project.

The final verified report from the AOR must include a statement that all changes to the Structural Safety, Access Compliance, or

Fire and Life Safety portions of the project have been approved by DSA.

i. Change Management

i. General Requirements

Change Orders record and authorize changes in the Contract Amount and Contract Time. The CM is responsible for complying with the following policies when administering the change order process:

- All change work is completed prior to Completion.
- The administration of changes in the work follows prescribed contract provisions and mandated timelines.

ii. Price Requests

Should it become necessary to alter the scope of work, the Construction Manager (CM) or the AOR/EOR issues a Price Request (PR) to the Contractor/DBE. This can be the result of a District-initiated change, a design error/omission (Design-Bid-Build), an unforeseen condition, and other causes. The PR includes all necessary information, including relevant Drawings and Specifications, to enable the Contractor/DBE to produce and submit an estimate for the effect of the proposed change on the Contract Amount and Time.

iii. Proposed Change Orders

A Proposed Change Order (PCO) is a written request that the Contractor/DBE prepares to request that the District issue a Change Order (CO) based upon a proposed change to the work, and in any situation where the Contractor/DBE believes a change in the work has occurred. Every PCO that the District approves becomes a CO, which the CM prepares.

The Contractor/DBE provides the PCO on District-approved forms and include back-up documentation to support any and all additions, deletions, or revisions in the work, including a detailed cost breakdown for validating a proposed adjustment in the Contract Amount. The Contractor/DBE submits Drawings, Specifications, and sketches as necessary to illustrate their reasoning for a PCO.

Design-Bid-Build Back-up Documentation

The itemized breakdown in the PCO includes the following information:

- Material: quantities, types of products, and transportation costs as applicable.
- Labor: breakdown by trade classification, wage rates, and estimated hours.
- Equipment: breakdown by make, type, size, rental rates, equipment hours, and transportation costs as applicable.
- Overhead and Profit: this is used to compensate the Contractor/DBE for all administration, general conditions, and supervision-related costs.

iv. Change Order Process

The CM and the Contractor/DBE meet to review the PCO. Once the Contractor/DBE and District reach an agreement on proposed changes to Contract Cost and Time, the Construction Manager (CM) prepares a Change Order (CO) package for District review and approval. COs missing adequate backup documentation will not be processed.

Change Order packages includes the following documentation:

- Change Order Checklist
- Change Order Form (signatory page)
- Record of Negotiation / Justification for Change
- Approved Proposed Change Order with signatures (PCO)
- Price Request (if any)
- Request for Information (if any)

District Staff submits all COs to the Board for approval. Post-approval, the CM is responsible for notifying the Contractor/DBE and distributing the approved CO documents to the Project team and appropriate files. Once the Board approves the CO, the Contractor/DBE may include the CO in their next Payment Application. For more information about Board approval of COs, please see III.C.4. Board Authorization: Change Orders.

v. Unilateral Change Order

If agreement, in part or in whole, has not been reached, then the Construction Manager (CM) may issue a Unilateral Change Order.

Any dispute as to the sum of the Unilateral Change Order or timing of payment is resolved pursuant to the payment provisions and the Claims and Dispute Resolution Process. The District may issue a Unilateral Change Order in the absence of agreement on the terms of a Change Order. If there is partial agreement on a PCO, the Construction Manager may issue a Change Order for those portions of the PCO upon which the Contractor/DBE and the CM have mutually agreed.

The CM documents the additional amount or time the Contractor/DBE considers due for the change work in the description of the work on the Change Order form. The Contractor/DBE may initiate resolution of disputed amounts or time in accordance with the Dispute and Claim Resolution Process.

j. Contractor/DBE Payments

This procedure outlines actions required for the review and approval of Contractor/DBE submitted Schedule of Values and certified Payment Applications.

Submittal of Payment Application:

On or after the fifth (5th) day of each calendar month during the project, the Contractor/DBE submits to the CM, the Application for Payment on AIA Form G702 Application and Certificate for Payment and AIA Form G703 Continuation Sheet, or a District-approved form with the same information as these AIA forms, for work completed during the preceding month.

Retention and Withholds:

The District withholds five percent (5%) retention from all Progress Payments and permits the substitution of securities for retention in accordance with the Contract Documents.

Stop Notices:

If the District receives a stop notices, then it will issue a Notice of Withhold with the amount to be withheld for the stop notice, plus administrative funds to cover potential expenses (total of 125% of the Stop Notice amount). Upon receipt of a Stop Notice Release, the District issues a Release of Withhold.

The District coordinates with the CM and fiscal to ensure that the Contractor/DBE's Payment Applications are processed with the current cumulative withhold amounts for the respective pay period.

Pre-Approval Review:

Upon receipt of the initial "pencil draft" Payment Application, the CM conducts a pre- approval review with the Contractor/DBE, in conjunction with the Inspector of Record (IOR) and the AOR/EOR (for Design-Bid-Build projects) to ensure that all required forms are accurately completed and verify the completion of all contract requirements precedent to approval of the payment.

1. Review the Payment Application to ensure accuracy and completeness.
2. Review the percent of work completed with IOR and AOR/EOR (for Design-Bid-Build projects).
3. Compare "Description of Work" and "Scheduled Values" submitted against the approved Project Schedule of Values.
4. Verify approved Change Order Work is completed and/or the percentage completed is listed in each Change Order line item.
5. Verify with IOR that all stored material for which the Contractor/DBE seeks payment is stored in accordance with the requirements of the Contract Documents.
6. Verify submittal of Contract required submittals
7. Verify status of any potential and ongoing withhold

Upon completion of the pre-approval review, the CM directs the Contractor/DBE to revise any proposed payment values in accordance with the findings, submit required documentation, or incorporate other corrections as discussed prior to submitting a certified Payment Application.

Contractor/DBE Submittal of Certified Application for Payment:

1. The Contractor/DBE submits each certified Payment Application to the CM.

2. The CM must validate complete and accurate submittal of the payment and circulate for collection of all required approvals.

    a. Once properly submitted, then the Construction Manager signs and dates the Application for Payment

    b. If the Construction Manager has determined that the application is not complete and accurate or is otherwise disputed, the Construction Manager must return the invoice to Contractor/DBE within seven (7) days from the date of receipt with a written statement or Notice of Improper Submittal of Payment. Contractor/DBE must then resubmit the Application for Payment and supporting documentation to Construction Manager.

Per Public Contract Code, payment is made within thirty (30) days of receipt of a properly submitted payment request.

Payment Application Processing:

The CM assembles a payment package consisting of complete sets of the following documents in the order listed:

1. Signed Payment Application
    a. Copies of Contractor/DBE material or equipment rental invoices as required
    b. Unconditional Waiver and Release for prior pay application.
    c. Conditional Waiver and Release for current pay application.

Final Payment at Completion:

Contractual requirements that must be reviewed and considered when processing a Final Payment include:

- A full and final waiver or release of all Stop Notices.
- A duly completed and executed Conditional Waiver and Release Upon Final Payment from the Contractor/DBE and each Subcontractor of any tier and supplier.
- A duly completed and executed Unconditional Waiver and Release Upon Final Payment from the Contractor/DBE and each Subcontractor of any tier and supplier that was paid from the previous progress payment;
- The Contractor/DBE has made all corrections to the work that are required to remedy any defects therein, to obtain compliance with the Contract Documents or any requirements of applicable

codes and ordinances, or to fulfill any of the orders or directions of District required under the Contract Documents.

- Each Subcontractor has delivered to the Contractor/DBE all written guarantees, warranties, applications, and bonds required by the Contract Documents for its portion of the work.
- Contractor has completed all completion and closeout requirements set forth in the Contract Documents including submission of an approved set of complete As-builts
- Contractor/DBE has delivered to the District all manuals and materials required by the Contract Documents.
- Contractor/DBE has completed final clean up.

Release of Retention:

The retention, less any amounts disputed by the District or that the District has the right to withhold pursuant to the Contract provisions, is paid thirty-five (35) days after the recording of the Notice of Completion or the final acceptance of the Project.

3. Close-Out

a. Contract Closeout Procedures

Completion of the contract occurs when the entire project has been completed pursuant to the Contract documents to the satisfaction of the District.

- All Punch List items are completed during the Contract Closeout period.
- All Change Order work is completed prior to Completion.
- All Change Orders are identified, negotiated, and processed during the Contract Closeout Period.

When the Contractor/DBE considers the work complete, they submit a written request to the CM. The decision to proceed with Inspection of the work requires verification that the following items have been completed:

- All contract work has been completed (including all Change Order work).
- All defects have been corrected.
- All issues cited in DSA Deviation Notices have been resolved.

- All minor adjustments directed by the CM have been accomplished.
- All building utilities are functioning, and the installations have been accepted by all AHJs.
- Service connections have been made and existing services, if relevant, have been reconnected.
- Domestic water, irrigation, and fire sprinkler services have been tested.
- Natural gas, sanitary and storm sewers, power, and low-voltage electric services are complete and ready for use.
- Security and life-safety systems have been inspected and tested.
- All guarantees, warranties, and bonds have been submitted as required by the Contract Documents.
- The Contractor/DBE has submitted all operations and maintenance manuals as required by the contract; all training of District personnel has been completed.
- Testing and inspection of all equipment and systems has been completed and reports have been submitted, reviewed, and approved.
- Startup and commissioning processes have been completed, and all documentation has been submitted and approved.
- All operating permits have been submitted; all final inspections and approvals of off-site work have been completed.
- Documentation has been submitted and approved that all taxes, fees, and similar obligations have been paid.
- All tools, construction equipment, machinery, surplus material, scaffolding, temporary facilities, waste materials and rubbish, and any other similar materials or equipment of Contractor/DBE or any Subcontractor/DBE have been removed from and about the project site.

When the CM determines that the work meets these criteria, the CM, in consultation with the IOR and AOR/EOR, schedules a Completion Inspection of the work.

If the CM does not consider the work complete, they notify the Contractor/DBE in writing, stating the reasons for rejecting the request.

i. Inspection for Completion: Punchlist Process

If the work is judged to be incomplete, the CM issues written notification to the Contractor/DBE, with the list of corrective items and deficiencies attached, and that the request for Completion has been rejected and that the Contractor/DBE proceeds to complete the work.

If the list of work to complete represents minor and corrective actions to work that is already installed and in place, and not still requiring installation or completion, the CM issues the official Punch List and requests that the Contractor/DBE promptly proceeds to correct the items on the Punch List.

Final Acceptance of the Work

Upon completion of all items on the Punch List and any other uncompleted portions of the work, the Contractor/DBE notifies the CM. If the CM, in conjunction with the IOR and Architect, finds the work complete and acceptable under the Contract Documents, the CM:

1. Notifies the Contractor/DBE to submit the final Payment Application. If the Contractor/DBE fails to complete all minor corrective items within thirty-five (35) days after the date of the District's acceptance of Completion, the District may withhold from the final payment one hundred fifty percent (150%) of the estimated cost to complete the corrective items, as determined by the District. This withhold amount may be held until the item(s) are completed. For more information, please see Section II.B.2.b.ix Contractor/DBE Payments.
2. Verifies that all other conditions required for Completion and Acceptance of the contract have been met; and that the Notice of Completion (NOC) may be filed.
3. Reviews the Notice of Completion or Project Acceptance with District Staff.

b. Project Occupancy, Certification, and Closeout

i. Fixtures, Furnishings, and Equipment (FF&E) Delivery and Installation

The process for planning the Fixtures, Furnishings, and Equipment (FF&E) starts during the Design Development Phase of the project, when decisions regarding the architectural design, particularly the

floor plan, the locations of electrical outlets, hard-wire connections for office systems furniture, and access to hard-wired technology (as opposed to wireless) are determined in many locations by furniture layouts.

The procurement process is timed to align with the construction process. Installation of FF&E in the completed project is scheduled to follow completion of the building and precedes move-in of District personnel and materials and equipment. The District's Project Schedule allows for this sequence to occur and anticipates the time necessary for FF&E move-in and installation.

A formal Punch List inspection is conducted at completion of the installation to confirm that all issues documented during installation have been corrected, and no damage has been occurred to components.

ii. Move Management and Occupancy

Depending on the type of project, move management to temporary housing at the beginning of the project or move management into the new or renovated facilities at the completion of the project may be required. The key components to any successful move include ongoing coordination and communication with the Site. The move schedule should minimize any interruptions and provide clear milestones and packing procedures to follow. Coordination of movement and potential installation of fixtures, furniture, equipment and materials must be delineated in the overall move management scope and schedule of work.

c. DSA Certification and Closeout

Completed school building projects are required to be certified for compliance with Title 24, California Code of Regulations as to the safety of design and construction. The Project Certification Phase is the culmination of the DSA construction oversight program wherein DSA completes the verification that the constructed project complies with the DSA-Approved Construction Documents.

After DSA has completed their review of the files uploaded to the DSA Project Box and has verified that the required documents have been received and are correct, they issue a notification of the status of

certification. The notification is issued no more than sixty (60) days after the date that the Project Certification Phase began.

d. Warranty Management

For equipment or component parts of equipment put into service during construction with the District's permission, the Contractor/DBE submits a draft warranty for that equipment or component within ten (10) days after acceptance of that equipment or component.

On or before the date that the Contractor/DBE submits the application for final payment, the Contractor/DBE submits all warranties and related documents in final form.

i. Maintenance of District Assets and Warranty Conditions Compliance

All mechanical, plumbing, and electrical equipment installed during construction is covered by the manufacturer's recommendations for service and preventative maintenance, which are contained in the Operations and Maintenance manuals submitted by the Contractor/DBE. These service and maintenance tasks are extracted by District personnel and listed on a spreadsheet, with tasks keyed to calendar dates.

District personnel or service contractors performs these tasks as scheduled for long-term operation of the equipment, as well as to show compliance with the conditions required under the manufacturer's Warranty. Each completed task is documented with signed-off Work Orders or other District maintenance tracking documents. These documents are collected and organized to provide the District with an efficient method of verifying that required service has been performed. This enables the District to confirm to the manufacturer that the tasks required to maintain warranty coverage have been performed.

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